AFMSS

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

Application for Permit to Drill

APD Package Report

Date Printed: 10/16/2025 07:17 AM

APD ID:	10400105541	Well Status:	AAPD
APD Received Date:	08/07/2025 09:47 AM	Well Name:	RIVERBEND 12-13 FEDERAI
Operator:	CIMAREX ENERGY COMPANY OF	Well Number:	4H

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: 10 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: 3 file(s)
  -- Recontouring attachment: 3 file(s)

- PWD Report
- PWD Attachments
  -- None

- Bond Report
- Bond Attachments

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-- 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 4H

2. Name of Operator: CIMAREX ENERGY COMPANY OF COLORADO

9. API Well No.:

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 / 2322 FWL / LAT 32.155152 / LONG -104.041957

At proposed prod. zone: SWSE / 100 FSL / 1650 FEL / LAT 32.123005 / LONG -104.037639

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): 1207 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.: 28 feet

19. Proposed Depth:

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: (Electronic Submission)

Name *(Printed/Typed)*: CRYSTAL DENSON / Ph: (432) 620-1936

Date: 08/07/2025

Title: Regulatory Analyst

Approved by *(Signature)*: (Electronic Submission)

Name *(Printed/Typed)*: CODY LAYTON / Ph: (575) 234-5959

Date: 10/07/2025

Title: Assistant Field Manager Lands & Minerals

Office: 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

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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.

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Approval Date: 10/07/2025

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Additional Operator Remarks

Location of Well

0. SHL: SESW / 1147 FSL / 2322 FWL / TWSP: 25S / RANGE: 28E / SECTION: 1 / LAT: 32.155152 / LONG: -104.041957 (TVD: 0 feet, MD: 0 feet)

PPP: NWSE / 2651 FNL / 1804 FEL / TWSP: 25S / RANGE: 28E / SECTION: 13 / LAT: 32.130025 / LONG: -104.038154 (TVD: 0 feet, MD: 0 feet)

PPP: SWNE / 1326 FNL / 2302 FEL / TWSP: 25S / RANGE: 28E / SECTION: 13 / LAT: 32.133672 / LONG: -104.038421 (TVD: 0 feet, MD: 0 feet)

PPP: NWNE / 100 FNL / 2310 FEL / TWSP: 25S / RANGE: 28E / SECTION: 12 / LAT: 32.151687 / LONG: -104.039742 (TVD: 0 feet, MD: 0 feet)

BHL: SWSE / 100 FSL / 1650 FEL / TWSP: 25S / RANGE: 28E / SECTION: 13 / LAT: 32.123005 / LONG: -104.037639 (TVD: 0 feet, MD: 0 feet)

BLM Point of Contact

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

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Riverbend 12-13 FEDERAL COM 4H

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

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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

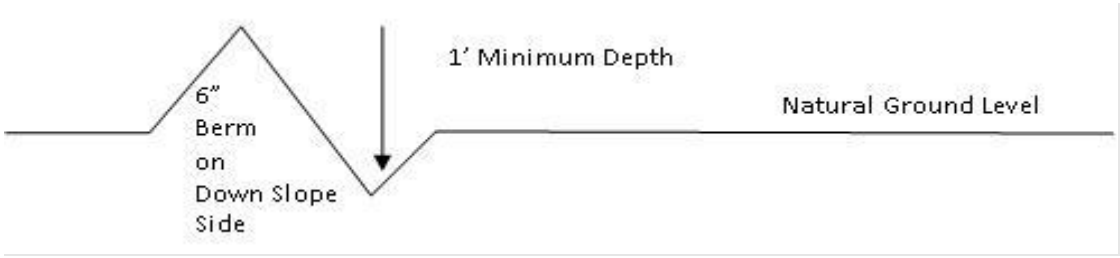
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

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.

Construction Steps

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

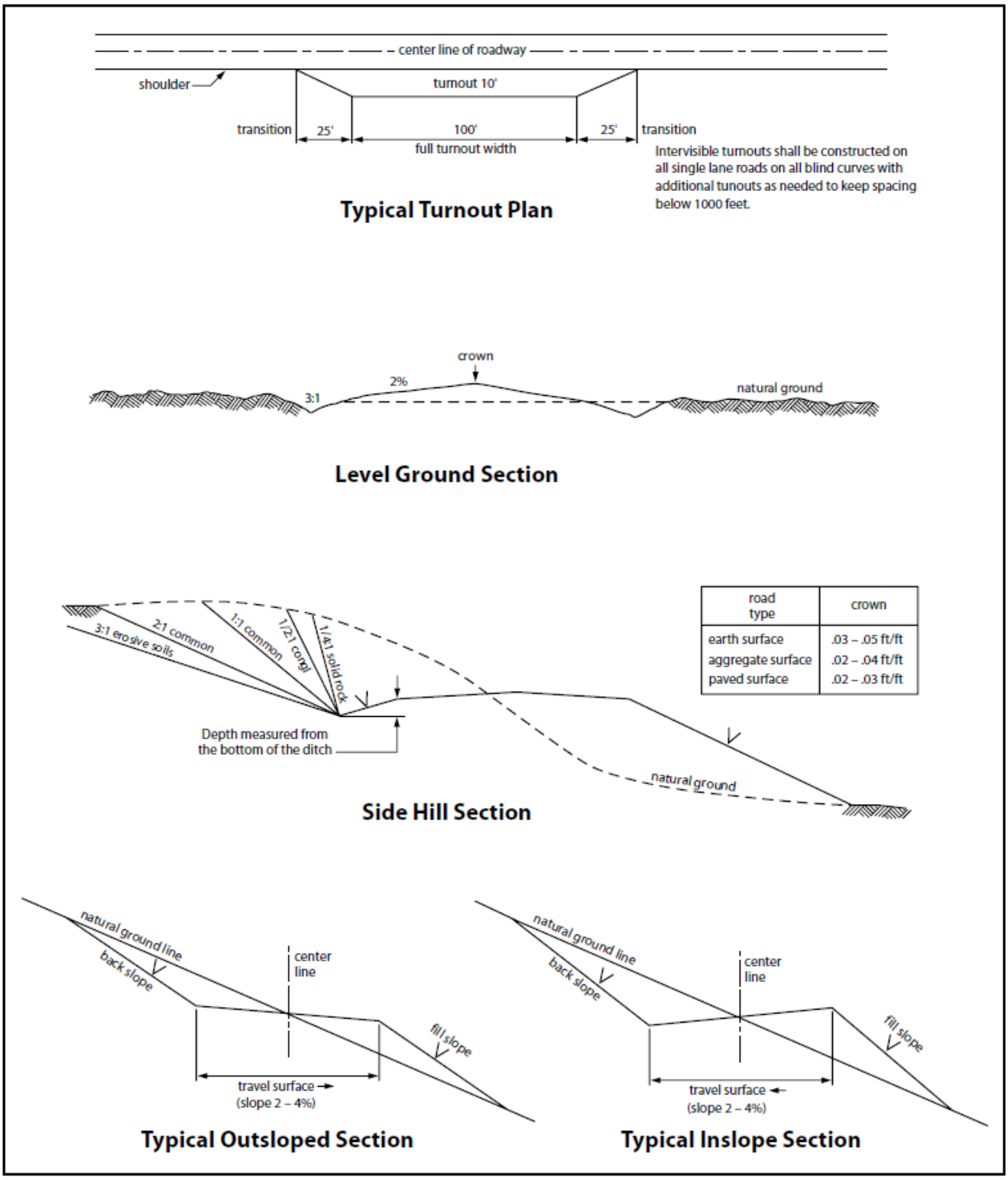


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

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.

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

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

10/16/2025

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:** 09/25/2025

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
10/16/2025

APD ID: 10400105541 **Submission Date:** 08/07/2025

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 4H

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

Highlighted data reflects the most recent changes
Show Final Text

Section 1 - General

APD ID: 10400105541 **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:** 4H **Well API Number:**

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

Released to Imaging: 12/24/2025 8:18:45 AM

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 4H

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:** 4H

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:** 28 FT **Distance to lease line:** 1207 FT

Reservoir well spacing assigned acres Measurement: 640 Acres

Well plat: RIVERBEND_12_13_FED_COM_W2E2___C102_Well_4H_20250826152112.pdf

RIVERBEND_12_13_FED_COM_W2E2___C102_Well_4H_20250925095432.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	2322	FWL	25S	28E	1	Aliquot SESW	32.155152	-104.041957	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 88128	2934			N
KOP Leg #1	100	FNL	2310	FEL	25S	28E	12	Aliquot NWNE	32.151687	-104.039742	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 16104	2934	0	0	Y

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 4H

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	2310	FEL	25S	28E	12	Aliquot NWNE	32.151687	-104.039742	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 16104	2934	0	0	Y
PPP Leg #1-2	1326	FNL	2302	FEL	25S	28E	13	Aliquot SWNE	32.133672	-104.038421	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 16104	2934	0	0	Y
PPP Leg #1-3	2651	FNL	1804	FEL	25S	28E	13	Aliquot NWSE	32.130025	-104.038154	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 16104		0	0	Y
EXIT Leg #1	100	FSL	1650	FEL	25S	28E	13	Aliquot SWSE	32.123005	-104.037639	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 16104	2934	0	0	Y
BHL Leg #1	100	FSL	1650	FEL	25S	28E	13	Aliquot SWSE	32.123005	-104.037639	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 16104	2934	0	0	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 4H
OGRID No. 162683	Operator Name CIMAREX ENERGY CO. OF COLORADO	Ground Level Elevation 2934.1'

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	2322 WEST	32.155152°	-104.041957°	EDDY

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
O	13	25S	28E		100 SOUTH	1650 EAST	32.123005°	-104.037639°	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
B	12	25S	28E		100 NORTH	2310 EAST	32.151687°	-104.039742°	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
B	12	25S	28E		100 NORTH	2310 EAST	32.151687°	-104.039742°	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
O	13	25S	28E		100 SOUTH	1650 EAST	32.123005°	-104.037639°	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

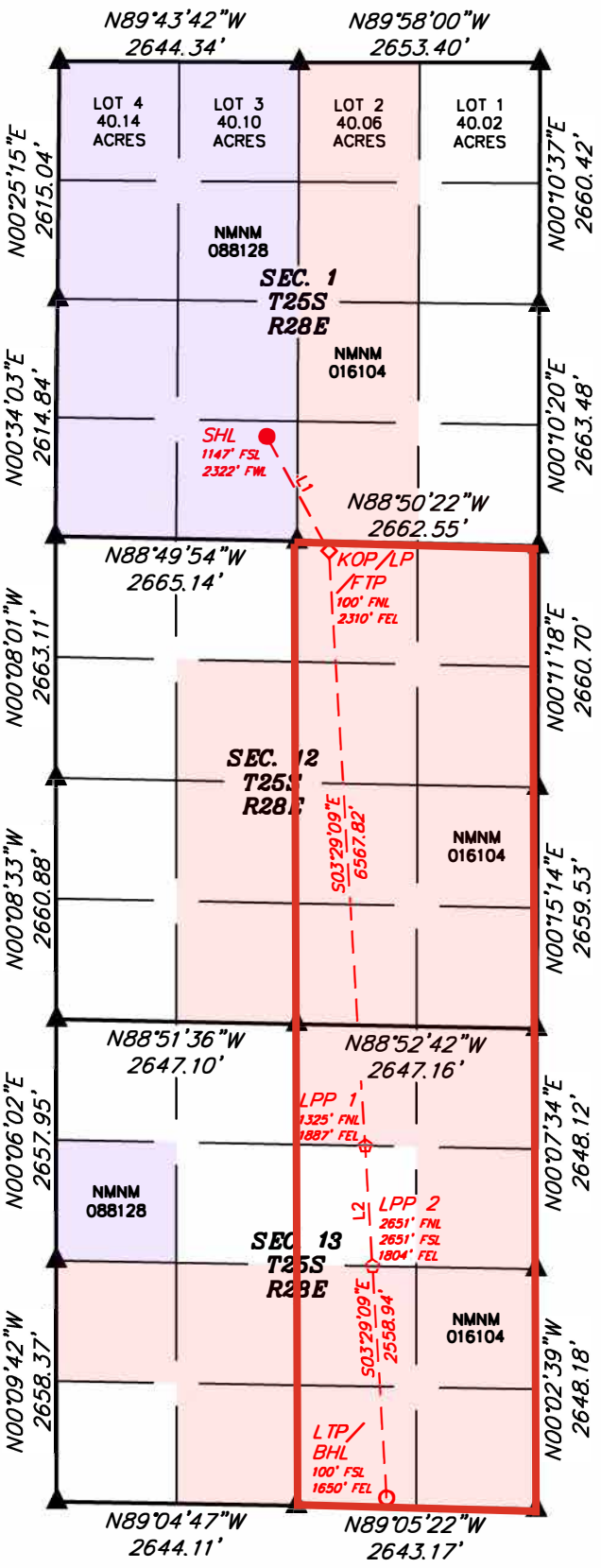
23782 August 12, 2024

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: 12/24/2025 8:18:45 AM

Property Name	Well Number	Drawn By	Revised By
RIVERBEND 12-13 FEDERAL COM	4H	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°09'18.55" (32.155152°)
LONGITUDE = -104°02'31.04" (-104.041957°)
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32°09'18.10" (32.155029°)
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STATE PLANE NAD 83 (N.M. EAST)
N: 420301.44' E: 631508.48'
STATE PLANE NAD 27 (N.M. EAST)
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LATITUDE = 32°08'01.22" (32.133672°)
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STATE PLANE NAD 27 (N.M. EAST)
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LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S28°27'40"E	1434.98'
L2	S03°29'09"E	1329.61'

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

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

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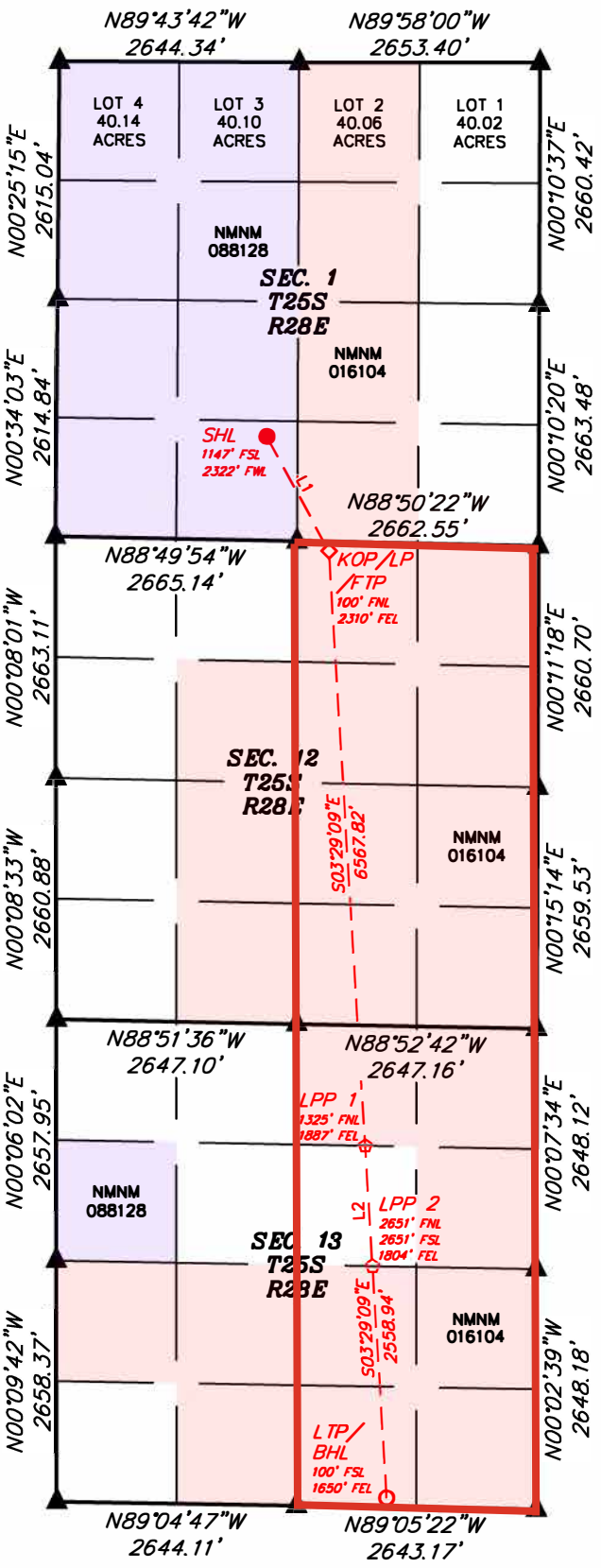
Signature and Seal of Professional Surveyor

23782 August 12, 2024

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2000' 1000' 0' 1000'
SCALE

Sheet 2 of 2

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

Drilling Plan Data Report
10/16/2025

APD ID: 10400105541 **Submission Date:** 08/07/2025

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 4H

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
16546665	RUSTLER	0	407	407	ANHYDRITE	USEABLE WATER	N
16546666	TOP SALT	-1952	1952	1952	ANHYDRITE, SALT	NONE	N
16546667	LAMAR	-2679	2679	2679	ANHYDRITE, SALT	NONE	N
16546668	BELL CANYON	-2806	2806	2806	SANDSTONE	NONE	N
16546669	CHERRY CANYON	-3619	3619	3619	SANDSTONE	NONE	N
16546670	BRUSHY CANYON	-4817	4817	4817	SANDSTONE	NONE	N
16546671	LOWER BRUSHY CANYON 8A	-5766	5766	5766	SANDSTONE	NONE	N
16546672	BONE SPRING LIME	-6411	6411	6411	LIMESTONE	NATURAL GAS, OIL	N
16546673	BONE SPRING 1ST	-7361	7361	7361	SANDSTONE	NATURAL GAS, OIL	N
16546674	BONE SPRING 1ST	-7557	7557	7557	SANDSTONE	NATURAL GAS, OIL	Y
16546676		0					N

Section 2 - Blowout Prevention

Pressure Rating (PSI): 10M **Rating Depth:** 18319

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:** 4H

(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_20250827073113.pdf

COTERRA_10M_MBU_3T_CFL_10.34_X_7.58_X_5.5_HBE965DQ.1_20250827073113.pdf

COTERRA_10K_PROD_TREE_20250827073114.pdf

CHOKE_HOSE_M15486_20250827073113.pdf

NEW_MEXICO_STANDARD_VARIANCES_REV.1_20250827073615.pdf

NEW_MEXICO_STANDARD_VARIANCES_REV.1_20250925095353.pdf

COTERRA_MBU_3T_CFL_20_X_13.38_X_9.58_X_7_X_4.5_20250925095354.pdf

10M_BOPE_BLM_SUBMISSION_REV.0_20250925095354.pdf

CHOKE_HOSE_M15486_20250925095354.pdf

COTERRA_10K_PROD_TREE_20250925095354.pdf

BOP Diagram Attachment:

10M_BOPE_BLM_SUBMISSION_REV.0_20250827073554.pdf

10M_BOP_DIAGRAM_20250925095401.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	OTHER - H-40/J-55 Hybrid	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	2497	2935	437	2500	J-55	36	LT&C	1.56	2.71	BUOY	5.04	BUOY	5.04
3	PRODUCTION	8.75	7.0	NEW	API	N	0	8153	0	7557	2935	-4623	8153	P-110	26	BUTT	1.67	2.67	BUOY	65.02	BUOY	65.02
4	COMPLETION SYSTEM	6	4.5	NEW	API	N	7066	18319	7066	7557	-4132	-4623	11253	HCP-110	11.6	BUTT	1.95	2.37	BUOY	64.44	BUOY	64.44

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 4H

Casing Attachments

Casing ID: 1 **String** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

4H_Casing_Assumptions_20250925095548.pdf

4H_Casing_Assumptions_20250925095555.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:** 4H

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		2300	7153	297	3.64	10.3	1081	25	Tuned Light	LCM
PRODUCTION	Tail		7153	8153	181	1.3	14.8	235	25	Class C	Retarder
COMPLETION SYSTEM	Lead		8053	18319	816	1.3	14.2	1061	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:** 4H

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	SALT SATURATED	9.5	10							
2500	8153	OIL-BASED MUD	9	9.5							
8153	18319	OIL-BASED MUD	11	11.5							

CONFIDENTIAL

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 4H

Section 6 - Test, Logging, Coring

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

No DST Planned. Logs 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: 4519 **Anticipated Surface Pressure:** 4519

Anticipated Bottom Hole Temperature(F): 148

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_20250827065559.pdf
H2S_PLAN_REV.0_20250925095638.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

WELL_CONTROL_PLAN_REV.0_20250827065627.pdf
Riverbend_12_13_Federal_Com_4H___Plan_1_20250827065654.pdf
4H_Drilling_Plans_20250827065654.pdf
Riverbend_12_13_Federal_Com_4H___Plan_1_AC_20250827065654.pdf
Riverbend_12_13_Federal_Com_4H___Plan_1_Plot_20250827065654.pdf
WELL_CONTROL_PLAN_REV.0_20250925095701.pdf
Riverbend_12_13_Federal_Com_4H___Plan_1_20250925095726.pdf
Riverbend_12_13_Federal_Com_4H___Plan_1_AC_20250925095727.pdf
4H_Drilling_Plans_20250925095727.pdf
Riverbend_12_13_Federal_Com_4H___Plan_1_Plot_20250925095727.pdf

Other proposed operations facets description:

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 4H

Other proposed operations facets attachment:

RIVERBEND_12_13_FED_COM_W2E2_rig_layout_plat_20250827065736.pdf
RIVERBEND_12_13_FED_COM_W2E2_location_layout_plat_20250827065736.pdf
Riverbend_12_13_4H_Natural_Gas_Plan_Cimarex_20250827065856.pdf
RIVERBEND_12_13_FED_COM_W2E2_location_layout_plat_20250925095751.pdf
RIVERBEND_12_13_FED_COM_W2E2_rig_layout_plat_20250925095751.pdf
Riverbend_12_13_4H_Natural_Gas_Plan_Cimarex_20250925095813.pdf

Other Variance request(s)?: Y

Other Variance attachment:

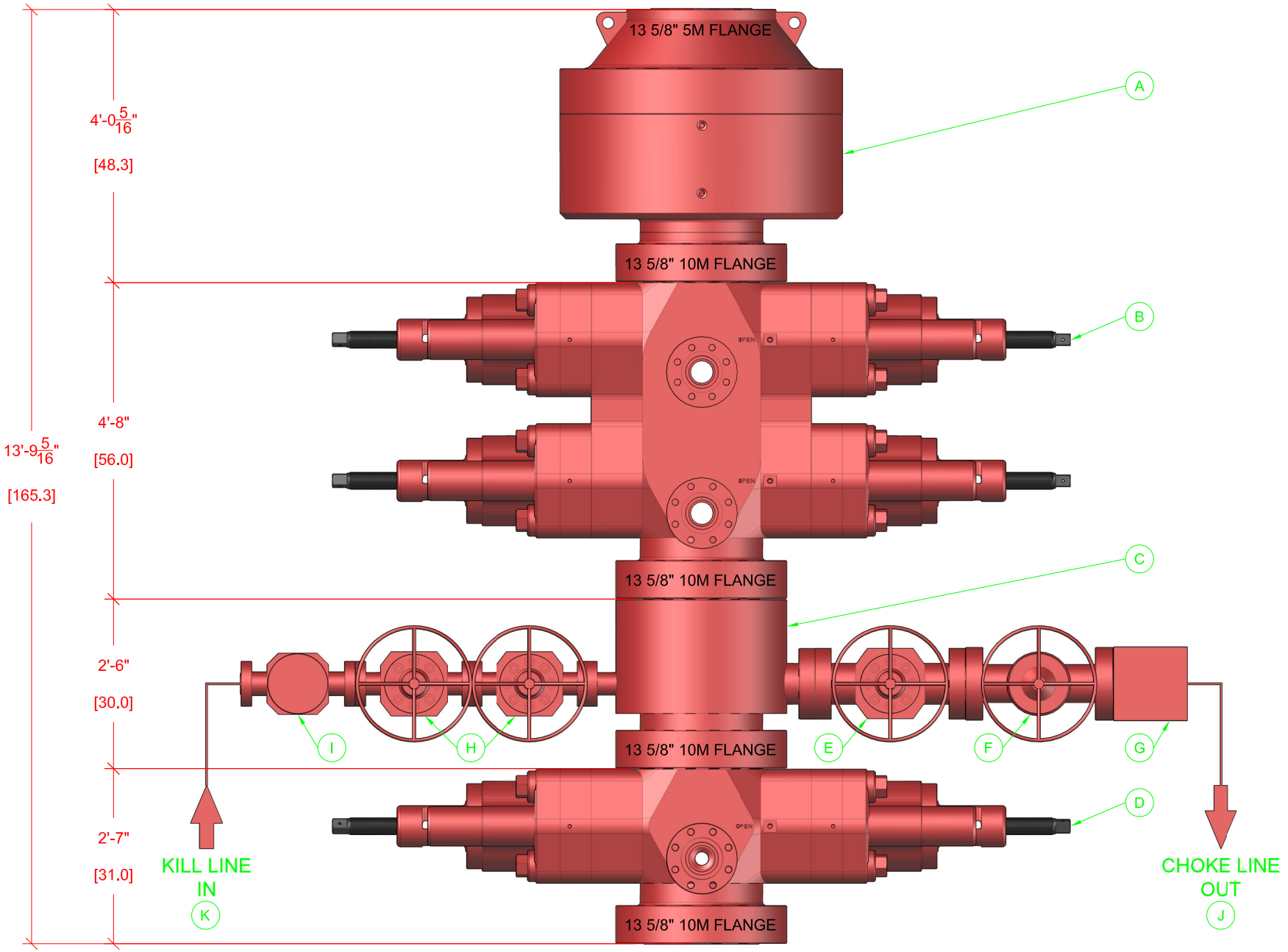
NEW_MEXICO_STANDARD_VARIANCES_REV.1_20250827065944.pdf
CHOKE_HOSE_M15486_20250827065944.pdf
NEW_MEXICO_STANDARD_VARIANCES_REV.1_20250925095831.pdf
CHOKE_HOSE_M15486_20250925095831.pdf

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Received by OCD: 11/13/2025 3:59:10 PM

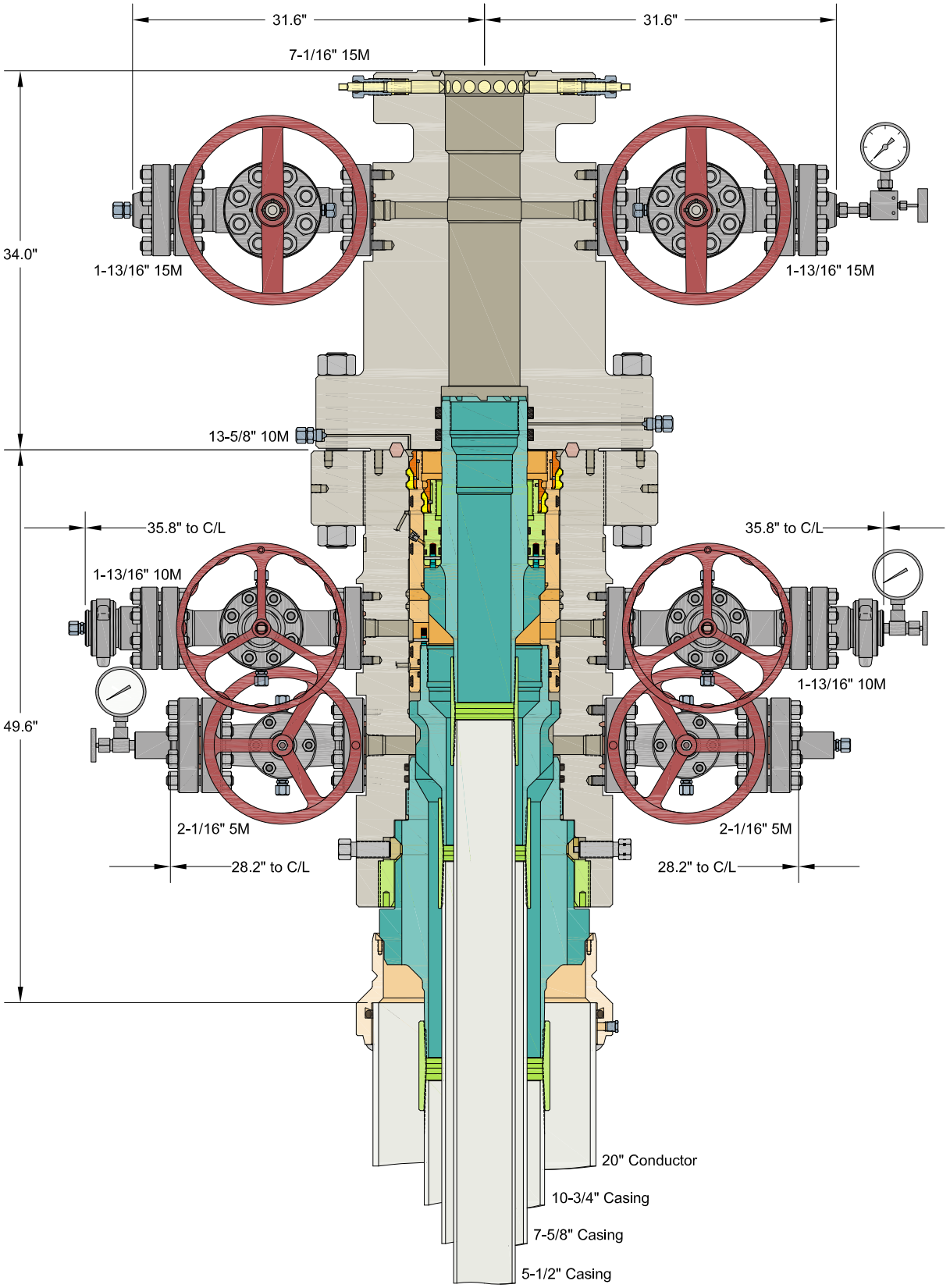
Released to Imaging: 12/24/2025 8:18:45 AM



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			



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	COTERRA ENERGY INC HOBBS, NM		
20" x 10-3/4" x 7-5/8" x 5-1/2" MBU-3T-CFL-R-DBLO-SF Wellhead With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS-SB Tubing Head And 7-5/8" & 5-1/2" Mandrel Casing Hangers	DRAWN	VJK	07JUL23
	APPRV		
	DRAWING NO.	HBE0000965	

Cactus

Quotation

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

Quote Number : HBE0000965

Date: 07/07/2023

Valid For 30 Days

Bill To: 7035

COTERRA ENERGY INC
PO BOX 4544
Attn: GULF COAST OFFICE
HOUSTON TX 77210
US

Ship To: 0

COTERRA ENERGY INC
PO BOX 4544
Attn: GULF COAST OFFICE
HOUSTON TX 77210
US

	Quantity	Price	Ext Price

COTERRA ENERGY INC
DAVID SHAW

HOBBS, NM

MBU-3T-CFL-R SAFEDRILL® WELLHEAD SYSTEM
20" X 10-3/4" X 7-5/8" X 5-1/2"

QUOTATION SUMMARY:

- MBU-3T-CFL ASSEMBLY - $29,839.64
- CASING HANGERS & PACKOFFS - $12,581.24
- TUBING HEAD ASSEMBLY - $19,367.17

CACTUS CONTACT:
RILEY STAFFORD
OFFICE: 405.708.7217
MOBILE: 405.445.2222
EMAIL: riley.stafford@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 PRO RATA FREIGHT AND OTHER 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 : HBE0000965

Date: 07/07/2023

Valid For 30 Days

		Quantity	Price	Ext Price
	MBU-3T-CFL ASSEMBLY			
1	122079P2	1.00	12,026.00	12,026.00
	HSG,CW,MBU-3T-CFL-R-DBLO-SF,13-3/8,13-5/8 10M,W/TWO 1-13/16 10M FP UPR & TWO 2-1/16 5M FP LWR,W/O 13-5/8 10M THD FLG,6A-PU-AA-2-2			
2	126808P2	0.00	12,168.80	0.00
	HSG,CW,MBU-3T-CFL-R-DBLO-SF,13-3/8,13-5/8 10M,W/TWO 1-13/16 10M FP UPR & TWO 2-1/16 5M FP LWR,W/O 13-5/8 10M THD FLG,TEMP PU,MATL EE,PSL2,PR2			
3	110578	1.00	2,590.00	2,590.00
	FLG,THD,13-5/8 10M W/21.750-2 STUB ACME-2G L.H. BOX THD,31.00 OD,4130 75K & I/T @ -75 DEG F			
4	120455	1.00	2,789.92	2,789.92
	LANDING RING,CW,CTF/MBU-T/3T,20 SOW X 20 SN X 18.13 ID,750K MAX LOAD CAPACITY			
5	130791	1.00	3,990.00	3,990.00
	CSGHGR,CW,MBU-3T-CFL-R,13-3/8,10-3/4 (40.5#) BC PIN BTM X 14.000-2 STUB ACME-2G LEFT HAND PIN TOP,10.040 MIN BORE,4140 110K,TEMP U,MATL AA,PSL2,PR2			
	NOTE: ACCEPTABLE FOR USE WITH 10-3/4 (45.5#) BC J/K-55 CASING			
6	133772	2.00	950.00	1,900.00
	VLV,AOZE,GEN,M-EXP-FB,2-1/16 3/5M FE DD (6A LU DD PSL2 PR1) QPQ TRIM & 4130 STEM			
7	200002	2.00	120.00	240.00
	FLG,COMP,CW,2-1/16 5M X 2 LP,6A-KU-EE-1			
8	BP2T	2.00	42.48	84.96
	BULL PLUG,CW,2 LP X 1/2 NPT,API 6A DD			
9	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			
10	R24	4.00	8.82	35.28
	RING GASKET,R24,2-1/16 3/5M			
11	780067-20E1	16.00	14.70	235.20
	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			
12	107412MV	2.00	2,017.00	4,034.00
	VLV,CW,SB100,1-13/16 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)			
13	122007	2.00	685.00	1,370.00
	ADPT,CW,CFH,1-13/16 10M X 2 FIG 1502 X 1/2 NPT,NACE SVC,TEMP PU, PSL2			
14	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			
15	BX151	4.00	12.77	51.08
	RING GASKET,BX151,1-13/16 10/15/20M			

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

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		Quantity	Price	Ext Price
16	780080-20E1	16.00	9.13	146.08
	STUD,ALL-THD W/2 HVY HEX NUTS,BLK,3/4-10UNC X 5-1/2,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	NVA	2.00	55.58	111.16
	NEEDLE VALVE,MFA,1/2 10M			
18	PG5M	1.00	58.24	58.24
	PRESSURE GAUGE,5M,4-1/2 FACE,LIQUID FILLED,1/2 NPT			
19	PG10M	1.00	58.24	58.24
	PRESSURE GAUGE,10M,4-1/2 FACE, LIQUID FILLED,1/2 NPT			
20	132804	0.00	8,024.00	0.00
	RISER ADPT,CW,LRA,20.12 DBLO X 20 SOW TOP X 19.5 ID,8.5 LG,W/8 1-8 UNC-2B TAP HOLES,5.00 DEEP PKT W/1/2 ORINGS & 1/2 NPT TEST PORT,300 PSI MAX WP,A/F 20.12 LANDING RING			
	NOTE: THE AFOREMENTIONED ITEM IS A ONE TIME CHARGE PER RIG; PRICE NOT INCLUDED IN THE TOTAL.			
				29,839.64

CASING HANGERS & PACKOFFS

21	130916	1.00	2,075.00	2,075.00
	CSGHGR,CW,MBU-3T-LWR-TP8,FLUTED,13-5/8 X 7-5/8 (29.7#) BC PIN BTM X 10.250-4 STUB ACME-2G RIGHT HAND BOX TOP,W/11-1/2 OD NECK,4140 110K,TEMP U,MATL AA,PSL2,PR2			
22	130570	1.00	4,006.24	4,006.24
	PACKOFF,CW,MBU-3T,MANDREL,13-5/8 NESTED X 11,W/11.250-4 STUB ACME-2G LH BOX TOP W/RUPTURE DISK & DEEPER GALLERY,4140 110K,STD SVC,NON-NACE			
23	137978	1.00	4,550.00	4,550.00
	CSGHGR,CW,MBU-3T-TP8-UPR,SN,7-5/8,FLUTED,11 NESTED X 5-1/2 (23#) BK-HT PIN BTM X 6.125-4 STUB ACME-2G RIGHT HAND BOX TOP & 5 HBPV THD,SPEC FOR ROTATING CASING STRING,4140 125K,TEMP U,MATL AA,PSL3,PR2			
24	131863	0.00	5,728.80	0.00
	RUN TOOL,CW,CSGHGR,TP8,6.125-4 STUB ACME-2G RIGHT HAND PIN BTM X 5-1/2 (23#) BK-HT BOX TOP,W/4.654 MIN BORE & MAX LOAD CAPACITY 580K,MAX TORQUE 33000 FT-LBS,SPEC FOR ROTATING CASING STRING,4140 125K			
	NOTE:MAX CASING CONNECTION TORQUE PER THREADERS SPEC			
25	115867	1.00	1,950.00	1,950.00
	PACKOFF,CW,CTF-MBU-3T,11,A/F 7.75 SEAL PREP,W/8.750-4 STUB ACME-2G LH BOX TOP,A/F LANDING ON 45 DEG SHOULDER ON HANGER,4130 80K,NACE SVC,PSL2			
				12,581.24

RENTAL TOOLS

26	AR4	3T-CFL DT 10-3/4 X 7-5/8 X 5-1/2 MAN	0.00	2,250.00	0.00
	MBU-3T-R RENTAL TOOLS = $2,250.00 PER WELL FOR THE FIRST 45 DAYS; $195.00 PER DAY THEREAFTER				
	RENTAL TOOLS INCLUDE THE FOLLOWING ITEMS:				
	PN 119126: LIFT RING,CSGHGR,CFL-R,W/14.000-2 STUB ACME-2G LEFT HAND THDS,4140 110K				
	PN 121275: RUN TOOL,CW,CSGHGR,MBU-3T-CFL-R,10-3/4 BC BOX TOP X 14.000-2 STUB ACME-2G LH BOX LANDING				

Cactus

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			Quantity	Price	Ext Price

THD,10.00 MIN BORE

PN 118178: TORQUE COLLAR,CW,CSGHGR,MBU-3T-CFL-R,F/16 NECK,4140 110K

PN 104467: COMB TEST PLUG/RET TOOL,CW,13-5/8 X 4-1/2 IF (NC50) BOX BTM & TOP,W/1-1/4 LP BYPASS & SPRING LOADED DOGS

PN 122539: WBUSH,CW,MBU-3T,LWR,13-5/8 X 10. 00 ID X 27.0 LG,W/3/8 UPR ORING & W/O 2.38 GROOVE

PN 121602: RUN TOOL,CW,CSGHGR,TP4,13-5/8 X 7-5/8 BC BOX TOP,10.250-4 STUB ACME-2G RIGHT HAND PIN BTM,MAX LOAD CAPACITY 1000K,MAX TORQUE 18000FT-LBS,SPEC FOR ROTATING CASING STRING

PN 118906: TORQUE COLLAR,CW,F/USE W RUN TOOL,TP,10.250-4 STUB ACME-2G RIGHT HAND PIN BTM AND A/F 11.50 OD X 5.00 LG BOX HGR NECK,MAXIMUM TORQUE 48000 LBF-FT

PN 106277: WASH TOOL,CW,MBU-3T-LR,MBS2 & FLUTED,13-5/8 X 4-1/2 IF (NC50) BOX TOP THD,W/BRUSHES

PN 119451: RUN TOOL,CW,PACKOFF,MBU-3T-UPR,13-5/8 STACK,W/11.250-4 STUB ACME-2G LEFT HAND PIN BTM X 4-1/2 IF (NC50) BOX TOP,W/3/8 BALL BEARINGS

PN 125190: TEST PLUG,CW,MBU-3T INNER,11 X 4-1/2 IF (NC50) BOX BTM & TOP,W/1-1/4 LP BYPASS

PN 123959: WBUSH,CW,MBU-3T(-ONE),UPR,NESTED,13-5/8 X 11 X 7.00 ID X 20.0 LG,A/F 13-5/8 RET TOOL,W/1/4 DRILL HOLES

PN 117319: TORQUE COLLAR,CW,CSGHGR,F/USE W/7.62 OD X 15.38 LG BOX HGR NECK AND 10.83 OD RUNNING TOOL,MAXIMUM TORQUE 35000 LBF-FT

PN 103164: WASH TOOL,CW,CSGHGR,MBU-2LR/MBS2-R (3T),FLUTED,11 X 4-1/2 IF (NC50) BOX TOP THDS,FAB,200 PSI MAX WP

PN 117306: RUN TOOL,CW,PACKOFF,MBU-3T-SN,7-5/8,W/8.750-4 STUB ACME-2G LEFT HAND PIN BTM X 4-1/2 IF (NC50) BOX TOP,W/BALL BEARINGS

PN 116240: SUB,CROSSOVER,CW,5 HBPV PIN THD BTM X 4-1/2 IF (NC50) BOX TOP,18.0 LG,4140 110K

NOTE: CUSTOMER RESPONSIBLE FOR LOST OR DAMAGED BEYOND REPAIR TOOLS. RENTAL CHARGES MAY NOT BE APPLIED TO THE PURCHASE PRICE OF EQUIPMENT.

0.00

SAFEDRILL® DRILLING ADAPTER

27	8Q	13 10M X 13 10M CQC ADPT (45D)	0.00	1,700.00	0.00

SAFEDRILL® DRILLING ADAPTER RENTAL PACKAGE = $1,700.00 PER WELL FOR THE FIRST 45 DAYS; $65.00 PER DAY THEREAFTER.

RENTAL TOOLS CONSIST OF THE FOLLOWING ITEMS:

PN 116966: ADPT,DRLG,CW,MBU-3T,13-5/8 10M QUICK CONNECT BTM X 13-5/8 10M STD TOP,TEMP RATING PU

PN 116992: HUB,CW,THD,MBU-3T,13-5/8 10M,W/21.750-2 STUB ACME-2G L.H. BOX THD

NOTE: CUSTOMER RESPONSIBLE FOR LOST, DAMAGED, OR BEYOND REPAIR RENTAL EQUIPMENT. RENTAL

Cactus

Quotation

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

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Valid For 30 Days

			Quantity	Price	Ext Price
	CHARGES MAY NOT BE APPLIED TO THE PURCHASE PRICE OF EQUIPMENT. ACCESSORIES FOR ASSEMBLY ARE NOT INCLUDED IN RENTAL RATE.				
					0.00
	7-5/8" OFFLINE CEMENT				
28	5O	3T OLC - 7-5/8 RT DAILY RENTAL	0.00	950.00	0.00
	MBU-3T - 7-5/8" OFFLINE CEMENTING RENTAL PACKAGE = $950.00 PER WELL RENTAL TOOLS CONSIST OF THE FOLLOWING ITEMS: PN 133817: CEMENT TOOL,CW,CSGHGR/PACKOFF,MBU-3T-LWR-OLC,NESTED,7-5/8 BC PIN TOP,W/11.250-4 STUB ACME-2G LH PIN THD HOLD DOWN RING,6.964 MIN BORE,5000 PSI MAX WP,4140 125K PN 124993: CIRCULATION PLUG,CW,CTF/MBU-3T,11 NOM,W/ONE WAY 3 HBPV,6A-U-AA-1-1 PN 107010: RUN TOOL,CW,PACKOFF,MBU-LR-LWR,11 X 3-1/2 IF (NC38) BTM & TOP,W/7.500-4 STUB ACME-2G LH PIN BTM NOTE: CUSTOMER RESPONSIBLE FOR LOST OR DAMAGE BEYOND REPAIR TOOLS. RENTAL CHARGES MAY NOT BE APPLIED TO THE PURCHASE PRICE OF EQUIPMENT.				
					0.00
	SAFEDRILL® TA CAP				
29	7T	13 10M CQC TA CAP (90D)	0.00	1,300.00	0.00
	SAFEDRILL® TA CAP RENTAL PACKAGE = $1,300.00 PER WELL FOR THE FIRST 90 DAYS; $85.00 PER DAY THEREAFTER. PN 117347: TA CAP,CW,MBU-3T-HPS,9,13-5/8 10M QUICK CONNECT,W/ONE 1-13/16 10M FP,VR THD & 1/2 NPT PORT,6A-U-AA-1-1 PN 108499: SECSEAL,CW,TA-HPS,9 X 7-5/8 X 4.31 LG,W/7.731 BORE,6A-U-AA-1-1 PN 116992: HUB,CW,THD,MBU-3T,13-5/8 10M,W/21.750-2 STUB ACME-2G L.H. BOX THD NOTE: CUSTOMER IS RESPONSIBLE FOR LOST, DAMAGED OR BEYOND REPAIR RENTAL EQUIPMENT. RENTAL CHARGES MAY NOT BE APPLIED TO THE PURCHASE PRICE OF EQUIPMENT. ACCESSORIES FOR ASSEMBLY ARE NOT INCLUDED IN RENTAL RATE.				
					0.00
	TUBING HEAD ASSEMBLY				
30	126002-21MG		1.00	11,108.00	11,108.00
	TBGHD,CW,CTH-DBLHPS-SB,7-5/8,13-5/8 10M X 7-1/16 15M,W/2 1-13/16 15M FP,W/6.375 MIN BORE & 17-4PH LDS,34.0 LG,216A-PU-EE-0,5-3-2				
31	113880MV		2.00	2,792.00	5,584.00
	VLV,CW,SB100,1-13/16 15M FE BB/EE-0,5 (API 6A LU BB/EE-0,5 PSL3 PR2F) QPQ TRIM, API 6A PR2 ANNEX F (BORE VENT HOLE)				
32	127140		2.00	150.00	300.00
	FLG,BLIND,CW,1-13/16 15M X 9/16 AUTOCLAVE,REC F/VR PLUG,6A-LU-EE-3				

Cactus

Quotation

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

Quote Number : HBE0000965

Date: 07/07/2023

Valid For 30 Days

		Quantity	Price	Ext Price
33	100326	1.00	89.73	89.73
	FTG,GRS,VENTED CAP,9/16 AUTOCLAVE,17-4PH BODY, 316SS VENT CAP,INCONEL X-750 SPRING & TUNGSTEN CARBIDE BALL,20,000 PSI SERVICE			
34	BX151	4.00	12.77	51.08
	RING GASKET,BX151,1-13/16 10/15/20M			
35	105477-20E1	16.00	9.76	156.16
	STUD,ALL-THD W/2 HVY HEX NUTS,BLK,7/8-9UNC X 6,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			
36	BX159	1.00	117.60	117.60
	RING GASKET,BX159,13-5/8 10/15/20M			
37	102825-20E1	20.00	67.63	1,352.60
	STUD,ALL-THD W/2 HVY HEX NUTS,BLK,1-7/8-8UN X 17-3/4,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			
38	106012	1.00	120.00	120.00
	ADPT,AUTOCLAVE,HIGH PRESSURE, 9/16 MALE TO 9/16 MALE,316SS,SOUR SERVICE			
39	810023	1.00	289.00	289.00
	NEEDLE VALVE,2 WAY ANGLE,9/16,20KSI,SOUR SERVICE,W/O COLLARS & GLANDS			
40	PG15M	1.00	199.00	199.00
	PRESSURE GAUGE,15M,9/16 AUTOCLAVE,LIQUID FILLED			
				19,367.17

CONTINGENCY EQUIPMENT

	EMERGENCY EQUIPMENT; INVOICED AS REQUIRED:			
41	116998	0.00	2,200.00	0.00
	CSGHGR,CW,MBU-3T-LWR,EMERG,13-5/8 X 9-5/8,6A-PU-DD-3-2			
42	130829	0.00	5,160.00	0.00
	PACKOFF,CW,MBU-3T,EMERG,13-5/8 NESTED X 11 X 9-5/8,W/11.250-4 STUB ACME-2G LH BOX TOP W/RUPTURE DISK & DEEPER GALLERY,4140 110K,STD SVC,NON-NACE			
43	108211	0.00	1,750.00	0.00
	CSGHGR,CW,MBU-3T,UPR/MBU-2LR,UPR,11 X 5-1/2,6A-PU-DD-3-2			
44	117298	0.00	1,800.00	0.00
	PACKOFF,CW,MBU-3T,INNER,EMERG,NESTED,11 X 5-1/2,W/7-5/8 SEAL NECK,5 HBPV THDS & 4.93 MIN BORE,A/F HOLD DOWN RING,4130 75K,NACE SVC			
45	104726	0.00	550.00	0.00
	HOLD DOWN,RING,F/22 CSGHGR 11 X 5-1/2,A/F PACKOFF MBU-LR,13-5/8 10M,W/11.250-4 STUB ACME-2G LH PIN X 8.00 ID X 2.62 LG,4140 110K			
				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 Fred Stafford Ph: 713-626-8800
riley.stafford@cactuswellhead.com

Matl:	61,788.05
Labor:	0.00
Misc:	0.00
Sales Tax:	0.00
Total:	61,788.05

Cactus

Quotation

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

Quote Number : HBE0000965

Date: 07/07/2023

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 : HBE0000965

Date: 07/07/2023

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.

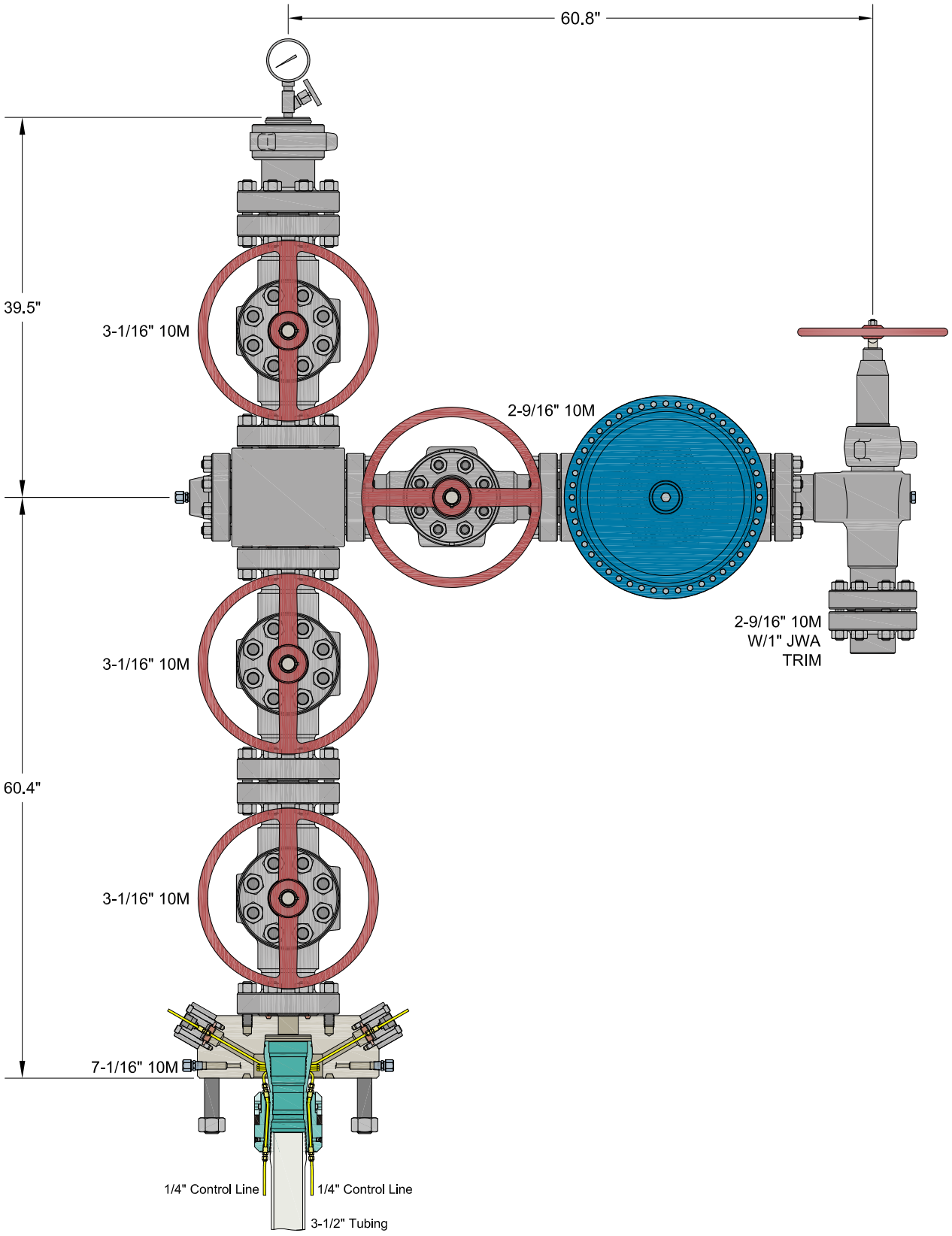
20. **CHOICE OF LAW**. THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS AND SHALL BE PERFORMABLE IN HARRIS COUNTY, TEXAS. WITHOUT REGARD TO CONFLICTS OF LAW PRINCIPALS AND WAIVER OF SAME, EACH PARTY HERETO SUBMITS TO THE JURISDICTION OF THE COURTS OF 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.

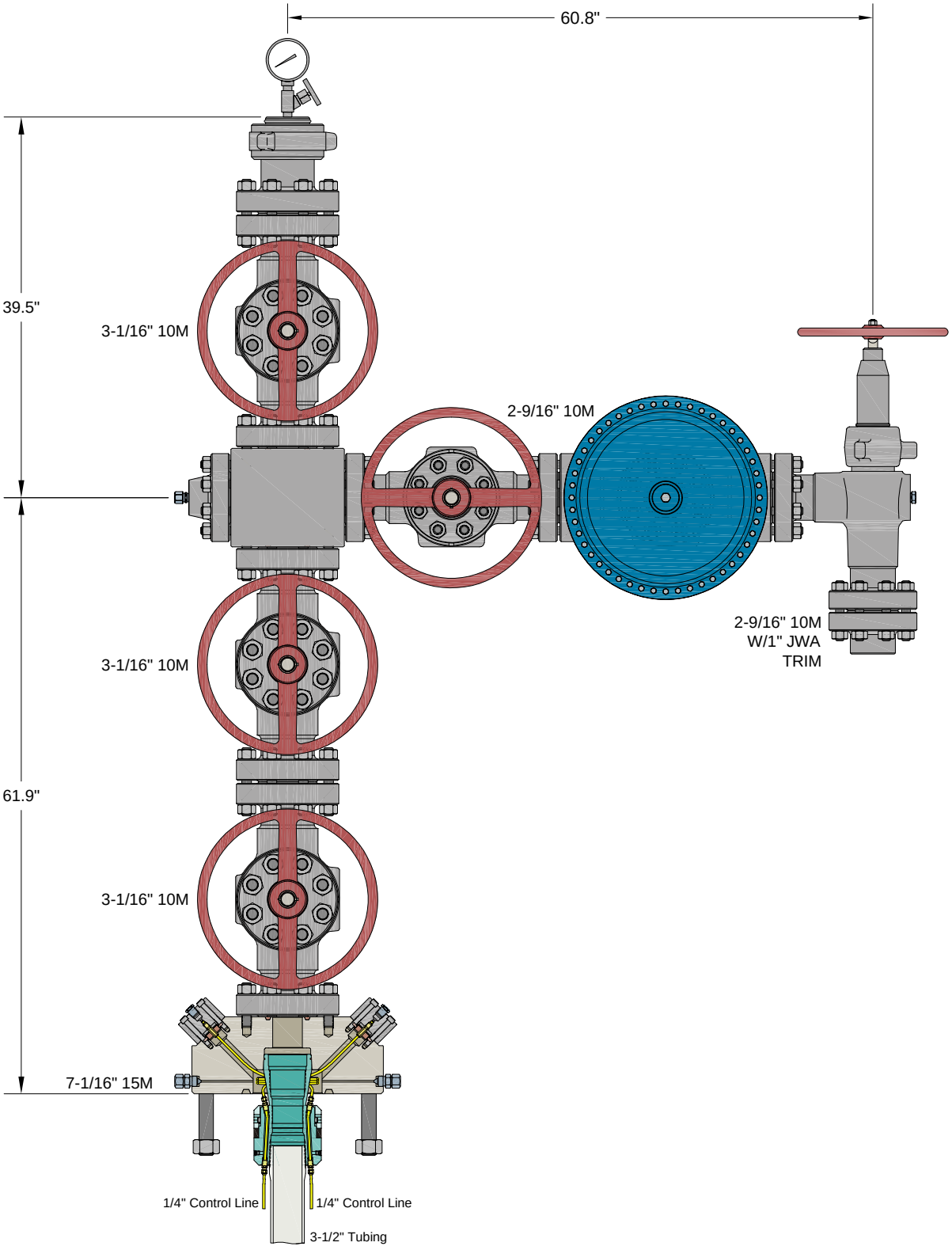
24. **COMPLIANCE**. Customer expressly agrees to comply with and abide by, all of the laws of the United States and of the State of Texas, including, but not limited to, OSHA, EPA and all rules and regulations now existing or that may be hereafter promulgated under and in accordance with any such law 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.



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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



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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.

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

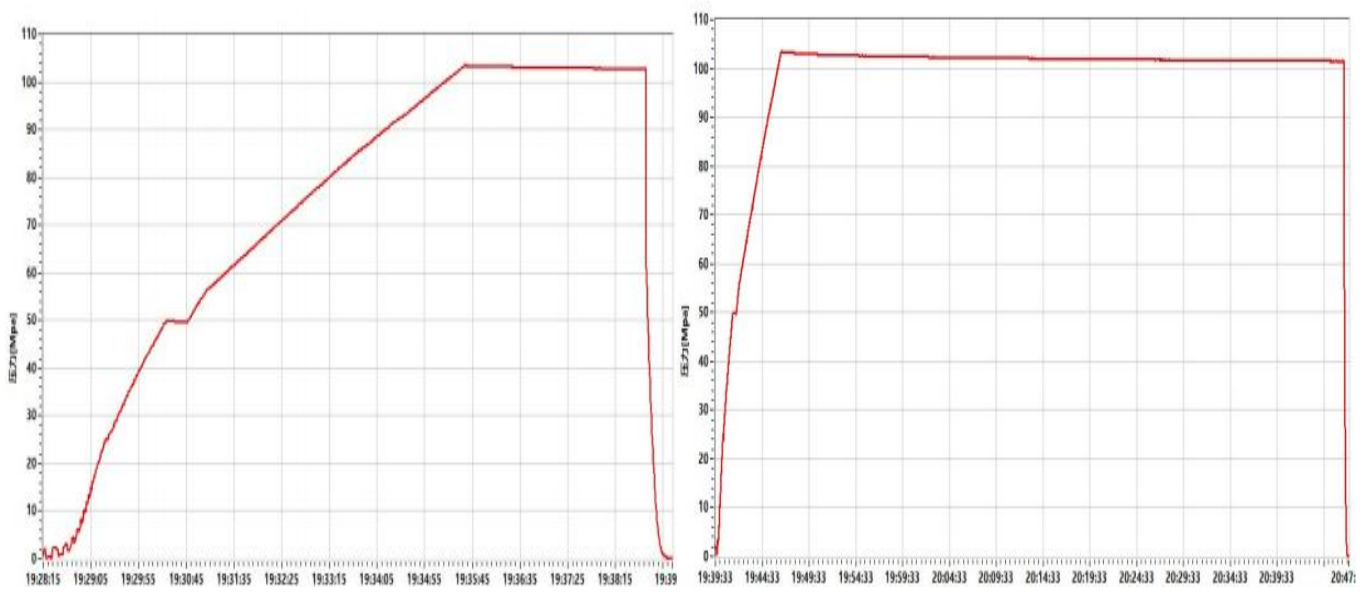
AustinHOSE

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

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

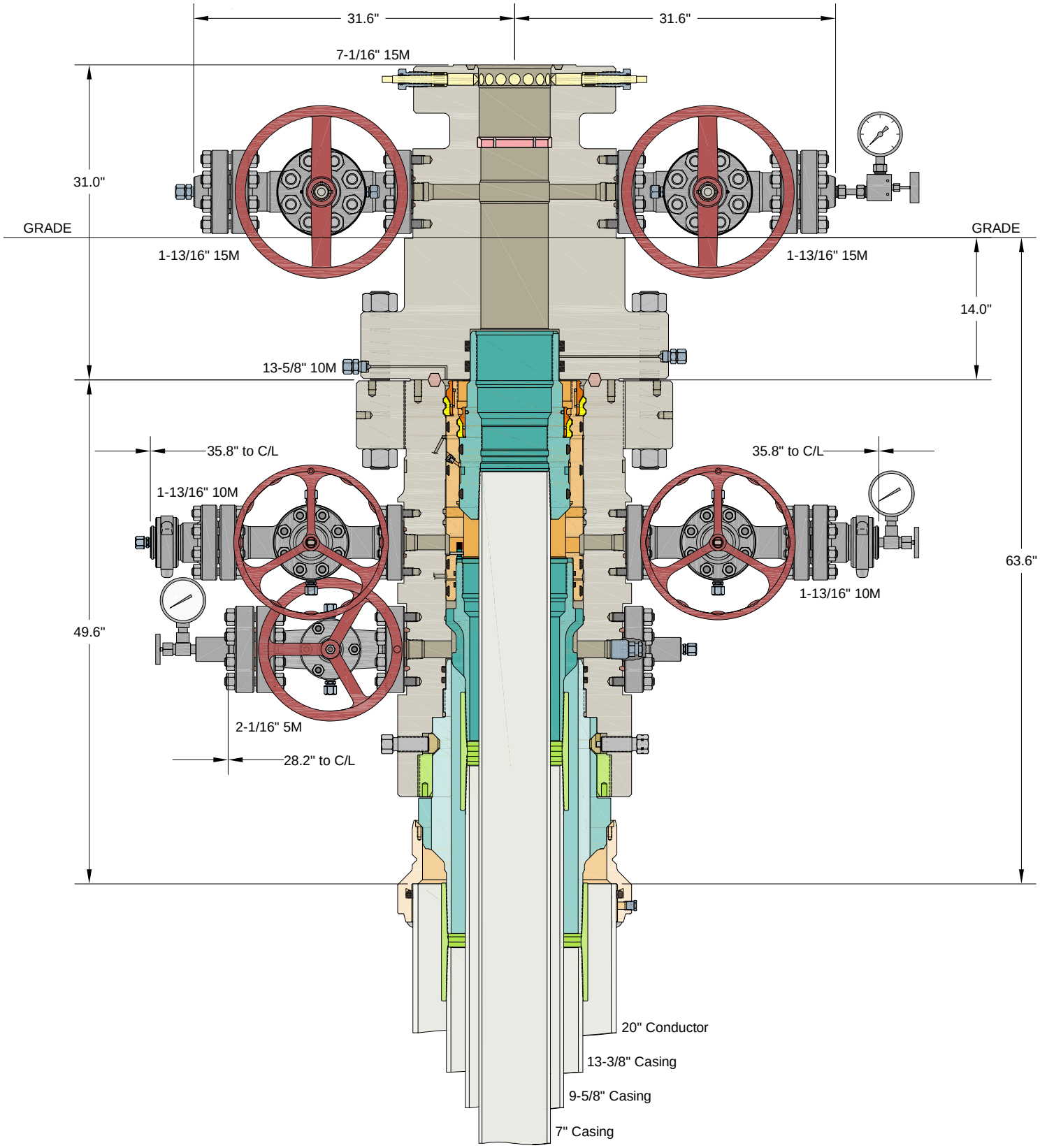
Coterra requests permission to skid the rig to the next well on the pad in order to begin operations immediately after the cement job for the surface casing has been completed. After the cement job is completed, no operations on the subject well will be conducted until at least 8 hours have elapsed, 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.

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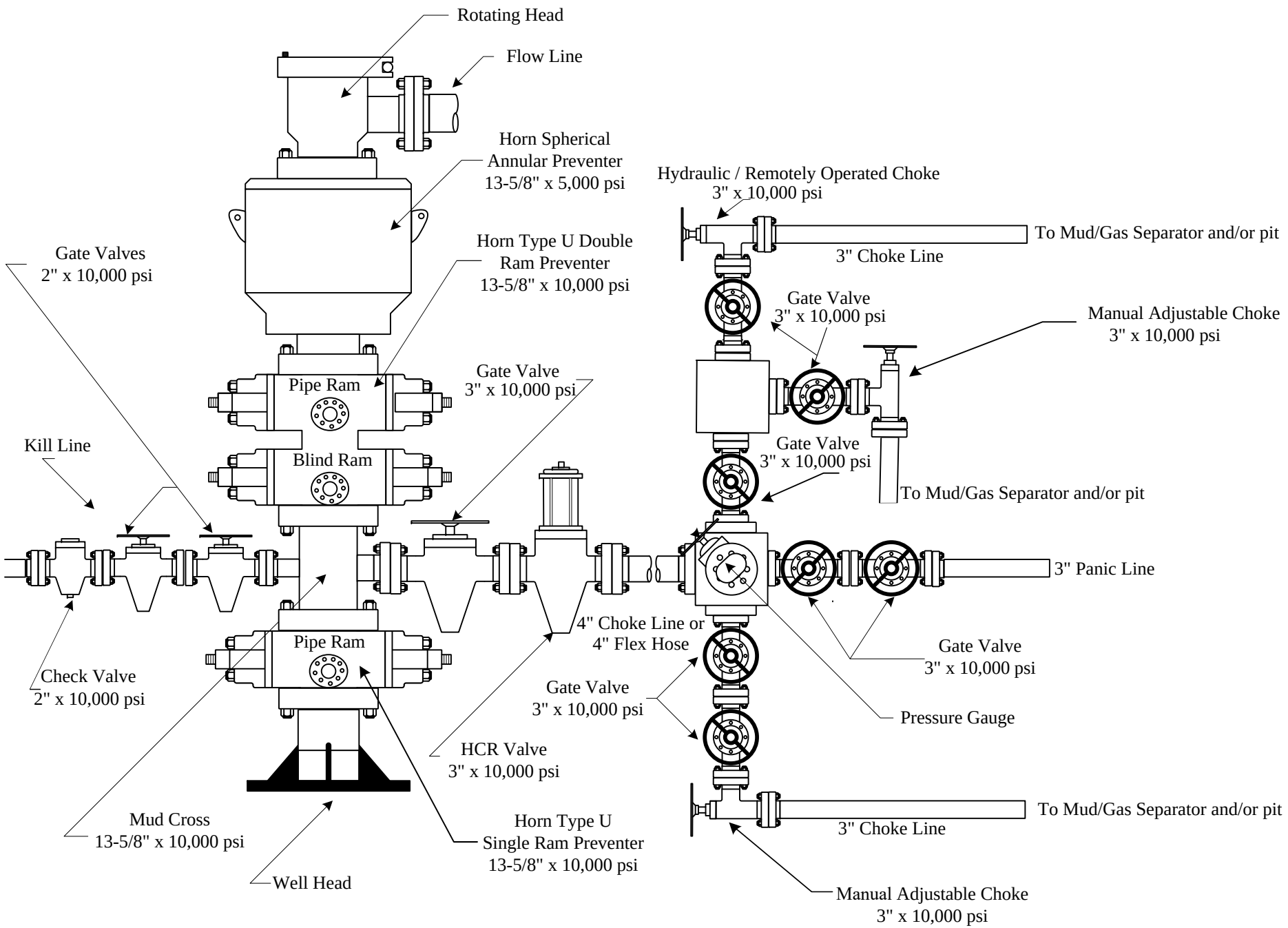
INFORMATION CONTAINED HEREIN IS THE PROPERTY OF CACTUS WELLHEAD, LLC. REPRODUCTION, DISCLOSURE, OR USE THEREOF IS PERMISSIBLE ONLY AS PROVIDED BY CONTRACT OR AS EXPRESSLY AUTHORIZED BY CACTUS WELLHEAD, LLC.

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

Released to Imaging: 12/24/2025 8:18:45 AM
Received by OCD: 11/13/2025 3:59:10 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

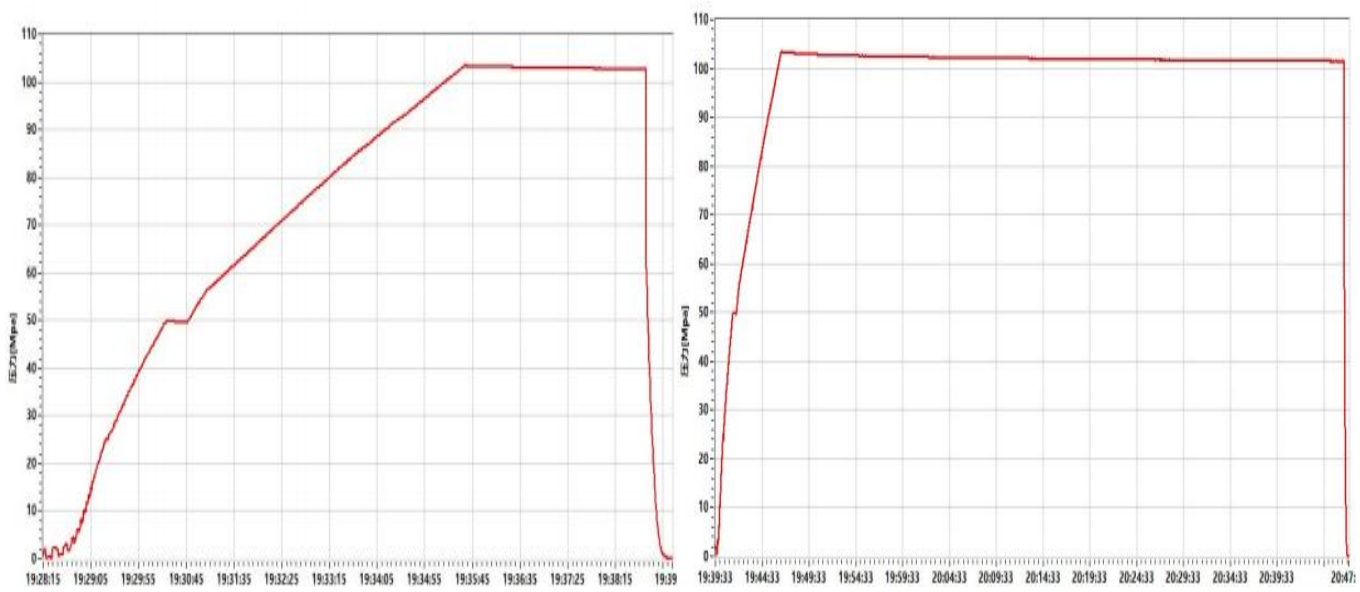
AustinHOSE

HYDROSTATIC TESTING REPORT

LTYY/QR-5.7.1-28 №: 24090301

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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

CERTIFICATE OF CONFORMANCE

№:LT24090307

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Serial Number：VTC-7660257

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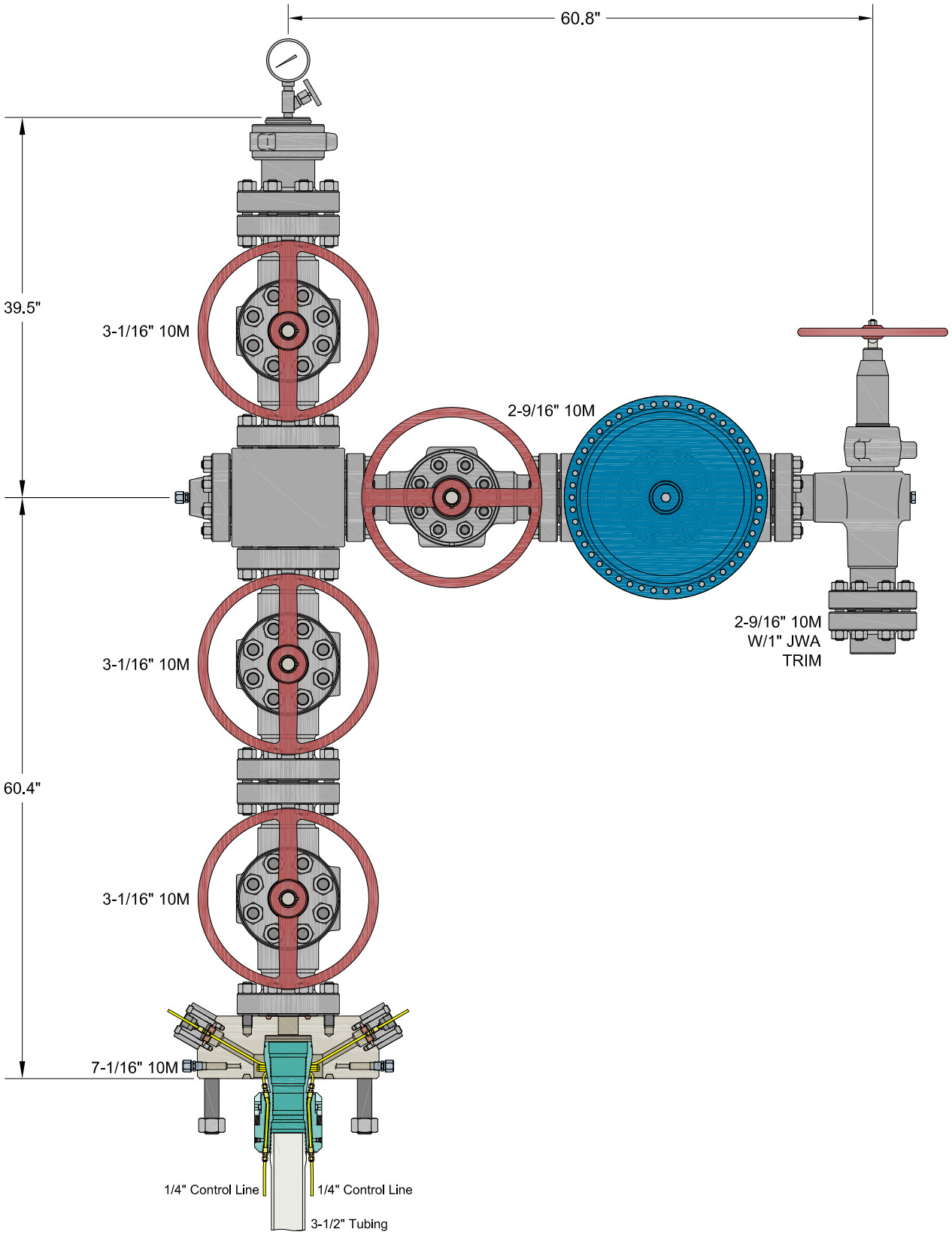
End Connections: 4-1/16″×10000psi Integral flange for sour gas service

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

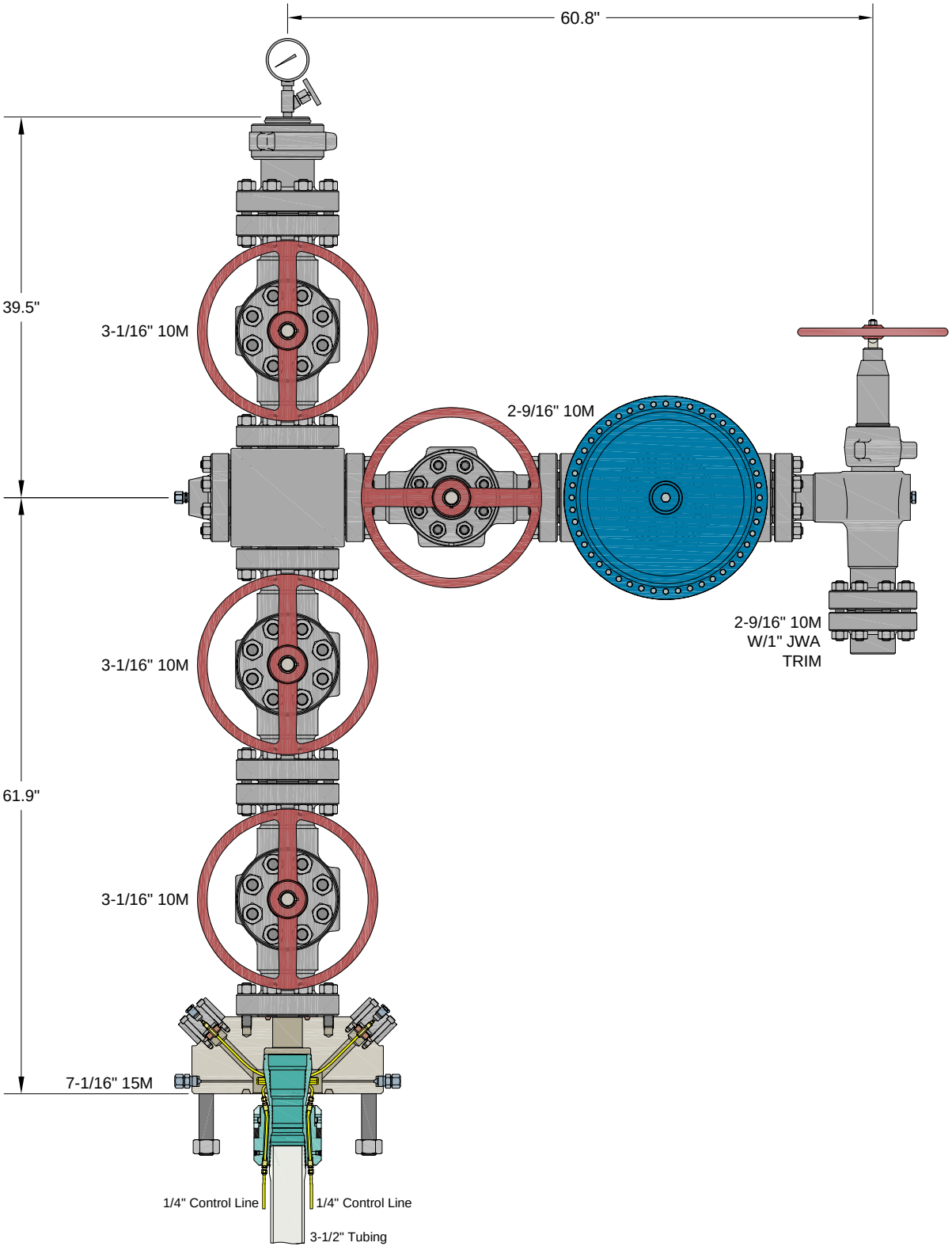
LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD	LETONE



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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



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CACTUS WELLHEAD LLC	CIMAREX HOBBS, NM
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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.

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Hobbs, NM
4120 W Carlsbad Hwy
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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

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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

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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.

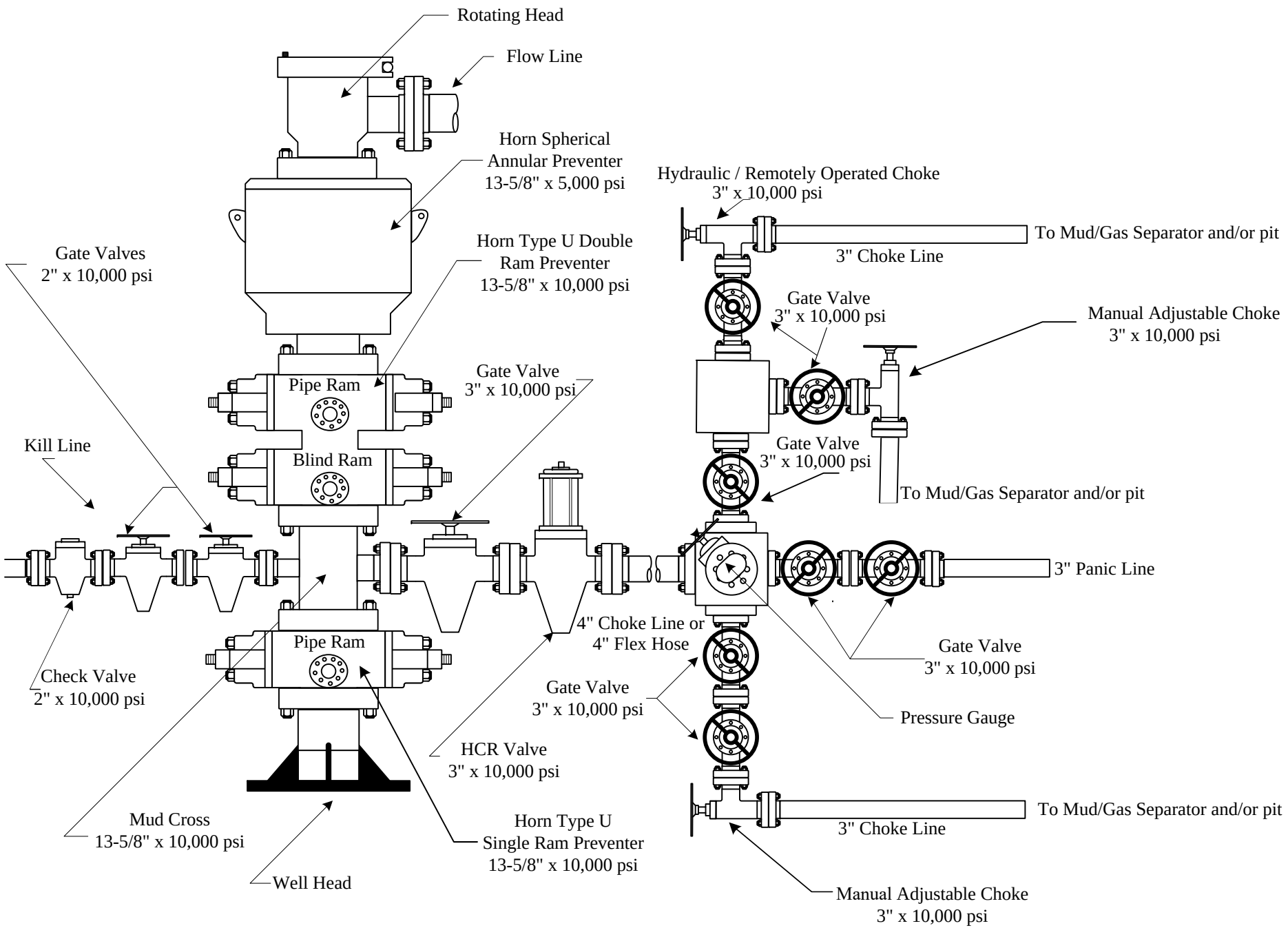
22. **FORCE MAJEURE**. If Company is unable to carry out its obligations hereunder by reason of force majeure, then upon Company's giving of notice and reasonably full particulars of such force majeure in writing to Customer, Company's obligations that are affected by force majeure shall be suspended 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.

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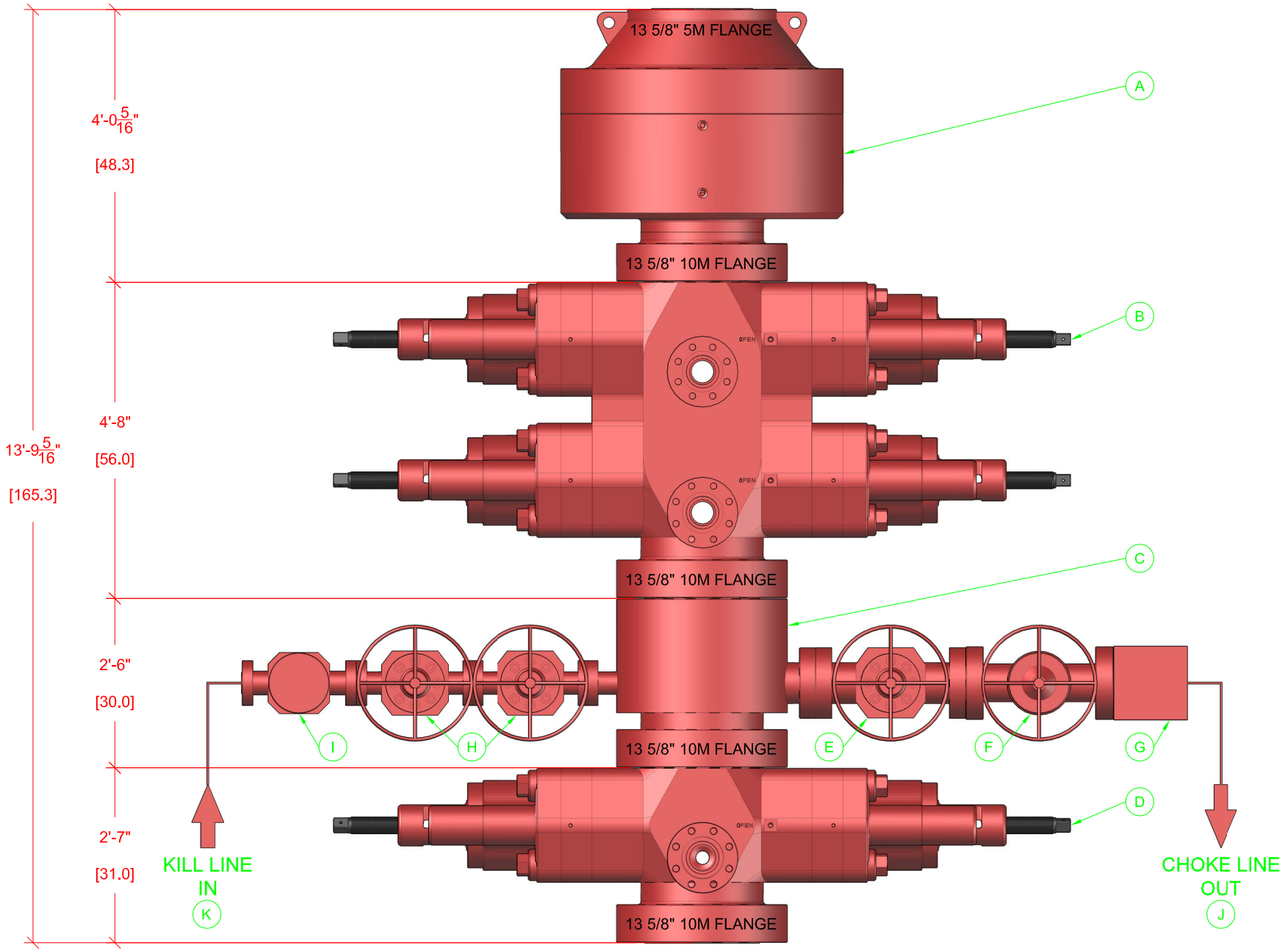
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BOP EQUIPMENT INFORMATION

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			

1. Geological Formations

TVD of target 7,557
MD at TD 18,319

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	
1st Bone Spirng Sand - Target	7557	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	2497	9-5/8"	36.00	J-55	LT&C	1.56	2.71	5.04
8 3/4	0	7066								
8 3/4	7066	8153	7557	7"	26.00	P-110	BT&C	1.67	2.67	65.02
6	7066	18319	7557	4-1/2"	11.60	HCP-110	BT&C	1.95	2.37	64.44
					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

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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

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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

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.

Coterra Energy

Eddy County, NM (NAD 83)
Riverbend 12-13 Federal Com
Riverbend 12-13 Federal Com 4H

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 4H
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 4H	**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 4H

Well Position	**+N/-S**	0.00 usft	**Northing:**	420,301.44 usft	**Latitude:**	32.1551516
	+E/-W	0.00 usft	**Easting:**	631,508.48 usft	**Longitude:**	-104.0419568
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	176.27

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

From (usft)	**To (usft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
0.00	18,318.93	Plan 1 (OH)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction

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	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,644.93	12.90	144.10	2,639.49	-58.56	42.38	2.00	2.00	0.00	144.10	
6,421.23	12.90	144.10	6,320.51	-741.44	536.62	0.00	0.00	0.00	0.00	
7,066.16	0.00	0.00	6,960.00	-800.00	579.00	2.00	-2.00	0.00	180.00	
7,816.16	75.00	168.50	7,513.43	-1,216.14	663.66	10.00	10.00	0.00	168.50	
8,153.26	90.00	176.27	7,557.37	-1,546.26	707.40	5.00	4.45	2.31	27.80	
18,318.93	90.00	176.27	7,557.00	-11,690.43	1,368.20	0.00	0.00	0.00	0.00	

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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)
0.00	0.00	0.00	0.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
407.00	0.00	0.00	407.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
Rustler													
500.00	0.00	0.00	500.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
1,952.00	0.00	0.00	1,952.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
Top Salt													
2,000.00	0.00	0.00	2,000.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
2,100.00	2.00	144.10	2,099.98	-1.41	1.02	420,300.03	631,509.50	32.1551477	-104.0419535	1.48	2.00	2.00	0.00
2,200.00	4.00	144.10	2,199.84	-5.65	4.09	420,295.79	631,512.57	32.1551360	-104.0419436	5.91	2.00	2.00	0.00
2,300.00	6.00	144.10	2,299.45	-12.71	9.20	420,288.73	631,517.68	32.1551166	-104.0419272	13.28	2.00	2.00	0.00
2,400.00	8.00	144.10	2,398.70	-22.59	16.35	420,278.85	631,524.83	32.1550894	-104.0419042	23.60	2.00	2.00	0.00
2,500.00	10.00	144.10	2,497.47	-35.26	25.52	420,266.18	631,534.00	32.1550545	-104.0418747	36.84	2.00	2.00	0.00
2,600.00	12.00	144.10	2,595.62	-50.71	36.70	420,250.73	631,545.18	32.1550119	-104.0418387	52.99	2.00	2.00	0.00
2,644.93	12.90	144.10	2,639.49	-58.56	42.38	420,242.88	631,550.86	32.1549903	-104.0418204	61.19	2.00	2.00	0.00
2,685.46	12.90	144.10	2,679.00	-65.89	47.69	420,235.55	631,556.17	32.1549701	-104.0418033	68.85	0.00	0.00	0.00
Base Salt/Lamar													
2,700.00	12.90	144.10	2,693.18	-68.52	49.59	420,232.92	631,558.07	32.1549629	-104.0417972	71.60	0.00	0.00	0.00
2,800.00	12.90	144.10	2,790.65	-86.60	62.68	420,214.84	631,571.16	32.1549131	-104.0417550	90.50	0.00	0.00	0.00
2,815.74	12.90	144.10	2,806.00	-89.45	64.74	420,211.99	631,573.22	32.1549052	-104.0417484	93.47	0.00	0.00	0.00
Top Delaware Sands/Bell Canyon													

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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)
2,900.00	12.90	144.10	2,888.13	-104.69	75.77	420,196.75	631,584.25	32.1548633	-104.0417129	109.39	0.00	0.00	0.00
3,000.00	12.90	144.10	2,985.61	-122.77	88.85	420,178.67	631,597.33	32.1548135	-104.0416708	128.29	0.00	0.00	0.00
3,100.00	12.90	144.10	3,083.08	-140.85	101.94	420,160.59	631,610.42	32.1547637	-104.0416286	147.19	0.00	0.00	0.00
3,200.00	12.90	144.10	3,180.56	-158.94	115.03	420,142.50	631,623.51	32.1547138	-104.0415865	166.08	0.00	0.00	0.00
3,300.00	12.90	144.10	3,278.04	-177.02	128.12	420,124.42	631,636.60	32.1546640	-104.0415444	184.98	0.00	0.00	0.00
3,400.00	12.90	144.10	3,375.51	-195.10	141.20	420,106.34	631,649.68	32.1546142	-104.0415022	203.87	0.00	0.00	0.00
3,500.00	12.90	144.10	3,472.99	-213.19	154.29	420,088.25	631,662.77	32.1545644	-104.0414601	222.77	0.00	0.00	0.00
3,600.00	12.90	144.10	3,570.47	-231.27	167.38	420,070.17	631,675.86	32.1545146	-104.0414180	241.67	0.00	0.00	0.00
3,649.79	12.90	144.10	3,619.00	-240.27	173.90	420,061.17	631,682.38	32.1544898	-104.0413970	251.08	0.00	0.00	0.00
Cherry Canyon													
3,700.00	12.90	144.10	3,667.94	-249.35	180.47	420,052.09	631,688.95	32.1544648	-104.0413758	260.56	0.00	0.00	0.00
3,800.00	12.90	144.10	3,765.42	-267.44	193.56	420,034.00	631,702.04	32.1544150	-104.0413337	279.46	0.00	0.00	0.00
3,900.00	12.90	144.10	3,862.90	-285.52	206.64	420,015.92	631,715.12	32.1543652	-104.0412916	298.36	0.00	0.00	0.00
4,000.00	12.90	144.10	3,960.37	-303.60	219.73	419,997.84	631,728.21	32.1543154	-104.0412494	317.25	0.00	0.00	0.00
4,100.00	12.90	144.10	4,057.85	-321.69	232.82	419,979.75	631,741.30	32.1542656	-104.0412073	336.15	0.00	0.00	0.00
4,200.00	12.90	144.10	4,155.33	-339.77	245.91	419,961.67	631,754.39	32.1542158	-104.0411652	355.05	0.00	0.00	0.00
4,300.00	12.90	144.10	4,252.80	-357.85	259.00	419,943.59	631,767.48	32.1541660	-104.0411230	373.94	0.00	0.00	0.00
4,400.00	12.90	144.10	4,350.28	-375.94	272.08	419,925.50	631,780.56	32.1541162	-104.0410809	392.84	0.00	0.00	0.00
4,500.00	12.90	144.10	4,447.76	-394.02	285.17	419,907.42	631,793.65	32.1540664	-104.0410388	411.74	0.00	0.00	0.00
4,600.00	12.90	144.10	4,545.23	-412.10	298.26	419,889.34	631,806.74	32.1540166	-104.0409967	430.63	0.00	0.00	0.00
4,700.00	12.90	144.10	4,642.71	-430.19	311.35	419,871.25	631,819.83	32.1539667	-104.0409545	449.53	0.00	0.00	0.00
4,800.00	12.90	144.10	4,740.19	-448.27	324.43	419,853.17	631,832.91	32.1539169	-104.0409124	468.42	0.00	0.00	0.00
4,878.80	12.90	144.10	4,817.00	-462.52	334.75	419,838.92	631,843.23	32.1538777	-104.0408792	483.32	0.00	0.00	0.00
Brushy Canyon													
4,900.00	12.90	144.10	4,837.66	-466.35	337.52	419,835.09	631,846.00	32.1538671	-104.0408703	487.32	0.00	0.00	0.00
5,000.00	12.90	144.10	4,935.14	-484.44	350.61	419,817.00	631,859.09	32.1538173	-104.0408281	506.22	0.00	0.00	0.00
5,100.00	12.90	144.10	5,032.62	-502.52	363.70	419,798.92	631,872.18	32.1537675	-104.0407860	525.11	0.00	0.00	0.00
5,200.00	12.90	144.10	5,130.09	-520.60	376.79	419,780.84	631,885.27	32.1537177	-104.0407439	544.01	0.00	0.00	0.00
5,300.00	12.90	144.10	5,227.57	-538.69	389.87	419,762.75	631,898.35	32.1536679	-104.0407017	562.91	0.00	0.00	0.00
5,400.00	12.90	144.10	5,325.05	-556.77	402.96	419,744.67	631,911.44	32.1536181	-104.0406596	581.80	0.00	0.00	0.00
5,500.00	12.90	144.10	5,422.52	-574.85	416.05	419,726.59	631,924.53	32.1535683	-104.0406175	600.70	0.00	0.00	0.00
5,600.00	12.90	144.10	5,520.00	-592.94	429.14	419,708.50	631,937.62	32.1535185	-104.0405753	619.60	0.00	0.00	0.00
5,700.00	12.90	144.10	5,617.48	-611.02	442.22	419,690.42	631,950.70	32.1534687	-104.0405332	638.49	0.00	0.00	0.00
5,800.00	12.90	144.10	5,714.95	-629.10	455.31	419,672.34	631,963.79	32.1534189	-104.0404911	657.39	0.00	0.00	0.00
5,852.37	12.90	144.10	5,766.00	-638.57	462.17	419,662.87	631,970.65	32.1533928	-104.0404690	667.28	0.00	0.00	0.00
Lower Brushy Canyon													
5,900.00	12.90	144.10	5,812.43	-647.19	468.40	419,654.26	631,976.88	32.1533691	-104.0404489	676.29	0.00	0.00	0.00
6,000.00	12.90	144.10	5,909.91	-665.27	481.49	419,636.17	631,989.97	32.1533193	-104.0404068	695.18	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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)
6,100.00	12.90	144.10	6,007.38	-683.35	494.58	419,618.09	632,003.06	32.1532694	-104.0403647	714.08	0.00	0.00	0.00
6,200.00	12.90	144.10	6,104.86	-701.43	507.66	419,600.01	632,016.14	32.1532196	-104.0403225	732.98	0.00	0.00	0.00
6,300.00	12.90	144.10	6,202.34	-719.52	520.75	419,581.92	632,029.23	32.1531698	-104.0402804	751.87	0.00	0.00	0.00
6,400.00	12.90	144.10	6,299.81	-737.60	533.84	419,563.84	632,042.32	32.1531200	-104.0402383	770.77	0.00	0.00	0.00
6,421.23	12.90	144.10	6,320.51	-741.44	536.62	419,560.00	632,045.10	32.1531095	-104.0402293	774.78	0.00	0.00	0.00
6,500.00	11.32	144.10	6,397.52	-754.83	546.31	419,546.61	632,054.79	32.1530726	-104.0401982	788.77	2.00	-2.00	0.00
6,513.74	11.05	144.10	6,411.00	-756.99	547.87	419,544.45	632,056.35	32.1530666	-104.0401931	791.03	2.00	-2.00	0.00
Bone Spring Lime													
6,600.00	9.32	144.10	6,495.90	-769.34	556.81	419,532.10	632,065.29	32.1530326	-104.0401643	803.94	2.00	-2.00	0.00
6,700.00	7.32	144.10	6,594.84	-781.07	565.30	419,520.37	632,073.78	32.1530003	-104.0401370	816.19	2.00	-2.00	0.00
6,800.00	5.32	144.10	6,694.23	-789.99	571.76	419,511.45	632,080.24	32.1529757	-104.0401162	825.51	2.00	-2.00	0.00
6,900.00	3.32	144.10	6,793.94	-796.10	576.18	419,505.34	632,084.66	32.1529589	-104.0401020	831.89	2.00	-2.00	0.00
7,000.00	1.32	144.10	6,893.85	-799.38	578.55	419,502.06	632,087.03	32.1529499	-104.0400943	835.33	2.00	-2.00	0.00
7,066.16	0.00	0.00	6,960.00	-800.00	579.00	419,501.44	632,087.48	32.1529482	-104.0400929	835.97	2.00	-2.00	0.00
7,100.00	3.38	168.50	6,993.82	-800.98	579.20	419,500.46	632,087.68	32.1529455	-104.0400923	836.96	10.00	10.00	0.00
7,150.00	8.38	168.50	7,043.55	-806.00	580.22	419,495.44	632,088.70	32.1529317	-104.0400890	842.04	10.00	10.00	0.00
7,200.00	13.38	168.50	7,092.63	-815.25	582.10	419,486.19	632,090.58	32.1529062	-104.0400830	851.39	10.00	10.00	0.00
7,250.00	18.38	168.50	7,140.71	-828.66	584.83	419,472.78	632,093.31	32.1528693	-104.0400743	864.95	10.00	10.00	0.00
7,300.00	23.38	168.50	7,187.41	-846.12	588.38	419,455.32	632,096.86	32.1528213	-104.0400630	882.60	10.00	10.00	0.00
7,350.00	28.38	168.50	7,232.38	-867.50	592.73	419,433.94	632,101.21	32.1527625	-104.0400491	904.22	10.00	10.00	0.00
7,400.00	33.38	168.50	7,275.27	-892.64	597.85	419,408.80	632,106.33	32.1526934	-104.0400328	929.64	10.00	10.00	0.00
7,450.00	38.38	168.50	7,315.77	-921.35	603.69	419,380.09	632,112.17	32.1526144	-104.0400142	958.67	10.00	10.00	0.00
7,500.00	43.38	168.50	7,353.56	-953.41	610.21	419,348.03	632,118.69	32.1525262	-104.0399934	991.09	10.00	10.00	0.00
7,510.33	44.42	168.50	7,361.00	-960.43	611.64	419,341.01	632,120.12	32.1525069	-104.0399889	998.18	10.00	10.00	0.00
1st Bone Spring Sand													
7,550.00	48.38	168.50	7,388.35	-988.58	617.37	419,312.86	632,125.85	32.1524295	-104.0399706	1,026.64	10.00	10.00	0.00
7,600.00	53.38	168.50	7,419.89	-1,026.58	625.10	419,274.86	632,133.58	32.1523250	-104.0399459	1,065.07	10.00	10.00	0.00
7,650.00	58.38	168.50	7,447.92	-1,067.13	633.35	419,234.31	632,141.83	32.1522134	-104.0399196	1,106.07	10.00	10.00	0.00
7,700.00	63.38	168.50	7,472.24	-1,109.92	642.05	419,191.52	632,150.53	32.1520957	-104.0398919	1,149.34	10.00	10.00	0.00
7,750.00	68.38	168.50	7,492.67	-1,154.63	651.15	419,146.81	632,159.63	32.1519728	-104.0398629	1,194.54	10.00	10.00	0.00
7,800.00	73.38	168.50	7,509.03	-1,200.91	660.57	419,100.53	632,169.05	32.1518455	-104.0398329	1,241.34	10.00	10.00	0.00
7,816.16	75.00	168.50	7,513.43	-1,216.14	663.66	419,085.30	632,172.14	32.1518036	-104.0398230	1,256.74	10.00	10.00	0.00
7,900.00	78.72	170.49	7,532.50	-1,296.40	678.54	419,005.04	632,187.02	32.1515828	-104.0397757	1,337.80	5.00	4.43	2.38
8,000.00	83.17	172.80	7,548.24	-1,394.08	692.86	418,907.36	632,201.34	32.1513142	-104.0397302	1,436.20	5.00	4.45	2.31
8,100.00	87.63	175.07	7,556.27	-1,493.17	703.38	418,808.27	632,211.86	32.1510418	-104.0396971	1,535.76	5.00	4.46	2.27
8,122.39	88.62	175.58	7,557.00	-1,515.47	705.20	418,785.97	632,213.68	32.1509805	-104.0396914	1,558.14	5.00	4.46	2.26
1st Bone Spring Sand LZ													
8,153.26	90.00	176.27	7,557.37	-1,546.26	707.40	418,755.18	632,215.88	32.1508958	-104.0396846	1,589.00	5.00	4.46	2.25

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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)
8,200.00	90.00	176.27	7,557.37	-1,592.90	710.43	418,708.54	632,218.91	32.1507676	-104.0396752	1,635.74	0.00	0.00	0.00
8,300.00	90.00	176.27	7,557.36	-1,692.69	716.93	418,608.75	632,225.41	32.1504932	-104.0396551	1,735.74	0.00	0.00	0.00
8,400.00	90.00	176.27	7,557.36	-1,792.48	723.43	418,508.96	632,231.91	32.1502189	-104.0396349	1,835.74	0.00	0.00	0.00
8,500.00	90.00	176.27	7,557.36	-1,892.27	729.93	418,409.17	632,238.41	32.1499445	-104.0396148	1,935.74	0.00	0.00	0.00
8,600.00	90.00	176.27	7,557.35	-1,992.06	736.44	418,309.38	632,244.92	32.1496701	-104.0395947	2,035.74	0.00	0.00	0.00
8,700.00	90.00	176.27	7,557.35	-2,091.84	742.94	418,209.60	632,251.42	32.1493958	-104.0395746	2,135.74	0.00	0.00	0.00
8,800.00	90.00	176.27	7,557.35	-2,191.63	749.44	418,109.81	632,257.92	32.1491214	-104.0395545	2,235.74	0.00	0.00	0.00
8,900.00	90.00	176.27	7,557.34	-2,291.42	755.94	418,010.02	632,264.42	32.1488471	-104.0395343	2,335.74	0.00	0.00	0.00
9,000.00	90.00	176.27	7,557.34	-2,391.21	762.44	417,910.23	632,270.92	32.1485727	-104.0395142	2,435.74	0.00	0.00	0.00
9,100.00	90.00	176.27	7,557.34	-2,491.00	768.94	417,810.44	632,277.42	32.1482983	-104.0394941	2,535.74	0.00	0.00	0.00
9,200.00	90.00	176.27	7,557.33	-2,590.79	775.44	417,710.65	632,283.92	32.1480240	-104.0394740	2,635.74	0.00	0.00	0.00
9,300.00	90.00	176.27	7,557.33	-2,690.58	781.94	417,610.86	632,290.42	32.1477496	-104.0394538	2,735.74	0.00	0.00	0.00
9,400.00	90.00	176.27	7,557.32	-2,790.36	788.44	417,511.08	632,296.92	32.1474753	-104.0394337	2,835.74	0.00	0.00	0.00
9,500.00	90.00	176.27	7,557.32	-2,890.15	794.94	417,411.29	632,303.42	32.1472009	-104.0394136	2,935.74	0.00	0.00	0.00
9,600.00	90.00	176.27	7,557.32	-2,989.94	801.44	417,311.50	632,309.92	32.1469266	-104.0393935	3,035.74	0.00	0.00	0.00
9,700.00	90.00	176.27	7,557.31	-3,089.73	807.94	417,211.71	632,316.42	32.1466522	-104.0393733	3,135.74	0.00	0.00	0.00
9,800.00	90.00	176.27	7,557.31	-3,189.52	814.44	417,111.92	632,322.92	32.1463778	-104.0393532	3,235.74	0.00	0.00	0.00
9,900.00	90.00	176.27	7,557.31	-3,289.31	820.94	417,012.13	632,329.42	32.1461035	-104.0393331	3,335.74	0.00	0.00	0.00
10,000.00	90.00	176.27	7,557.30	-3,389.09	827.44	416,912.35	632,335.92	32.1458291	-104.0393130	3,435.74	0.00	0.00	0.00
10,100.00	90.00	176.27	7,557.30	-3,488.88	833.94	416,812.56	632,342.42	32.1455548	-104.0392929	3,535.74	0.00	0.00	0.00
10,200.00	90.00	176.27	7,557.30	-3,588.67	840.44	416,712.77	632,348.92	32.1452804	-104.0392727	3,635.74	0.00	0.00	0.00
10,300.00	90.00	176.27	7,557.29	-3,688.46	846.94	416,612.98	632,355.42	32.1450061	-104.0392526	3,735.74	0.00	0.00	0.00
10,400.00	90.00	176.27	7,557.29	-3,788.25	853.44	416,513.19	632,361.92	32.1447317	-104.0392325	3,835.74	0.00	0.00	0.00
10,500.00	90.00	176.27	7,557.28	-3,888.04	859.94	416,413.40	632,368.42	32.1444573	-104.0392124	3,935.74	0.00	0.00	0.00
10,600.00	90.00	176.27	7,557.28	-3,987.83	866.44	416,313.61	632,374.92	32.1441830	-104.0391922	4,035.74	0.00	0.00	0.00
10,700.00	90.00	176.27	7,557.28	-4,087.61	872.94	416,213.83	632,381.42	32.1439086	-104.0391721	4,135.74	0.00	0.00	0.00
10,800.00	90.00	176.27	7,557.27	-4,187.40	879.44	416,114.04	632,387.92	32.1436343	-104.0391520	4,235.74	0.00	0.00	0.00
10,900.00	90.00	176.27	7,557.27	-4,287.19	885.94	416,014.25	632,394.42	32.1433599	-104.0391319	4,335.74	0.00	0.00	0.00
11,000.00	90.00	176.27	7,557.27	-4,386.98	892.44	415,914.46	632,400.92	32.1430855	-104.0391118	4,435.74	0.00	0.00	0.00
11,100.00	90.00	176.27	7,557.26	-4,486.77	898.94	415,814.67	632,407.42	32.1428112	-104.0390916	4,535.74	0.00	0.00	0.00
11,200.00	90.00	176.27	7,557.26	-4,586.56	905.44	415,714.88	632,413.92	32.1425368	-104.0390715	4,635.74	0.00	0.00	0.00
11,300.00	90.00	176.27	7,557.26	-4,686.35	911.94	415,615.09	632,420.42	32.1422625	-104.0390514	4,735.74	0.00	0.00	0.00
11,400.00	90.00	176.27	7,557.25	-4,786.13	918.45	415,515.31	632,426.93	32.1419881	-104.0390313	4,835.74	0.00	0.00	0.00
11,500.00	90.00	176.27	7,557.25	-4,885.92	924.95	415,415.52	632,433.43	32.1417138	-104.0390112	4,935.74	0.00	0.00	0.00
11,600.00	90.00	176.27	7,557.24	-4,985.71	931.45	415,315.73	632,439.93	32.1414394	-104.0389910	5,035.74	0.00	0.00	0.00
11,700.00	90.00	176.27	7,557.24	-5,085.50	937.95	415,215.94	632,446.43	32.1411650	-104.0389709	5,135.74	0.00	0.00	0.00
11,800.00	90.00	176.27	7,557.24	-5,185.29	944.45	415,116.15	632,452.93	32.1408907	-104.0389508	5,235.74	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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)
11,900.00	90.00	176.27	7,557.23	-5,285.08	950.95	415,016.36	632,459.43	32.1406163	-104.0389307	5,335.74	0.00	0.00	0.00
12,000.00	90.00	176.27	7,557.23	-5,384.86	957.45	414,916.58	632,465.93	32.1403420	-104.0389106	5,435.74	0.00	0.00	0.00
12,100.00	90.00	176.27	7,557.23	-5,484.65	963.95	414,816.79	632,472.43	32.1400676	-104.0388904	5,535.74	0.00	0.00	0.00
12,200.00	90.00	176.27	7,557.22	-5,584.44	970.45	414,717.00	632,478.93	32.1397932	-104.0388703	5,635.74	0.00	0.00	0.00
12,300.00	90.00	176.27	7,557.22	-5,684.23	976.95	414,617.21	632,485.43	32.1395189	-104.0388502	5,735.74	0.00	0.00	0.00
12,400.00	90.00	176.27	7,557.22	-5,784.02	983.45	414,517.42	632,491.93	32.1392445	-104.0388301	5,835.74	0.00	0.00	0.00
12,500.00	90.00	176.27	7,557.21	-5,883.81	989.95	414,417.63	632,498.43	32.1389702	-104.0388100	5,935.74	0.00	0.00	0.00
12,600.00	90.00	176.27	7,557.21	-5,983.60	996.45	414,317.84	632,504.93	32.1386958	-104.0387898	6,035.74	0.00	0.00	0.00
12,700.00	90.00	176.27	7,557.20	-6,083.38	1,002.95	414,218.06	632,511.43	32.1384215	-104.0387697	6,135.74	0.00	0.00	0.00
12,800.00	90.00	176.27	7,557.20	-6,183.17	1,009.45	414,118.27	632,517.93	32.1381471	-104.0387496	6,235.74	0.00	0.00	0.00
12,900.00	90.00	176.27	7,557.20	-6,282.96	1,015.95	414,018.48	632,524.43	32.1378727	-104.0387295	6,335.74	0.00	0.00	0.00
13,000.00	90.00	176.27	7,557.19	-6,382.75	1,022.45	413,918.69	632,530.93	32.1375984	-104.0387094	6,435.74	0.00	0.00	0.00
13,100.00	90.00	176.27	7,557.19	-6,482.54	1,028.95	413,818.90	632,537.43	32.1373240	-104.0386892	6,535.74	0.00	0.00	0.00
13,200.00	90.00	176.27	7,557.19	-6,582.33	1,035.45	413,719.11	632,543.93	32.1370497	-104.0386691	6,635.74	0.00	0.00	0.00
13,300.00	90.00	176.27	7,557.18	-6,682.12	1,041.95	413,619.32	632,550.43	32.1367753	-104.0386490	6,735.74	0.00	0.00	0.00
13,400.00	90.00	176.27	7,557.18	-6,781.90	1,048.45	413,519.54	632,556.93	32.1365010	-104.0386289	6,835.74	0.00	0.00	0.00
13,500.00	90.00	176.27	7,557.18	-6,881.69	1,054.95	413,419.75	632,563.43	32.1362266	-104.0386088	6,935.74	0.00	0.00	0.00
13,600.00	90.00	176.27	7,557.17	-6,981.48	1,061.45	413,319.96	632,569.93	32.1359522	-104.0385886	7,035.74	0.00	0.00	0.00
13,700.00	90.00	176.27	7,557.17	-7,081.27	1,067.95	413,220.17	632,576.43	32.1356779	-104.0385685	7,135.74	0.00	0.00	0.00
13,800.00	90.00	176.27	7,557.16	-7,181.06	1,074.45	413,120.38	632,582.93	32.1354035	-104.0385484	7,235.74	0.00	0.00	0.00
13,900.00	90.00	176.27	7,557.16	-7,280.85	1,080.95	413,020.59	632,589.43	32.1351292	-104.0385283	7,335.74	0.00	0.00	0.00
14,000.00	90.00	176.27	7,557.16	-7,380.63	1,087.45	412,920.81	632,595.93	32.1348548	-104.0385082	7,435.74	0.00	0.00	0.00
14,100.00	90.00	176.27	7,557.15	-7,480.42	1,093.95	412,821.02	632,602.43	32.1345804	-104.0384881	7,535.74	0.00	0.00	0.00
14,200.00	90.00	176.27	7,557.15	-7,580.21	1,100.46	412,721.23	632,608.94	32.1343061	-104.0384679	7,635.74	0.00	0.00	0.00
14,300.00	90.00	176.27	7,557.15	-7,680.00	1,106.96	412,621.44	632,615.44	32.1340317	-104.0384478	7,735.74	0.00	0.00	0.00
14,400.00	90.00	176.27	7,557.14	-7,779.79	1,113.46	412,521.65	632,621.94	32.1337574	-104.0384277	7,835.74	0.00	0.00	0.00
14,500.00	90.00	176.27	7,557.14	-7,879.58	1,119.96	412,421.86	632,628.44	32.1334830	-104.0384076	7,935.74	0.00	0.00	0.00
14,600.00	90.00	176.27	7,557.14	-7,979.37	1,126.46	412,322.07	632,634.94	32.1332086	-104.0383875	8,035.74	0.00	0.00	0.00
14,700.00	90.00	176.27	7,557.13	-8,079.15	1,132.96	412,222.29	632,641.44	32.1329343	-104.0383674	8,135.74	0.00	0.00	0.00
14,800.00	90.00	176.27	7,557.13	-8,178.94	1,139.46	412,122.50	632,647.94	32.1326599	-104.0383472	8,235.74	0.00	0.00	0.00
14,900.00	90.00	176.27	7,557.12	-8,278.73	1,145.96	412,022.71	632,654.44	32.1323856	-104.0383271	8,335.74	0.00	0.00	0.00
15,000.00	90.00	176.27	7,557.12	-8,378.52	1,152.46	411,922.92	632,660.94	32.1321112	-104.0383070	8,435.74	0.00	0.00	0.00
15,100.00	90.00	176.27	7,557.12	-8,478.31	1,158.96	411,823.13	632,667.44	32.1318369	-104.0382869	8,535.74	0.00	0.00	0.00
15,200.00	90.00	176.27	7,557.11	-8,578.10	1,165.46	411,723.34	632,673.94	32.1315625	-104.0382668	8,635.74	0.00	0.00	0.00
15,300.00	90.00	176.27	7,557.11	-8,677.89	1,171.96	411,623.55	632,680.44	32.1312881	-104.0382467	8,735.74	0.00	0.00	0.00
15,400.00	90.00	176.27	7,557.11	-8,777.67	1,178.46	411,523.77	632,686.94	32.1310138	-104.0382265	8,835.74	0.00	0.00	0.00
15,500.00	90.00	176.27	7,557.10	-8,877.46	1,184.96	411,423.98	632,693.44	32.1307394	-104.0382064	8,935.74	0.00	0.00	0.00
15,600.00	90.00	176.27	7,557.10	-8,977.25	1,191.46	411,324.19	632,699.94	32.1304651	-104.0381863	9,035.74	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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)
15,700.00	90.00	176.27	7,557.10	-9,077.04	1,197.96	411,224.40	632,706.44	32.1301907	-104.0381662	9,135.74	0.00	0.00	0.00
15,800.00	90.00	176.27	7,557.09	-9,176.83	1,204.46	411,124.61	632,712.94	32.1299163	-104.0381461	9,235.74	0.00	0.00	0.00
15,900.00	90.00	176.27	7,557.09	-9,276.62	1,210.96	411,024.82	632,719.44	32.1296420	-104.0381260	9,335.74	0.00	0.00	0.00
16,000.00	90.00	176.27	7,557.08	-9,376.41	1,217.46	410,925.04	632,725.94	32.1293676	-104.0381058	9,435.74	0.00	0.00	0.00
16,100.00	90.00	176.27	7,557.08	-9,476.19	1,223.96	410,825.25	632,732.44	32.1290933	-104.0380857	9,535.74	0.00	0.00	0.00
16,200.00	90.00	176.27	7,557.08	-9,575.98	1,230.46	410,725.46	632,738.94	32.1288189	-104.0380656	9,635.74	0.00	0.00	0.00
16,300.00	90.00	176.27	7,557.07	-9,675.77	1,236.96	410,625.67	632,745.44	32.1285446	-104.0380455	9,735.74	0.00	0.00	0.00
16,400.00	90.00	176.27	7,557.07	-9,775.56	1,243.46	410,525.88	632,751.94	32.1282702	-104.0380254	9,835.74	0.00	0.00	0.00
16,500.00	90.00	176.27	7,557.07	-9,875.35	1,249.96	410,426.09	632,758.44	32.1279958	-104.0380053	9,935.74	0.00	0.00	0.00
16,600.00	90.00	176.27	7,557.06	-9,975.14	1,256.46	410,326.30	632,764.94	32.1277215	-104.0379851	10,035.74	0.00	0.00	0.00
16,700.00	90.00	176.27	7,557.06	-10,074.92	1,262.96	410,226.52	632,771.44	32.1274471	-104.0379650	10,135.74	0.00	0.00	0.00
16,800.00	90.00	176.27	7,557.06	-10,174.71	1,269.46	410,126.73	632,777.94	32.1271728	-104.0379449	10,235.74	0.00	0.00	0.00
16,900.00	90.00	176.27	7,557.05	-10,274.50	1,275.96	410,026.94	632,784.44	32.1268984	-104.0379248	10,335.74	0.00	0.00	0.00
17,000.00	90.00	176.27	7,557.05	-10,374.29	1,282.46	409,927.15	632,790.94	32.1266240	-104.0379047	10,435.74	0.00	0.00	0.00
17,100.00	90.00	176.27	7,557.04	-10,474.08	1,288.97	409,827.36	632,797.45	32.1263497	-104.0378846	10,535.74	0.00	0.00	0.00
17,200.00	90.00	176.27	7,557.04	-10,573.87	1,295.47	409,727.57	632,803.95	32.1260753	-104.0378645	10,635.74	0.00	0.00	0.00
17,300.00	90.00	176.27	7,557.04	-10,673.66	1,301.97	409,627.78	632,810.45	32.1258010	-104.0378443	10,735.74	0.00	0.00	0.00
17,400.00	90.00	176.27	7,557.03	-10,773.44	1,308.47	409,528.00	632,816.95	32.1255266	-104.0378242	10,835.74	0.00	0.00	0.00
17,500.00	90.00	176.27	7,557.03	-10,873.23	1,314.97	409,428.21	632,823.45	32.1252522	-104.0378041	10,935.74	0.00	0.00	0.00
17,600.00	90.00	176.27	7,557.03	-10,973.02	1,321.47	409,328.42	632,829.95	32.1249779	-104.0377840	11,035.74	0.00	0.00	0.00
17,700.00	90.00	176.27	7,557.02	-11,072.81	1,327.97	409,228.63	632,836.45	32.1247035	-104.0377639	11,135.74	0.00	0.00	0.00
17,800.00	90.00	176.27	7,557.02	-11,172.60	1,334.47	409,128.84	632,842.95	32.1244292	-104.0377438	11,235.74	0.00	0.00	0.00
17,900.00	90.00	176.27	7,557.02	-11,272.39	1,340.97	409,029.05	632,849.45	32.1241548	-104.0377237	11,335.74	0.00	0.00	0.00
18,000.00	90.00	176.27	7,557.01	-11,372.18	1,347.47	408,929.27	632,855.95	32.1238805	-104.0377036	11,435.74	0.00	0.00	0.00
18,100.00	90.00	176.27	7,557.01	-11,471.96	1,353.97	408,829.48	632,862.45	32.1236061	-104.0376834	11,535.74	0.00	0.00	0.00
18,200.00	90.00	176.27	7,557.00	-11,571.75	1,360.47	408,729.69	632,868.95	32.1233317	-104.0376633	11,635.74	0.00	0.00	0.00
18,300.00	90.00	176.27	7,557.00	-11,671.54	1,366.97	408,629.90	632,875.45	32.1230574	-104.0376432	11,735.74	0.00	0.00	0.00
18,318.93	90.00	176.27	7,557.00	-11,690.43	1,368.20	408,611.01	632,876.68	32.1230054	-104.0376394	11,754.67	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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	-11,690.43	1,368.20	408,611.01	632,876.68	32.1230054	-104.0376394
- plan misses target center by 7557.00usft at 18318.93usft MD (7557.00 TVD, -11690.43 N, 1368.20 E)									
- Point									
FTP (Riverbend 12-13 F	0.00	0.00	0.00	-1,258.41	688.98	419,043.03	632,197.46	32.1516872	-104.0397416
- plan misses target center by 1434.67usft 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			
1,952.00	1,952.00	Top Salt			
2,685.46	2,679.00	Base Salt/Lamar			
2,815.74	2,806.00	Top Delaware Sands/Bell Canyon			
3,649.79	3,619.00	Cherry Canyon			
4,878.80	4,817.00	Brushy Canyon			
5,852.37	5,766.00	Lower Brushy Canyon			
6,513.74	6,411.00	Bone Spring Lime			
7,510.33	7,361.00	1st Bone Spring Sand			
8,122.39	7,557.00	1st Bone Spring Sand LZ			

Checked By: _____ Approved By: _____ Date: _____

1. Geological Formations

TVD of target 7,557
MD at TD 18,319

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	
1st Bone Spirng Sand - Target	7557	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	2497	9-5/8"	36.00	J-55	LT&C	1.56	2.71	5.04
8 3/4	0	7066								
8 3/4	7066	8153	7557	7"	26.00	P-110	BT&C	1.67	2.67	65.02
6	7066	18319	7557	4-1/2"	11.60	HCP-110	BT&C	1.95	2.37	64.44
					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	297	10.30	3.64	22.18	12	Lead: Tuned Light + LCM
	181	14.80	1.36	6.57	9.5	Tail: Class C + Retarder
Completion System	816	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	7200	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 8153'	Cut Brine or OBM	9.00 - 9.50	27-70	N/C
8153' to 18319'	OBM	11.00 - 11.50	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	4519 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 4H

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 4H
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 4H	**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 4H						
Well Position	**+N/-S**	0.00 usft	**Northing:**	420,301.44 usft	**Latitude:**	32.1551516	
	+E/-W	0.00 usft	**Easting:**	631,508.48 usft	**Longitude:**	-104.0419568	
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	18,318.93	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 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
Riverbend 12-13 Federal Com 8H -	2,934.00	2,957.00	420,300.68	631,548.47	32.1551492	-104.0418276	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 4H
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 4H	**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	2,570.52	2,567.36	114.83	97.13	6.49	CC
Riverbend 12-13 Fed Com 19H - OH - Svy	2,600.00	2,596.51	114.93	97.04	6.42	ES
Riverbend 12-13 Fed Com 19H - OH - Svy	7,150.00	7,146.94	186.51	135.20	3.63	SF
Riverbend 12-13 Fed Com 1H - OH - Svy	769.18	770.40	147.04	141.96	28.94	CC
Riverbend 12-13 Fed Com 1H - OH - Svy	800.00	800.25	147.14	141.85	27.82	ES
Riverbend 12-13 Fed Com 1H - OH - Svy	7,100.00	7,087.63	355.53	304.07	6.91	SF
Riverbend 12-13 Fed Com 20H - OH - Svy	1,677.30	1,678.91	92.82	81.38	8.12	CC
Riverbend 12-13 Fed Com 20H - OH - Svy	7,188.91	7,205.71	109.65	58.29	2.13	ES
Riverbend 12-13 Fed Com 20H - OH - Svy	7,200.00	7,216.25	109.77	58.33	2.13	SF
Riverbend 12-13 Fed Com 29H - OH - Svy	780.57	783.80	950.74	945.70	188.70	CC
Riverbend 12-13 Fed Com 29H - OH - Svy	2,100.10	2,129.57	956.61	942.19	66.34	ES
Riverbend 12-13 Fed Com 29H - OH - Svy	18,300.00	21,947.00	3,599.55	3,398.30	17.89	SF
Riverbend 12-13 Fed Com 2H - OH - Svy	1,912.80	1,914.01	145.13	132.00	11.05	CC, ES
Riverbend 12-13 Fed Com 2H - OH - Svy	7,150.00	7,146.21	282.14	230.87	5.50	SF
Riverbend 12-13 Fed Com 2H - ST01 - ST01 Svy	1,912.80	1,914.01	145.13	132.00	11.05	CC, ES
Riverbend 12-13 Fed Com 2H - ST01 - ST01 Svy	7,150.00	7,146.21	282.14	230.87	5.50	SF
Riverbend 12-13 Fed Com 30H - OH - Svy	0.00	0.00	975.19			
Riverbend 12-13 Fed Com 30H - OH - Svy	1,500.00	1,502.00	976.57	966.42	96.22	ES
Riverbend 12-13 Fed Com 31H - OH - Svy	2,249.52	2,322.62	969.33	953.54	61.39	CC
Riverbend 12-13 Fed Com 31H - OH - Svy	2,300.00	2,384.27	969.40	953.23	59.95	ES
Riverbend 12-13 Fed Com 31H - OH - Svy	18,200.00	21,398.00	2,953.31	2,733.40	13.43	SF
Riverbend 12-13 Federal Com						
Riverbend 12-13 Federal Com 3H - OH - Plan 1	2,160.38	2,161.58	34.61	19.41	2.28	CC
Riverbend 12-13 Federal Com 3H - OH - Plan 1	2,200.00	2,201.12	34.75	19.29	2.25	ES, SF
Riverbend 12-13 Federal Com 5H - OH - Plan 1	1,202.85	1,203.02	18.65	10.24	2.22	CC, ES, SF
Riverbend 12-13 Federal Com 6H - OH - Plan 1	1,400.00	1,400.00	20.00	10.13	2.03	CC, ES, SF
Riverbend 12-13 Federal Com 7H - OH - Plan 1	1,000.00	1,000.00	59.99	52.99	8.56	CC, ES
Riverbend 12-13 Federal Com 7H - OH - Plan 1	18,318.93	18,899.23	1,312.03	1,123.31	6.95	SF
Riverbend 12-13 Federal Com 8H - OH - Plan 1	1,200.00	1,200.00	40.00	31.56	4.74	CC, ES
Riverbend 12-13 Federal Com 8H - OH - Plan 1	1,300.00	1,298.75	41.51	32.38	4.54	SF
Riverbend 12-13 Offsets						
Malaga 13 DM Fed Com 1H - OH - Svy	12,674.44	7,527.49	2,168.15	2,087.55	26.90	CC, ES
Malaga 13 DM Fed Com 1H - OH - Svy	18,300.00	13,305.00	3,405.29	3,222.68	18.65	SF
Whistle Pig 1 SB Fee 5H - OH - Svy	7,999.92	13,295.00	1,599.01	1,506.15	17.22	CC, ES, SF
Whistle Pig 1 WA Fee 4 - OH - Svy	7,972.58	14,593.00	2,616.69	2,549.83	39.14	CC, ES
Whistle Pig 1 WA Fee 4 - OH - Svy	8,100.00	14,593.00	2,626.83	2,559.60	39.07	SF
Whistle Pig 1 WXY Fee 9H - OH - Svy	8,008.97	14,503.00	3,040.43	2,960.16	37.88	CC, ES
Whistle Pig 1 WXY Fee 9H - OH - Svy	8,100.00	14,503.00	3,045.27	2,964.70	37.80	SF

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	0.71	0.71	0.00	0.50	64.53	57.69	121.10	134.14				
100.00	100.00	101.60	101.60	0.28	0.53	64.58	57.43	120.85	133.80	133.00	0.80	166.862	
200.00	200.00	202.46	202.46	0.63	0.60	64.75	56.65	120.09	132.80	131.56	1.23	107.770	
300.00	300.00	302.54	302.52	0.99	0.85	64.91	55.72	119.03	131.44	129.60	1.84	71.372	
400.00	400.00	402.07	402.05	1.35	1.16	65.00	55.04	118.01	130.22	127.71	2.51	51.935	

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 4H
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 4H	**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
500.00	500.00	501.66	501.63	1.71	1.49	65.07	54.56	117.35	129.42	126.22	3.20	40.500	
600.00	600.00	601.91	601.88	2.07	1.83	65.30	53.73	116.83	128.60	124.71	3.90	33.012	
700.00	700.00	702.19	702.14	2.43	2.17	65.91	52.07	116.45	127.57	122.97	4.60	27.733	
800.00	800.00	802.26	802.19	2.79	2.52	66.58	50.22	115.96	126.38	121.07	5.31	23.811	
900.00	900.00	902.66	902.58	3.14	2.88	67.20	48.49	115.34	125.13	119.11	6.02	20.788	
1,000.00	1,000.00	1,003.43	1,003.31	3.50	3.23	68.00	46.19	114.31	123.31	116.58	6.73	18.312	
1,100.00	1,100.00	1,103.65	1,103.46	3.86	3.59	69.47	42.44	113.33	121.05	113.60	7.45	16.252	
1,200.00	1,200.00	1,202.98	1,202.70	4.22	3.94	71.22	38.31	112.66	119.01	110.85	8.16	14.584	
1,292.53	1,292.53	1,293.54	1,293.23	4.55	4.26	72.27	35.98	112.51	118.13	109.32	8.81	13.406	
1,300.00	1,300.00	1,300.83	1,300.51	4.58	4.29	72.34	35.84	112.56	118.13	109.27	8.86	13.328	
1,400.00	1,400.00	1,399.85	1,399.52	4.94	4.63	73.30	34.14	113.80	118.82	109.25	9.57	12.421	
1,500.00	1,500.00	1,500.42	1,500.06	5.29	4.98	74.43	32.11	115.26	119.65	109.37	10.28	11.643	
1,600.00	1,600.00	1,601.03	1,600.64	5.65	5.34	75.52	29.98	116.13	119.94	108.95	10.99	10.913	
1,700.00	1,700.00	1,700.72	1,700.30	6.01	5.69	76.58	27.88	116.82	120.10	108.39	11.70	10.263	
1,800.00	1,800.00	1,799.44	1,799.00	6.37	6.04	77.32	26.55	118.03	120.99	108.59	12.40	9.754	
1,900.00	1,900.00	1,898.72	1,898.26	6.73	6.38	77.69	26.16	119.82	122.67	109.57	13.10	9.363	
2,000.00	2,000.00	1,997.74	1,997.26	7.09	6.71	77.94	26.11	122.25	125.05	111.26	13.80	9.065	
2,100.00	2,099.98	2,098.18	2,097.64	7.43	7.06	-66.30	25.53	125.39	127.29	112.80	14.48	8.788	
2,200.00	2,199.84	2,202.09	2,201.55	7.76	7.42	-68.36	25.22	126.34	126.09	110.92	15.17	8.309	
2,300.00	2,299.45	2,302.62	2,302.05	8.09	7.77	-72.02	24.20	124.65	121.22	105.37	15.85	7.646	
2,400.00	2,398.70	2,399.54	2,398.95	8.42	8.12	-76.45	21.85	125.00	117.39	100.86	16.53	7.102	
2,500.00	2,497.47	2,497.74	2,497.08	8.76	8.46	-82.27	19.15	127.22	115.35	98.14	17.21	6.702	
2,570.52	2,566.76	2,567.36	2,566.68	9.00	8.71	-88.03	18.29	128.43	114.83	97.13	17.69	6.489	CC
2,600.00	2,595.62	2,596.51	2,595.83	9.10	8.81	-90.76	18.02	128.82	114.93	97.04	17.90	6.422	ES
2,644.93	2,639.49	2,641.68	2,640.99	9.25	8.97	-95.39	17.65	129.03	115.39	97.19	18.21	6.338	
2,700.00	2,693.18	2,696.64	2,695.95	9.44	9.16	-101.50	17.32	128.36	116.52	97.94	18.59	6.270	
2,800.00	2,790.65	2,796.50	2,795.76	9.78	9.51	-112.66	16.31	125.40	120.60	101.32	19.27	6.257	
2,900.00	2,888.13	2,898.76	2,897.87	10.13	9.87	-121.84	11.26	123.55	125.73	105.77	19.96	6.299	
3,000.00	2,985.61	3,002.03	3,000.62	10.48	10.24	-128.68	1.15	124.01	129.61	108.98	20.63	6.282	
3,100.00	3,083.08	3,106.49	3,103.91	10.83	10.62	-133.25	-13.87	127.98	131.18	109.90	21.28	6.166	
3,200.00	3,180.56	3,207.89	3,203.42	11.19	10.99	-135.82	-31.85	135.41	130.60	108.65	21.95	5.949	
3,300.00	3,278.04	3,307.61	3,300.72	11.55	11.35	-136.55	-50.50	146.70	129.75	107.08	22.67	5.723	
3,400.00	3,375.51	3,407.89	3,398.08	11.91	11.71	-135.88	-69.66	161.18	128.90	105.51	23.39	5.511	
3,500.00	3,472.99	3,507.50	3,494.56	12.27	12.07	-134.73	-89.09	176.54	127.79	103.67	24.12	5.297	
3,516.99	3,489.56	3,523.69	3,510.27	12.33	12.13	-134.57	-92.12	179.01	127.74	103.48	24.26	5.265	
3,600.00	3,570.47	3,603.38	3,587.94	12.64	12.42	-134.09	-105.53	190.70	128.98	104.07	24.91	5.179	
3,700.00	3,667.94	3,702.48	3,684.83	13.00	12.78	-133.74	-120.65	205.00	132.02	106.37	25.64	5.148	
3,800.00	3,765.42	3,802.67	3,782.81	13.37	13.14	-133.45	-135.88	219.34	135.09	108.72	26.37	5.123	
3,900.00	3,862.90	3,902.39	3,880.60	13.74	13.51	-133.80	-150.66	232.20	138.30	111.20	27.10	5.103	
4,000.00	3,960.37	4,002.63	3,978.93	14.11	13.88	-134.29	-165.54	244.73	141.44	113.61	27.83	5.081	
4,100.00	4,057.85	4,102.84	4,077.21	14.48	14.25	-134.77	-180.61	257.19	144.38	115.81	28.57	5.054	
4,200.00	4,155.33	4,203.15	4,175.61	14.86	14.62	-135.34	-195.83	269.37	147.15	117.85	29.30	5.022	
4,300.00	4,252.80	4,303.28	4,273.80	15.23	14.99	-135.90	-211.26	281.45	149.69	119.65	30.04	4.983	
4,400.00	4,350.28	4,403.53	4,372.09	15.61	15.36	-136.41	-226.79	293.61	152.16	121.39	30.77	4.945	
4,500.00	4,447.76	4,504.16	4,470.69	15.98	15.74	-136.86	-242.72	305.91	154.32	122.81	31.51	4.898	
4,600.00	4,545.23	4,605.10	4,569.40	16.36	16.12	-137.01	-259.32	318.95	155.96	123.71	32.25	4.836	
4,700.00	4,642.71	4,703.57	4,665.66	16.74	16.49	-137.05	-275.49	331.93	157.63	124.63	33.01	4.776	
4,800.00	4,740.19	4,803.03	4,763.06	17.11	16.86	-137.25	-290.99	344.74	160.13	126.37	33.76	4.743	
4,900.00	4,837.66	4,902.00	4,860.16	17.49	17.23	-137.66	-305.76	356.93	163.22	128.71	34.51	4.730	
5,000.00	4,935.14	5,000.89	4,957.40	17.87	17.60	-138.41	-319.80	368.17	166.97	131.71	35.26	4.735	
5,100.00	5,032.62	5,100.54	5,055.48	18.25	17.98	-139.30	-333.72	379.02	170.94	134.93	36.01	4.748	
5,200.00	5,130.09	5,200.42	5,153.82	18.64	18.35	-140.26	-347.66	389.54	174.93	138.18	36.75	4.760	

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 4H
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 4H	**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
5,300.00	5,227.57	5,298.89	5,250.92	19.02	18.72	-141.38	-360.78	399.33	179.58	142.09	37.50	4.789	
5,400.00	5,325.05	5,400.48	5,351.01	19.40	19.10	-142.30	-374.54	409.94	184.10	145.86	38.24	4.814	
5,500.00	5,422.52	5,501.39	5,450.22	19.78	19.48	-142.98	-389.22	421.07	187.66	148.67	38.98	4.814	
5,600.00	5,520.00	5,600.78	5,548.02	20.16	19.85	-143.73	-403.44	431.71	191.47	151.74	39.73	4.819	
5,700.00	5,617.48	5,702.75	5,648.15	20.55	20.24	-144.13	-418.44	443.77	194.91	154.43	40.48	4.815	
5,800.00	5,714.95	5,804.85	5,748.04	20.93	20.63	-144.15	-434.80	457.07	196.99	155.77	41.22	4.779	
5,900.00	5,812.43	5,904.83	5,845.77	21.31	21.01	-144.13	-451.32	470.26	198.58	156.60	41.98	4.731	
6,000.00	5,909.91	6,003.53	5,942.35	21.70	21.38	-144.22	-467.26	482.86	200.54	157.80	42.74	4.692	
6,100.00	6,007.38	6,102.57	6,039.47	22.08	21.76	-144.54	-482.62	494.75	203.17	159.66	43.50	4.670	
6,200.00	6,104.86	6,201.40	6,136.50	22.47	22.13	-144.99	-497.57	506.08	206.20	161.94	44.26	4.658	
6,300.00	6,202.34	6,298.79	6,232.34	22.85	22.50	-145.66	-511.51	516.34	210.10	165.08	45.02	4.666	
6,400.00	6,299.81	6,399.28	6,331.36	23.24	22.88	-146.44	-525.22	526.52	214.74	168.96	45.78	4.691	
6,421.23	6,320.51	6,420.55	6,352.31	23.32	22.96	-146.56	-528.19	528.82	215.64	169.71	45.94	4.694	
6,500.00	6,397.52	6,497.43	6,428.02	23.62	23.25	-146.89	-538.61	537.05	218.46	171.93	46.53	4.695	
6,600.00	6,495.90	6,595.00	6,524.26	24.00	23.61	-146.87	-550.89	547.39	220.40	173.12	47.28	4.662	
6,700.00	6,594.84	6,695.46	6,623.41	24.37	23.99	-146.30	-563.05	558.09	219.92	171.89	48.02	4.580	
6,800.00	6,694.23	6,797.29	6,723.86	24.74	24.37	-145.21	-576.00	568.75	215.96	167.20	48.76	4.429	
6,900.00	6,793.94	6,898.54	6,823.66	25.09	24.76	-143.66	-589.89	578.62	208.26	158.77	49.49	4.208	
7,000.00	6,893.85	6,995.34	6,919.06	25.44	25.12	-141.24	-602.79	588.73	198.38	148.15	50.22	3.950	
7,066.16	6,960.00	7,060.56	6,983.30	25.67	25.37	5.21	-611.18	596.21	190.95	140.25	50.70	3.766	
7,100.00	6,993.82	7,094.95	7,017.15	25.78	25.50	-162.09	-615.65	600.33	187.89	136.95	50.95	3.688	
7,143.76	7,037.37	7,140.45	7,061.82	25.94	25.67	-160.55	-622.03	606.17	186.48	135.21	51.27	3.637	
7,150.00	7,043.55	7,146.94	7,068.17	25.96	25.69	-160.33	-622.98	607.04	186.51	135.20	51.32	3.635	SF
7,200.00	7,092.63	7,196.18	7,116.39	26.14	25.88	-158.84	-630.36	613.77	188.99	137.29	51.70	3.656	
7,250.00	7,140.71	7,243.25	7,162.62	26.34	26.06	-157.88	-636.87	619.81	196.10	144.02	52.08	3.765	
7,300.00	7,187.41	7,290.25	7,208.91	26.53	26.24	-157.39	-642.77	625.38	207.73	155.27	52.46	3.960	
7,350.00	7,232.38	7,336.55	7,254.60	26.73	26.41	-157.26	-648.26	630.52	223.51	170.69	52.82	4.231	
7,400.00	7,275.27	7,387.09	7,304.48	26.93	26.60	-157.46	-654.33	635.92	243.01	189.82	53.19	4.569	
7,450.00	7,315.77	7,442.12	7,358.44	27.13	26.81	-157.74	-662.93	642.40	264.65	211.13	53.52	4.945	
7,500.00	7,353.56	7,490.19	7,405.27	27.34	27.00	-157.84	-671.95	648.51	288.60	234.77	53.83	5.361	
7,550.00	7,388.35	7,535.12	7,448.91	27.54	27.17	-157.90	-680.89	654.28	315.63	261.49	54.14	5.830	
7,600.00	7,419.89	7,573.09	7,485.77	27.74	27.32	-157.72	-688.63	659.11	345.85	291.40	54.46	6.351	
7,650.00	7,447.92	7,606.31	7,518.11	27.94	27.45	-157.33	-695.13	663.04	379.60	324.85	54.75	6.933	
7,700.00	7,472.24	7,640.00	7,551.00	28.14	27.58	-156.84	-701.42	666.72	416.62	361.62	55.01	7.574	
7,750.00	7,492.67	7,662.21	7,572.73	28.33	27.66	-155.48	-705.41	668.97	456.52	401.28	55.25	8.263	
7,800.00	7,509.03	7,684.55	7,594.63	28.52	27.75	-153.64	-709.30	671.05	499.00	443.56	55.44	9.001	
7,816.16	7,513.43	7,690.92	7,600.89	28.58	27.77	-152.83	-710.39	671.62	513.20	457.71	55.50	9.248	
7,900.00	7,532.50	7,720.08	7,629.54	28.88	27.88	-156.12	-715.23	674.01	589.12	533.39	55.74	10.570	
8,000.00	7,548.24	7,750.75	7,659.73	29.24	28.00	-160.30	-720.14	676.27	683.19	627.22	55.97	12.207	
8,100.00	7,556.27	7,776.64	7,685.20	29.58	28.10	-165.63	-724.30	678.23	779.89	723.75	56.15	13.890	
8,153.26	7,557.37	7,787.20	7,695.60	29.76	28.14	-169.68	-726.01	679.06	832.18	775.96	56.22	14.802	
8,200.00	7,557.37	7,795.49	7,703.75	29.92	28.17	-170.02	-727.36	679.73	878.26	821.98	56.28	15.606	
8,300.00	7,557.36	7,813.43	7,721.38	30.26	28.24	-170.65	-730.28	681.19	976.82	920.42	56.40	17.320	
8,400.00	7,557.36	7,831.62	7,739.27	30.63	28.31	-171.14	-733.27	682.72	1,075.37	1,018.84	56.52	19.026	
8,500.00	7,557.36	7,843.20	7,750.65	31.00	28.35	-171.41	-735.15	683.72	1,173.95	1,117.33	56.62	20.734	
8,600.00	7,557.35	7,855.04	7,762.29	31.39	28.39	-171.64	-737.02	684.76	1,272.59	1,215.88	56.72	22.438	
8,700.00	7,557.35	7,866.37	7,773.44	31.79	28.44	-171.83	-738.77	685.77	1,371.30	1,314.49	56.81	24.137	
8,800.00	7,557.35	7,877.22	7,784.12	32.21	28.48	-172.00	-740.41	686.75	1,470.06	1,413.15	56.91	25.833	
8,900.00	7,557.34	7,887.63	7,794.37	32.64	28.52	-172.14	-741.95	687.70	1,568.87	1,511.88	57.00	27.526	
9,000.00	7,557.34	7,897.61	7,804.21	33.08	28.56	-172.26	-743.40	688.64	1,667.73	1,610.65	57.08	29.215	
9,100.00	7,557.34	7,923.00	7,829.23	33.54	28.65	-172.51	-746.92	691.06	1,766.75	1,709.50	57.25	30.858	
9,200.00	7,557.33	7,923.00	7,829.23	34.00	28.65	-172.51	-746.92	691.06	1,865.61	1,808.32	57.29	32.564	

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 4H
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 4H	**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
9,300.00	7,557.33	7,923.00	7,829.23	34.48	28.65	-172.51	-746.92	691.06	1,964.58	1,907.26	57.33	34.271	
9,400.00	7,557.32	7,936.03	7,842.08	34.96	28.70	-172.61	-748.67	692.34	2,063.60	2,006.17	57.43	35.931	
9,500.00	7,557.32	7,946.06	7,851.98	35.46	28.74	-172.68	-749.99	693.34	2,162.65	2,105.12	57.52	37.597	
9,600.00	7,557.32	7,955.85	7,861.63	35.97	28.78	-172.74	-751.26	694.34	2,261.72	2,204.10	57.61	39.258	
9,700.00	7,557.31	11,873.05	9,755.86	36.48	43.94	-166.46	-3,109.52	1,339.49	2,261.30	2,212.96	48.34	46.779	
9,800.00	7,557.31	11,953.18	9,755.24	37.00	44.30	-166.58	-3,189.65	1,339.67	2,259.14	2,209.58	49.56	45.587	
9,900.00	7,557.31	12,019.44	9,755.65	37.54	44.60	-166.68	-3,255.90	1,340.24	2,258.41	2,207.57	50.84	44.421	
9,901.56	7,557.31	12,020.66	9,755.66	37.54	44.61	-166.68	-3,257.12	1,340.25	2,258.41	2,207.55	50.86	44.403	
10,000.00	7,557.30	12,103.00	9,757.10	38.08	44.99	-166.79	-3,339.44	1,341.32	2,258.89	2,206.80	52.09	43.366	
10,100.00	7,557.30	12,239.48	9,758.23	38.63	45.63	-166.98	-3,475.90	1,343.06	2,258.41	2,205.22	53.19	42.460	
10,200.00	7,557.30	12,330.88	9,758.75	39.18	46.07	-167.10	-3,567.29	1,344.23	2,257.79	2,203.34	54.45	41.467	
10,298.15	7,557.29	12,417.82	9,759.42	39.73	46.50	-167.21	-3,654.22	1,345.34	2,257.40	2,201.69	55.71	40.522	
10,300.00	7,557.29	12,419.18	9,759.44	39.74	46.50	-167.22	-3,655.59	1,345.36	2,257.40	2,201.67	55.73	40.504	
10,400.00	7,557.29	12,504.19	9,760.88	40.31	46.93	-167.32	-3,740.56	1,346.82	2,257.96	2,200.92	57.04	39.584	
10,500.00	7,557.28	12,626.35	9,761.96	40.89	47.54	-167.45	-3,862.69	1,349.97	2,257.94	2,199.67	58.27	38.752	
10,600.00	7,557.28	12,728.95	9,763.10	41.47	48.06	-167.62	-3,965.27	1,349.93	2,257.61	2,198.05	59.56	37.907	
10,700.00	7,557.28	12,897.27	9,763.50	42.06	48.90	-168.15	-4,133.23	1,339.84	2,254.86	2,194.16	60.70	37.147	
10,800.00	7,557.27	12,960.21	9,763.65	42.66	49.22	-168.35	-4,196.04	1,335.72	2,252.39	2,190.28	62.11	36.264	
10,900.00	7,557.27	13,056.56	9,764.47	43.26	49.71	-168.64	-4,292.24	1,330.41	2,250.83	2,187.37	63.46	35.468	
11,000.00	7,557.27	13,159.71	9,764.84	43.86	50.24	-168.92	-4,395.30	1,326.18	2,249.11	2,184.30	64.81	34.705	
11,100.00	7,557.26	13,234.00	9,765.26	44.47	50.64	-169.08	-4,469.57	1,324.66	2,248.04	2,181.82	66.22	33.947	
11,157.55	7,557.26	13,281.23	9,765.77	44.83	50.89	-169.16	-4,516.80	1,324.39	2,247.89	2,180.86	67.03	33.535	
11,200.00	7,557.26	13,315.25	9,766.24	45.09	51.08	-169.22	-4,550.82	1,324.51	2,247.97	2,180.34	67.63	33.239	
11,300.00	7,557.26	13,414.20	9,767.65	45.71	51.62	-169.35	-4,649.75	1,325.95	2,248.44	2,179.43	69.01	32.580	
11,400.00	7,557.25	13,511.42	9,768.74	46.33	52.17	-169.44	-4,746.90	1,329.04	2,248.93	2,178.52	70.41	31.942	
11,500.00	7,557.25	13,607.00	9,769.71	46.96	52.71	-169.49	-4,842.38	1,333.38	2,249.58	2,177.77	71.81	31.327	
11,600.00	7,557.24	13,665.98	9,770.80	47.60	53.06	-169.51	-4,901.26	1,336.71	2,251.24	2,177.97	73.27	30.724	
11,700.00	7,557.24	13,835.47	9,773.88	48.24	54.04	-169.59	-5,070.47	1,344.76	2,253.02	2,178.43	74.59	30.207	
11,800.00	7,557.24	13,945.51	9,774.37	48.88	54.67	-169.77	-5,180.51	1,345.04	2,252.34	2,176.35	75.99	29.639	
11,900.00	7,557.23	14,029.75	9,774.60	49.52	55.16	-169.91	-5,264.75	1,345.11	2,251.53	2,174.09	77.44	29.074	
11,916.85	7,557.23	14,041.36	9,774.71	49.63	55.22	-169.92	-5,276.36	1,345.17	2,251.51	2,173.82	77.69	28.981	
12,000.00	7,557.23	14,126.71	9,775.87	50.17	55.72	-170.05	-5,361.70	1,345.78	2,251.80	2,172.92	78.88	28.548	
12,100.00	7,557.23	14,306.02	9,775.07	50.82	56.77	-170.39	-5,540.99	1,343.96	2,250.18	2,169.97	80.22	28.052	
12,200.00	7,557.22	14,411.16	9,771.98	51.48	57.39	-170.60	-5,646.07	1,341.96	2,245.85	2,164.19	81.66	27.503	
12,300.00	7,557.22	14,487.20	9,770.36	52.14	57.85	-170.71	-5,722.08	1,342.07	2,242.68	2,159.54	83.15	26.973	
12,400.00	7,557.22	14,574.74	9,769.04	52.80	58.38	-170.84	-5,809.62	1,342.43	2,240.22	2,155.60	84.62	26.474	
12,500.00	7,557.21	14,676.54	9,768.00	53.46	58.99	-170.99	-5,911.41	1,342.85	2,238.25	2,152.17	86.08	26.001	
12,600.00	7,557.21	14,793.33	9,765.98	54.13	59.70	-171.20	-6,028.17	1,341.90	2,235.37	2,147.84	87.53	25.538	
12,700.00	7,557.20	14,900.65	9,764.18	54.80	60.35	-171.45	-6,135.43	1,338.79	2,232.30	2,143.30	89.00	25.081	
12,800.00	7,557.20	14,994.58	9,762.49	55.48	60.92	-171.68	-6,229.30	1,335.65	2,229.07	2,138.57	90.50	24.631	
12,900.00	7,557.20	15,067.28	9,761.59	56.15	61.37	-171.84	-6,301.97	1,333.85	2,226.58	2,134.57	92.02	24.198	
13,000.00	7,557.19	15,150.03	9,761.29	56.83	61.88	-171.95	-6,384.71	1,334.73	2,225.41	2,131.90	93.52	23.797	
13,100.00	7,557.19	15,267.58	9,760.36	57.51	62.62	-172.06	-6,502.21	1,337.91	2,224.12	2,129.14	94.98	23.416	
13,200.00	7,557.19	15,351.25	9,759.57	58.19	63.15	-172.18	-6,585.87	1,338.77	2,222.48	2,125.99	96.49	23.033	
13,300.00	7,557.18	15,432.64	9,759.73	58.88	63.66	-172.28	-6,667.25	1,340.22	2,222.00	2,124.01	97.99	22.675	
13,400.00	7,557.18	15,535.67	9,760.00	59.57	64.32	-172.37	-6,770.23	1,343.37	2,221.81	2,122.33	99.48	22.333	
13,500.00	7,557.18	15,633.85	9,760.05	60.25	64.95	-172.46	-6,868.36	1,346.31	2,221.41	2,120.43	100.98	21.998	
13,600.00	7,557.17	15,754.13	9,760.11	60.95	65.72	-172.58	-6,988.60	1,349.43	2,221.00	2,118.53	102.47	21.675	
13,700.00	7,557.17	15,835.72	9,759.89	61.64	66.25	-172.68	-7,070.17	1,350.76	2,220.13	2,116.15	103.98	21.351	
13,732.49	7,557.17	15,861.00	9,759.99	61.86	66.41	-172.71	-7,095.45	1,351.35	2,220.09	2,115.61	104.47	21.250	
13,800.00	7,557.16	15,926.96	9,760.37	62.33	66.84	-172.78	-7,161.40	1,352.93	2,220.12	2,114.63	105.49	21.046	
13,900.00	7,557.16	16,027.25	9,761.00	63.03	67.49	-172.89	-7,261.66	1,355.01	2,220.20	2,113.20	107.00	20.749	

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 4H
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 4H	**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
14,000.00	7,557.16	16,121.72	9,761.68	63.73	68.10	-173.01	-7,356.11	1,356.81	2,220.36	2,111.85	108.51	20.462	
14,100.00	7,557.15	16,204.74	9,762.59	64.43	68.65	-173.09	-7,439.09	1,359.14	2,221.01	2,110.99	110.02	20.187	
14,200.00	7,557.15	16,325.53	9,764.25	65.13	69.44	-173.21	-7,559.83	1,362.38	2,221.99	2,110.45	111.54	19.921	
14,300.00	7,557.15	16,419.92	9,764.90	65.84	70.07	-173.31	-7,654.18	1,364.89	2,222.22	2,109.17	113.06	19.656	
14,400.00	7,557.14	16,502.95	9,765.86	66.54	70.62	-173.38	-7,737.16	1,367.61	2,223.01	2,108.44	114.57	19.403	
14,500.00	7,557.14	16,655.65	9,766.35	67.25	71.63	-173.57	-7,889.82	1,370.02	2,222.65	2,106.55	116.09	19.145	
14,600.00	7,557.14	16,786.93	9,764.90	67.96	72.49	-173.85	-8,021.05	1,367.56	2,220.59	2,102.97	117.62	18.880	
14,700.00	7,557.13	16,870.85	9,763.35	68.66	73.04	-174.07	-8,104.89	1,364.36	2,217.77	2,098.60	119.17	18.609	
14,800.00	7,557.13	16,947.70	9,763.17	69.38	73.55	-174.23	-8,181.71	1,362.81	2,216.63	2,095.90	120.72	18.361	
14,900.00	7,557.12	17,046.33	9,763.27	70.09	74.20	-174.42	-8,280.34	1,361.89	2,215.99	2,093.73	122.26	18.125	
15,000.00	7,557.12	17,163.84	9,762.89	70.80	74.98	-174.65	-8,397.85	1,360.81	2,214.98	2,091.17	123.81	17.890	
15,100.00	7,557.12	17,252.22	9,762.47	71.52	75.57	-174.85	-8,486.20	1,358.66	2,213.70	2,088.33	125.36	17.659	
15,200.00	7,557.11	17,356.89	9,762.43	72.23	76.26	-175.13	-8,590.79	1,354.69	2,212.75	2,085.83	126.92	17.434	
15,300.00	7,557.11	17,450.94	9,762.16	72.95	76.89	-175.34	-8,684.82	1,352.65	2,211.76	2,083.28	128.48	17.215	
15,400.00	7,557.11	17,550.00	9,761.85	73.67	77.56	-175.53	-8,783.87	1,351.44	2,210.83	2,080.80	130.03	17.002	
15,500.00	7,557.10	17,633.05	9,761.83	74.39	78.12	-175.67	-8,866.92	1,351.32	2,210.33	2,078.75	131.58	16.799	
15,600.00	7,557.10	17,751.46	9,761.91	75.11	78.92	-175.85	-8,985.33	1,352.28	2,209.98	2,076.85	133.13	16.600	
15,700.00	7,557.10	17,858.90	9,761.28	75.83	79.66	-176.03	-9,092.76	1,352.22	2,208.94	2,074.25	134.69	16.401	
15,800.00	7,557.09	17,962.81	9,760.54	76.55	80.36	-176.22	-9,196.67	1,351.78	2,207.76	2,071.51	136.24	16.205	
15,900.00	7,557.09	18,069.03	9,759.38	77.27	81.09	-176.40	-9,302.88	1,351.42	2,206.22	2,068.42	137.80	16.010	
16,000.00	7,557.08	18,219.38	9,756.47	78.00	82.12	-176.70	-9,453.19	1,349.60	2,203.99	2,064.65	139.34	15.817	
16,100.00	7,557.08	18,288.46	9,754.78	78.72	82.59	-176.85	-9,522.23	1,348.29	2,201.00	2,060.07	140.93	15.618	
16,200.00	7,557.08	18,378.79	9,753.22	79.45	83.21	-177.04	-9,612.54	1,346.78	2,198.83	2,056.33	142.50	15.430	
16,300.00	7,557.07	18,472.05	9,751.89	80.18	83.85	-177.23	-9,705.78	1,345.25	2,196.99	2,052.92	144.07	15.249	
16,400.00	7,557.07	18,568.34	9,750.71	80.90	84.51	-177.42	-9,802.05	1,344.17	2,195.41	2,049.77	145.64	15.074	
16,500.00	7,557.07	18,669.74	9,749.43	81.63	85.21	-177.57	-9,903.44	1,344.99	2,193.90	2,046.70	147.20	14.904	
16,600.00	7,557.06	18,759.40	9,748.35	82.36	85.84	-177.65	-9,993.04	1,347.83	2,192.56	2,043.81	148.75	14.740	
16,700.00	7,557.06	18,867.82	9,747.15	83.09	86.60	-177.73	-10,101.38	1,351.60	2,191.34	2,041.05	150.30	14.580	
16,800.00	7,557.06	18,969.76	9,745.73	83.82	87.31	-177.87	-10,203.30	1,352.76	2,189.75	2,037.89	151.86	14.420	
16,900.00	7,557.05	19,052.00	9,745.10	84.55	87.88	-177.98	-10,285.53	1,354.16	2,188.77	2,035.36	153.41	14.267	
17,000.00	7,557.05	19,146.49	9,744.84	85.29	88.55	-178.07	-10,379.98	1,356.65	2,188.36	2,033.39	154.96	14.122	
17,100.00	7,557.04	19,264.43	9,743.79	86.02	89.38	-178.21	-10,497.89	1,359.11	2,187.30	2,030.77	156.53	13.974	
17,200.00	7,557.04	19,360.58	9,742.83	86.75	90.05	-178.31	-10,594.02	1,361.26	2,186.17	2,028.08	158.09	13.829	
17,300.00	7,557.04	19,460.01	9,741.76	87.49	90.75	-178.43	-10,693.41	1,363.29	2,184.97	2,025.32	159.65	13.686	
17,400.00	7,557.03	19,558.25	9,740.97	88.22	91.45	-178.51	-10,791.60	1,366.41	2,184.08	2,022.87	161.21	13.548	
17,500.00	7,557.03	19,659.47	9,739.89	88.96	92.16	-178.63	-10,892.79	1,368.53	2,182.90	2,020.13	162.77	13.411	
17,600.00	7,557.03	19,757.86	9,739.14	89.70	92.85	-178.80	-10,991.18	1,368.52	2,181.99	2,017.65	164.34	13.277	
17,700.00	7,557.02	19,859.50	9,738.24	90.43	93.57	-179.01	-11,092.80	1,366.90	2,180.96	2,015.03	165.93	13.144	
17,800.00	7,557.02	19,954.97	9,737.46	91.17	94.24	-179.22	-11,188.25	1,365.15	2,180.02	2,012.50	167.51	13.014	
17,900.00	7,557.02	20,071.01	9,736.36	91.91	95.05	-179.47	-11,304.27	1,363.09	2,178.99	2,009.88	169.11	12.885	
18,000.00	7,557.01	20,147.39	9,735.64	92.65	95.59	-179.65	-11,380.62	1,361.48	2,177.99	2,007.31	170.69	12.760	
18,034.93	7,557.01	20,172.31	9,735.60	92.91	95.76	-179.70	-11,405.55	1,361.05	2,177.92	2,006.69	171.23	12.719	
18,100.00	7,557.01	20,225.53	9,735.88	93.39	96.14	-179.81	-11,458.75	1,360.22	2,178.22	2,005.98	172.24	12.646	
18,200.00	7,557.00	20,227.00	9,735.89	94.13	96.15	-179.82	-11,460.22	1,360.20	2,181.04	2,007.53	173.51	12.570	
18,300.00	7,557.00	20,227.00	9,735.89	94.87	96.15	-179.82	-11,460.22	1,360.20	2,188.42	2,013.95	174.47	12.543	
18,318.93	7,557.00	20,227.00	9,735.89	95.01	96.15	-179.82	-11,460.22	1,360.20	2,190.33	2,015.72	174.62	12.544	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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 **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	0.61	0.61	0.00	0.50	70.54	56.92	161.08	170.84				
100.00	100.00	101.47	101.47	0.28	0.53	70.64	56.56	160.93	170.58	169.78	0.80	212.794	
200.00	200.00	202.58	202.58	0.63	0.60	70.93	55.48	160.49	169.82	168.59	1.23	137.781	
300.00	300.00	312.72	312.54	0.99	0.89	71.83	51.39	156.57	165.22	163.33	1.89	87.513	
400.00	400.00	408.71	408.32	1.35	1.19	72.69	47.32	151.84	159.23	156.69	2.54	62.730	
500.00	500.00	507.09	506.62	1.71	1.51	73.10	45.05	148.29	155.10	151.88	3.22	48.150	
600.00	600.00	607.07	606.52	2.07	1.85	73.08	43.94	144.44	151.09	147.18	3.92	38.554	
700.00	700.00	704.39	703.77	2.43	2.19	72.83	43.59	141.11	147.73	143.12	4.61	32.044	
769.18	769.18	770.40	769.78	2.67	2.41	72.67	43.79	140.37	147.04	141.96	5.08	28.942	CC
800.00	800.00	800.25	799.63	2.79	2.51	72.65	43.88	140.44	147.14	141.85	5.29	27.820	ES
900.00	900.00	897.67	897.03	3.14	2.83	72.81	43.95	142.08	148.76	142.80	5.97	24.938	
1,000.00	1,000.00	997.58	996.90	3.50	3.16	73.16	43.87	144.93	151.47	144.82	6.65	22.763	
1,100.00	1,100.00	1,098.96	1,098.26	3.86	3.50	73.59	43.34	147.18	153.44	146.09	7.36	20.858	
1,200.00	1,200.00	1,197.91	1,197.19	4.22	3.84	73.73	43.43	148.82	155.07	147.02	8.05	19.262	
1,300.00	1,300.00	1,295.63	1,294.87	4.58	4.17	73.46	44.95	151.34	157.98	149.24	8.74	18.076	
1,400.00	1,400.00	1,394.93	1,394.08	4.94	4.51	73.03	47.23	154.75	161.93	152.49	9.44	17.158	
1,500.00	1,500.00	1,494.71	1,493.78	5.29	4.85	72.69	49.36	158.34	165.99	155.86	10.14	16.370	
1,600.00	1,600.00	1,594.70	1,593.67	5.65	5.20	72.26	51.77	161.88	170.09	159.25	10.85	15.683	
1,700.00	1,700.00	1,694.00	1,692.87	6.01	5.55	71.69	54.72	165.39	174.38	162.84	11.55	15.100	
1,800.00	1,800.00	1,794.15	1,792.89	6.37	5.90	70.98	58.23	168.88	178.81	166.55	12.26	14.588	
1,900.00	1,900.00	1,894.14	1,892.77	6.73	6.25	70.20	61.93	172.02	183.00	170.03	12.97	14.113	
2,000.00	2,000.00	1,990.91	1,989.40	7.09	6.59	69.65	65.30	176.03	188.09	174.43	13.66	13.773	
2,100.00	2,099.98	2,087.37	2,085.62	7.43	6.93	-74.74	67.40	182.40	194.57	180.24	14.32	13.583	
2,200.00	2,199.84	2,186.12	2,184.04	7.76	7.28	-75.56	68.58	190.31	201.14	186.15	15.00	13.413	
2,300.00	2,299.45	2,284.15	2,281.67	8.09	7.63	-76.85	68.71	199.23	207.56	191.89	15.67	13.249	
2,400.00	2,398.70	2,381.94	2,378.84	8.42	7.97	-78.28	66.96	209.97	214.31	197.98	16.34	13.119	
2,500.00	2,497.47	2,483.39	2,479.48	8.76	8.34	-80.03	63.29	222.19	220.77	203.72	17.04	12.953	
2,600.00	2,595.62	2,590.93	2,586.31	9.10	8.72	-82.60	57.58	233.11	224.50	206.71	17.79	12.617	
2,644.93	2,639.49	2,636.44	2,631.57	9.25	8.88	-83.99	54.75	236.85	225.23	207.12	18.11	12.436	
2,700.00	2,693.18	2,692.16	2,687.01	9.44	9.08	-85.83	51.23	241.17	226.03	207.53	18.50	12.217	
2,800.00	2,790.65	2,792.16	2,786.49	9.78	9.43	-89.01	44.38	248.65	227.52	208.31	19.20	11.847	
2,900.00	2,888.13	2,891.57	2,885.11	10.13	9.79	-91.49	35.42	257.51	229.51	209.60	19.91	11.528	
3,000.00	2,985.61	2,991.38	2,983.61	10.48	10.14	-93.09	23.78	268.48	231.84	211.22	20.62	11.244	
3,100.00	3,083.08	3,094.03	3,083.99	10.83	10.51	-93.45	7.58	282.57	233.79	212.45	21.34	10.955	
3,200.00	3,180.56	3,194.58	3,181.66	11.19	10.87	-93.07	-11.10	297.45	234.81	212.75	22.06	10.644	
3,300.00	3,278.04	3,293.33	3,277.51	11.55	11.23	-92.63	-29.55	312.44	236.06	213.28	22.78	10.362	
3,400.00	3,375.51	3,390.52	3,372.04	11.91	11.59	-92.43	-46.49	327.27	238.17	214.67	23.50	10.135	
3,500.00	3,472.99	3,488.92	3,468.05	12.27	11.95	-92.54	-62.05	342.23	241.23	217.01	24.22	9.958	
3,600.00	3,570.47	3,588.50	3,565.58	12.64	12.32	-93.10	-76.12	356.51	244.69	219.73	24.96	9.805	
3,700.00	3,667.94	3,689.10	3,664.34	13.00	12.69	-93.88	-89.58	370.20	248.08	222.38	25.70	9.654	
3,800.00	3,765.42	3,788.62	3,761.68	13.37	13.06	-94.24	-104.25	384.78	251.43	224.99	26.43	9.512	
3,900.00	3,862.90	3,887.16	3,857.67	13.74	13.43	-94.19	-119.87	400.65	255.17	228.00	27.17	9.392	
4,000.00	3,960.37	3,986.95	3,954.69	14.11	13.81	-93.96	-135.97	417.56	259.37	231.46	27.92	9.291	
4,100.00	4,057.85	4,089.51	4,054.32	14.48	14.19	-93.65	-153.27	434.67	262.92	234.24	28.68	9.168	
4,200.00	4,155.33	4,190.17	4,152.25	14.86	14.57	-93.45	-170.37	450.54	265.68	236.25	29.43	9.027	
4,300.00	4,252.80	4,288.87	4,248.33	15.23	14.95	-93.34	-186.70	466.11	268.73	238.55	30.18	8.905	
4,400.00	4,350.28	4,388.14	4,345.02	15.61	15.32	-93.28	-202.70	481.91	272.16	241.23	30.93	8.800	
4,500.00	4,447.76	4,487.25	4,441.08	15.98	15.70	-92.81	-220.04	499.04	275.79	244.11	31.68	8.705	
4,600.00	4,545.23	4,585.87	4,535.98	16.36	16.08	-91.82	-239.04	517.99	279.87	247.44	32.44	8.629	
4,700.00	4,642.71	4,684.89	4,630.99	16.74	16.47	-90.66	-258.60	537.85	284.42	251.23	33.19	8.568	
4,800.00	4,740.19	4,789.60	4,731.53	17.11	16.87	-89.52	-279.47	558.32	288.59	254.60	33.99	8.491	
4,900.00	4,837.66	4,892.30	4,830.54	17.49	17.27	-88.65	-300.03	576.32	291.12	256.35	34.77	8.373	

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 4H
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 4H	**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
5,000.00	4,935.14	4,996.46	4,931.49	17.87	17.67	-88.18	-319.87	592.54	292.63	257.07	35.55	8.231	
5,100.00	5,032.62	5,096.07	5,028.71	18.25	18.05	-88.30	-336.92	605.94	293.47	257.16	36.31	8.082	
5,200.00	5,130.09	5,196.11	5,126.62	18.64	18.43	-88.67	-352.98	618.72	294.36	257.29	37.07	7.940	
5,300.00	5,227.57	5,294.85	5,223.50	19.02	18.81	-89.27	-367.81	630.71	295.33	257.50	37.83	7.807	
5,400.00	5,325.05	5,389.54	5,316.49	19.40	19.17	-89.96	-380.83	642.87	297.64	259.08	38.57	7.718	
5,500.00	5,422.52	5,487.44	5,412.14	19.78	19.54	-90.20	-395.46	657.74	301.19	261.87	39.32	7.660	
5,600.00	5,520.00	5,587.27	5,509.39	20.16	19.93	-90.21	-411.22	673.89	305.05	264.96	40.09	7.610	
5,700.00	5,617.48	5,687.41	5,607.31	20.55	20.31	-90.53	-425.69	689.08	308.86	268.01	40.85	7.560	
5,800.00	5,714.95	5,787.30	5,705.09	20.93	20.70	-90.95	-439.72	703.85	312.64	271.02	41.62	7.512	
5,900.00	5,812.43	5,887.50	5,803.13	21.31	21.08	-91.30	-454.01	718.88	316.48	274.09	42.39	7.466	
6,000.00	5,909.91	5,988.29	5,901.89	21.70	21.47	-91.79	-467.93	733.31	320.04	276.89	43.16	7.416	
6,100.00	6,007.38	6,088.22	6,000.09	22.08	21.85	-92.50	-480.78	746.69	323.51	279.59	43.92	7.366	
6,200.00	6,104.86	6,188.65	6,098.93	22.47	22.23	-93.35	-493.07	759.61	327.01	282.32	44.69	7.318	
6,300.00	6,202.34	6,289.00	6,197.57	22.85	22.61	-94.06	-506.02	772.73	330.31	284.86	45.45	7.268	
6,400.00	6,299.81	6,388.74	6,295.55	23.24	22.99	-94.70	-519.14	785.95	333.63	287.42	46.21	7.220	
6,421.23	6,320.51	6,409.90	6,316.30	23.32	23.07	-94.80	-522.08	788.90	334.35	287.98	46.37	7.210	
6,500.00	6,397.52	6,487.74	6,392.56	23.62	23.37	-94.98	-533.03	800.01	337.03	290.06	46.97	7.175	
6,600.00	6,495.90	6,589.48	6,492.09	24.00	23.76	-94.55	-547.91	814.93	340.12	292.37	47.74	7.124	
6,700.00	6,594.84	6,688.67	6,589.12	24.37	24.14	-93.54	-562.65	829.30	342.70	294.20	48.50	7.066	
6,800.00	6,694.23	6,785.09	6,683.77	24.74	24.51	-92.33	-575.31	842.61	345.79	296.56	49.23	7.024	
6,900.00	6,793.94	6,888.88	6,785.86	25.09	24.91	-90.62	-588.20	856.15	348.83	298.83	50.00	6.977	
7,000.00	6,893.85	6,986.95	6,882.34	25.44	25.28	-88.48	-600.62	868.62	351.84	301.11	50.73	6.936	
7,066.16	6,960.00	7,054.76	6,948.93	25.67	25.54	57.51	-609.92	877.44	354.03	302.81	51.22	6.912	
7,100.00	6,993.82	7,087.63	6,981.13	25.78	25.66	-109.94	-614.85	881.82	355.53	304.07	51.46	6.909	SF
7,150.00	7,043.55	7,133.96	7,026.52	25.96	25.84	-108.83	-621.60	888.21	359.41	307.60	51.81	6.937	
7,200.00	7,092.63	7,181.55	7,073.16	26.14	26.02	-108.19	-628.15	895.03	365.15	312.97	52.17	6.999	
7,250.00	7,140.71	7,231.42	7,122.22	26.34	26.21	-108.22	-634.07	901.66	372.30	319.75	52.55	7.084	
7,300.00	7,187.41	7,277.20	7,167.44	26.53	26.39	-108.75	-638.63	907.23	380.97	328.06	52.91	7.200	
7,350.00	7,232.38	7,318.02	7,207.55	26.73	26.54	-109.21	-643.26	913.25	392.00	338.77	53.23	7.364	
7,400.00	7,275.27	7,358.54	7,247.02	26.93	26.70	-109.61	-648.68	920.57	405.58	352.03	53.55	7.574	
7,450.00	7,315.77	7,404.13	7,290.93	27.13	26.88	-110.15	-656.27	930.22	421.35	367.42	53.93	7.812	
7,500.00	7,353.56	7,449.62	7,334.05	27.34	27.06	-110.56	-665.71	941.18	438.99	384.67	54.32	8.082	
7,550.00	7,388.35	7,494.67	7,376.45	27.54	27.25	-110.97	-675.93	952.46	458.47	403.77	54.70	8.381	
7,600.00	7,419.89	7,537.25	7,416.63	27.74	27.42	-111.37	-685.54	962.78	479.95	424.89	55.06	8.717	
7,650.00	7,447.92	7,575.89	7,453.21	27.94	27.58	-111.54	-694.13	971.78	503.68	448.30	55.38	9.095	
7,700.00	7,472.24	7,610.81	7,486.41	28.14	27.72	-111.37	-701.64	979.57	529.90	474.23	55.66	9.519	
7,750.00	7,492.67	7,641.76	7,515.95	28.33	27.84	-110.70	-708.10	986.18	558.70	502.78	55.91	9.992	
7,800.00	7,509.03	7,667.84	7,540.91	28.52	27.95	-109.31	-713.38	991.55	590.09	533.97	56.12	10.514	
7,816.16	7,513.43	7,675.39	7,548.15	28.58	27.98	-108.70	-714.88	993.08	600.78	544.59	56.19	10.693	
7,900.00	7,532.50	7,710.23	7,581.64	28.88	28.12	-109.78	-721.61	999.94	660.33	603.87	56.46	11.696	
8,000.00	7,548.24	7,743.45	7,613.69	29.24	28.25	-109.34	-727.75	1,006.18	739.17	682.46	56.71	13.034	
8,100.00	7,556.27	7,767.40	7,636.90	29.58	28.34	-106.55	-731.92	1,010.34	824.70	767.81	56.89	14.497	
8,153.26	7,557.37	7,776.59	7,645.83	29.76	28.38	-103.84	-733.46	1,011.85	872.38	815.42	56.96	15.316	
8,200.00	7,557.37	7,783.51	7,652.57	29.92	28.40	-104.81	-734.60	1,012.95	914.96	857.95	57.01	16.050	
8,300.00	7,557.36	7,797.54	7,666.25	30.26	28.46	-106.75	-736.84	1,015.11	1,007.11	950.00	57.11	17.635	
8,400.00	7,557.36	7,810.60	7,679.01	30.63	28.51	-108.51	-738.87	1,017.02	1,100.43	1,043.22	57.21	19.237	
8,500.00	7,557.36	7,826.00	7,694.09	31.00	28.57	-110.53	-741.16	1,019.15	1,194.67	1,137.35	57.31	20.845	
8,600.00	7,557.35	7,835.68	7,703.58	31.39	28.61	-111.76	-742.56	1,020.43	1,289.61	1,232.22	57.39	22.470	
8,700.00	7,557.35	7,848.70	7,716.35	31.79	28.66	-113.38	-744.43	1,022.14	1,385.13	1,327.64	57.49	24.094	
8,800.00	7,557.35	7,861.37	7,728.79	32.21	28.70	-114.91	-746.22	1,023.79	1,481.10	1,423.52	57.58	25.721	
8,900.00	7,557.34	7,873.70	7,740.90	32.64	28.75	-116.35	-747.94	1,025.36	1,577.46	1,519.79	57.68	27.350	
9,000.00	7,557.34	7,885.71	7,752.69	33.08	28.80	-117.72	-749.59	1,026.87	1,674.14	1,616.37	57.77	28.979	

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 4H
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 4H	**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

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
9,100.00	7,557.34	7,897.39	7,764.18	33.54	28.84	-119.00	-751.18	1,028.32	1,771.09	1,713.23	57.86	30.608	
9,200.00	7,557.33	7,908.78	7,775.38	34.00	28.89	-120.22	-752.71	1,029.72	1,868.28	1,810.32	57.96	32.236	
9,300.00	7,557.33	7,920.00	7,786.41	34.48	28.93	-121.38	-754.19	1,031.08	1,965.67	1,907.62	58.05	33.863	
9,400.00	7,557.32	7,932.03	7,798.25	34.96	28.98	-122.59	-755.77	1,032.56	2,063.23	2,005.08	58.15	35.483	
9,500.00	7,557.32	7,944.23	7,810.23	35.46	29.02	-123.76	-757.37	1,034.13	2,160.93	2,102.68	58.25	37.099	
9,600.00	7,557.32	7,956.45	7,822.24	35.97	29.07	-124.89	-758.98	1,035.79	2,258.76	2,200.41	58.35	38.711	
9,700.00	7,557.31	7,968.71	7,834.27	36.48	29.12	-125.98	-760.58	1,037.52	2,356.70	2,298.25	58.45	40.318	
9,800.00	7,557.31	7,981.00	7,846.32	37.00	29.16	-127.03	-762.18	1,039.33	2,454.73	2,396.18	58.56	41.920	
9,900.00	7,557.31	7,993.31	7,858.38	37.54	29.21	-128.04	-763.78	1,041.22	2,552.85	2,494.19	58.66	43.517	
10,000.00	7,557.30	8,005.65	7,870.45	38.08	29.26	-129.00	-765.39	1,043.19	2,651.05	2,592.28	58.77	45.108	
10,100.00	7,557.30	8,025.76	7,890.10	38.63	29.34	-130.49	-768.01	1,046.54	2,749.31	2,690.38	58.93	46.656	
10,200.00	7,557.30	8,074.66	7,937.82	39.18	29.53	-133.74	-774.79	1,054.85	2,847.50	2,788.24	59.26	48.051	
10,300.00	7,557.29	12,765.99	9,801.69	39.74	50.91	-141.07	-3,658.78	2,661.57	2,885.90	2,821.30	64.59	44.679	
10,400.00	7,557.29	12,879.60	9,801.84	40.31	51.43	-141.16	-3,772.38	2,662.69	2,882.53	2,816.92	65.61	43.931	
10,500.00	7,557.28	12,976.49	9,802.05	40.89	51.87	-141.25	-3,869.26	2,663.35	2,879.05	2,812.34	66.71	43.156	
10,600.00	7,557.28	13,073.37	9,802.81	41.47	52.32	-141.36	-3,966.14	2,663.54	2,875.72	2,807.90	67.82	42.402	
10,700.00	7,557.28	13,175.08	9,803.40	42.06	52.80	-141.46	-4,067.85	2,663.92	2,872.34	2,803.41	68.93	41.669	
10,800.00	7,557.27	13,271.47	9,804.08	42.66	53.26	-141.57	-4,164.24	2,664.24	2,869.06	2,798.98	70.08	40.942	
10,900.00	7,557.27	13,369.62	9,804.84	43.26	53.74	-141.67	-4,262.38	2,664.61	2,865.85	2,794.62	71.23	40.233	
11,000.00	7,557.27	13,475.41	9,805.70	43.86	54.26	-141.78	-4,368.17	2,664.94	2,862.66	2,790.29	72.37	39.555	
11,100.00	7,557.26	13,564.11	9,806.08	44.47	54.70	-141.87	-4,456.86	2,665.40	2,859.33	2,785.74	73.59	38.855	
11,200.00	7,557.26	13,665.74	9,807.76	45.09	55.21	-142.00	-4,558.48	2,665.42	2,856.63	2,781.86	74.77	38.207	
11,300.00	7,557.26	13,777.27	9,808.43	45.71	55.77	-142.11	-4,670.01	2,665.73	2,853.26	2,777.33	75.93	37.578	
11,400.00	7,557.25	13,874.91	9,808.86	46.33	56.27	-142.21	-4,767.64	2,666.13	2,849.87	2,772.72	77.15	36.937	
11,500.00	7,557.25	13,983.53	9,809.10	46.96	56.84	-142.32	-4,876.26	2,666.78	2,846.43	2,768.08	78.35	36.328	
11,600.00	7,557.24	14,072.00	9,808.47	47.60	57.30	-142.40	-4,964.73	2,667.26	2,842.33	2,762.69	79.64	35.691	
11,700.00	7,557.24	14,166.00	9,808.66	48.24	57.80	-142.48	-5,058.72	2,668.20	2,839.13	2,758.22	80.91	35.089	
11,800.00	7,557.24	14,287.93	9,809.48	48.88	58.46	-142.60	-5,180.64	2,669.11	2,836.26	2,754.16	82.10	34.545	
11,900.00	7,557.23	14,401.67	9,808.86	49.52	59.08	-142.70	-5,294.38	2,670.07	2,832.41	2,749.08	83.33	33.989	
12,000.00	7,557.23	14,510.67	9,807.37	50.17	59.67	-142.78	-5,403.37	2,670.82	2,827.79	2,743.20	84.59	33.428	
12,100.00	7,557.23	14,602.16	9,806.30	50.82	60.18	-142.86	-5,494.85	2,671.44	2,823.34	2,737.43	85.92	32.861	
12,200.00	7,557.22	14,703.87	9,805.34	51.48	60.75	-142.94	-5,596.55	2,672.14	2,819.09	2,731.88	87.21	32.324	
12,300.00	7,557.22	14,820.82	9,804.02	52.14	61.40	-143.04	-5,713.49	2,672.54	2,814.48	2,726.01	88.47	31.814	
12,400.00	7,557.22	14,890.95	9,803.40	52.80	61.80	-143.10	-5,783.62	2,672.75	2,810.05	2,720.17	89.88	31.264	
12,500.00	7,557.21	15,024.42	9,802.44	53.46	62.56	-143.23	-5,917.08	2,673.09	2,805.79	2,714.69	91.09	30.801	
12,600.00	7,557.21	15,102.00	9,801.26	54.13	63.00	-143.29	-5,994.65	2,673.35	2,800.93	2,708.43	92.50	30.280	
12,700.00	7,557.20	15,195.00	9,800.53	54.80	63.54	-143.37	-6,087.65	2,673.89	2,796.76	2,702.90	93.86	29.797	
12,800.00	7,557.20	15,263.46	9,800.77	55.48	63.93	-143.44	-6,156.10	2,674.28	2,793.44	2,698.14	95.30	29.312	
12,900.00	7,557.20	15,396.26	9,801.16	56.15	64.71	-143.58	-6,288.90	2,674.92	2,790.14	2,693.60	96.54	28.900	
13,000.00	7,557.19	15,503.25	9,800.56	56.83	65.34	-143.68	-6,395.89	2,675.35	2,786.08	2,688.20	97.88	28.465	
13,100.00	7,557.19	15,606.28	9,799.29	57.51	65.95	-143.77	-6,498.91	2,675.57	2,781.35	2,682.12	99.23	28.030	
13,200.00	7,557.19	15,686.12	9,798.91	58.19	66.42	-143.85	-6,578.74	2,676.07	2,777.46	2,676.80	100.66	27.592	
13,300.00	7,557.18	15,794.91	9,798.24	58.88	67.07	-143.95	-6,687.53	2,676.53	2,773.36	2,671.35	102.00	27.189	
13,400.00	7,557.18	15,883.51	9,798.07	59.57	67.60	-144.04	-6,776.13	2,676.91	2,769.63	2,666.21	103.42	26.781	
13,500.00	7,557.18	15,984.42	9,797.62	60.25	68.21	-144.13	-6,877.04	2,677.82	2,765.97	2,661.18	104.80	26.394	
13,600.00	7,557.17	16,081.86	9,797.88	60.95	68.80	-144.24	-6,974.47	2,677.80	2,762.38	2,656.19	106.19	26.014	
13,700.00	7,557.17	16,193.16	9,798.19	61.64	69.48	-144.37	-7,085.78	2,677.68	2,758.75	2,651.22	107.54	25.654	
13,800.00	7,557.16	16,293.04	9,797.94	62.33	70.09	-144.47	-7,185.66	2,677.55	2,754.69	2,645.76	108.93	25.289	
13,900.00	7,557.16	16,406.02	9,797.72	63.03	70.78	-144.60	-7,298.64	2,677.26	2,750.62	2,640.34	110.28	24.942	
14,000.00	7,557.16	16,506.00	9,797.24	63.73	71.40	-144.72	-7,398.61	2,676.71	2,746.15	2,634.47	111.68	24.589	
14,100.00	7,557.15	16,590.25	9,796.93	64.43	71.92	-144.81	-7,482.86	2,676.55	2,741.99	2,628.86	113.14	24.236	
14,200.00	7,557.15	16,697.08	9,796.64	65.13	72.58	-144.92	-7,589.68	2,676.62	2,738.07	2,623.54	114.52	23.908	

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 4H
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 4H	**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
14,300.00	7,557.15	16,794.87	9,796.43	65.84	73.19	-145.03	-7,687.47	2,676.40	2,734.03	2,618.08	115.94	23.581	
14,400.00	7,557.14	16,895.02	9,796.34	66.54	73.82	-145.15	-7,787.63	2,676.07	2,730.04	2,612.69	117.36	23.263	
14,500.00	7,557.14	17,003.68	9,796.06	67.25	74.50	-145.28	-7,896.29	2,675.65	2,725.90	2,607.15	118.75	22.955	
14,600.00	7,557.14	17,104.38	9,795.31	67.96	75.14	-145.38	-7,996.98	2,675.41	2,721.45	2,601.28	120.17	22.647	
14,700.00	7,557.13	17,204.10	9,795.03	68.66	75.77	-145.50	-8,096.70	2,674.97	2,717.28	2,595.68	121.60	22.347	
14,800.00	7,557.13	17,319.55	9,793.80	69.38	76.51	-145.62	-8,212.15	2,674.74	2,712.60	2,589.62	122.98	22.058	
14,900.00	7,557.12	17,409.45	9,792.77	70.09	77.08	-145.72	-8,302.04	2,674.42	2,707.80	2,583.36	124.44	21.759	
15,000.00	7,557.12	17,508.32	9,791.99	70.80	77.72	-145.82	-8,400.90	2,674.26	2,703.39	2,577.51	125.88	21.475	
15,100.00	7,557.12	17,606.66	9,791.02	71.52	78.35	-145.92	-8,499.24	2,674.22	2,698.91	2,571.57	127.33	21.196	
15,200.00	7,557.11	17,725.57	9,789.49	72.23	79.12	-146.04	-8,618.14	2,674.23	2,694.22	2,565.51	128.71	20.932	
15,300.00	7,557.11	17,814.00	9,788.09	72.95	79.70	-146.13	-8,706.56	2,674.11	2,689.22	2,559.02	130.20	20.655	
15,400.00	7,557.11	17,907.00	9,787.02	73.67	80.30	-146.23	-8,799.55	2,673.98	2,684.56	2,552.89	131.67	20.388	
15,500.00	7,557.10	17,974.23	9,786.84	74.39	80.74	-146.30	-8,866.78	2,674.05	2,680.78	2,547.55	133.22	20.122	
15,600.00	7,557.10	18,077.89	9,787.32	75.11	81.42	-146.42	-8,970.44	2,674.37	2,677.74	2,543.07	134.67	19.884	
15,700.00	7,557.10	18,166.28	9,787.72	75.83	82.00	-146.53	-9,058.83	2,674.36	2,674.53	2,538.37	136.15	19.643	
15,800.00	7,557.09	18,297.31	9,788.40	76.55	82.86	-146.70	-9,189.86	2,673.99	2,671.28	2,533.76	137.52	19.425	
15,900.00	7,557.09	18,405.23	9,787.44	77.27	83.58	-146.81	-9,297.77	2,674.01	2,666.98	2,528.02	138.95	19.193	
16,000.00	7,557.08	18,500.35	9,786.76	78.00	84.21	-146.91	-9,392.89	2,674.04	2,662.84	2,522.40	140.43	18.962	
16,100.00	7,557.08	18,605.18	9,785.67	78.72	84.90	-147.02	-9,497.71	2,674.07	2,658.43	2,516.54	141.88	18.737	
16,200.00	7,557.08	18,687.00	9,785.01	79.45	85.45	-147.11	-9,579.53	2,674.25	2,654.35	2,510.94	143.41	18.509	
16,300.00	7,557.07	18,767.89	9,784.98	80.18	85.99	-147.19	-9,660.42	2,674.87	2,651.17	2,506.24	144.94	18.292	
16,400.00	7,557.07	18,879.74	9,784.47	80.90	86.74	-147.30	-9,772.26	2,675.97	2,647.78	2,501.40	146.38	18.089	
16,500.00	7,557.07	18,974.95	9,784.19	81.63	87.38	-147.39	-9,867.46	2,677.05	2,644.62	2,496.76	147.87	17.885	
16,600.00	7,557.06	19,072.34	9,783.63	82.36	88.04	-147.48	-9,964.85	2,678.18	2,641.27	2,491.92	149.36	17.684	
16,700.00	7,557.06	19,146.58	9,783.77	83.09	88.54	-147.55	-10,039.08	2,679.08	2,638.60	2,487.70	150.90	17.486	
16,800.00	7,557.06	19,217.00	9,784.90	83.82	89.02	-147.63	-10,109.48	2,679.95	2,637.11	2,484.66	152.45	17.299	
16,900.00	7,557.05	19,347.30	9,786.30	84.55	89.91	-147.77	-10,239.76	2,681.78	2,635.22	2,481.36	153.87	17.127	
17,000.00	7,557.05	19,465.68	9,787.25	85.29	90.72	-147.89	-10,358.12	2,683.33	2,633.22	2,477.91	155.30	16.955	
17,100.00	7,557.04	19,531.85	9,787.18	86.02	91.17	-147.96	-10,424.29	2,684.22	2,630.60	2,473.73	156.87	16.769	
17,168.30	7,557.04	19,559.27	9,787.86	86.52	91.36	-147.99	-10,451.69	2,684.52	2,630.07	2,472.11	157.96	16.650	
17,200.00	7,557.04	19,591.00	9,789.30	86.75	91.57	-148.04	-10,483.39	2,684.81	2,630.36	2,471.93	158.43	16.603	
17,300.00	7,557.04	19,890.85	9,788.26	87.49	93.62	-148.41	-10,783.12	2,683.90	2,626.29	2,467.00	159.29	16.487	
17,400.00	7,557.03	19,974.00	9,786.51	88.22	94.18	-148.54	-10,866.21	2,681.18	2,619.32	2,458.47	160.85	16.284	
17,500.00	7,557.03	20,059.64	9,784.62	88.96	94.76	-148.66	-10,951.80	2,679.08	2,612.75	2,450.35	162.40	16.088	
17,600.00	7,557.03	20,161.00	9,782.08	89.70	95.45	-148.79	-11,053.11	2,677.21	2,606.27	2,442.38	163.89	15.903	
17,700.00	7,557.02	20,209.84	9,781.07	90.43	95.78	-148.85	-11,101.94	2,676.82	2,600.76	2,435.18	165.58	15.707	
17,800.00	7,557.02	20,263.27	9,780.63	91.17	96.15	-148.89	-11,155.37	2,677.54	2,597.29	2,430.07	167.22	15.532	
17,900.00	7,557.02	20,416.87	9,779.88	91.91	97.20	-149.09	-11,308.95	2,676.71	2,593.06	2,424.51	168.55	15.385	
18,000.00	7,557.01	20,532.16	9,779.22	92.65	97.99	-149.28	-11,424.20	2,673.99	2,588.04	2,418.05	169.98	15.225	
18,100.00	7,557.01	20,580.00	9,779.07	93.39	98.31	-149.37	-11,472.01	2,672.33	2,583.21	2,411.55	171.66	15.048	
18,185.67	7,557.01	20,580.00	9,779.07	94.02	98.31	-149.37	-11,472.01	2,672.33	2,581.79	2,408.67	173.12	14.913	
18,200.00	7,557.00	20,580.00	9,779.07	94.13	98.31	-149.37	-11,472.01	2,672.33	2,581.83	2,408.48	173.35	14.894	
18,300.00	7,557.00	20,580.00	9,779.07	94.87	98.31	-149.37	-11,472.01	2,672.33	2,584.32	2,409.49	174.83	14.782	
18,318.93	7,557.00	20,580.00	9,779.07	95.01	98.31	-149.37	-11,472.01	2,672.33	2,585.23	2,410.14	175.08	14.766	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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	0.99	0.99	0.00	0.50	60.13	58.07	101.11	116.60				
100.00	100.00	100.47	100.47	0.28	0.52	60.21	58.04	101.39	116.83	116.03	0.80	145.852	
200.00	200.00	199.97	199.96	0.63	0.59	60.45	57.95	102.21	117.50	116.27	1.23	95.614	
300.00	300.00	300.48	300.47	0.99	0.84	60.60	58.02	102.94	118.17	116.33	1.84	64.338	
400.00	400.00	400.35	400.35	1.35	1.15	60.55	58.34	103.31	118.65	116.15	2.50	47.435	
500.00	500.00	499.60	499.59	1.71	1.48	60.54	58.75	104.01	119.47	116.28	3.19	37.477	
600.00	600.00	599.22	599.20	2.07	1.82	60.66	59.30	105.50	121.04	117.15	3.89	31.151	
700.00	700.00	701.43	701.40	2.43	2.16	60.47	59.98	105.88	121.69	117.10	4.59	26.507	
800.00	800.00	802.96	802.91	2.79	2.50	59.64	60.89	103.95	120.49	115.20	5.29	22.792	
900.00	900.00	903.84	903.75	3.14	2.84	58.67	61.68	101.32	118.65	112.66	5.98	19.840	
1,000.00	1,000.00	1,004.91	1,004.76	3.50	3.18	57.77	61.74	97.93	115.83	109.15	6.68	17.345	
1,100.00	1,100.00	1,105.24	1,105.02	3.86	3.52	56.95	61.23	94.11	112.34	104.97	7.38	15.229	
1,200.00	1,200.00	1,205.43	1,205.14	4.22	3.86	56.40	60.10	90.44	108.66	100.59	8.08	13.452	
1,300.00	1,300.00	1,305.75	1,305.38	4.58	4.21	55.93	58.60	86.63	104.68	95.90	8.78	11.921	
1,400.00	1,400.00	1,406.13	1,405.65	4.94	4.56	55.38	56.90	82.43	100.27	90.79	9.49	10.570	
1,500.00	1,500.00	1,505.29	1,504.71	5.29	4.91	54.93	55.10	78.50	95.98	85.79	10.19	9.417	
1,600.00	1,600.00	1,602.91	1,602.30	5.65	5.25	54.77	53.85	76.25	93.36	82.46	10.90	8.568	
1,677.30	1,677.30	1,678.91	1,678.30	5.93	5.51	54.72	53.61	75.77	92.82	81.38	11.44	8.115	CC
1,700.00	1,700.00	1,701.34	1,700.72	6.01	5.59	54.70	53.66	75.79	92.86	81.26	11.60	8.008	
1,800.00	1,800.00	1,801.02	1,800.40	6.37	5.94	54.52	54.17	76.00	93.33	81.03	12.30	7.588	
1,900.00	1,900.00	1,900.58	1,899.96	6.73	6.28	54.28	54.95	76.42	94.13	81.12	13.01	7.238	
2,000.00	2,000.00	1,999.19	1,998.55	7.09	6.62	54.51	55.66	78.05	95.90	82.19	13.70	6.999	
2,100.00	2,099.98	2,098.03	2,097.30	7.43	6.97	-89.04	55.51	82.30	99.29	84.91	14.38	6.905	
2,200.00	2,199.84	2,199.02	2,198.19	7.76	7.32	-90.36	55.06	86.56	102.44	87.38	15.06	6.801	
2,300.00	2,299.45	2,299.35	2,298.46	8.09	7.66	-93.48	53.93	90.03	104.78	89.04	15.74	6.656	
2,400.00	2,398.70	2,398.34	2,397.34	8.42	8.01	-97.67	52.18	94.28	108.02	91.60	16.42	6.579	
2,500.00	2,497.47	2,497.63	2,496.49	8.76	8.35	-103.03	50.41	99.23	113.03	95.93	17.10	6.609	
2,600.00	2,595.62	2,598.97	2,597.75	9.10	8.71	-110.35	48.74	102.40	119.20	101.40	17.80	6.697	
2,644.93	2,639.49	2,643.87	2,642.65	9.25	8.86	-114.67	48.35	101.84	122.34	104.24	18.11	6.757	
2,700.00	2,693.18	2,697.45	2,696.19	9.44	9.05	-120.33	48.16	99.86	127.07	108.59	18.48	6.875	
2,800.00	2,790.65	2,794.21	2,792.88	9.78	9.38	-129.51	48.46	96.25	139.18	120.02	19.16	7.264	
2,900.00	2,888.13	2,894.17	2,892.77	10.13	9.73	-137.20	47.63	92.82	153.31	133.46	19.85	7.723	
3,000.00	2,985.61	2,994.41	2,992.95	10.48	10.08	-143.11	44.55	90.57	167.45	146.91	20.54	8.153	
3,100.00	3,083.08	3,097.21	3,095.60	10.83	10.44	-148.10	39.44	88.65	181.14	159.91	21.23	8.532	
3,200.00	3,180.56	3,196.42	3,194.57	11.19	10.78	-152.04	32.66	87.64	193.98	172.06	21.92	8.848	
3,300.00	3,278.04	3,300.52	3,298.33	11.55	11.14	-155.02	24.57	89.09	206.24	183.63	22.61	9.120	
3,400.00	3,375.51	3,405.52	3,402.70	11.91	11.51	-156.99	14.04	93.69	216.06	192.76	23.30	9.274	
3,500.00	3,472.99	3,510.66	3,506.82	12.27	11.88	-158.45	1.05	100.32	223.36	199.38	23.97	9.317	
3,600.00	3,570.47	3,616.06	3,610.83	12.64	12.25	-159.57	-13.94	108.51	228.57	203.93	24.64	9.275	
3,700.00	3,667.94	3,721.77	3,714.54	13.00	12.62	-160.50	-31.91	118.17	230.74	205.44	25.30	9.119	
3,800.00	3,765.42	3,825.86	3,816.33	13.37	12.99	-161.31	-51.06	128.50	231.39	205.42	25.97	8.909	
3,900.00	3,862.90	3,930.57	3,918.16	13.74	13.36	-161.82	-72.13	140.70	229.85	203.22	26.63	8.631	
4,000.00	3,960.37	4,027.29	4,012.06	14.11	13.71	-162.15	-91.99	152.71	227.69	200.29	27.40	8.310	
4,100.00	4,057.85	4,128.76	4,110.87	14.48	14.08	-162.63	-111.84	164.47	226.74	198.63	28.11	8.067	
4,200.00	4,155.33	4,230.57	4,209.75	14.86	14.44	-163.28	-133.12	176.07	224.58	195.77	28.81	7.795	
4,300.00	4,252.80	4,327.29	4,303.76	15.23	14.80	-163.96	-153.14	186.81	222.74	193.15	29.59	7.528	
4,400.00	4,350.28	4,430.45	4,404.06	15.61	15.17	-164.50	-174.05	198.89	221.13	190.86	30.28	7.304	
4,500.00	4,447.76	4,532.51	4,502.90	15.98	15.55	-164.79	-195.68	212.23	218.15	187.17	30.98	7.041	
4,600.00	4,545.23	4,631.23	4,598.47	16.36	15.92	-164.97	-216.56	225.54	215.07	183.33	31.74	6.775	
4,700.00	4,642.71	4,729.68	4,693.88	16.74	16.28	-165.09	-236.83	238.87	212.49	179.98	32.51	6.536	
4,800.00	4,740.19	4,827.08	4,788.58	17.11	16.64	-165.20	-255.67	251.66	211.27	177.98	33.29	6.346	
4,900.00	4,837.66	4,928.73	4,887.40	17.49	17.02	-165.46	-275.68	264.56	209.90	175.88	34.02	6.170	

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 4H
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 4H	**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
5,000.00	4,935.14	5,026.18	4,982.13	17.87	17.38	-165.82	-295.09	276.59	208.44	173.64	34.80	5.990	
5,012.30	4,947.13	5,037.57	4,993.25	17.92	17.43	-165.87	-297.23	277.94	208.41	173.51	34.90	5.971	
5,100.00	5,032.62	5,121.76	5,075.60	18.25	17.74	-166.24	-311.98	287.29	209.54	173.93	35.60	5.886	
5,200.00	5,130.09	5,222.80	5,174.49	18.64	18.12	-166.96	-329.99	297.59	210.92	174.58	36.34	5.804	
5,300.00	5,227.57	5,322.75	5,272.27	19.02	18.49	-167.84	-348.32	307.22	212.09	175.00	37.09	5.718	
5,400.00	5,325.05	5,426.14	5,373.34	19.40	18.88	-168.69	-367.47	317.53	213.00	175.20	37.80	5.635	
5,500.00	5,422.52	5,528.79	5,473.19	19.78	19.27	-169.76	-388.90	327.91	211.69	173.17	38.52	5.496	
5,579.55	5,500.07	5,605.14	5,547.49	20.09	19.56	-170.50	-404.62	335.80	210.84	171.68	39.16	5.384	
5,600.00	5,520.00	5,624.25	5,566.14	20.16	19.63	-170.68	-408.32	337.70	210.91	171.57	39.33	5.362	
5,700.00	5,617.48	5,730.46	5,669.74	20.55	20.03	-171.67	-429.11	348.29	211.06	171.05	40.01	5.276	
5,800.00	5,714.95	5,839.87	5,775.20	20.93	20.45	-172.91	-455.33	360.93	206.44	165.86	40.58	5.087	
5,900.00	5,812.43	5,938.05	5,869.31	21.31	20.83	-174.15	-480.60	372.94	199.97	158.59	41.38	4.832	
6,000.00	5,909.91	6,037.05	5,964.41	21.70	21.21	-175.40	-505.38	384.96	194.28	152.11	42.17	4.607	
6,100.00	6,007.38	6,135.72	6,059.32	22.08	21.59	-176.63	-529.54	396.97	189.16	146.19	42.97	4.403	
6,200.00	6,104.86	6,234.32	6,154.31	22.47	21.97	-177.88	-553.18	408.79	184.67	140.90	43.77	4.219	
6,300.00	6,202.34	6,331.61	6,248.35	22.85	22.35	-179.10	-575.43	419.97	181.50	136.91	44.60	4.070	
6,400.00	6,299.81	6,431.53	6,345.09	23.24	22.73	179.95	-597.30	432.10	178.87	133.50	45.37	3.943	
6,421.23	6,320.51	6,452.37	6,365.28	23.32	22.82	179.80	-601.74	434.73	178.36	132.82	45.54	3.917	
6,500.00	6,397.52	6,528.99	6,439.63	23.62	23.11	179.33	-617.53	444.41	175.85	129.67	46.18	3.808	
6,600.00	6,495.90	6,624.35	6,532.58	24.00	23.48	178.42	-636.22	454.64	171.57	124.55	47.01	3.649	
6,700.00	6,594.84	6,720.78	6,627.05	24.37	23.84	177.12	-653.68	462.80	166.46	118.65	47.80	3.482	
6,800.00	6,694.23	6,820.28	6,724.72	24.74	24.22	175.98	-670.53	471.61	158.65	110.10	48.55	3.268	
6,900.00	6,793.94	6,918.60	6,821.33	25.09	24.59	175.07	-686.15	481.03	147.78	98.49	49.29	2.998	
7,000.00	6,893.85	7,017.89	6,919.06	25.44	24.97	174.15	-700.92	490.61	134.22	84.21	50.01	2.684	
7,066.16	6,960.00	7,084.71	6,984.67	25.67	25.22	-42.56	-711.41	497.65	122.58	72.12	50.46	2.429	
7,100.00	6,993.82	7,118.57	7,017.87	25.78	25.35	149.01	-716.94	501.39	116.82	66.13	50.69	2.305	
7,150.00	7,043.55	7,168.73	7,066.98	25.96	25.54	149.90	-725.35	507.10	111.15	60.11	51.04	2.178	
7,188.91	7,081.82	7,205.71	7,103.25	26.10	25.68	151.21	-731.35	511.14	109.65	58.29	51.36	2.135	ES
7,200.00	7,092.63	7,216.25	7,113.61	26.14	25.72	151.68	-732.98	512.23	109.77	58.33	51.45	2.134	SF
7,250.00	7,140.71	7,263.70	7,160.34	26.34	25.90	154.19	-739.83	516.74	113.46	61.62	51.84	2.189	
7,300.00	7,187.41	7,313.30	7,209.23	26.53	26.09	157.30	-746.81	521.29	121.64	69.44	52.20	2.330	
7,350.00	7,232.38	7,362.34	7,257.52	26.73	26.27	160.54	-753.98	525.98	133.89	81.33	52.56	2.548	
7,400.00	7,275.27	7,412.43	7,306.67	26.93	26.46	163.77	-762.03	531.28	149.72	96.83	52.88	2.831	
7,450.00	7,315.77	7,460.55	7,353.67	27.13	26.65	166.67	-770.66	536.98	168.88	115.68	53.20	3.174	
7,500.00	7,353.56	7,504.42	7,396.45	27.34	26.82	168.97	-778.83	542.27	191.97	138.41	53.55	3.585	
7,550.00	7,388.35	7,543.00	7,434.05	27.54	26.97	170.65	-786.09	546.86	219.02	165.10	53.92	4.062	
7,600.00	7,419.89	7,582.03	7,472.15	27.74	27.12	172.12	-793.29	551.34	249.98	195.76	54.22	4.610	
7,650.00	7,447.92	7,614.85	7,504.27	27.94	27.24	173.08	-799.05	554.89	284.75	230.23	54.52	5.223	
7,700.00	7,472.24	7,644.05	7,532.89	28.14	27.35	173.72	-803.95	557.89	322.89	268.11	54.78	5.894	
7,750.00	7,492.67	7,669.26	7,557.66	28.33	27.45	174.06	-808.00	560.33	364.00	309.00	55.00	6.618	
7,800.00	7,509.03	7,690.61	7,578.67	28.52	27.53	174.11	-811.29	562.27	407.65	352.46	55.19	7.387	
7,816.16	7,513.43	7,696.67	7,584.64	28.58	27.55	174.05	-812.20	562.81	422.22	366.98	55.24	7.644	
7,900.00	7,532.50	7,724.21	7,611.78	28.88	27.66	169.35	-816.21	565.11	499.58	444.13	55.46	9.009	
8,000.00	7,548.24	7,749.52	7,636.77	29.24	27.75	161.35	-819.70	567.08	594.47	538.82	55.65	10.682	
8,100.00	7,556.27	7,767.21	7,654.26	29.58	27.82	148.44	-822.02	568.38	691.42	635.64	55.78	12.395	
8,153.26	7,557.37	7,773.71	7,660.69	29.76	27.84	138.27	-822.85	568.85	743.63	687.80	55.83	13.319	
8,200.00	7,557.37	7,778.49	7,665.42	29.92	27.86	139.65	-823.45	569.19	789.60	733.73	55.87	14.134	
8,300.00	7,557.36	7,788.34	7,675.17	30.26	27.90	142.28	-824.66	569.87	888.11	832.17	55.94	15.877	
8,400.00	7,557.36	7,797.70	7,684.44	30.63	27.93	144.54	-825.79	570.50	986.80	930.79	56.01	17.619	
8,500.00	7,557.36	7,806.61	7,693.27	31.00	27.96	146.51	-826.83	571.09	1,085.62	1,029.55	56.07	19.361	
8,600.00	7,557.35	7,825.00	7,711.51	31.39	28.03	150.05	-828.91	572.26	1,184.62	1,128.41	56.20	21.078	
8,700.00	7,557.35	7,825.00	7,711.51	31.79	28.03	150.05	-828.91	572.26	1,283.59	1,227.37	56.22	22.833	

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 4H
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 4H	**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
8,800.00	7,557.35	7,825.00	7,711.51	32.21	28.03	150.05	-828.91	572.26	1,382.70	1,326.47	56.23	24.590	
8,900.00	7,557.34	7,825.00	7,711.51	32.64	28.03	150.05	-828.91	572.26	1,481.94	1,425.69	56.24	26.349	
9,000.00	7,557.34	7,844.92	7,731.28	33.08	28.11	153.25	-831.03	573.47	1,581.07	1,524.68	56.39	28.038	
9,100.00	7,557.34	7,851.51	7,737.82	33.54	28.13	154.18	-831.70	573.85	1,680.34	1,623.89	56.45	29.768	
9,200.00	7,557.33	7,857.82	7,744.08	34.00	28.15	155.02	-832.33	574.21	1,779.66	1,723.15	56.51	31.494	
9,300.00	7,557.33	7,863.85	7,750.09	34.48	28.18	155.79	-832.92	574.55	1,879.01	1,822.45	56.57	33.219	
9,400.00	7,557.32	7,869.64	7,755.84	34.96	28.20	156.48	-833.47	574.86	1,978.40	1,921.78	56.62	34.940	
9,500.00	7,557.32	7,875.20	7,761.36	35.46	28.22	157.12	-833.99	575.16	2,077.82	2,021.14	56.68	36.659	
9,600.00	7,557.32	7,880.53	7,766.66	35.97	28.24	157.70	-834.47	575.45	2,177.27	2,120.54	56.74	38.376	
9,700.00	7,557.31	7,885.65	7,771.76	36.48	28.26	158.24	-834.93	575.71	2,276.75	2,219.96	56.79	40.090	
9,800.00	7,557.31	7,890.58	7,776.66	37.00	28.27	158.74	-835.37	575.96	2,376.25	2,319.40	56.85	41.800	
9,900.00	7,557.31	12,201.00	9,953.24	37.54	43.72	176.77	-3,248.68	682.98	2,399.25	2,346.87	52.38	45.801	
10,000.00	7,557.30	12,317.96	9,954.56	38.08	44.26	176.60	-3,365.64	683.34	2,400.70	2,347.06	53.64	44.758	
10,100.00	7,557.30	12,506.79	9,955.24	38.63	45.17	176.33	-3,554.43	683.98	2,402.53	2,347.64	54.89	43.773	
10,200.00	7,557.30	12,627.40	9,950.12	39.18	45.76	176.18	-3,674.91	685.92	2,398.37	2,342.18	56.18	42.689	
10,300.00	7,557.29	12,672.00	9,948.92	39.74	45.98	176.11	-3,719.50	686.04	2,396.24	2,338.73	57.51	41.665	
10,400.00	7,557.29	12,766.00	9,947.75	40.31	46.45	175.98	-3,813.49	686.69	2,395.41	2,336.57	58.84	40.708	
10,434.24	7,557.29	12,786.00	9,947.65	40.51	46.56	175.95	-3,833.48	686.99	2,395.34	2,336.03	59.30	40.390	
10,500.00	7,557.28	12,835.15	9,947.63	40.89	46.80	175.89	-3,882.63	687.47	2,395.57	2,335.38	60.19	39.801	
10,600.00	7,557.28	12,970.14	9,947.30	41.47	47.49	175.66	-4,017.61	686.67	2,395.96	2,334.40	61.56	38.923	
10,700.00	7,557.28	13,079.58	9,945.23	42.06	48.06	175.41	-4,126.99	683.50	2,394.78	2,331.83	62.95	38.040	
10,800.00	7,557.27	13,161.44	9,944.24	42.66	48.49	175.27	-4,208.84	683.00	2,394.14	2,329.80	64.33	37.214	
10,900.00	7,557.27	13,257.74	9,943.15	43.26	49.00	175.09	-4,305.12	681.62	2,393.69	2,327.95	65.74	36.414	
10,914.69	7,557.27	13,267.94	9,943.07	43.35	49.05	175.07	-4,315.32	681.47	2,393.67	2,327.73	65.94	36.301	
11,000.00	7,557.27	13,330.00	9,943.07	43.86	49.38	174.97	-4,377.37	681.42	2,394.14	2,327.02	67.12	35.667	
11,100.00	7,557.26	13,436.15	9,943.60	44.47	49.96	174.84	-4,483.51	683.05	2,395.09	2,326.57	68.53	34.951	
11,200.00	7,557.26	13,545.47	9,943.56	45.09	50.56	174.71	-4,592.82	684.67	2,395.51	2,325.57	69.94	34.251	
11,300.00	7,557.26	13,636.80	9,943.64	45.71	51.07	174.61	-4,684.14	686.30	2,396.04	2,324.69	71.35	33.582	
11,400.00	7,557.25	13,726.19	9,944.11	46.33	51.57	174.53	-4,773.48	688.73	2,396.93	2,324.17	72.76	32.945	
11,500.00	7,557.25	13,814.46	9,945.12	46.96	52.07	174.45	-4,861.73	690.83	2,398.45	2,324.28	74.17	32.337	
11,600.00	7,557.24	13,956.41	9,946.14	47.60	52.88	174.43	-5,003.41	699.29	2,399.22	2,323.61	75.60	31.734	
11,663.10	7,557.24	14,017.03	9,946.01	48.00	53.24	174.44	-5,063.87	703.60	2,399.06	2,322.56	76.49	31.364	
11,700.00	7,557.24	14,043.69	9,946.03	48.24	53.39	174.43	-5,090.50	705.00	2,399.13	2,322.13	77.01	31.155	
11,800.00	7,557.24	14,160.44	9,945.41	48.88	54.07	174.27	-5,207.20	705.88	2,399.16	2,320.69	78.48	30.571	
11,854.16	7,557.24	14,208.52	9,944.68	49.23	54.35	174.17	-5,255.25	704.81	2,398.86	2,319.58	79.27	30.261	
11,900.00	7,557.23	14,230.73	9,944.61	49.52	54.48	174.13	-5,277.46	704.44	2,399.08	2,319.16	79.92	30.019	
12,000.00	7,557.23	14,296.44	9,945.56	50.17	54.86	174.03	-5,343.17	704.39	2,401.06	2,319.72	81.34	29.519	
12,100.00	7,557.23	14,407.81	9,947.14	50.82	55.52	173.87	-5,454.52	704.73	2,403.13	2,320.30	82.83	29.014	
12,200.00	7,557.22	14,511.44	9,948.38	51.48	56.14	173.70	-5,558.14	704.38	2,405.06	2,320.75	84.31	28.526	
12,300.00	7,557.22	14,619.69	9,949.38	52.14	56.79	173.54	-5,666.39	704.43	2,406.71	2,320.90	85.81	28.048	
12,400.00	7,557.22	14,762.22	9,948.82	52.80	57.65	173.30	-5,808.91	703.68	2,407.05	2,319.69	87.36	27.552	
12,429.41	7,557.21	14,785.12	9,948.61	52.99	57.79	173.26	-5,831.81	703.61	2,407.01	2,319.22	87.79	27.416	
12,500.00	7,557.21	14,829.00	9,948.35	53.46	58.05	173.19	-5,875.69	703.35	2,407.28	2,318.47	88.81	27.107	
12,600.00	7,557.21	14,924.00	9,948.76	54.13	58.63	173.04	-5,970.68	703.16	2,408.51	2,318.21	90.29	26.674	
12,700.00	7,557.20	15,043.62	9,948.94	54.80	59.37	172.86	-6,090.30	703.12	2,409.47	2,317.64	91.83	26.239	
12,800.00	7,557.20	15,185.80	9,948.49	55.48	60.25	172.65	-6,232.47	703.77	2,410.26	2,316.86	93.40	25.807	
12,900.00	7,557.20	15,265.57	9,946.92	56.15	60.74	172.54	-6,312.22	704.61	2,409.11	2,314.24	94.87	25.394	
12,923.13	7,557.20	15,279.85	9,946.78	56.31	60.83	172.52	-6,326.50	704.65	2,409.06	2,313.86	95.20	25.305	
13,000.00	7,557.19	15,333.30	9,946.61	56.83	61.17	172.44	-6,379.95	704.57	2,409.48	2,313.16	96.32	25.015	
13,100.00	7,557.19	15,524.90	9,943.23	57.51	62.37	172.03	-6,571.38	699.95	2,409.27	2,311.25	98.02	24.580	
13,200.00	7,557.19	15,582.00	9,940.90	58.19	62.73	171.85	-6,628.31	696.32	2,407.16	2,307.66	99.50	24.192	
13,270.36	7,557.18	15,628.97	9,939.69	58.67	63.02	171.71	-6,675.20	693.87	2,406.64	2,306.09	100.55	23.936	

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 4H
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 4H	**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
13,300.00	7,557.18	15,644.76	9,939.52	58.88	63.12	171.68	-6,690.98	693.39	2,406.73	2,305.75	100.97	23.835	
13,400.00	7,557.18	15,751.49	9,939.57	59.57	63.80	171.51	-6,797.71	693.09	2,407.82	2,305.30	102.51	23.488	
13,500.00	7,557.18	15,808.00	9,939.37	60.25	64.16	171.42	-6,854.22	693.32	2,408.66	2,304.72	103.93	23.175	
13,600.00	7,557.17	15,872.70	9,940.54	60.95	64.58	171.34	-6,918.90	693.70	2,411.40	2,306.04	105.36	22.888	
13,700.00	7,557.17	16,051.00	9,945.12	61.64	65.74	171.23	-7,096.97	700.15	2,415.18	2,308.14	107.04	22.563	
13,800.00	7,557.16	16,127.72	9,944.89	62.33	66.23	171.10	-7,173.68	699.51	2,416.01	2,307.49	108.52	22.263	
13,900.00	7,557.16	16,213.28	9,945.38	63.03	66.79	170.96	-7,259.24	699.07	2,417.67	2,307.65	110.02	21.975	
14,000.00	7,557.16	16,346.83	9,946.04	63.73	67.66	170.79	-7,392.77	700.41	2,419.07	2,307.44	111.63	21.670	
14,100.00	7,557.15	16,444.91	9,946.00	64.43	68.30	170.71	-7,490.80	703.27	2,419.62	2,306.48	113.14	21.385	
14,200.00	7,557.15	16,550.65	9,945.58	65.13	68.99	170.53	-7,596.53	702.50	2,420.42	2,305.72	114.70	21.102	
14,300.00	7,557.15	16,705.39	9,941.51	65.84	70.01	170.21	-7,751.17	699.64	2,418.97	2,302.59	116.38	20.785	
14,400.00	7,557.14	16,761.31	9,939.81	66.54	70.38	170.09	-7,807.04	698.05	2,417.78	2,299.93	117.85	20.516	
14,400.18	7,557.14	16,761.39	9,939.81	66.54	70.38	170.09	-7,807.12	698.05	2,417.78	2,299.93	117.85	20.516	
14,500.00	7,557.14	16,846.37	9,939.86	67.25	70.95	169.95	-7,892.09	697.90	2,418.86	2,299.50	119.36	20.266	
14,600.00	7,557.14	16,966.30	9,937.73	67.96	71.74	169.74	-8,012.00	696.87	2,418.28	2,297.32	120.96	19.992	
14,616.71	7,557.13	16,979.22	9,937.53	68.07	71.83	169.71	-8,024.93	696.71	2,418.26	2,297.05	121.21	19.951	
14,700.00	7,557.13	17,054.88	9,936.66	68.66	72.33	169.58	-8,100.57	696.11	2,418.40	2,295.91	122.49	19.744	
14,800.00	7,557.13	17,133.33	9,936.26	69.38	72.86	169.47	-8,179.02	696.40	2,419.05	2,295.07	123.98	19.512	
14,900.00	7,557.12	17,212.78	9,936.76	70.09	73.39	169.36	-8,258.46	696.75	2,420.77	2,295.30	125.46	19.295	
15,000.00	7,557.12	17,313.41	9,937.81	70.80	74.07	169.22	-8,359.09	697.24	2,422.92	2,295.91	127.01	19.076	
15,100.00	7,557.12	17,405.47	9,938.55	71.52	74.69	169.09	-8,451.15	697.60	2,424.88	2,296.35	128.53	18.866	
15,200.00	7,557.11	17,545.64	9,940.16	72.23	75.64	168.91	-8,591.30	698.25	2,427.46	2,297.26	130.21	18.643	
15,300.00	7,557.11	17,614.39	9,940.02	72.95	76.10	168.80	-8,660.05	697.95	2,428.69	2,297.02	131.67	18.445	
15,400.00	7,557.11	17,706.11	9,941.01	73.67	76.72	168.64	-8,751.76	697.02	2,431.19	2,297.99	133.20	18.252	
15,500.00	7,557.10	17,847.15	9,941.62	74.39	77.68	168.45	-8,892.79	698.03	2,432.79	2,297.91	134.88	18.036	
15,600.00	7,557.10	17,891.44	9,942.07	75.11	77.99	168.40	-8,937.08	698.25	2,434.79	2,298.54	136.25	17.870	
15,700.00	7,557.10	17,929.00	9,943.03	75.83	78.24	168.35	-8,974.63	698.50	2,438.82	2,301.29	137.53	17.733	
15,800.00	7,557.09	18,001.58	9,946.46	76.55	78.75	168.29	-9,047.10	700.10	2,444.49	2,305.56	138.93	17.595	
15,900.00	7,557.09	18,248.38	9,955.12	77.27	80.46	168.19	-9,293.50	709.67	2,448.94	2,307.91	141.04	17.364	
16,000.00	7,557.08	18,337.57	9,954.67	78.00	81.08	168.09	-9,382.67	711.36	2,449.44	2,306.89	142.56	17.182	
16,100.00	7,557.08	18,399.00	9,955.28	78.72	81.50	168.02	-9,444.09	712.26	2,451.41	2,307.44	143.98	17.026	
16,200.00	7,557.08	18,551.33	9,954.54	79.45	82.56	167.82	-9,596.40	713.51	2,451.67	2,305.95	145.71	16.825	
16,300.00	7,557.07	18,633.42	9,954.21	80.18	83.12	167.69	-9,678.49	713.13	2,452.73	2,305.50	147.23	16.660	
16,400.00	7,557.07	18,719.55	9,954.06	80.90	83.72	167.54	-9,764.61	712.29	2,454.19	2,305.44	148.75	16.499	
16,500.00	7,557.07	18,810.44	9,954.98	81.63	84.35	167.42	-9,855.50	712.76	2,456.46	2,306.18	150.28	16.346	
16,600.00	7,557.06	18,911.99	9,955.30	82.36	85.06	167.25	-9,957.04	711.84	2,458.39	2,306.53	151.86	16.189	
16,700.00	7,557.06	19,036.32	9,955.95	83.09	85.92	167.05	-10,081.36	710.67	2,460.68	2,307.16	153.52	16.028	
16,800.00	7,557.06	19,166.98	9,954.65	83.82	86.83	166.85	-10,212.01	710.64	2,461.17	2,305.98	155.19	15.859	
16,822.06	7,557.05	19,188.31	9,954.30	83.98	86.98	166.81	-10,233.34	710.53	2,461.16	2,305.63	155.53	15.824	
16,900.00	7,557.05	19,260.37	9,953.09	84.55	87.48	166.68	-10,305.38	709.88	2,461.22	2,304.48	156.75	15.702	
17,000.00	7,557.05	19,343.82	9,952.15	85.29	88.06	166.54	-10,388.83	709.13	2,461.84	2,303.57	158.27	15.555	
17,100.00	7,557.04	19,428.00	9,951.30	86.02	88.65	166.38	-10,472.99	707.61	2,462.86	2,303.06	159.80	15.412	
17,200.00	7,557.04	19,521.00	9,951.38	86.75	89.30	166.22	-10,565.98	706.81	2,464.68	2,303.33	161.35	15.276	
17,300.00	7,557.04	19,647.09	9,951.57	87.49	90.19	166.06	-10,692.07	707.62	2,466.29	2,303.28	163.01	15.130	
17,400.00	7,557.03	19,785.62	9,948.84	88.22	91.17	165.81	-10,830.53	706.46	2,466.10	2,301.39	164.71	14.972	
17,470.60	7,557.03	19,838.76	9,947.02	88.74	91.54	165.69	-10,883.61	704.77	2,465.53	2,299.75	165.79	14.872	
17,500.00	7,557.03	19,851.98	9,946.74	88.96	91.63	165.66	-10,896.82	704.36	2,465.63	2,299.43	166.20	14.835	
17,600.00	7,557.03	19,901.75	9,946.54	89.70	91.98	165.55	-10,946.58	703.14	2,467.39	2,299.81	167.59	14.723	
17,700.00	7,557.02	20,109.63	9,944.35	90.43	93.45	165.16	-11,154.35	699.76	2,468.97	2,299.43	169.55	14.562	
17,800.00	7,557.02	20,172.00	9,942.69	91.17	93.89	165.03	-11,216.69	698.55	2,468.40	2,297.36	171.04	14.432	
17,802.57	7,557.02	20,172.00	9,942.69	91.19	93.89	165.03	-11,216.69	698.55	2,468.40	2,297.33	171.07	14.429	
17,900.00	7,557.02	20,248.26	9,941.65	91.91	94.43	164.89	-11,292.93	697.14	2,469.14	2,296.60	172.55	14.310	

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 4H
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 4H	**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
18,000.00	7,557.01	20,305.00	9,940.88	92.65	94.83	164.77	-11,349.65	696.09	2,470.40	2,296.44	173.95	14.202	
18,100.00	7,557.01	20,305.00	9,940.88	93.39	94.83	164.77	-11,349.65	696.09	2,475.04	2,300.09	174.95	14.147	
18,200.00	7,557.00	20,305.00	9,940.88	94.13	94.83	164.77	-11,349.65	696.09	2,483.71	2,308.00	175.71	14.135	
18,300.00	7,557.00	20,305.00	9,940.88	94.87	94.83	164.77	-11,349.65	696.09	2,496.36	2,320.13	176.23	14.165	
18,318.93	7,557.00	20,305.00	9,940.88	95.01	94.83	164.77	-11,349.65	696.09	2,499.20	2,322.89	176.30	14.175	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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
0.00	0.00	3.26	3.26	0.00	0.01	-75.07	246.20	-923.49	955.74				
100.00	100.00	105.08	105.08	0.28	0.17	-75.06	246.40	-923.33	955.64	955.20	0.45	2,142.420	
200.00	200.00	206.89	206.89	0.63	0.34	-75.02	246.96	-922.87	955.35	954.38	0.97	985.675	
300.00	300.00	310.70	310.69	0.99	0.65	-74.97	247.63	-922.10	954.80	953.16	1.64	582.049	
400.00	400.00	413.12	413.11	1.35	1.01	-74.95	247.65	-921.05	953.82	951.46	2.36	403.610	
500.00	500.00	512.47	512.45	1.71	1.37	-74.94	247.59	-920.04	952.81	949.74	3.08	309.815	
600.00	600.00	612.36	612.34	2.07	1.72	-74.92	247.58	-919.05	951.86	948.07	3.79	251.104	
700.00	700.00	708.97	708.95	2.43	2.06	-74.91	247.62	-918.16	950.98	946.49	4.49	211.805	
780.57	780.57	783.80	783.77	2.72	2.32	-74.89	247.78	-917.88	950.74	945.70	5.04	188.704	CC
800.00	800.00	801.84	801.81	2.79	2.39	-74.89	247.83	-917.88	950.75	945.58	5.17	183.882	
900.00	900.00	898.89	898.86	3.14	2.72	-74.88	248.14	-918.20	951.15	945.29	5.86	162.291	
1,000.00	1,000.00	999.25	999.22	3.50	3.06	-74.89	248.12	-918.66	951.59	945.03	6.56	145.082	
1,100.00	1,100.00	1,098.99	1,098.95	3.86	3.40	-74.91	247.83	-919.17	952.01	944.75	7.26	131.172	
1,200.00	1,200.00	1,198.42	1,198.39	4.22	3.74	-74.92	247.74	-919.69	952.48	944.53	7.96	119.707	
1,300.00	1,300.00	1,297.52	1,297.48	4.58	4.08	-74.93	247.71	-920.26	953.03	944.37	8.66	110.081	
1,400.00	1,400.00	1,394.63	1,394.59	4.94	4.42	-74.96	247.54	-921.04	953.76	944.41	9.35	101.964	
1,500.00	1,500.00	1,491.31	1,491.27	5.29	4.76	-74.98	247.50	-922.13	954.84	944.79	10.05	95.016	
1,600.00	1,600.00	1,597.66	1,597.61	5.65	5.13	-74.99	247.57	-923.18	955.82	945.04	10.78	88.656	
1,700.00	1,700.00	1,694.49	1,694.43	6.01	5.47	-74.97	247.99	-923.83	956.58	945.10	11.48	83.324	
1,800.00	1,800.00	1,794.61	1,794.55	6.37	5.82	-74.94	248.79	-924.56	957.49	945.30	12.19	78.534	
1,900.00	1,900.00	1,897.59	1,897.52	6.73	6.19	-74.87	250.07	-925.15	958.36	945.45	12.91	74.212	
2,000.00	2,000.00	2,020.24	2,020.14	7.09	6.62	-74.74	252.06	-923.91	957.83	944.13	13.70	69.914	
2,100.00	2,099.98	2,129.47	2,129.30	7.43	7.00	141.40	253.96	-920.50	956.61	942.19	14.42	66.340	
2,100.10	2,100.08	2,129.57	2,129.40	7.43	7.00	141.40	253.96	-920.49	956.61	942.19	14.42	66.336	ES
2,200.00	2,199.84	2,238.43	2,238.17	7.76	7.38	141.78	255.88	-916.53	957.70	942.58	15.12	63.326	
2,300.00	2,299.45	2,343.34	2,342.97	8.09	7.75	142.23	257.23	-911.76	960.55	944.74	15.82	60.732	
2,400.00	2,398.70	2,433.23	2,432.78	8.42	8.06	142.67	258.01	-907.98	966.47	950.01	16.47	58.692	
2,500.00	2,497.47	2,521.05	2,520.55	8.76	8.37	143.12	258.67	-905.37	976.40	959.28	17.11	57.061	
2,600.00	2,595.62	2,608.05	2,607.54	9.10	8.68	143.60	259.34	-903.83	990.36	972.60	17.75	55.783	
2,644.93	2,639.49	2,648.78	2,648.26	9.25	8.82	143.84	259.71	-903.42	997.94	979.89	18.05	55.292	
2,700.00	2,693.18	2,703.33	2,702.81	9.44	9.01	144.30	260.29	-902.88	1,007.65	989.22	18.43	54.686	
2,800.00	2,790.65	2,796.08	2,795.55	9.78	9.34	145.04	261.07	-902.13	1,025.54	1,006.46	19.09	53.731	
2,900.00	2,888.13	2,889.00	2,888.47	10.13	9.66	145.69	260.82	-902.31	1,044.15	1,024.40	19.75	52.878	
3,000.00	2,985.61	3,017.15	3,016.60	10.48	10.10	146.50	259.33	-901.81	1,062.16	1,041.63	20.54	51.723	
3,100.00	3,083.08	3,168.06	3,167.27	10.83	10.62	147.33	253.63	-895.97	1,076.10	1,054.72	21.38	50.325	
3,200.00	3,180.56	3,331.89	3,330.10	11.19	11.20	148.12	242.74	-881.75	1,084.59	1,062.37	22.22	48.812	
3,300.00	3,278.04	3,477.44	3,473.74	11.55	11.73	148.79	229.97	-862.21	1,087.86	1,064.88	22.98	47.333	
3,400.00	3,375.51	3,588.71	3,583.15	11.91	12.14	149.40	220.94	-844.02	1,088.83	1,065.12	23.70	45.936	
3,500.00	3,472.99	3,716.59	3,708.35	12.27	12.62	150.19	210.99	-820.01	1,087.70	1,063.26	24.43	44.519	
3,600.00	3,570.47	3,823.25	3,812.46	12.64	13.03	150.89	202.82	-798.29	1,085.34	1,060.19	25.15	43.152	
3,700.00	3,667.94	3,927.27	3,913.87	13.00	13.44	151.58	194.67	-776.60	1,082.62	1,056.74	25.87	41.841	
3,800.00	3,765.42	4,019.13	4,003.41	13.37	13.80	152.19	187.36	-757.46	1,080.00	1,053.40	26.60	40.604	
3,900.00	3,862.90	4,117.00	4,098.99	13.74	14.20	152.81	179.47	-737.92	1,078.27	1,050.94	27.33	39.459	
4,000.00	3,960.37	4,210.82	4,190.61	14.11	14.58	153.40	171.61	-719.32	1,076.66	1,048.60	28.06	38.376	
4,091.86	4,049.92	4,290.73	4,268.80	14.45	14.90	153.88	165.02	-704.19	1,076.09	1,047.36	28.72	37.464	
4,100.00	4,057.85	4,297.69	4,275.61	14.48	14.93	153.92	164.45	-702.92	1,076.09	1,047.31	28.78	37.387	
4,200.00	4,155.33	4,389.86	4,366.02	14.86	15.30	154.46	156.97	-686.58	1,076.72	1,047.21	29.51	36.484	
4,300.00	4,252.80	4,490.00	4,464.28	15.23	15.71	155.05	148.96	-669.01	1,077.70	1,047.45	30.25	35.626	
4,400.00	4,350.28	4,597.62	4,569.79	15.61	16.15	155.69	140.32	-649.67	1,078.39	1,047.40	31.00	34.790	
4,500.00	4,447.76	4,700.68	4,670.69	15.98	16.58	156.30	131.77	-630.50	1,078.51	1,046.77	31.74	33.977	
4,600.00	4,545.23	4,802.41	4,770.24	16.36	17.01	156.92	123.37	-611.30	1,078.53	1,046.04	32.49	33.197	
4,618.32	4,563.09	4,820.51	4,787.95	16.43	17.08	157.02	121.85	-607.88	1,078.53	1,045.90	32.63	33.058	

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 4H
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 4H	**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
4,700.00	4,642.71	4,900.39	4,866.11	16.74	17.42	157.50	115.18	-592.81	1,078.61	1,045.38	33.23	32.455	
4,800.00	4,740.19	4,998.73	4,962.35	17.11	17.84	158.09	106.97	-574.38	1,078.94	1,044.95	33.98	31.750	
4,900.00	4,837.66	5,096.58	5,058.15	17.49	18.25	158.67	98.82	-556.15	1,079.48	1,044.75	34.73	31.081	
5,000.00	4,935.14	5,186.00	5,145.73	17.87	18.63	159.20	91.43	-539.71	1,080.42	1,044.95	35.47	30.458	
5,100.00	5,032.62	5,282.00	5,239.91	18.25	19.04	159.77	83.92	-522.66	1,082.22	1,046.00	36.22	29.878	
5,200.00	5,130.09	5,376.00	5,332.25	18.64	19.43	160.31	76.87	-506.60	1,084.87	1,047.90	36.97	29.347	
5,300.00	5,227.57	5,470.00	5,424.64	19.02	19.83	160.85	69.85	-490.75	1,087.85	1,050.13	37.71	28.846	
5,400.00	5,325.05	5,565.00	5,518.11	19.40	20.23	161.40	63.08	-475.16	1,091.49	1,053.03	38.46	28.380	
5,500.00	5,422.52	5,678.64	5,629.84	19.78	20.71	162.04	54.71	-456.16	1,094.88	1,055.64	39.24	27.903	
5,600.00	5,520.00	5,786.09	5,735.22	20.16	21.17	162.66	46.18	-437.04	1,097.13	1,057.12	40.01	27.422	
5,700.00	5,617.48	5,885.83	5,832.97	20.55	21.60	163.24	38.29	-418.87	1,099.16	1,058.39	40.77	26.960	
5,800.00	5,714.95	5,982.38	5,927.62	20.93	22.02	163.81	30.75	-401.34	1,101.42	1,059.89	41.53	26.521	
5,900.00	5,812.43	6,077.39	6,020.82	21.31	22.43	164.36	23.56	-384.32	1,104.14	1,061.86	42.29	26.111	
6,000.00	5,909.91	6,172.20	6,113.89	21.70	22.83	164.91	16.54	-367.70	1,107.38	1,064.34	43.04	25.727	
6,100.00	6,007.38	6,279.67	6,219.43	22.08	23.30	165.52	8.64	-349.00	1,110.89	1,067.07	43.82	25.349	
6,200.00	6,104.86	6,382.26	6,319.94	22.47	23.74	166.12	0.70	-330.01	1,113.37	1,068.77	44.60	24.965	
6,300.00	6,202.34	6,474.02	6,409.93	22.85	24.14	166.65	-6.21	-313.44	1,116.45	1,071.10	45.35	24.616	
6,400.00	6,299.81	6,571.95	6,506.09	23.24	24.57	167.18	-13.77	-296.58	1,120.16	1,074.04	46.12	24.288	
6,421.23	6,320.51	6,593.57	6,527.33	23.32	24.66	167.29	-15.59	-292.97	1,120.95	1,074.67	46.28	24.219	
6,500.00	6,397.52	6,673.97	6,606.32	23.62	25.01	167.65	-22.90	-279.88	1,122.75	1,075.86	46.89	23.945	
6,600.00	6,495.90	6,760.42	6,691.34	24.00	25.37	167.94	-31.34	-266.67	1,122.38	1,074.76	47.62	23.570	
6,700.00	6,594.84	6,840.88	6,770.70	24.37	25.71	168.14	-38.90	-255.85	1,120.22	1,071.91	48.32	23.184	
6,800.00	6,694.23	6,922.73	6,851.68	24.74	26.04	168.27	-46.23	-246.41	1,116.41	1,067.41	49.00	22.785	
6,900.00	6,793.94	7,009.06	6,937.24	25.09	26.38	168.39	-52.73	-236.98	1,110.60	1,060.93	49.68	22.357	
7,000.00	6,893.85	7,105.55	7,032.87	25.44	26.77	168.66	-57.07	-224.92	1,102.29	1,051.91	50.39	21.877	
7,066.16	6,960.00	7,178.04	7,104.64	25.67	27.06	-47.02	-59.97	-215.09	1,094.64	1,043.76	50.88	21.514	
7,100.00	6,993.82	7,209.27	7,135.54	25.78	27.19	144.82	-61.22	-210.79	1,091.11	1,040.00	51.11	21.347	
7,150.00	7,043.55	7,255.38	7,181.19	25.96	27.38	145.25	-62.89	-204.46	1,089.04	1,037.57	51.47	21.159	
7,152.41	7,045.93	7,257.60	7,183.39	25.97	27.39	145.27	-62.97	-204.16	1,089.03	1,037.55	51.49	21.151	
7,200.00	7,092.63	7,299.89	7,225.25	26.14	27.56	145.57	-64.31	-198.38	1,090.78	1,038.95	51.83	21.045	
7,250.00	7,140.71	7,343.33	7,268.27	26.34	27.73	145.77	-65.45	-192.48	1,096.43	1,044.23	52.20	21.006	
7,300.00	7,187.41	7,398.09	7,322.50	26.53	27.95	146.05	-66.71	-184.90	1,105.82	1,053.21	52.61	21.017	
7,350.00	7,232.38	7,458.31	7,382.01	26.73	28.20	146.39	-68.34	-175.83	1,118.39	1,065.33	53.06	21.079	
7,400.00	7,275.27	7,499.64	7,422.83	26.93	28.37	146.28	-69.61	-169.48	1,134.47	1,081.04	53.43	21.233	
7,450.00	7,315.77	7,540.21	7,462.92	27.13	28.54	145.98	-70.98	-163.45	1,154.27	1,100.48	53.80	21.456	
7,500.00	7,353.56	7,573.92	7,496.26	27.34	28.67	145.32	-72.18	-158.63	1,177.77	1,123.64	54.13	21.758	
7,550.00	7,388.35	7,604.15	7,526.20	27.54	28.80	144.29	-73.26	-154.56	1,204.90	1,150.47	54.44	22.134	
7,600.00	7,419.89	7,631.82	7,553.63	27.74	28.91	142.87	-74.24	-151.04	1,235.47	1,180.75	54.72	22.578	
7,650.00	7,447.92	7,656.91	7,578.52	27.94	29.01	140.94	-75.11	-148.01	1,269.19	1,214.21	54.98	23.085	
7,700.00	7,472.24	7,678.95	7,600.38	28.14	29.09	138.36	-75.80	-145.38	1,305.78	1,250.57	55.21	23.652	
7,750.00	7,492.67	7,697.61	7,618.91	28.33	29.17	134.93	-76.32	-143.17	1,344.92	1,289.52	55.40	24.274	
7,800.00	7,509.03	7,712.82	7,634.00	28.52	29.23	130.36	-76.70	-141.38	1,386.28	1,330.71	55.57	24.947	
7,816.16	7,513.43	7,716.98	7,638.14	28.58	29.24	128.59	-76.80	-140.89	1,400.06	1,344.44	55.62	25.173	
7,900.00	7,532.50	7,737.00	7,658.02	28.88	29.32	122.27	-77.23	-138.55	1,472.74	1,416.92	55.83	26.380	
8,000.00	7,548.24	7,737.00	7,658.02	29.24	29.32	112.53	-77.23	-138.55	1,560.99	1,505.07	55.92	27.914	
8,100.00	7,556.27	7,755.25	7,676.15	29.58	29.39	103.98	-77.59	-136.52	1,650.13	1,594.02	56.11	29.411	
8,153.26	7,557.37	7,756.88	7,677.77	29.76	29.40	98.92	-77.62	-136.35	1,697.81	1,641.66	56.15	30.237	
8,200.00	7,557.37	7,757.65	7,678.54	29.92	29.40	98.98	-77.63	-136.27	1,739.79	1,683.61	56.18	30.967	
8,300.00	7,557.36	7,759.29	7,680.16	30.26	29.41	99.10	-77.66	-136.10	1,830.38	1,774.13	56.25	32.540	
8,400.00	7,557.36	7,760.90	7,681.77	30.63	29.41	99.22	-77.69	-135.93	1,921.90	1,865.58	56.31	34.128	
8,500.00	7,557.36	7,762.49	7,683.35	31.00	29.42	99.34	-77.72	-135.77	2,014.22	1,957.85	56.37	35.729	
8,600.00	7,557.35	7,764.07	7,684.92	31.39	29.42	99.46	-77.75	-135.61	2,107.25	2,050.81	56.43	37.341	

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 4H
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 4H	**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
8,700.00	7,557.35	7,765.63	7,686.47	31.79	29.43	99.58	-77.78	-135.45	2,200.88	2,144.39	56.49	38.961	
8,800.00	7,557.35	7,767.17	7,688.00	32.21	29.44	99.70	-77.81	-135.29	2,295.05	2,238.51	56.54	40.590	
8,900.00	7,557.34	7,768.69	7,689.52	32.64	29.44	99.81	-77.83	-135.14	2,389.69	2,333.10	56.60	42.224	
9,000.00	7,557.34	7,770.20	7,691.02	33.08	29.45	99.93	-77.86	-134.99	2,484.75	2,428.10	56.65	43.864	
9,100.00	7,557.34	7,771.69	7,692.50	33.54	29.45	100.04	-77.89	-134.85	2,580.18	2,523.49	56.70	45.508	
9,200.00	7,557.33	7,773.16	7,693.96	34.00	29.46	100.15	-77.91	-134.71	2,675.95	2,619.20	56.75	47.156	
9,300.00	7,557.33	7,774.62	7,695.41	34.48	29.46	100.26	-77.94	-134.57	2,772.01	2,715.21	56.80	48.807	
9,400.00	7,557.32	7,776.06	7,696.85	34.96	29.47	100.37	-77.97	-134.43	2,868.34	2,811.49	56.84	50.460	
9,500.00	7,557.32	7,777.48	7,698.26	35.46	29.48	100.47	-77.99	-134.29	2,964.91	2,908.02	56.89	52.114	
9,600.00	7,557.32	7,778.89	7,699.66	35.97	29.48	100.58	-78.02	-134.16	3,061.70	3,004.76	56.94	53.770	
9,700.00	7,557.31	7,780.28	7,701.05	36.48	29.49	100.69	-78.04	-134.03	3,158.69	3,101.70	56.99	55.426	
9,800.00	7,557.31	7,781.66	7,702.42	37.00	29.49	100.79	-78.06	-133.91	3,255.86	3,198.82	57.04	57.083	
9,900.00	7,557.31	7,783.02	7,703.78	37.54	29.50	100.89	-78.09	-133.78	3,353.20	3,296.11	57.09	58.740	
10,000.00	7,557.30	13,912.51	10,796.55	38.08	65.46	163.95	-3,413.54	-103.63	3,367.41	3,300.81	66.61	50.557	
10,100.00	7,557.30	13,993.33	10,796.10	38.63	66.40	163.86	-3,494.36	-103.99	3,368.81	3,300.90	67.91	49.610	
10,200.00	7,557.30	14,088.34	10,795.85	39.18	67.50	163.75	-3,589.36	-104.49	3,370.52	3,301.22	69.30	48.636	
10,300.00	7,557.29	14,176.80	10,795.99	39.74	68.54	163.66	-3,677.83	-104.49	3,372.50	3,301.84	70.66	47.726	
10,400.00	7,557.29	14,270.40	10,796.31	40.31	69.65	163.55	-3,771.42	-104.86	3,374.78	3,302.71	72.07	46.826	
10,500.00	7,557.28	14,383.08	10,796.15	40.89	70.99	163.41	-3,884.09	-106.21	3,376.84	3,303.21	73.62	45.868	
10,600.00	7,557.28	14,476.14	10,796.07	41.47	72.11	163.29	-3,977.14	-107.41	3,378.99	3,303.93	75.06	45.018	
10,700.00	7,557.28	14,684.18	10,794.76	42.06	74.65	163.12	-4,185.14	-104.37	3,380.13	3,302.94	77.19	43.789	
10,800.00	7,557.27	14,812.03	10,791.50	42.66	76.24	163.04	-4,312.87	-100.04	3,378.56	3,299.74	78.82	42.862	
10,900.00	7,557.27	14,889.06	10,789.71	43.26	77.21	163.00	-4,389.81	-96.79	3,377.03	3,296.87	80.15	42.132	
11,000.00	7,557.27	14,987.85	10,788.12	43.86	78.46	162.96	-4,488.48	-92.32	3,376.07	3,294.45	81.61	41.366	
11,100.00	7,557.26	15,055.46	10,786.89	44.47	79.31	162.92	-4,556.04	-90.00	3,375.29	3,292.39	82.90	40.713	
11,110.42	7,557.26	15,061.16	10,786.81	44.54	79.38	162.92	-4,561.74	-89.88	3,375.29	3,292.26	83.03	40.651	
11,200.00	7,557.26	15,106.00	10,786.32	45.09	79.95	162.87	-4,606.57	-89.37	3,375.83	3,291.73	84.10	40.142	
11,300.00	7,557.26	15,161.16	10,786.30	45.71	80.64	162.82	-4,661.74	-89.37	3,377.76	3,292.44	85.33	39.587	
11,400.00	7,557.25	15,246.92	10,787.39	46.33	81.72	162.72	-4,747.48	-89.86	3,381.02	3,294.25	86.77	38.965	
11,500.00	7,557.25	15,398.34	10,787.39	46.96	83.63	162.54	-4,898.90	-91.25	3,383.19	3,294.49	88.70	38.142	
11,600.00	7,557.24	15,443.15	10,787.53	47.60	84.19	162.49	-4,943.70	-91.75	3,385.67	3,295.80	89.87	37.673	
11,700.00	7,557.24	15,502.31	10,788.29	48.24	84.94	162.40	-5,002.84	-93.27	3,389.58	3,298.43	91.15	37.187	
11,800.00	7,557.24	15,597.82	10,789.72	48.88	86.15	162.25	-5,098.26	-96.95	3,394.17	3,301.44	92.72	36.605	
11,900.00	7,557.23	15,711.82	10,790.93	49.52	87.60	162.07	-5,212.17	-101.30	3,398.33	3,303.88	94.46	35.977	
12,000.00	7,557.23	15,814.84	10,793.18	50.17	88.92	161.97	-5,315.16	-101.84	3,402.59	3,306.53	96.06	35.421	
12,100.00	7,557.23	15,918.25	10,794.79	50.82	90.25	161.85	-5,418.56	-103.14	3,406.49	3,308.80	97.69	34.871	
12,200.00	7,557.22	16,037.06	10,797.40	51.48	91.80	161.75	-5,537.32	-102.02	3,410.34	3,310.94	99.41	34.307	
12,300.00	7,557.22	16,197.58	10,799.64	52.14	93.92	161.70	-5,697.70	-95.80	3,412.26	3,310.87	101.38	33.657	
12,400.00	7,557.22	16,331.06	10,800.27	52.80	95.69	161.64	-5,831.09	-91.00	3,413.70	3,310.52	103.18	33.085	
12,500.00	7,557.21	16,413.64	10,799.85	53.46	96.78	161.58	-5,913.65	-89.40	3,414.65	3,310.00	104.65	32.631	
12,600.00	7,557.21	16,513.04	10,799.39	54.13	98.09	161.49	-6,013.04	-88.12	3,415.87	3,309.62	106.25	32.150	
12,700.00	7,557.20	16,604.22	10,799.08	54.80	99.30	161.42	-6,104.22	-86.91	3,417.20	3,309.41	107.79	31.702	
12,800.00	7,557.20	16,719.24	10,798.62	55.48	100.83	161.32	-6,219.22	-85.35	3,418.47	3,308.95	109.52	31.213	
12,900.00	7,557.20	16,827.55	10,797.92	56.15	102.27	161.24	-6,327.51	-83.26	3,419.33	3,308.13	111.20	30.750	
13,000.00	7,557.19	16,913.70	10,797.31	56.83	103.42	161.17	-6,413.65	-81.82	3,420.23	3,307.51	112.71	30.344	
13,100.00	7,557.19	16,986.00	10,796.87	57.51	104.38	161.08	-6,485.94	-82.28	3,421.93	3,307.78	114.15	29.977	
13,200.00	7,557.19	17,077.16	10,796.35	58.19	105.59	160.96	-6,577.08	-84.23	3,424.20	3,308.44	115.76	29.580	
13,300.00	7,557.18	17,174.00	10,795.86	58.88	106.88	160.83	-6,673.90	-85.71	3,426.37	3,308.96	117.41	29.182	
13,400.00	7,557.18	17,268.00	10,795.43	59.57	108.13	160.70	-6,767.88	-87.67	3,428.78	3,309.73	119.05	28.801	
13,500.00	7,557.18	17,363.00	10,794.40	60.25	109.39	160.54	-6,862.81	-91.20	3,431.17	3,310.44	120.73	28.420	
13,600.00	7,557.17	17,430.93	10,794.14	60.95	110.29	160.44	-6,930.70	-93.23	3,434.12	3,311.96	122.16	28.112	
13,700.00	7,557.17	17,509.34	10,795.67	61.64	111.35	160.36	-7,009.10	-93.62	3,438.26	3,314.62	123.64	27.809	

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 4H
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 4H	**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
13,800.00	7,557.16	17,632.22	10,798.75	62.33	113.01	160.29	-7,131.90	-91.04	3,442.08	3,316.62	125.46	27.436	
13,900.00	7,557.16	17,739.00	10,800.99	63.03	114.47	160.24	-7,238.63	-88.39	3,445.41	3,318.26	127.15	27.098	
14,000.00	7,557.16	17,816.44	10,803.03	63.73	115.52	160.20	-7,316.02	-86.52	3,449.25	3,320.66	128.59	26.824	
14,100.00	7,557.15	17,958.42	10,806.14	64.43	117.46	160.11	-7,457.95	-84.34	3,453.12	3,322.52	130.60	26.441	
14,200.00	7,557.15	18,110.77	10,806.30	65.13	119.53	159.99	-7,610.27	-81.84	3,454.69	3,322.00	132.69	26.035	
14,300.00	7,557.15	18,159.10	10,806.65	65.84	120.19	159.97	-7,658.59	-80.62	3,456.77	3,322.85	133.92	25.811	
14,400.00	7,557.14	18,207.00	10,807.67	66.54	120.85	159.94	-7,706.47	-79.80	3,460.40	3,325.27	135.13	25.607	
14,500.00	7,557.14	18,301.00	10,809.96	67.25	122.13	159.86	-7,800.44	-79.24	3,464.73	3,327.97	136.76	25.335	
14,600.00	7,557.14	18,488.00	10,814.37	67.96	124.69	159.73	-7,987.34	-77.51	3,469.63	3,330.44	139.19	24.928	
14,700.00	7,557.13	18,582.00	10,814.67	68.66	125.98	159.65	-8,081.32	-76.33	3,471.76	3,330.94	140.82	24.654	
14,800.00	7,557.13	18,675.42	10,815.65	69.38	127.27	159.60	-8,174.71	-74.03	3,474.14	3,331.71	142.43	24.392	
14,900.00	7,557.12	18,742.22	10,816.06	70.09	128.18	159.55	-8,241.50	-73.16	3,476.70	3,332.87	143.83	24.172	
15,000.00	7,557.12	18,899.23	10,816.25	70.80	130.33	159.37	-8,398.49	-74.41	3,479.47	3,333.39	146.07	23.820	
15,100.00	7,557.12	18,987.38	10,815.18	71.52	131.53	159.25	-8,486.61	-76.53	3,481.47	3,333.74	147.73	23.566	
15,200.00	7,557.11	19,090.79	10,813.93	72.23	132.94	159.10	-8,589.99	-78.69	3,483.40	3,333.87	149.53	23.296	
15,300.00	7,557.11	19,197.75	10,812.90	72.95	134.41	158.96	-8,696.93	-80.50	3,485.45	3,334.09	151.36	23.028	
15,400.00	7,557.11	19,288.79	10,811.71	73.67	135.65	158.84	-8,787.95	-81.99	3,487.18	3,334.14	153.04	22.786	
15,500.00	7,557.10	19,359.99	10,811.33	74.39	136.63	158.75	-8,859.14	-83.17	3,489.65	3,335.12	154.54	22.581	
15,600.00	7,557.10	19,427.00	10,811.54	75.11	137.55	158.67	-8,926.14	-84.32	3,492.97	3,336.98	155.98	22.394	
15,700.00	7,557.10	19,474.37	10,812.38	75.83	138.20	158.62	-8,973.50	-84.96	3,497.52	3,340.31	157.21	22.248	
15,800.00	7,557.09	19,520.00	10,814.11	76.55	138.83	158.58	-9,019.09	-85.24	3,503.64	3,345.28	158.37	22.123	
15,900.00	7,557.09	19,609.85	10,817.98	77.27	140.06	158.49	-9,108.84	-86.83	3,510.70	3,350.69	160.00	21.942	
16,000.00	7,557.08	19,812.42	10,826.12	78.00	142.87	158.36	-9,311.20	-85.24	3,516.67	3,353.94	162.73	21.610	
16,100.00	7,557.08	19,933.22	10,829.24	78.72	144.56	158.31	-9,431.92	-81.76	3,520.36	3,355.76	164.60	21.387	
16,200.00	7,557.08	20,011.60	10,831.33	79.45	145.65	158.28	-9,510.24	-79.82	3,524.33	3,358.24	166.09	21.220	
16,300.00	7,557.07	20,234.42	10,833.21	80.18	148.76	158.12	-9,732.97	-76.36	3,527.07	3,358.15	168.91	20.881	
16,400.00	7,557.07	20,269.00	10,832.79	80.90	149.24	158.09	-9,767.54	-76.05	3,528.54	3,358.46	170.08	20.747	
16,500.00	7,557.07	20,319.68	10,833.23	81.63	149.94	158.06	-9,818.21	-75.19	3,531.51	3,360.17	171.34	20.611	
16,600.00	7,557.06	20,363.00	10,835.11	82.36	150.55	158.05	-9,861.47	-73.84	3,536.56	3,364.08	172.48	20.505	
16,700.00	7,557.06	20,507.47	10,841.13	83.09	152.57	158.00	-10,005.75	-70.10	3,542.02	3,367.43	174.59	20.288	
16,800.00	7,557.06	20,587.09	10,842.53	83.82	153.68	157.92	-10,085.36	-70.64	3,546.43	3,370.29	176.14	20.134	
16,900.00	7,557.05	20,700.16	10,846.24	84.55	155.26	157.85	-10,198.34	-69.67	3,551.66	3,373.66	178.00	19.953	
17,000.00	7,557.05	20,874.00	10,848.91	85.29	157.68	157.72	-10,372.14	-67.73	3,555.05	3,374.60	180.45	19.701	
17,100.00	7,557.04	20,991.78	10,849.29	86.02	159.33	157.65	-10,489.88	-65.20	3,556.95	3,374.61	182.34	19.507	
17,200.00	7,557.04	21,066.98	10,850.29	86.75	160.39	157.62	-10,565.04	-62.73	3,559.38	3,375.56	183.82	19.363	
17,300.00	7,557.04	21,172.39	10,851.38	87.49	161.87	157.55	-10,670.43	-60.99	3,562.20	3,376.59	185.61	19.192	
17,400.00	7,557.03	21,271.78	10,852.20	88.22	163.26	157.49	-10,769.79	-59.06	3,564.71	3,377.37	187.34	19.028	
17,500.00	7,557.03	21,333.38	10,852.74	88.96	164.12	157.44	-10,831.39	-58.54	3,567.76	3,379.03	188.73	18.904	
17,600.00	7,557.03	21,387.56	10,853.99	89.70	164.88	157.40	-10,885.56	-58.12	3,572.09	3,382.07	190.02	18.799	
17,700.00	7,557.02	21,526.43	10,855.08	90.43	166.81	157.23	-11,024.36	-61.15	3,576.04	3,383.78	192.26	18.600	
17,800.00	7,557.02	21,634.22	10,854.37	91.17	168.29	157.04	-11,132.00	-66.82	3,580.04	3,385.79	194.25	18.430	
17,900.00	7,557.02	21,775.23	10,853.11	91.91	170.24	156.82	-11,272.91	-71.79	3,583.16	3,386.59	196.57	18.229	
18,000.00	7,557.01	21,905.00	10,851.50	92.65	172.05	156.66	-11,402.66	-73.51	3,585.07	3,386.37	198.70	18.043	
18,100.00	7,557.01	21,947.00	10,850.77	93.39	172.64	156.61	-11,444.64	-74.36	3,587.29	3,387.34	199.95	17.941	
18,200.00	7,557.00	21,947.00	10,850.77	94.13	172.64	156.61	-11,444.64	-74.36	3,592.04	3,391.37	200.67	17.900	
18,300.00	7,557.00	21,947.00	10,850.77	94.87	172.64	156.61	-11,444.64	-74.36	3,599.55	3,398.30	201.25	17.886	SF
18,318.93	7,557.00	21,947.00	10,850.77	95.01	172.64	156.61	-11,444.64	-74.36	3,601.29	3,399.94	201.34	17.886	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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	67.90	57.30	141.09	152.28				
100.00	100.00	99.02	99.02	0.28	0.52	67.90	57.50	141.56	152.80	152.00	0.80	190.700	
200.00	200.00	197.42	197.41	0.63	0.59	67.89	58.08	142.98	154.36	153.13	1.23	125.883	
300.00	300.00	297.69	297.65	0.99	0.83	67.61	59.54	144.53	156.35	154.52	1.83	85.587	
400.00	400.00	397.86	397.79	1.35	1.14	66.93	61.96	145.50	158.17	155.68	2.49	63.507	
500.00	500.00	497.66	497.55	1.71	1.47	66.15	64.67	146.26	159.95	156.77	3.18	50.340	
600.00	600.00	597.80	597.64	2.07	1.81	65.31	67.69	147.26	162.10	158.22	3.88	41.822	
700.00	700.00	700.28	700.07	2.43	2.16	64.19	70.90	146.59	162.83	158.25	4.59	35.510	
800.00	800.00	800.29	800.01	2.79	2.51	62.94	74.27	145.41	163.28	157.99	5.29	30.868	
900.00	900.00	900.76	900.44	3.14	2.86	61.87	77.08	144.16	163.47	157.47	6.00	27.254	
1,000.00	1,000.00	1,002.20	1,001.84	3.50	3.21	61.04	79.06	142.87	163.29	156.58	6.71	24.340	
1,100.00	1,100.00	1,104.30	1,103.92	3.86	3.56	60.52	79.64	140.88	161.87	154.46	7.41	21.830	
1,200.00	1,200.00	1,205.12	1,204.71	4.22	3.90	60.27	79.05	138.43	159.46	151.35	8.11	19.652	
1,300.00	1,300.00	1,305.96	1,305.51	4.58	4.25	59.96	78.36	135.53	156.63	147.82	8.82	17.768	
1,400.00	1,400.00	1,406.08	1,405.57	4.94	4.59	59.65	77.47	132.32	153.41	143.90	9.52	16.119	
1,500.00	1,500.00	1,506.00	1,505.44	5.29	4.94	59.37	76.49	129.15	150.18	139.96	10.22	14.693	
1,600.00	1,600.00	1,603.30	1,602.70	5.65	5.28	59.22	75.67	127.03	147.87	136.95	10.92	13.542	
1,700.00	1,700.00	1,702.43	1,701.83	6.01	5.62	59.21	75.13	126.08	146.78	135.15	11.62	12.629	
1,800.00	1,800.00	1,802.58	1,801.98	6.37	5.97	59.02	75.06	125.04	145.85	133.52	12.33	11.827	
1,900.00	1,900.00	1,901.55	1,900.94	6.73	6.32	58.68	75.46	123.99	145.14	132.10	13.04	11.131	
1,912.80	1,912.80	1,914.01	1,913.40	6.77	6.36	58.65	75.51	123.94	145.13	132.00	13.13	11.054	CC, ES
2,000.00	2,000.00	1,998.62	1,998.01	7.09	6.65	58.76	75.63	124.68	145.85	132.12	13.73	10.622	
2,100.00	2,099.98	2,095.91	2,095.21	7.43	6.98	-84.92	74.86	128.53	148.67	134.28	14.40	10.327	
2,200.00	2,199.84	2,196.63	2,195.81	7.76	7.33	-85.59	73.74	133.19	151.63	136.56	15.07	10.063	
2,300.00	2,299.45	2,297.20	2,296.27	8.09	7.67	-87.35	71.85	137.54	153.74	137.99	15.74	9.765	
2,400.00	2,398.70	2,396.47	2,395.37	8.42	8.01	-89.84	68.90	142.54	155.92	139.50	16.42	9.498	
2,500.00	2,497.47	2,497.25	2,495.91	8.76	8.35	-93.19	65.14	148.30	158.61	141.51	17.10	9.276	
2,600.00	2,595.62	2,599.51	2,598.12	9.10	8.70	-99.06	62.89	150.25	160.63	142.84	17.79	9.029	
2,644.93	2,639.49	2,644.01	2,642.61	9.25	8.86	-102.36	62.39	149.89	161.85	143.75	18.10	8.942	
2,700.00	2,693.18	2,698.34	2,696.93	9.44	9.05	-106.58	61.82	149.10	164.01	145.53	18.48	8.877	
2,800.00	2,790.65	2,803.04	2,801.55	9.78	9.41	-113.98	58.69	147.59	168.60	149.44	19.16	8.799	
2,900.00	2,888.13	2,909.88	2,907.73	10.13	9.78	-118.91	47.11	149.35	169.76	149.95	19.81	8.569	
3,000.00	2,985.61	3,014.48	3,010.74	10.48	10.14	-121.76	29.93	154.67	168.08	147.63	20.45	8.218	
3,100.00	3,083.08	3,113.00	3,106.66	10.83	10.48	-122.09	10.53	165.86	165.92	144.76	21.16	7.840	
3,155.41	3,137.10	3,165.06	3,157.00	11.03	10.66	-121.48	0.18	174.17	165.56	143.97	21.58	7.670	
3,200.00	3,180.56	3,207.95	3,198.44	11.19	10.81	-120.83	-8.06	181.56	165.79	143.88	21.91	7.566	
3,300.00	3,278.04	3,307.32	3,294.50	11.55	11.16	-119.35	-26.57	198.95	167.05	144.41	22.63	7.380	
3,400.00	3,375.51	3,405.93	3,390.13	11.91	11.50	-118.25	-44.01	215.54	168.97	145.61	23.36	7.233	
3,500.00	3,472.99	3,504.68	3,486.17	12.27	11.86	-117.53	-60.47	231.52	171.59	147.51	24.09	7.124	
3,600.00	3,570.47	3,602.35	3,581.85	12.64	12.21	-117.80	-74.46	245.26	175.41	150.60	24.81	7.070	
3,700.00	3,667.94	3,702.37	3,680.08	13.00	12.57	-118.44	-87.80	258.53	179.79	154.26	25.53	7.042	
3,800.00	3,765.42	3,802.70	3,778.60	13.37	12.93	-119.03	-101.45	271.77	183.93	157.67	26.26	7.005	
3,900.00	3,862.90	3,901.89	3,876.01	13.74	13.29	-119.62	-114.83	284.81	188.16	161.17	26.98	6.973	
4,000.00	3,960.37	4,000.56	3,972.93	14.11	13.65	-120.13	-127.69	298.16	192.97	165.26	27.71	6.963	
4,100.00	4,057.85	4,099.50	4,070.21	14.48	14.01	-120.75	-139.92	311.39	198.37	169.93	28.44	6.974	
4,200.00	4,155.33	4,202.21	4,171.38	14.86	14.38	-121.66	-152.28	324.08	203.72	174.54	29.18	6.982	
4,300.00	4,252.80	4,305.17	4,272.69	15.23	14.76	-122.64	-166.60	335.58	206.92	177.01	29.91	6.919	
4,400.00	4,350.28	4,404.48	4,370.43	15.61	15.13	-123.68	-180.65	346.09	209.75	179.11	30.64	6.846	
4,500.00	4,447.76	4,505.19	4,469.52	15.98	15.50	-124.62	-194.81	357.15	212.87	181.49	31.37	6.785	
4,600.00	4,545.23	4,605.87	4,568.08	16.36	15.87	-124.80	-210.36	370.58	215.47	183.35	32.11	6.709	
4,700.00	4,642.71	4,705.51	4,665.41	16.74	16.24	-124.68	-226.17	384.92	217.99	185.13	32.86	6.634	
4,800.00	4,740.19	4,803.63	4,761.20	17.11	16.61	-124.43	-241.46	399.66	221.01	187.40	33.61	6.575	

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 4H
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 4H	**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	4,837.66	4,903.02	4,858.13	17.49	16.98	-123.97	-256.67	415.55	224.61	190.24	34.37	6.536	
5,000.00	4,935.14	5,002.11	4,954.88	17.87	17.35	-123.66	-271.41	431.00	228.49	193.37	35.12	6.506	
5,100.00	5,032.62	5,100.13	5,050.98	18.25	17.72	-123.79	-284.78	444.93	233.08	197.21	35.87	6.499	
5,200.00	5,130.09	5,201.81	5,150.62	18.64	18.10	-123.88	-298.90	459.49	237.46	200.85	36.62	6.485	
5,300.00	5,227.57	5,300.48	5,247.40	19.02	18.47	-124.07	-312.32	473.23	241.99	204.63	37.37	6.476	
5,400.00	5,325.05	5,402.39	5,347.48	19.40	18.85	-124.43	-326.14	486.63	246.30	208.19	38.12	6.462	
5,500.00	5,422.52	5,503.21	5,446.04	19.78	19.23	-124.33	-341.33	501.44	249.70	210.83	38.87	6.424	
5,600.00	5,520.00	5,600.25	5,540.97	20.16	19.59	-124.23	-355.33	515.87	253.75	214.13	39.62	6.404	
5,700.00	5,617.48	5,700.29	5,639.20	20.55	19.97	-124.50	-368.41	529.56	258.72	218.34	40.38	6.407	
5,800.00	5,714.95	5,803.77	5,740.44	20.93	20.36	-124.44	-383.52	544.70	262.53	221.39	41.14	6.382	
5,900.00	5,812.43	5,904.38	5,838.72	21.31	20.74	-124.29	-399.17	559.51	265.46	223.57	41.89	6.336	
6,000.00	5,909.91	6,001.51	5,933.78	21.70	21.11	-124.32	-413.66	573.22	268.82	226.16	42.65	6.303	
6,100.00	6,007.38	6,098.90	6,029.16	22.08	21.48	-124.31	-427.12	587.56	273.40	230.00	43.41	6.299	
6,200.00	6,104.86	6,196.75	6,125.19	22.47	21.85	-124.46	-439.75	601.47	278.69	234.54	44.16	6.312	
6,300.00	6,202.34	6,296.43	6,223.27	22.85	22.22	-124.86	-451.72	614.61	284.50	239.59	44.91	6.335	
6,400.00	6,299.81	6,401.71	6,326.73	23.24	22.62	-125.20	-465.33	628.56	289.48	243.80	45.67	6.338	
6,421.23	6,320.51	6,423.13	6,347.72	23.32	22.70	-125.23	-468.41	631.49	290.27	244.44	45.84	6.333	
6,500.00	6,397.52	6,498.81	6,422.04	23.62	22.98	-125.32	-478.70	641.48	293.04	246.62	46.43	6.312	
6,600.00	6,495.90	6,591.71	6,513.43	24.00	23.33	-125.04	-489.76	653.88	296.44	249.29	47.15	6.287	
6,700.00	6,594.84	6,693.81	6,614.07	24.37	23.72	-124.31	-500.68	667.10	298.88	250.97	47.91	6.239	
6,800.00	6,694.23	6,802.09	6,720.80	24.74	24.12	-123.03	-513.96	679.67	297.51	248.84	48.67	6.112	
6,900.00	6,793.94	6,907.22	6,823.70	25.09	24.52	-120.55	-530.55	693.32	291.70	242.28	49.42	5.902	
7,000.00	6,893.85	7,000.96	6,914.98	25.44	24.88	-117.15	-546.32	707.69	284.85	234.67	50.17	5.677	
7,066.16	6,960.00	7,060.70	6,973.51	25.67	25.11	29.22	-554.76	716.18	281.30	230.66	50.64	5.555	
7,098.89	6,992.71	7,092.98	7,005.28	25.78	25.23	-138.32	-558.68	720.33	280.61	229.73	50.88	5.515	
7,100.00	6,993.82	7,094.14	7,006.42	25.78	25.24	-138.29	-558.82	720.48	280.61	229.72	50.89	5.514	
7,150.00	7,043.55	7,146.21	7,057.54	25.96	25.43	-136.95	-565.74	727.53	282.14	230.87	51.27	5.503	SF
7,200.00	7,092.63	7,199.96	7,110.06	26.14	25.64	-135.83	-573.92	735.47	286.43	234.77	51.66	5.544	
7,250.00	7,140.71	7,254.65	7,163.03	26.34	25.85	-134.83	-584.00	744.60	293.00	240.95	52.05	5.629	
7,300.00	7,187.41	7,302.27	7,208.83	26.53	26.04	-134.07	-593.69	753.29	302.24	249.80	52.44	5.764	
7,350.00	7,232.38	7,348.17	7,252.93	26.73	26.22	-133.55	-602.87	762.11	314.83	262.01	52.82	5.961	
7,400.00	7,275.27	7,392.25	7,295.33	26.93	26.39	-133.25	-611.34	770.71	330.74	277.56	53.18	6.219	
7,450.00	7,315.77	7,434.28	7,335.96	27.13	26.55	-133.16	-618.73	778.54	350.05	296.52	53.53	6.539	
7,500.00	7,353.56	7,474.51	7,374.99	27.34	26.71	-133.15	-625.24	785.78	372.76	318.90	53.86	6.921	
7,550.00	7,388.35	7,512.60	7,411.98	27.54	26.86	-132.99	-631.16	792.70	398.77	344.60	54.17	7.362	
7,600.00	7,419.89	7,548.02	7,446.39	27.74	27.00	-132.56	-636.46	799.23	428.00	373.54	54.46	7.859	
7,650.00	7,447.92	7,581.20	7,478.65	27.94	27.12	-131.78	-641.26	805.31	460.27	405.54	54.72	8.411	
7,700.00	7,472.24	7,610.95	7,507.61	28.14	27.24	-130.47	-645.42	810.67	495.38	440.41	54.96	9.013	
7,750.00	7,492.67	7,639.00	7,534.96	28.33	27.35	-128.60	-649.23	815.63	533.13	477.94	55.18	9.661	
7,800.00	7,509.03	7,659.32	7,554.80	28.52	27.42	-125.38	-651.89	819.11	573.23	517.89	55.35	10.357	
7,816.16	7,513.43	7,665.62	7,560.96	28.58	27.45	-124.14	-652.70	820.15	586.65	531.25	55.40	10.590	
7,900.00	7,532.50	7,694.08	7,588.85	28.88	27.56	-124.78	-656.21	824.64	659.02	603.40	55.62	11.850	
8,000.00	7,548.24	7,720.09	7,614.40	29.24	27.65	-123.48	-659.25	828.43	750.10	694.29	55.81	13.439	
8,100.00	7,556.27	7,738.26	7,632.28	29.58	27.72	-118.82	-661.27	830.91	844.99	789.03	55.95	15.102	
8,153.26	7,557.37	7,745.06	7,638.98	29.76	27.75	-114.03	-662.02	831.83	896.62	840.61	56.01	16.009	
8,200.00	7,557.37	7,750.05	7,643.89	29.92	27.77	-115.23	-662.56	832.51	942.24	886.20	56.04	16.813	
8,300.00	7,557.36	7,760.61	7,654.29	30.26	27.81	-117.67	-663.71	833.96	1,040.09	983.96	56.12	18.532	
8,400.00	7,557.36	7,771.00	7,664.52	30.63	27.85	-119.93	-664.82	835.40	1,138.20	1,082.00	56.20	20.252	
8,500.00	7,557.36	7,781.23	7,674.59	31.00	27.89	-122.03	-665.91	836.82	1,236.52	1,180.24	56.28	21.971	
8,600.00	7,557.35	7,791.29	7,684.49	31.39	27.92	-123.97	-666.97	838.24	1,335.00	1,278.64	56.36	23.687	
8,700.00	7,557.35	7,801.19	7,694.24	31.79	27.96	-125.78	-668.00	839.64	1,433.61	1,377.18	56.44	25.401	
8,800.00	7,557.35	7,810.94	7,703.83	32.21	28.00	-127.45	-669.01	841.03	1,532.33	1,475.82	56.52	27.113	

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 4H
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 4H	**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
8,900.00	7,557.34	7,827.00	7,719.64	32.64	28.06	-130.01	-670.65	843.34	1,631.16	1,574.52	56.64	28.801	
9,000.00	7,557.34	7,832.86	7,725.41	33.08	28.08	-130.88	-671.25	844.18	1,730.03	1,673.33	56.69	30.516	
9,100.00	7,557.34	7,852.24	7,744.49	33.54	28.15	-133.58	-673.28	846.93	1,828.93	1,772.09	56.83	32.180	
9,200.00	7,557.33	7,873.09	7,765.02	34.00	28.23	-136.18	-675.56	849.79	1,927.82	1,870.84	56.98	33.832	
9,300.00	7,557.33	7,895.58	7,787.16	34.48	28.32	-138.67	-678.13	852.77	2,026.70	1,969.55	57.14	35.468	
9,400.00	7,557.32	7,919.90	7,811.10	34.96	28.41	-141.08	-681.04	855.88	2,125.54	2,068.23	57.31	37.087	
9,500.00	7,557.32	7,934.44	7,825.42	35.46	28.46	-142.38	-682.82	857.67	2,224.37	2,166.94	57.43	38.733	
9,600.00	7,557.32	7,948.54	7,839.31	35.97	28.52	-143.56	-684.55	859.37	2,323.22	2,265.68	57.54	40.374	
9,700.00	7,557.31	7,962.69	7,853.26	36.48	28.57	-144.68	-686.30	861.04	2,422.09	2,364.43	57.66	42.008	
9,800.00	7,557.31	7,976.90	7,867.26	37.00	28.62	-145.73	-688.06	862.67	2,520.97	2,463.20	57.77	43.635	
9,900.00	7,557.31	7,991.15	7,881.31	37.54	28.68	-146.72	-689.83	864.27	2,619.87	2,561.98	57.89	45.254	
10,000.00	7,557.30	12,551.91	9,983.54	38.08	47.06	-153.91	-3,304.73	2,012.13	2,700.80	2,644.67	56.13	48.116	
10,100.00	7,557.30	12,762.00	9,982.63	38.63	48.00	-154.11	-3,514.73	2,015.03	2,697.21	2,640.25	56.96	47.354	
10,200.00	7,557.30	12,856.00	9,981.63	39.18	48.43	-154.22	-3,608.72	2,015.12	2,693.46	2,635.36	58.11	46.355	
10,300.00	7,557.29	13,003.16	9,982.06	39.74	49.10	-154.49	-3,755.72	2,010.78	2,689.91	2,630.79	59.12	45.502	
10,400.00	7,557.29	13,118.03	9,981.83	40.31	49.60	-154.80	-3,870.25	2,002.08	2,683.58	2,623.38	60.20	44.576	
10,500.00	7,557.28	13,227.05	9,980.58	40.89	50.11	-155.02	-3,979.14	1,997.21	2,677.89	2,616.55	61.35	43.653	
10,600.00	7,557.28	13,292.64	9,978.87	41.47	50.43	-155.10	-4,044.71	1,996.46	2,672.34	2,609.71	62.63	42.671	
10,700.00	7,557.28	13,402.22	9,975.62	42.06	50.98	-155.17	-4,154.21	1,998.53	2,667.74	2,603.90	63.85	41.785	
10,800.00	7,557.27	13,458.95	9,973.86	42.66	51.26	-155.20	-4,210.91	1,999.56	2,663.12	2,597.94	65.18	40.857	
10,900.00	7,557.27	13,513.00	9,973.34	43.26	51.54	-155.24	-4,264.93	2,001.16	2,660.58	2,594.05	66.53	39.988	
11,000.00	7,557.27	13,619.10	9,973.20	43.86	52.09	-155.31	-4,370.98	2,004.38	2,659.04	2,591.24	67.80	39.220	
11,100.00	7,557.26	13,741.96	9,971.38	44.47	52.74	-155.38	-4,493.78	2,007.85	2,656.08	2,587.03	69.05	38.468	
11,200.00	7,557.26	13,888.00	9,968.48	45.09	53.51	-155.48	-4,639.75	2,010.80	2,652.50	2,582.24	70.26	37.753	
11,300.00	7,557.26	13,951.93	9,966.99	45.71	53.85	-155.54	-4,703.66	2,011.10	2,648.09	2,576.46	71.63	36.969	
11,400.00	7,557.25	14,015.28	9,966.90	46.33	54.19	-155.61	-4,767.01	2,011.78	2,645.61	2,572.61	73.00	36.239	
11,500.00	7,557.25	14,111.66	9,967.28	46.96	54.71	-155.71	-4,863.38	2,013.01	2,643.81	2,569.48	74.33	35.568	
11,600.00	7,557.24	14,195.26	9,967.68	47.60	55.17	-155.81	-4,946.97	2,013.81	2,642.03	2,566.34	75.68	34.908	
11,667.11	7,557.24	14,230.97	9,968.17	48.03	55.36	-155.84	-4,982.67	2,014.52	2,641.62	2,564.99	76.63	34.473	
11,700.00	7,557.24	14,264.00	9,968.89	48.24	55.54	-155.87	-5,015.68	2,015.49	2,641.80	2,564.73	77.07	34.278	
11,700.28	7,557.24	14,264.00	9,968.89	48.24	55.54	-155.87	-5,015.68	2,015.49	2,641.80	2,564.73	77.07	34.276	
11,800.00	7,557.24	14,315.92	9,970.16	48.88	55.84	-155.91	-5,067.53	2,017.86	2,642.99	2,564.50	78.49	33.675	
11,900.00	7,557.23	14,519.04	9,973.60	49.52	56.99	-156.07	-5,270.41	2,024.50	2,643.61	2,563.90	79.71	33.164	
12,000.00	7,557.23	14,614.01	9,973.82	50.17	57.52	-156.21	-5,365.38	2,023.76	2,640.91	2,559.83	81.08	32.573	
12,100.00	7,557.23	14,737.98	9,972.99	50.82	58.24	-156.28	-5,489.22	2,027.92	2,639.14	2,556.72	82.42	32.019	
12,200.00	7,557.22	14,807.05	9,972.09	51.48	58.64	-156.30	-5,558.22	2,030.83	2,637.01	2,553.15	83.85	31.448	
12,300.00	7,557.22	14,991.99	9,972.88	52.14	59.69	-156.65	-5,743.04	2,025.79	2,633.64	2,548.55	85.09	30.952	
12,400.00	7,557.22	15,077.98	9,972.88	52.80	60.17	-156.85	-5,828.90	2,021.16	2,628.95	2,542.47	86.48	30.398	
12,500.00	7,557.21	15,165.23	9,972.97	53.46	60.66	-157.03	-5,916.10	2,017.90	2,625.01	2,537.13	87.89	29.868	
12,600.00	7,557.21	15,269.61	9,972.88	54.13	61.26	-157.23	-6,020.43	2,014.77	2,621.24	2,531.97	89.27	29.362	
12,700.00	7,557.20	15,343.86	9,972.64	54.80	61.70	-157.36	-6,094.66	2,013.17	2,617.65	2,526.94	90.71	28.857	
12,800.00	7,557.20	15,416.92	9,972.92	55.48	62.13	-157.46	-6,167.72	2,013.01	2,615.37	2,523.22	92.16	28.380	
12,900.00	7,557.20	15,535.51	9,973.39	56.15	62.84	-157.61	-6,286.31	2,013.18	2,613.35	2,519.80	93.55	27.935	
13,000.00	7,557.19	15,639.56	9,973.00	56.83	63.46	-157.76	-6,390.35	2,012.85	2,610.40	2,515.43	94.97	27.487	
13,100.00	7,557.19	15,727.87	9,972.80	57.51	63.99	-157.86	-6,478.66	2,013.25	2,607.90	2,511.49	96.41	27.050	
13,200.00	7,557.19	15,825.26	9,972.96	58.19	64.59	-157.99	-6,576.05	2,013.50	2,605.70	2,507.86	97.85	26.630	
13,300.00	7,557.18	15,941.50	9,973.12	58.88	65.29	-158.15	-6,692.29	2,013.12	2,603.29	2,504.02	99.27	26.226	
13,400.00	7,557.18	16,024.55	9,973.14	59.57	65.80	-158.27	-6,775.34	2,012.71	2,600.73	2,500.01	100.72	25.821	
13,500.00	7,557.18	16,116.86	9,973.53	60.25	66.37	-158.39	-6,867.65	2,012.91	2,598.80	2,496.62	102.18	25.434	
13,600.00	7,557.17	16,248.55	9,973.56	60.95	67.19	-158.57	-6,999.34	2,013.01	2,596.50	2,492.91	103.60	25.064	
13,700.00	7,557.17	16,329.00	9,973.17	61.64	67.69	-158.68	-7,079.79	2,012.64	2,593.57	2,488.50	105.07	24.685	
13,800.00	7,557.16	16,424.00	9,973.49	62.33	68.28	-158.82	-7,174.78	2,012.05	2,591.30	2,484.77	106.53	24.325	

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 4H
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 4H	**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
13,900.00	7,557.16	16,545.44	9,974.16	63.03	69.04	-159.04	-7,296.19	2,009.46	2,588.69	2,480.72	107.97	23.976	
14,000.00	7,557.16	16,612.00	9,974.92	63.73	69.45	-159.18	-7,362.71	2,007.45	2,586.38	2,476.92	109.46	23.629	
14,100.00	7,557.15	16,706.00	9,975.98	64.43	70.04	-159.33	-7,456.70	2,006.75	2,584.87	2,473.94	110.93	23.302	
14,200.00	7,557.15	16,770.91	9,976.43	65.13	70.46	-159.38	-7,521.58	2,008.56	2,584.20	2,471.79	112.41	22.988	
14,300.00	7,557.15	16,880.88	9,977.48	65.84	71.18	-159.46	-7,631.47	2,012.18	2,583.97	2,470.08	113.89	22.688	
14,400.00	7,557.14	16,987.00	9,978.12	66.54	71.86	-159.57	-7,737.56	2,014.33	2,582.94	2,467.57	115.37	22.389	
14,466.49	7,557.14	17,037.17	9,978.30	67.01	72.19	-159.59	-7,787.68	2,016.51	2,582.68	2,466.33	116.36	22.196	
14,500.00	7,557.14	17,060.74	9,978.45	67.25	72.35	-159.60	-7,811.22	2,017.78	2,582.75	2,465.89	116.85	22.102	
14,600.00	7,557.14	17,173.60	9,979.08	67.96	73.09	-159.62	-7,923.87	2,024.48	2,583.11	2,464.76	118.34	21.827	
14,700.00	7,557.13	17,289.61	9,979.50	68.66	73.86	-159.68	-8,039.78	2,029.30	2,582.63	2,462.79	119.83	21.552	
14,800.00	7,557.13	17,402.66	9,979.61	69.38	74.60	-159.74	-8,152.75	2,033.61	2,581.81	2,460.49	121.32	21.281	
14,900.00	7,557.12	17,518.73	9,979.80	70.09	75.37	-159.87	-8,268.81	2,034.90	2,580.07	2,457.26	122.80	21.010	
15,000.00	7,557.12	17,584.00	9,979.92	70.80	75.79	-159.95	-8,334.07	2,035.28	2,578.45	2,454.15	124.30	20.743	
15,012.95	7,557.12	17,584.00	9,979.92	70.89	75.79	-159.95	-8,334.07	2,035.28	2,578.42	2,453.92	124.50	20.711	
15,100.00	7,557.12	17,584.00	9,979.92	71.52	75.79	-159.95	-8,334.07	2,035.28	2,579.89	2,454.15	125.73	20.519	
15,200.00	7,557.11	17,584.00	9,979.92	72.23	75.79	-159.95	-8,334.07	2,035.28	2,585.19	2,458.16	127.03	20.351	
15,300.00	7,557.11	17,584.00	9,979.92	72.95	75.79	-159.95	-8,334.07	2,035.28	2,594.35	2,466.16	128.19	20.239	
15,400.00	7,557.11	17,584.00	9,979.92	73.67	75.79	-159.95	-8,334.07	2,035.28	2,607.31	2,478.10	129.20	20.180	
15,500.00	7,557.10	17,584.00	9,979.92	74.39	75.79	-159.95	-8,334.07	2,035.28	2,624.02	2,493.94	130.07	20.174	
15,600.00	7,557.10	17,584.00	9,979.92	75.11	75.79	-159.95	-8,334.07	2,035.28	2,644.40	2,513.60	130.80	20.217	
15,700.00	7,557.10	17,584.00	9,979.92	75.83	75.79	-159.95	-8,334.07	2,035.28	2,668.39	2,537.00	131.39	20.309	
15,800.00	7,557.09	17,584.00	9,979.92	76.55	75.79	-159.95	-8,334.07	2,035.28	2,695.87	2,564.03	131.84	20.448	
15,900.00	7,557.09	17,584.00	9,979.92	77.27	75.79	-159.95	-8,334.07	2,035.28	2,726.74	2,594.58	132.16	20.632	
16,000.00	7,557.08	17,584.00	9,979.92	78.00	75.79	-159.95	-8,334.07	2,035.28	2,760.89	2,628.53	132.36	20.858	
16,100.00	7,557.08	17,584.00	9,979.92	78.72	75.79	-159.95	-8,334.07	2,035.28	2,798.20	2,665.75	132.45	21.126	
16,200.00	7,557.08	17,584.00	9,979.92	79.45	75.79	-159.95	-8,334.07	2,035.28	2,838.54	2,706.11	132.44	21.433	
16,300.00	7,557.07	17,584.00	9,979.92	80.18	75.79	-159.95	-8,334.07	2,035.28	2,881.80	2,749.47	132.32	21.778	
16,400.00	7,557.07	17,584.00	9,979.92	80.90	75.79	-159.95	-8,334.07	2,035.28	2,927.82	2,795.70	132.12	22.160	
16,500.00	7,557.07	17,584.00	9,979.92	81.63	75.79	-159.95	-8,334.07	2,035.28	2,976.50	2,844.65	131.85	22.575	
16,600.00	7,557.06	17,584.00	9,979.92	82.36	75.79	-159.95	-8,334.07	2,035.28	3,027.70	2,896.20	131.50	23.024	
16,700.00	7,557.06	17,584.00	9,979.92	83.09	75.79	-159.95	-8,334.07	2,035.28	3,081.30	2,950.20	131.10	23.504	
16,800.00	7,557.06	17,584.00	9,979.92	83.82	75.79	-159.95	-8,334.07	2,035.28	3,137.16	3,006.52	130.64	24.013	
16,900.00	7,557.05	17,584.00	9,979.92	84.55	75.79	-159.95	-8,334.07	2,035.28	3,195.18	3,065.04	130.14	24.551	
17,000.00	7,557.05	17,584.00	9,979.92	85.29	75.79	-159.95	-8,334.07	2,035.28	3,255.24	3,125.64	129.61	25.116	
17,100.00	7,557.04	17,584.00	9,979.92	86.02	75.79	-159.95	-8,334.07	2,035.28	3,317.23	3,188.19	129.04	25.707	
17,200.00	7,557.04	17,584.00	9,979.92	86.75	75.79	-159.95	-8,334.07	2,035.28	3,381.04	3,252.59	128.45	26.322	
17,300.00	7,557.04	17,584.00	9,979.92	87.49	75.79	-159.95	-8,334.07	2,035.28	3,446.57	3,318.73	127.84	26.960	
17,400.00	7,557.03	17,584.00	9,979.92	88.22	75.79	-159.95	-8,334.07	2,035.28	3,513.72	3,386.51	127.22	27.620	
17,500.00	7,557.03	17,584.00	9,979.92	88.96	75.79	-159.95	-8,334.07	2,035.28	3,582.41	3,455.83	126.58	28.301	
17,600.00	7,557.03	17,584.00	9,979.92	89.70	75.79	-159.95	-8,334.07	2,035.28	3,652.54	3,526.60	125.94	29.002	
17,700.00	7,557.02	17,584.00	9,979.92	90.43	75.79	-159.95	-8,334.07	2,035.28	3,724.04	3,598.75	125.30	29.722	
17,800.00	7,557.02	17,584.00	9,979.92	91.17	75.79	-159.95	-8,334.07	2,035.28	3,796.83	3,672.18	124.65	30.459	
17,900.00	7,557.02	17,584.00	9,979.92	91.91	75.79	-159.95	-8,334.07	2,035.28	3,870.83	3,746.82	124.01	31.214	
18,000.00	7,557.01	17,584.00	9,979.92	92.65	75.79	-159.95	-8,334.07	2,035.28	3,945.98	3,822.60	123.37	31.984	
18,100.00	7,557.01	17,584.00	9,979.92	93.39	75.79	-159.95	-8,334.07	2,035.28	4,022.20	3,899.46	122.74	32.769	
18,200.00	7,557.00	17,584.00	9,979.92	94.13	75.79	-159.95	-8,334.07	2,035.28	4,099.46	3,977.34	122.12	33.569	
18,300.00	7,557.00	17,584.00	9,979.92	94.87	75.79	-159.95	-8,334.07	2,035.28	4,177.67	4,056.17	121.51	34.382	
18,318.93	7,557.00	17,584.00	9,979.92	95.01	75.79	-159.95	-8,334.07	2,035.28	4,192.58	4,071.19	121.39	34.538	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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	67.90	57.30	141.09	152.28				
100.00	100.00	99.02	99.02	0.28	0.52	67.90	57.50	141.56	152.80	152.00	0.80	190.700	
200.00	200.00	197.42	197.41	0.63	0.59	67.89	58.08	142.98	154.36	153.13	1.23	125.883	
300.00	300.00	297.69	297.65	0.99	0.83	67.61	59.54	144.53	156.35	154.52	1.83	85.587	
400.00	400.00	397.86	397.79	1.35	1.14	66.93	61.96	145.50	158.17	155.68	2.49	63.507	
500.00	500.00	497.66	497.55	1.71	1.47	66.15	64.67	146.26	159.95	156.77	3.18	50.340	
600.00	600.00	597.80	597.64	2.07	1.81	65.31	67.69	147.26	162.10	158.22	3.88	41.822	
700.00	700.00	700.28	700.07	2.43	2.16	64.19	70.90	146.59	162.83	158.25	4.59	35.510	
800.00	800.00	800.29	800.01	2.79	2.51	62.94	74.27	145.41	163.28	157.99	5.29	30.868	
900.00	900.00	900.76	900.44	3.14	2.86	61.87	77.08	144.16	163.47	157.47	6.00	27.254	
1,000.00	1,000.00	1,002.20	1,001.84	3.50	3.21	61.04	79.06	142.87	163.29	156.58	6.71	24.340	
1,100.00	1,100.00	1,104.30	1,103.92	3.86	3.56	60.52	79.64	140.88	161.87	154.46	7.41	21.830	
1,200.00	1,200.00	1,205.12	1,204.71	4.22	3.90	60.27	79.05	138.43	159.46	151.35	8.11	19.652	
1,300.00	1,300.00	1,305.96	1,305.51	4.58	4.25	59.96	78.36	135.53	156.63	147.82	8.82	17.768	
1,400.00	1,400.00	1,406.08	1,405.57	4.94	4.59	59.65	77.47	132.32	153.41	143.90	9.52	16.119	
1,500.00	1,500.00	1,506.00	1,505.44	5.29	4.94	59.37	76.49	129.15	150.18	139.96	10.22	14.693	
1,600.00	1,600.00	1,603.30	1,602.70	5.65	5.28	59.22	75.67	127.03	147.87	136.95	10.92	13.542	
1,700.00	1,700.00	1,702.43	1,701.83	6.01	5.62	59.21	75.13	126.08	146.78	135.15	11.62	12.629	
1,800.00	1,800.00	1,802.58	1,801.98	6.37	5.97	59.02	75.06	125.04	145.85	133.52	12.33	11.827	
1,900.00	1,900.00	1,901.55	1,900.94	6.73	6.32	58.68	75.46	123.99	145.14	132.10	13.04	11.131	
1,912.80	1,912.80	1,914.01	1,913.40	6.77	6.36	58.65	75.51	123.94	145.13	132.00	13.13	11.054	CC, ES
2,000.00	2,000.00	1,998.62	1,998.01	7.09	6.65	58.76	75.63	124.68	145.85	132.12	13.73	10.622	
2,100.00	2,099.98	2,095.91	2,095.21	7.43	6.98	-84.92	74.86	128.53	148.67	134.28	14.40	10.327	
2,200.00	2,199.84	2,196.63	2,195.81	7.76	7.33	-85.59	73.74	133.19	151.63	136.56	15.07	10.063	
2,300.00	2,299.45	2,297.20	2,296.27	8.09	7.67	-87.35	71.85	137.54	153.74	137.99	15.74	9.765	
2,400.00	2,398.70	2,396.47	2,395.37	8.42	8.01	-89.84	68.90	142.54	155.92	139.50	16.42	9.498	
2,500.00	2,497.47	2,497.25	2,495.91	8.76	8.35	-93.19	65.14	148.30	158.61	141.51	17.10	9.276	
2,600.00	2,595.62	2,599.51	2,598.12	9.10	8.70	-99.06	62.89	150.25	160.63	142.84	17.79	9.029	
2,644.93	2,639.49	2,644.01	2,642.61	9.25	8.86	-102.36	62.39	149.89	161.85	143.75	18.10	8.942	
2,700.00	2,693.18	2,698.34	2,696.93	9.44	9.05	-106.58	61.82	149.10	164.01	145.53	18.48	8.877	
2,800.00	2,790.65	2,803.04	2,801.55	9.78	9.41	-113.98	58.69	147.59	168.60	149.44	19.16	8.799	
2,900.00	2,888.13	2,909.88	2,907.73	10.13	9.78	-118.91	47.11	149.35	169.76	149.95	19.81	8.569	
3,000.00	2,985.61	3,014.48	3,010.74	10.48	10.14	-121.76	29.93	154.67	168.08	147.63	20.45	8.218	
3,100.00	3,083.08	3,113.00	3,106.66	10.83	10.48	-122.09	10.53	165.86	165.92	144.76	21.16	7.840	
3,155.41	3,137.10	3,165.06	3,157.00	11.03	10.66	-121.48	0.18	174.17	165.56	143.97	21.58	7.670	
3,200.00	3,180.56	3,207.95	3,198.44	11.19	10.81	-120.83	-8.06	181.56	165.79	143.88	21.91	7.566	
3,300.00	3,278.04	3,307.32	3,294.50	11.55	11.16	-119.35	-26.57	198.95	167.05	144.41	22.63	7.380	
3,400.00	3,375.51	3,405.93	3,390.13	11.91	11.50	-118.25	-44.01	215.54	168.97	145.61	23.36	7.233	
3,500.00	3,472.99	3,504.68	3,486.17	12.27	11.86	-117.53	-60.47	231.52	171.59	147.51	24.09	7.124	
3,600.00	3,570.47	3,602.35	3,581.85	12.64	12.21	-117.80	-74.46	245.26	175.41	150.60	24.81	7.070	
3,700.00	3,667.94	3,702.37	3,680.08	13.00	12.57	-118.44	-87.80	258.53	179.79	154.26	25.53	7.042	
3,800.00	3,765.42	3,802.70	3,778.60	13.37	12.93	-119.03	-101.45	271.77	183.93	157.67	26.26	7.005	
3,900.00	3,862.90	3,901.89	3,876.01	13.74	13.29	-119.62	-114.83	284.81	188.16	161.17	26.98	6.973	
4,000.00	3,960.37	4,000.56	3,972.93	14.11	13.65	-120.13	-127.69	298.16	192.97	165.26	27.71	6.963	
4,100.00	4,057.85	4,099.50	4,070.21	14.48	14.01	-120.75	-139.92	311.39	198.37	169.93	28.44	6.974	
4,200.00	4,155.33	4,202.21	4,171.38	14.86	14.38	-121.66	-152.28	324.08	203.72	174.54	29.18	6.982	
4,300.00	4,252.80	4,305.17	4,272.69	15.23	14.76	-122.64	-166.60	335.58	206.92	177.01	29.91	6.919	
4,400.00	4,350.28	4,404.48	4,370.43	15.61	15.13	-123.68	-180.65	346.09	209.75	179.11	30.64	6.846	
4,500.00	4,447.76	4,505.19	4,469.52	15.98	15.50	-124.62	-194.81	357.15	212.87	181.49	31.37	6.785	
4,600.00	4,545.23	4,605.87	4,568.08	16.36	15.87	-124.80	-210.36	370.58	215.47	183.35	32.11	6.709	
4,700.00	4,642.71	4,705.51	4,665.41	16.74	16.24	-124.68	-226.17	384.92	217.99	185.13	32.86	6.634	
4,800.00	4,740.19	4,803.63	4,761.20	17.11	16.61	-124.43	-241.46	399.66	221.01	187.40	33.61	6.575	

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 4H
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 4H	**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	4,837.66	4,903.02	4,858.13	17.49	16.98	-123.97	-256.67	415.55	224.61	190.24	34.37	6.536	
5,000.00	4,935.14	5,002.11	4,954.88	17.87	17.35	-123.66	-271.41	431.00	228.49	193.37	35.12	6.506	
5,100.00	5,032.62	5,100.13	5,050.98	18.25	17.72	-123.79	-284.78	444.93	233.08	197.21	35.87	6.499	
5,200.00	5,130.09	5,201.81	5,150.62	18.64	18.10	-123.88	-298.90	459.49	237.46	200.85	36.62	6.485	
5,300.00	5,227.57	5,300.48	5,247.40	19.02	18.47	-124.07	-312.32	473.23	241.99	204.63	37.37	6.476	
5,400.00	5,325.05	5,402.39	5,347.48	19.40	18.85	-124.43	-326.14	486.63	246.30	208.19	38.12	6.462	
5,500.00	5,422.52	5,503.21	5,446.04	19.78	19.23	-124.33	-341.33	501.44	249.70	210.83	38.87	6.424	
5,600.00	5,520.00	5,600.25	5,540.97	20.16	19.59	-124.23	-355.33	515.87	253.75	214.13	39.62	6.404	
5,700.00	5,617.48	5,700.29	5,639.20	20.55	19.97	-124.50	-368.41	529.56	258.72	218.34	40.38	6.407	
5,800.00	5,714.95	5,803.77	5,740.44	20.93	20.36	-124.44	-383.52	544.70	262.53	221.39	41.14	6.382	
5,900.00	5,812.43	5,904.38	5,838.72	21.31	20.74	-124.29	-399.17	559.51	265.46	223.57	41.89	6.336	
6,000.00	5,909.91	6,001.51	5,933.78	21.70	21.11	-124.32	-413.66	573.22	268.82	226.16	42.65	6.303	
6,100.00	6,007.38	6,098.90	6,029.16	22.08	21.48	-124.31	-427.12	587.56	273.40	230.00	43.40	6.299	
6,200.00	6,104.86	6,196.75	6,125.19	22.47	21.85	-124.46	-439.75	601.47	278.69	234.54	44.15	6.312	
6,300.00	6,202.34	6,296.43	6,223.27	22.85	22.22	-124.86	-451.72	614.61	284.50	239.59	44.91	6.335	
6,400.00	6,299.81	6,401.71	6,326.73	23.24	22.62	-125.20	-465.33	628.56	289.48	243.80	45.67	6.338	
6,421.23	6,320.51	6,423.13	6,347.72	23.32	22.70	-125.23	-468.41	631.49	290.27	244.44	45.84	6.333	
6,500.00	6,397.52	6,498.81	6,422.04	23.62	22.98	-125.32	-478.70	641.48	293.04	246.62	46.43	6.312	
6,600.00	6,495.90	6,591.71	6,513.43	24.00	23.33	-125.04	-489.76	653.88	296.44	249.29	47.15	6.287	
6,700.00	6,594.84	6,693.81	6,614.07	24.37	23.72	-124.31	-500.68	667.10	298.88	250.97	47.91	6.239	
6,800.00	6,694.23	6,802.09	6,720.80	24.74	24.12	-123.03	-513.96	679.67	297.51	248.84	48.67	6.112	
6,900.00	6,793.94	6,907.22	6,823.70	25.09	24.52	-120.55	-530.55	693.32	291.70	242.28	49.42	5.902	
7,000.00	6,893.85	7,000.96	6,914.98	25.44	24.88	-117.15	-546.32	707.69	284.85	234.67	50.17	5.677	
7,066.16	6,960.00	7,060.70	6,973.51	25.67	25.11	29.22	-554.76	716.18	281.30	230.66	50.64	5.555	
7,098.89	6,992.71	7,092.98	7,005.28	25.78	25.23	-138.32	-558.68	720.33	280.61	229.73	50.88	5.515	
7,100.00	6,993.82	7,094.14	7,006.42	25.78	25.24	-138.29	-558.82	720.48	280.61	229.72	50.89	5.514	
7,150.00	7,043.55	7,146.21	7,057.54	25.96	25.43	-136.95	-565.74	727.53	282.14	230.87	51.27	5.503	SF
7,200.00	7,092.63	7,199.96	7,110.06	26.14	25.64	-135.83	-573.92	735.47	286.43	234.77	51.66	5.544	
7,250.00	7,140.71	7,254.65	7,163.03	26.34	25.85	-134.83	-584.00	744.60	293.00	240.95	52.05	5.629	
7,300.00	7,187.41	7,302.27	7,208.83	26.53	26.04	-134.07	-593.69	753.29	302.24	249.80	52.44	5.764	
7,350.00	7,232.38	7,348.17	7,252.93	26.73	26.22	-133.55	-602.87	762.11	314.83	262.01	52.82	5.961	
7,400.00	7,275.27	7,392.25	7,295.33	26.93	26.39	-133.25	-611.34	770.71	330.74	277.56	53.18	6.219	
7,450.00	7,315.77	7,434.28	7,335.96	27.13	26.55	-133.16	-618.73	778.54	350.05	296.52	53.53	6.539	
7,500.00	7,353.56	7,474.51	7,374.99	27.34	26.71	-133.15	-625.24	785.78	372.76	318.90	53.86	6.921	
7,550.00	7,388.35	7,512.60	7,411.98	27.54	26.86	-132.99	-631.16	792.70	398.77	344.60	54.17	7.362	
7,600.00	7,419.89	7,548.02	7,446.39	27.74	27.00	-132.56	-636.46	799.23	428.00	373.54	54.46	7.859	
7,650.00	7,447.92	7,581.20	7,478.65	27.94	27.12	-131.78	-641.26	805.31	460.27	405.54	54.72	8.411	
7,700.00	7,472.24	7,610.95	7,507.61	28.14	27.24	-130.47	-645.42	810.67	495.38	440.41	54.96	9.013	
7,750.00	7,492.67	7,639.00	7,534.96	28.33	27.35	-128.60	-649.23	815.63	533.13	477.94	55.18	9.661	
7,800.00	7,509.03	7,659.32	7,554.80	28.52	27.42	-125.38	-651.89	819.11	573.23	517.89	55.35	10.357	
7,816.16	7,513.43	7,665.62	7,560.96	28.58	27.45	-124.14	-652.70	820.15	586.65	531.25	55.40	10.590	
7,900.00	7,532.50	7,694.08	7,588.85	28.88	27.56	-124.78	-656.21	824.64	659.02	603.40	55.62	11.850	
8,000.00	7,548.24	7,720.09	7,614.40	29.24	27.65	-123.48	-659.25	828.43	750.10	694.29	55.81	13.439	
8,100.00	7,556.27	7,738.26	7,632.28	29.58	27.72	-118.82	-661.27	830.91	844.99	789.03	55.95	15.102	
8,153.26	7,557.37	7,745.06	7,638.98	29.76	27.75	-114.03	-662.02	831.83	896.62	840.61	56.01	16.009	
8,200.00	7,557.37	7,750.05	7,643.89	29.92	27.77	-115.23	-662.56	832.51	942.24	886.20	56.04	16.813	
8,300.00	7,557.36	7,760.61	7,654.29	30.26	27.81	-117.67	-663.71	833.96	1,040.09	983.96	56.12	18.532	
8,400.00	7,557.36	7,771.00	7,664.52	30.63	27.85	-119.93	-664.82	835.40	1,138.20	1,082.00	56.20	20.252	
8,500.00	7,557.36	7,781.23	7,674.59	31.00	27.89	-122.03	-665.91	836.82	1,236.52	1,180.24	56.28	21.971	
8,600.00	7,557.35	7,791.29	7,684.49	31.39	27.92	-123.97	-666.97	838.24	1,335.00	1,278.64	56.36	23.687	
8,700.00	7,557.35	7,801.19	7,694.24	31.79	27.96	-125.78	-668.00	839.64	1,433.61	1,377.18	56.44	25.402	
8,800.00	7,557.35	7,810.94	7,703.83	32.21	28.00	-127.45	-669.01	841.03	1,532.33	1,475.82	56.52	27.113	

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 4H
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 4H	**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
8,900.00	7,557.34	7,827.00	7,719.64	32.64	28.06	-130.01	-670.65	843.34	1,631.16	1,574.52	56.64	28.801	
9,000.00	7,557.34	7,832.86	7,725.41	33.08	28.08	-130.88	-671.25	844.18	1,730.03	1,673.33	56.69	30.516	
9,100.00	7,557.34	7,852.24	7,744.49	33.54	28.15	-133.58	-673.28	846.93	1,828.93	1,772.09	56.83	32.180	
9,200.00	7,557.33	7,873.09	7,765.02	34.00	28.23	-136.18	-675.56	849.79	1,927.82	1,870.84	56.98	33.832	
9,300.00	7,557.33	7,895.58	7,787.16	34.48	28.32	-138.67	-678.13	852.77	2,026.70	1,969.55	57.14	35.468	
9,400.00	7,557.32	7,919.90	7,811.10	34.96	28.41	-141.08	-681.04	855.88	2,125.54	2,068.23	57.31	37.087	
9,500.00	7,557.32	7,934.44	7,825.42	35.46	28.46	-142.38	-682.82	857.67	2,224.37	2,166.94	57.43	38.733	
9,600.00	7,557.32	7,948.54	7,839.31	35.97	28.52	-143.56	-684.55	859.37	2,323.22	2,265.68	57.54	40.374	
9,700.00	7,557.31	7,962.69	7,853.26	36.48	28.57	-144.68	-686.30	861.04	2,422.09	2,364.43	57.66	42.009	
9,800.00	7,557.31	7,976.90	7,867.26	37.00	28.62	-145.73	-688.06	862.67	2,520.97	2,463.20	57.77	43.635	
9,900.00	7,557.31	7,991.15	7,881.31	37.54	28.68	-146.72	-689.83	864.27	2,619.87	2,561.98	57.89	45.254	
10,000.00	7,557.30	12,608.50	10,030.48	38.08	44.49	-156.03	-3,404.71	1,930.07	2,707.34	2,652.81	54.53	49.647	
10,100.00	7,557.30	12,708.35	10,029.87	38.63	44.90	-156.16	-3,504.57	1,929.55	2,703.93	2,648.29	55.64	48.594	
10,200.00	7,557.30	12,800.44	10,029.60	39.18	45.28	-156.28	-3,596.66	1,929.55	2,701.03	2,644.26	56.77	47.576	
10,300.00	7,557.29	12,903.04	10,029.18	39.74	45.72	-156.41	-3,699.25	1,929.29	2,697.93	2,640.01	57.93	46.574	
10,400.00	7,557.29	12,995.85	10,028.86	40.31	46.13	-156.52	-3,792.06	1,929.48	2,695.10	2,636.01	59.09	45.606	
10,500.00	7,557.28	13,104.48	10,028.62	40.89	46.61	-156.65	-3,900.69	1,929.48	2,692.32	2,632.03	60.29	44.654	
10,600.00	7,557.28	13,214.21	10,028.13	41.47	47.10	-156.80	-4,010.42	1,928.67	2,689.04	2,627.54	61.51	43.720	
10,700.00	7,557.28	13,305.02	10,027.83	42.06	47.52	-156.94	-4,101.22	1,927.70	2,685.77	2,623.06	62.71	42.828	
10,800.00	7,557.27	13,399.93	10,027.54	42.66	47.96	-157.06	-4,196.13	1,927.45	2,682.84	2,618.90	63.94	41.959	
10,900.00	7,557.27	13,497.69	10,027.12	43.26	48.42	-157.18	-4,293.89	1,927.72	2,680.03	2,614.84	65.19	41.112	
11,000.00	7,557.27	13,617.45	10,026.28	43.86	49.00	-157.32	-4,413.64	1,927.93	2,676.94	2,610.45	66.48	40.265	
11,100.00	7,557.26	13,724.38	10,025.03	44.47	49.53	-157.46	-4,520.57	1,927.46	2,673.19	2,605.42	67.77	39.445	
11,200.00	7,557.26	13,809.98	10,024.48	45.09	49.95	-157.58	-4,606.16	1,926.62	2,669.72	2,600.69	69.03	38.674	
11,300.00	7,557.26	13,903.60	10,023.97	45.71	50.42	-157.70	-4,699.78	1,926.39	2,666.65	2,596.33	70.32	37.922	
11,400.00	7,557.25	13,982.00	10,023.45	46.33	50.82	-157.79	-4,778.18	1,926.60	2,663.76	2,592.17	71.59	37.208	
11,500.00	7,557.25	14,059.53	10,023.63	46.96	51.21	-157.89	-4,855.70	1,926.80	2,661.71	2,588.84	72.87	36.528	
11,600.00	7,557.24	14,248.78	10,024.02	47.60	52.19	-158.23	-5,044.87	1,922.46	2,658.50	2,584.16	74.34	35.762	
11,700.00	7,557.24	14,316.88	10,023.59	48.24	52.54	-158.37	-5,112.90	1,919.39	2,654.03	2,578.43	75.60	35.105	
11,800.00	7,557.24	14,358.00	10,023.93	48.88	52.75	-158.45	-5,154.00	1,918.44	2,651.65	2,574.83	76.82	34.517	
11,900.00	7,557.23	14,437.09	10,025.19	49.52	53.18	-158.56	-5,233.08	1,918.32	2,650.73	2,572.60	78.13	33.928	
12,000.00	7,557.23	14,534.53	10,026.87	50.17	53.71	-158.68	-5,330.49	1,919.64	2,650.45	2,570.97	79.49	33.345	
12,100.00	7,557.23	14,649.36	10,028.47	50.82	54.34	-158.81	-5,445.30	1,921.04	2,649.84	2,568.95	80.89	32.758	
12,200.00	7,557.22	14,739.21	10,029.90	51.48	54.83	-158.93	-5,535.14	1,921.54	2,649.18	2,566.94	82.24	32.212	
12,300.00	7,557.22	14,850.63	10,031.72	52.14	55.46	-159.08	-5,646.54	1,922.34	2,648.66	2,565.01	83.65	31.662	
12,400.00	7,557.22	14,977.51	10,031.82	52.80	56.17	-159.21	-5,773.41	1,924.24	2,646.86	2,561.75	85.12	31.097	
12,500.00	7,557.21	15,091.30	10,031.56	53.46	56.82	-159.32	-5,887.19	1,925.85	2,644.87	2,558.32	86.55	30.558	
12,600.00	7,557.21	15,181.52	10,031.16	54.13	57.34	-159.42	-5,977.40	1,926.75	2,642.53	2,554.60	87.93	30.052	
12,700.00	7,557.20	15,279.94	10,031.21	54.80	57.91	-159.53	-6,075.81	1,927.54	2,640.58	2,551.24	89.34	29.557	
12,800.00	7,557.20	15,378.87	10,031.10	55.48	58.49	-159.64	-6,174.74	1,928.65	2,638.60	2,547.85	90.75	29.075	
12,900.00	7,557.20	15,474.78	10,030.93	56.15	59.05	-159.74	-6,270.64	1,930.20	2,636.74	2,544.57	92.16	28.609	
13,000.00	7,557.19	15,587.36	10,030.52	56.83	59.72	-159.84	-6,383.20	1,932.09	2,634.73	2,541.10	93.63	28.141	
13,100.00	7,557.19	15,685.73	10,029.95	57.51	60.31	-159.94	-6,481.56	1,933.53	2,632.46	2,537.40	95.05	27.694	
13,200.00	7,557.19	15,770.11	10,029.72	58.19	60.81	-160.02	-6,565.92	1,935.05	2,630.59	2,534.15	96.45	27.275	
13,300.00	7,557.18	15,889.35	10,029.52	58.88	61.53	-160.16	-6,685.16	1,935.97	2,628.45	2,530.52	97.94	26.838	
13,400.00	7,557.18	15,984.79	10,029.33	59.57	62.11	-160.27	-6,780.59	1,936.60	2,626.29	2,526.92	99.37	26.430	
13,500.00	7,557.18	16,086.34	10,029.02	60.25	62.72	-160.39	-6,882.14	1,937.31	2,624.04	2,523.23	100.82	26.028	
13,600.00	7,557.17	16,181.25	10,029.00	60.95	63.31	-160.51	-6,977.05	1,937.67	2,621.97	2,519.72	102.25	25.643	
13,700.00	7,557.17	16,323.26	10,028.73	61.64	64.17	-160.71	-7,119.05	1,937.09	2,619.63	2,515.82	103.81	25.234	
13,800.00	7,557.16	16,414.18	10,028.25	62.33	64.73	-160.88	-7,209.94	1,934.75	2,616.15	2,510.91	105.24	24.860	
13,900.00	7,557.16	16,512.97	10,027.99	63.03	65.34	-161.06	-7,308.70	1,932.30	2,612.97	2,506.28	106.68	24.493	
14,000.00	7,557.16	16,599.85	10,027.75	63.73	65.87	-161.21	-7,395.56	1,930.77	2,610.03	2,501.93	108.10	24.144	

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 4H
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 4H	**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
14,100.00	7,557.15	16,693.53	10,027.62	64.43	66.46	-161.35	-7,489.24	1,929.89	2,607.51	2,497.96	109.55	23.803	
14,200.00	7,557.15	16,805.29	10,027.16	65.13	67.16	-161.51	-7,601.00	1,929.29	2,604.88	2,493.83	111.05	23.457	
14,300.00	7,557.15	16,895.70	10,026.75	65.84	67.73	-161.64	-7,691.41	1,928.78	2,602.21	2,489.72	112.49	23.133	
14,400.00	7,557.14	16,992.73	10,026.47	66.54	68.34	-161.78	-7,788.44	1,928.45	2,599.79	2,485.83	113.95	22.815	
14,500.00	7,557.14	17,089.69	10,026.29	67.25	68.96	-161.92	-7,885.40	1,928.08	2,597.46	2,482.05	115.42	22.505	
14,600.00	7,557.14	17,178.43	10,026.20	67.96	69.53	-162.03	-7,974.13	1,928.35	2,595.45	2,478.59	116.86	22.210	
14,700.00	7,557.13	17,285.70	10,026.27	68.66	70.22	-162.18	-8,081.40	1,928.44	2,593.54	2,475.18	118.36	21.911	
14,800.00	7,557.13	17,407.24	10,025.65	69.38	71.00	-162.34	-8,202.94	1,928.46	2,591.09	2,471.17	119.92	21.608	
14,900.00	7,557.12	17,498.92	10,024.72	70.09	71.59	-162.46	-8,294.62	1,928.19	2,588.09	2,466.71	121.38	21.323	
15,000.00	7,557.12	17,551.00	10,024.59	70.80	71.93	-162.53	-8,346.70	1,928.30	2,586.19	2,463.49	122.70	21.077	
15,100.00	7,557.12	17,645.00	10,025.53	71.52	72.54	-162.65	-8,440.68	1,929.27	2,585.51	2,461.34	124.17	20.822	
15,112.45	7,557.12	17,645.00	10,025.53	71.60	72.54	-162.65	-8,440.68	1,929.27	2,585.48	2,461.18	124.31	20.799	
15,200.00	7,557.11	17,734.14	10,027.04	72.23	73.13	-162.75	-8,529.80	1,930.57	2,585.59	2,459.97	125.62	20.582	
15,300.00	7,557.11	17,867.08	10,027.96	72.95	74.00	-162.90	-8,662.72	1,932.42	2,584.70	2,457.45	127.24	20.313	
15,400.00	7,557.11	17,986.23	10,028.27	73.67	74.79	-163.06	-8,781.87	1,933.06	2,583.24	2,454.44	128.81	20.055	
15,500.00	7,557.10	18,097.45	10,027.63	74.39	75.52	-163.20	-8,893.08	1,933.10	2,580.80	2,450.45	130.34	19.800	
15,600.00	7,557.10	18,193.05	10,027.17	75.11	76.15	-163.34	-8,988.69	1,932.84	2,578.39	2,446.56	131.83	19.559	
15,700.00	7,557.10	18,294.35	10,026.63	75.83	76.82	-163.47	-9,089.98	1,933.05	2,576.08	2,442.74	133.34	19.320	
15,800.00	7,557.09	18,345.81	10,026.42	76.55	77.17	-163.51	-9,141.43	1,934.29	2,574.59	2,439.92	134.66	19.119	
15,822.61	7,557.09	18,356.39	10,026.47	76.71	77.24	-163.52	-9,152.00	1,934.72	2,574.53	2,439.58	134.96	19.077	
15,900.00	7,557.09	18,397.00	10,026.96	77.27	77.51	-163.53	-9,192.54	1,936.95	2,575.16	2,439.20	135.96	18.941	
16,000.00	7,557.08	18,563.72	10,028.00	78.00	78.64	-163.63	-9,359.10	1,943.46	2,574.85	2,437.09	137.76	18.691	
16,100.00	7,557.08	18,695.39	10,027.78	78.72	79.53	-163.80	-9,490.78	1,944.10	2,572.97	2,433.59	139.38	18.460	
16,200.00	7,557.08	18,795.91	10,027.28	79.45	80.20	-163.93	-9,591.30	1,944.58	2,570.82	2,429.93	140.90	18.246	
16,300.00	7,557.07	18,909.87	10,025.74	80.18	80.97	-164.08	-9,705.24	1,944.31	2,567.60	2,425.15	142.45	18.024	
16,400.00	7,557.07	18,986.83	10,025.22	80.90	81.49	-164.18	-9,782.20	1,944.49	2,565.21	2,421.32	143.89	17.828	
16,500.00	7,557.07	19,086.81	10,024.75	81.63	82.17	-164.29	-9,882.17	1,945.63	2,563.30	2,417.89	145.41	17.629	
16,600.00	7,557.06	19,188.63	10,024.01	82.36	82.86	-164.41	-9,983.99	1,946.50	2,561.08	2,414.15	146.93	17.431	
16,700.00	7,557.06	19,287.28	10,023.63	83.09	83.53	-164.53	-10,082.63	1,947.17	2,559.14	2,410.70	148.44	17.240	
16,800.00	7,557.06	19,392.80	10,023.01	83.82	84.25	-164.67	-10,188.15	1,947.58	2,556.95	2,406.97	149.98	17.048	
16,900.00	7,557.05	19,489.34	10,022.38	84.55	84.91	-164.79	-10,284.68	1,948.08	2,554.75	2,403.26	151.49	16.864	
17,000.00	7,557.05	19,590.76	10,021.78	85.29	85.61	-164.92	-10,386.11	1,948.74	2,552.65	2,399.63	153.02	16.682	
17,100.00	7,557.04	19,686.99	10,021.29	86.02	86.27	-165.04	-10,482.33	1,949.05	2,550.55	2,396.02	154.53	16.506	
17,200.00	7,557.04	19,797.61	10,020.57	86.75	87.03	-165.18	-10,592.94	1,949.65	2,548.40	2,392.31	156.09	16.327	
17,300.00	7,557.04	19,912.79	10,019.10	87.49	87.82	-165.35	-10,708.11	1,949.13	2,545.35	2,387.69	157.66	16.144	
17,400.00	7,557.03	19,981.00	10,018.57	88.22	88.29	-165.44	-10,776.32	1,949.13	2,542.97	2,383.89	159.08	15.986	
17,500.00	7,557.03	20,054.30	10,018.70	88.96	88.80	-165.53	-10,849.62	1,949.79	2,541.73	2,381.24	160.50	15.837	
17,600.00	7,557.03	20,157.39	10,019.44	89.70	89.51	-165.65	-10,952.70	1,951.14	2,541.14	2,379.10	162.04	15.682	
17,700.00	7,557.02	20,306.13	10,018.47	90.43	90.54	-165.85	-11,101.43	1,951.68	2,538.82	2,375.06	163.76	15.504	
17,800.00	7,557.02	20,389.80	10,017.81	91.17	91.12	-165.97	-11,185.10	1,951.46	2,536.41	2,371.18	165.23	15.351	
17,900.00	7,557.02	20,467.85	10,017.59	91.91	91.66	-166.07	-11,263.15	1,951.89	2,534.72	2,368.05	166.68	15.208	
18,000.00	7,557.01	20,542.00	10,018.12	92.65	92.18	-166.15	-11,337.28	1,952.94	2,534.15	2,366.05	168.09	15.076	
18,100.00	7,557.01	20,644.70	10,019.33	93.39	92.90	-166.28	-11,439.97	1,954.22	2,534.05	2,364.41	169.64	14.938	
18,134.26	7,557.01	20,672.00	10,019.63	93.64	93.09	-166.31	-11,467.26	1,954.44	2,533.97	2,363.83	170.13	14.894	
18,200.00	7,557.00	20,672.00	10,019.63	94.13	93.09	-166.31	-11,467.26	1,954.44	2,534.82	2,364.04	170.78	14.842	
18,300.00	7,557.00	20,672.00	10,019.63	94.87	93.09	-166.31	-11,467.26	1,954.44	2,539.38	2,367.79	171.59	14.799	
18,318.93	7,557.00	20,672.00	10,019.63	95.01	93.09	-166.31	-11,467.26	1,954.44	2,540.69	2,368.97	171.72	14.795	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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

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	-75.35	246.56	-943.50	975.19				
100.00	100.00	96.39	96.39	0.28	0.15	-75.36	246.62	-943.85	975.57	975.14	0.43	2,263.330	
200.00	200.00	189.42	189.42	0.63	0.30	-75.36	246.78	-944.86	976.66	975.72	0.94	1,040.782	
300.00	300.00	289.09	289.07	0.99	0.61	-75.39	246.77	-946.47	978.22	976.61	1.61	608.812	
400.00	400.00	389.84	389.81	1.35	0.97	-75.41	246.76	-947.94	979.63	977.30	2.33	421.280	
500.00	500.00	487.77	487.73	1.71	1.33	-75.39	247.48	-949.28	981.14	978.11	3.03	323.427	
600.00	600.00	586.80	586.74	2.07	1.68	-75.35	248.52	-950.66	982.76	979.01	3.74	262.420	
700.00	700.00	678.10	678.01	2.43	2.00	-75.42	247.85	-952.90	984.94	980.51	4.43	222.431	
800.00	800.00	772.62	772.46	2.79	2.34	-75.56	246.20	-956.13	987.81	982.69	5.12	192.791	
900.00	900.00	873.72	873.46	3.14	2.71	-75.72	244.39	-960.07	991.15	985.30	5.84	169.618	
1,000.00	1,000.00	996.16	995.83	3.50	3.14	-75.93	241.50	-963.35	993.19	986.55	6.64	149.629	
1,100.00	1,100.00	1,149.61	1,149.15	3.86	3.67	-76.18	236.44	-961.41	991.10	983.59	7.52	131.878	
1,200.00	1,200.00	1,253.00	1,252.40	4.22	4.01	-76.30	233.23	-957.00	986.22	978.00	8.22	119.983	
1,300.00	1,300.00	1,346.52	1,345.80	4.58	4.33	-76.39	230.73	-953.04	981.48	972.58	8.90	110.323	
1,400.00	1,400.00	1,430.02	1,429.24	4.94	4.61	-76.41	229.77	-950.15	977.88	968.33	9.54	102.472	
1,497.98	1,497.98	1,502.00	1,501.21	5.29	4.86	-76.37	230.09	-949.08	976.57	966.43	10.14	96.290	
1,500.00	1,500.00	1,502.00	1,501.21	5.29	4.86	-76.37	230.09	-949.08	976.57	966.42	10.15	96.221	ES
1,600.00	1,600.00	1,587.50	1,586.70	5.65	5.15	-76.29	231.55	-949.45	977.42	966.62	10.80	90.494	
1,700.00	1,700.00	1,680.02	1,679.18	6.01	5.47	-76.18	233.88	-950.95	979.59	968.11	11.48	85.331	
1,800.00	1,800.00	1,772.77	1,771.86	6.37	5.80	-76.06	236.59	-953.00	982.45	970.29	12.16	80.789	
1,900.00	1,900.00	1,894.52	1,893.55	6.73	6.22	-75.91	239.76	-955.19	984.87	971.92	12.95	76.056	
2,000.00	2,000.00	2,033.22	2,032.23	7.09	6.70	-75.85	240.44	-953.49	983.75	969.97	13.78	71.390	
2,100.00	2,099.98	2,132.63	2,131.59	7.43	7.04	140.14	239.74	-950.27	981.78	967.32	14.46	67.884	
2,104.46	2,104.43	2,136.56	2,135.51	7.44	7.06	140.14	239.71	-950.16	981.78	967.29	14.49	67.751	
2,200.00	2,199.84	2,230.20	2,229.12	7.76	7.38	140.30	238.82	-947.93	983.24	968.12	15.13	65.000	
2,300.00	2,299.45	2,345.00	2,343.85	8.09	7.78	140.58	237.15	-944.54	986.77	970.92	15.85	62.270	
2,400.00	2,398.70	2,440.66	2,439.42	8.42	8.11	140.86	234.79	-941.18	992.21	975.70	16.51	60.088	
2,500.00	2,497.47	2,500.01	2,498.75	8.76	8.32	141.01	233.59	-940.31	1,002.55	985.49	17.06	58.761	
2,600.00	2,595.62	2,554.00	2,552.72	9.10	8.51	141.12	233.25	-941.68	1,019.82	1,002.25	17.57	58.058	
2,644.93	2,639.49	2,593.04	2,591.71	9.25	8.64	141.27	233.30	-943.58	1,029.54	1,011.69	17.85	57.679	
2,700.00	2,693.18	2,639.52	2,638.13	9.44	8.81	141.61	233.49	-946.10	1,042.14	1,023.95	18.19	57.294	
2,800.00	2,790.65	2,725.00	2,723.44	9.78	9.11	142.22	234.21	-951.44	1,066.01	1,047.20	18.81	56.672	
2,900.00	2,888.13	2,880.33	2,878.66	10.13	9.65	143.34	235.37	-956.06	1,086.49	1,066.76	19.74	55.045	
3,000.00	2,985.61	2,984.32	2,982.65	10.48	10.02	144.09	235.91	-956.88	1,105.56	1,085.11	20.45	54.065	
3,100.00	3,083.08	3,100.18	3,098.50	10.83	10.42	144.92	236.78	-956.41	1,123.77	1,102.57	21.20	53.001	
3,200.00	3,180.56	3,198.20	3,196.51	11.19	10.76	145.63	237.55	-955.00	1,141.19	1,119.29	21.89	52.128	
3,300.00	3,278.04	3,300.23	3,298.52	11.55	11.12	146.33	238.29	-953.49	1,158.72	1,136.12	22.60	51.274	
3,400.00	3,375.51	3,467.87	3,465.98	11.91	11.70	147.44	237.28	-946.02	1,173.27	1,149.75	23.51	49.896	
3,500.00	3,472.99	3,607.43	3,604.94	12.27	12.19	148.32	233.77	-933.67	1,183.18	1,158.86	24.32	48.659	
3,600.00	3,570.47	3,759.70	3,755.88	12.64	12.73	149.10	224.66	-916.00	1,189.39	1,164.27	25.12	47.356	
3,700.00	3,667.94	3,917.39	3,910.87	13.00	13.29	149.59	206.45	-893.51	1,191.00	1,165.11	25.88	46.012	
3,800.00	3,765.42	4,030.51	4,021.18	13.37	13.71	149.84	189.90	-874.75	1,189.12	1,162.52	26.61	44.693	
3,900.00	3,862.90	4,133.36	4,121.42	13.74	14.10	150.06	174.63	-857.51	1,187.08	1,159.75	27.33	43.437	
4,000.00	3,960.37	4,239.12	4,224.41	14.11	14.51	150.29	158.84	-839.39	1,184.66	1,156.60	28.05	42.227	
4,100.00	4,057.85	4,343.67	4,326.13	14.48	14.92	150.53	143.12	-821.00	1,181.80	1,153.01	28.78	41.057	
4,200.00	4,155.33	4,442.50	4,422.22	14.86	15.31	150.76	128.25	-803.29	1,178.63	1,149.11	29.52	39.933	
4,300.00	4,252.80	4,521.00	4,498.75	15.23	15.63	150.96	117.12	-789.85	1,176.61	1,146.37	30.24	38.908	
4,400.00	4,350.28	4,616.40	4,592.00	15.61	16.01	151.22	104.30	-774.32	1,175.71	1,144.73	30.97	37.957	
4,500.00	4,447.76	4,723.23	4,696.40	15.98	16.44	151.51	90.00	-756.75	1,174.70	1,142.98	31.72	37.037	
4,600.00	4,545.23	4,826.08	4,796.82	16.36	16.86	151.80	76.19	-739.37	1,173.29	1,140.83	32.46	36.146	
4,700.00	4,642.71	4,926.76	4,895.10	16.74	17.28	152.09	62.61	-722.24	1,171.77	1,138.57	33.20	35.292	
4,800.00	4,740.19	5,028.12	4,994.02	17.11	17.70	152.38	48.80	-704.94	1,170.18	1,136.23	33.95	34.470	

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 4H
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 4H	**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

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
4,900.00	4,837.66	5,127.42	5,090.81	17.49	18.12	152.58	33.85	-688.59	1,168.49	1,133.80	34.70	33.679	
5,000.00	4,935.14	5,219.30	5,180.41	17.87	18.51	152.75	19.68	-673.97	1,167.17	1,131.73	35.44	32.934	
5,090.11	5,022.98	5,299.16	5,258.46	18.22	18.84	152.91	8.01	-661.74	1,166.81	1,130.71	36.11	32.314	
5,100.00	5,032.62	5,308.36	5,267.46	18.25	18.88	152.93	6.71	-660.35	1,166.82	1,130.63	36.18	32.249	
5,200.00	5,130.09	5,403.67	5,360.78	18.64	19.28	153.15	-6.47	-646.12	1,167.15	1,130.22	36.93	31.606	
5,300.00	5,227.57	5,500.18	5,455.31	19.02	19.69	153.37	-19.65	-631.81	1,167.68	1,130.00	37.68	30.993	
5,400.00	5,325.05	5,595.54	5,548.83	19.40	20.09	153.61	-32.09	-617.97	1,168.79	1,130.37	38.42	30.419	
5,500.00	5,422.52	5,697.46	5,648.79	19.78	20.52	153.88	-45.24	-603.01	1,169.85	1,130.68	39.18	29.860	
5,600.00	5,520.00	5,796.42	5,745.84	20.16	20.94	154.14	-57.94	-588.44	1,170.93	1,131.00	39.93	29.325	
5,700.00	5,617.48	5,893.04	5,840.63	20.55	21.35	154.41	-70.14	-574.26	1,172.18	1,131.50	40.68	28.815	
5,800.00	5,714.95	5,985.99	5,931.91	20.93	21.74	154.67	-81.50	-560.86	1,173.88	1,132.46	41.42	28.339	
5,900.00	5,812.43	6,095.44	6,039.46	21.31	22.20	155.01	-94.09	-544.97	1,175.91	1,133.72	42.19	27.872	
6,000.00	5,909.91	6,221.79	6,163.18	21.70	22.75	155.44	-109.20	-524.28	1,176.06	1,133.10	42.97	27.370	
6,100.00	6,007.38	6,324.10	6,263.08	22.08	23.19	155.76	-122.67	-506.77	1,174.99	1,131.27	43.73	26.870	
6,200.00	6,104.86	6,409.00	6,345.99	22.47	23.57	155.97	-134.48	-492.83	1,174.25	1,129.77	44.48	26.402	
6,219.67	6,124.04	6,430.63	6,367.13	22.54	23.66	156.03	-137.50	-489.43	1,174.19	1,129.57	44.63	26.312	
6,300.00	6,202.34	6,504.00	6,439.02	22.85	23.98	156.22	-147.12	-478.33	1,174.79	1,129.56	45.23	25.974	
6,400.00	6,299.81	6,569.18	6,503.10	23.24	24.26	156.39	-155.10	-469.45	1,177.19	1,131.26	45.93	25.630	
6,421.23	6,320.51	6,584.79	6,518.48	23.32	24.32	156.42	-156.97	-467.52	1,178.00	1,131.92	46.08	25.565	
6,500.00	6,397.52	6,650.08	6,582.88	23.62	24.59	156.58	-164.55	-459.97	1,180.70	1,134.06	46.64	25.315	
6,600.00	6,495.90	6,789.51	6,720.33	24.00	25.18	156.79	-180.95	-443.33	1,181.21	1,133.74	47.47	24.883	
6,700.00	6,594.84	6,904.97	6,833.54	24.37	25.68	156.95	-194.47	-425.24	1,174.97	1,126.73	48.24	24.359	
6,800.00	6,694.23	7,005.42	6,931.95	24.74	26.11	157.05	-205.42	-408.31	1,164.93	1,115.96	48.97	23.788	
6,900.00	6,793.94	7,099.95	7,024.55	25.09	26.53	157.03	-216.12	-392.63	1,151.73	1,102.04	49.69	23.178	
7,000.00	6,893.85	7,183.31	7,106.37	25.44	26.89	156.93	-225.00	-379.39	1,136.32	1,085.93	50.39	22.551	
7,066.16	6,960.00	7,235.68	7,157.91	25.67	27.11	-59.05	-230.04	-371.53	1,125.22	1,074.39	50.83	22.137	
7,100.00	6,993.82	7,261.00	7,182.86	25.78	27.22	132.85	-232.30	-367.87	1,120.14	1,069.09	51.05	21.942	
7,150.00	7,043.55	7,299.78	7,221.12	25.96	27.38	133.34	-235.47	-362.46	1,115.54	1,064.15	51.38	21.710	
7,189.43	7,082.33	7,329.11	7,250.11	26.10	27.50	133.63	-237.58	-358.54	1,114.42	1,062.77	51.65	21.578	
7,200.00	7,092.63	7,336.93	7,257.85	26.14	27.53	133.70	-238.10	-357.52	1,114.50	1,062.78	51.72	21.550	
7,250.00	7,140.71	7,379.71	7,300.20	26.34	27.70	133.99	-240.73	-352.07	1,117.02	1,064.95	52.06	21.455	
7,300.00	7,187.41	7,428.15	7,348.16	26.53	27.90	134.26	-243.69	-345.92	1,122.74	1,070.31	52.43	21.414	
7,350.00	7,232.38	7,473.80	7,393.35	26.73	28.08	134.39	-246.50	-340.14	1,131.66	1,078.87	52.79	21.438	
7,400.00	7,275.27	7,516.41	7,435.54	26.93	28.25	134.35	-249.09	-334.79	1,143.90	1,090.77	53.14	21.528	
7,450.00	7,315.77	7,557.83	7,476.58	27.13	28.42	134.14	-251.57	-329.64	1,159.50	1,106.02	53.48	21.683	
7,500.00	7,353.56	7,598.62	7,516.97	27.34	28.58	133.75	-254.01	-324.58	1,178.36	1,124.55	53.81	21.900	
7,550.00	7,388.35	7,636.68	7,554.66	27.54	28.74	133.08	-256.30	-319.83	1,200.44	1,146.31	54.12	22.180	
7,600.00	7,419.89	7,664.74	7,582.46	27.74	28.85	131.84	-257.95	-316.39	1,225.75	1,171.36	54.39	22.535	
7,650.00	7,447.92	7,689.70	7,607.21	27.94	28.95	130.14	-259.35	-313.43	1,254.25	1,199.61	54.64	22.957	
7,700.00	7,472.24	7,711.64	7,628.98	28.14	29.03	127.89	-260.52	-310.91	1,285.72	1,230.87	54.85	23.440	
7,750.00	7,492.67	7,732.00	7,649.18	28.33	29.11	125.06	-261.56	-308.64	1,319.91	1,264.86	55.05	23.978	
7,800.00	7,509.03	7,747.29	7,664.36	28.52	29.17	121.35	-262.31	-306.98	1,356.51	1,301.31	55.20	24.573	
7,816.16	7,513.43	7,752.02	7,669.06	28.58	29.19	119.98	-262.54	-306.47	1,368.80	1,313.55	55.25	24.774	
7,900.00	7,532.50	7,773.12	7,690.01	28.88	29.27	115.56	-263.56	-304.22	1,433.97	1,378.51	55.46	25.857	
8,000.00	7,548.24	7,791.84	7,708.60	29.24	29.35	109.76	-264.44	-302.26	1,513.58	1,457.93	55.65	27.198	
8,100.00	7,556.27	7,803.51	7,720.21	29.58	29.39	103.47	-264.98	-301.06	1,594.69	1,538.91	55.79	28.585	
8,153.26	7,557.37	7,806.87	7,723.55	29.76	29.40	99.99	-265.14	-300.72	1,638.29	1,582.45	55.84	29.341	
8,200.00	7,557.37	7,808.95	7,725.61	29.92	29.41	100.12	-265.23	-300.51	1,676.85	1,620.97	55.87	30.012	
8,300.00	7,557.36	7,813.35	7,729.99	30.26	29.43	100.38	-265.43	-300.06	1,760.65	1,704.70	55.95	31.468	
8,400.00	7,557.36	7,817.71	7,734.32	30.63	29.45	100.65	-265.63	-299.62	1,846.06	1,790.04	56.03	32.949	
8,500.00	7,557.36	7,827.00	7,743.55	31.00	29.48	101.21	-266.05	-298.68	1,932.87	1,876.74	56.13	34.435	
8,600.00	7,557.35	7,827.00	7,743.55	31.39	29.48	101.21	-266.05	-298.68	2,020.87	1,964.69	56.18	35.972	

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 4H
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 4H	**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
8,700.00	7,557.35	7,827.00	7,743.55	31.79	29.48	101.21	-266.05	-298.68	2,109.94	2,053.71	56.23	37.526	
8,800.00	7,557.35	7,827.00	7,743.55	32.21	29.48	101.21	-266.05	-298.68	2,199.95	2,143.68	56.27	39.096	
8,900.00	7,557.34	7,827.00	7,743.55	32.64	29.48	101.21	-266.05	-298.68	2,290.79	2,234.47	56.31	40.679	
9,000.00	7,557.34	11,724.59	9,747.65	33.08	52.95	159.76	-2,433.01	-42.98	2,330.70	2,276.73	53.97	43.185	
9,100.00	7,557.34	11,828.50	9,745.90	33.54	54.04	159.61	-2,536.90	-42.08	2,331.08	2,275.79	55.29	42.163	
9,200.00	7,557.33	11,931.51	9,744.05	34.00	55.14	159.46	-2,639.89	-40.97	2,331.29	2,274.67	56.63	41.170	
9,300.00	7,557.33	12,025.18	9,742.35	34.48	56.16	159.33	-2,733.54	-40.09	2,331.56	2,273.62	57.94	40.239	
9,400.00	7,557.32	12,110.37	9,741.23	34.96	57.10	159.20	-2,818.71	-39.51	2,332.39	2,273.16	59.24	39.375	
9,500.00	7,557.32	12,231.28	9,739.26	35.46	58.45	159.03	-2,939.61	-38.35	2,332.81	2,272.06	60.74	38.403	
9,600.00	7,557.32	12,324.62	9,737.66	35.97	59.51	158.90	-3,032.93	-37.46	2,333.19	2,271.07	62.12	37.558	
9,700.00	7,557.31	12,430.39	9,736.11	36.48	60.72	158.76	-3,138.68	-35.99	2,333.69	2,270.11	63.58	36.704	
9,800.00	7,557.31	12,521.17	9,734.51	37.00	61.77	158.64	-3,229.43	-34.62	2,333.89	2,268.92	64.97	35.922	
9,900.00	7,557.31	12,597.18	9,734.06	37.54	62.66	158.55	-3,305.44	-33.54	2,335.16	2,268.88	66.28	35.231	
10,000.00	7,557.30	12,692.25	9,733.80	38.08	63.77	158.43	-3,400.50	-32.73	2,336.99	2,269.26	67.73	34.507	
10,100.00	7,557.30	12,790.10	9,733.71	38.63	64.93	158.31	-3,498.34	-31.68	2,338.91	2,269.72	69.20	33.801	
10,200.00	7,557.30	12,881.34	9,733.63	39.18	66.02	158.18	-3,589.58	-31.27	2,341.08	2,270.43	70.65	33.136	
10,300.00	7,557.29	12,966.71	9,734.10	39.74	67.04	158.07	-3,674.95	-30.65	2,343.76	2,271.69	72.07	32.521	
10,400.00	7,557.29	13,044.00	9,735.03	40.31	67.98	157.97	-3,752.23	-30.40	2,347.20	2,273.76	73.44	31.960	
10,500.00	7,557.28	13,140.03	9,736.62	40.89	69.14	157.84	-3,848.25	-30.44	2,351.21	2,276.26	74.96	31.368	
10,600.00	7,557.28	13,247.04	9,738.41	41.47	70.46	157.71	-3,955.24	-30.19	2,355.13	2,278.57	76.56	30.763	
10,700.00	7,557.28	13,335.99	9,740.42	42.06	71.56	157.62	-4,044.17	-29.30	2,359.31	2,281.28	78.02	30.239	
10,800.00	7,557.27	13,448.04	9,742.56	42.66	72.95	157.51	-4,156.18	-27.87	2,363.04	2,283.38	79.66	29.664	
10,900.00	7,557.27	13,512.00	9,744.07	43.26	73.75	157.44	-4,220.12	-27.32	2,367.47	2,286.51	80.96	29.242	
11,000.00	7,557.27	13,606.00	9,746.53	43.86	74.92	157.30	-4,314.08	-28.46	2,372.87	2,290.35	82.52	28.755	
11,100.00	7,557.26	13,700.00	9,748.51	44.47	76.09	157.12	-4,408.01	-31.55	2,378.62	2,294.49	84.13	28.274	
11,200.00	7,557.26	13,794.00	9,750.56	45.09	77.26	156.93	-4,501.93	-34.88	2,384.57	2,298.82	85.75	27.810	
11,300.00	7,557.26	13,995.73	9,751.96	45.71	79.80	156.57	-4,703.59	-38.51	2,388.43	2,300.17	88.26	27.061	
11,400.00	7,557.25	14,094.56	9,751.53	46.33	81.07	156.44	-4,802.42	-37.84	2,390.36	2,300.47	89.90	26.590	
11,500.00	7,557.25	14,196.77	9,751.02	46.96	82.39	156.31	-4,904.62	-36.94	2,392.16	2,300.60	91.56	26.127	
11,600.00	7,557.24	14,284.21	9,750.89	47.60	83.52	156.20	-4,992.06	-36.04	2,394.24	2,301.13	93.11	25.714	
11,700.00	7,557.24	14,369.86	9,751.30	48.24	84.63	156.10	-5,077.70	-35.28	2,396.95	2,302.30	94.65	25.325	
11,800.00	7,557.24	14,468.52	9,751.93	48.88	85.91	155.98	-5,176.36	-34.64	2,399.91	2,303.62	96.30	24.921	
11,900.00	7,557.23	14,564.23	9,752.70	49.52	87.16	155.86	-5,272.06	-34.18	2,403.10	2,305.17	97.94	24.538	
12,000.00	7,557.23	14,683.90	9,753.28	50.17	88.73	155.72	-5,391.73	-33.37	2,405.95	2,306.17	99.78	24.113	
12,100.00	7,557.23	14,794.42	9,752.69	50.82	90.18	155.56	-5,502.25	-33.01	2,408.01	2,306.44	101.57	23.707	
12,200.00	7,557.22	14,893.31	9,752.07	51.48	91.48	155.43	-5,601.14	-32.63	2,409.99	2,306.71	103.27	23.336	
12,300.00	7,557.22	14,992.82	9,751.61	52.14	92.79	155.29	-5,700.64	-32.02	2,412.03	2,307.05	104.98	22.977	
12,400.00	7,557.22	15,081.11	9,751.42	52.80	93.96	155.18	-5,788.93	-31.39	2,414.26	2,307.68	106.59	22.651	
12,500.00	7,557.21	15,197.13	9,751.37	53.46	95.50	155.04	-5,904.95	-30.49	2,416.67	2,308.23	108.44	22.286	
12,600.00	7,557.21	15,288.49	9,751.06	54.13	96.72	154.93	-5,996.30	-29.56	2,418.69	2,308.61	110.08	21.972	
12,700.00	7,557.20	15,390.00	9,750.65	54.80	98.07	154.79	-6,097.81	-29.00	2,420.86	2,309.03	111.83	21.648	
12,800.00	7,557.20	15,485.00	9,750.27	55.48	99.34	154.66	-6,192.81	-28.73	2,423.16	2,309.63	113.53	21.344	
12,900.00	7,557.20	15,593.43	9,749.94	56.15	100.79	154.53	-6,301.23	-28.04	2,425.40	2,310.05	115.35	21.027	
13,000.00	7,557.19	15,684.11	9,749.75	56.83	102.01	154.42	-6,391.91	-27.21	2,427.63	2,310.63	117.01	20.748	
13,100.00	7,557.19	15,771.59	9,749.90	57.51	103.19	154.31	-6,479.39	-26.73	2,430.36	2,311.72	118.64	20.485	
13,200.00	7,557.19	15,885.01	9,750.29	58.19	104.72	154.18	-6,592.79	-25.39	2,432.99	2,312.48	120.50	20.190	
13,300.00	7,557.18	15,985.33	9,750.26	58.88	106.07	154.07	-6,693.11	-24.36	2,435.36	2,313.10	122.26	19.920	
13,400.00	7,557.18	16,083.50	9,750.26	59.57	107.40	153.95	-6,791.27	-23.51	2,437.83	2,313.83	124.00	19.660	
13,500.00	7,557.18	16,183.29	9,750.15	60.25	108.75	153.83	-6,891.06	-22.79	2,440.28	2,314.52	125.77	19.403	
13,600.00	7,557.17	16,273.46	9,750.00	60.95	109.98	153.71	-6,981.24	-22.57	2,442.91	2,315.46	127.45	19.167	
13,700.00	7,557.17	16,385.97	9,750.40	61.64	111.50	153.57	-7,093.74	-22.03	2,445.95	2,316.60	129.35	18.909	
13,800.00	7,557.16	16,495.85	9,749.37	62.33	113.00	153.41	-7,203.62	-21.73	2,447.88	2,316.63	131.25	18.650	

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 4H
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 4H	**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
13,900.00	7,557.16	16,593.80	9,748.60	63.03	114.33	153.28	-7,301.56	-21.39	2,449.94	2,316.91	133.04	18.416	
14,000.00	7,557.16	16,685.62	9,747.89	63.73	115.58	153.15	-7,393.38	-21.34	2,452.17	2,317.40	134.77	18.195	
14,100.00	7,557.15	16,773.89	9,747.70	64.43	116.79	153.03	-7,481.65	-21.15	2,454.83	2,318.37	136.46	17.989	
14,200.00	7,557.15	16,864.49	9,747.88	65.13	118.02	152.91	-7,572.25	-21.10	2,457.94	2,319.77	138.17	17.789	
14,300.00	7,557.15	16,982.11	9,748.35	65.84	119.63	152.77	-7,689.87	-20.42	2,461.03	2,320.88	140.15	17.559	
14,400.00	7,557.14	17,078.00	9,748.32	66.54	120.95	152.66	-7,785.75	-19.48	2,463.55	2,321.64	141.91	17.359	
14,500.00	7,557.14	17,150.98	9,748.73	67.25	121.95	152.58	-7,858.73	-18.95	2,466.75	2,323.31	143.44	17.197	
14,600.00	7,557.14	17,285.84	9,749.37	67.96	123.80	152.41	-7,993.58	-18.65	2,470.15	2,324.52	145.62	16.963	
14,700.00	7,557.13	17,384.51	9,749.11	68.66	125.16	152.29	-8,092.25	-18.02	2,472.64	2,325.20	147.43	16.771	
14,800.00	7,557.13	17,480.97	9,748.84	69.38	126.49	152.17	-8,188.71	-17.38	2,475.12	2,325.90	149.22	16.587	
14,900.00	7,557.12	17,566.43	9,749.40	70.09	127.67	152.09	-8,274.16	-16.25	2,478.11	2,327.24	150.88	16.425	
15,000.00	7,557.12	17,668.86	9,749.98	70.80	129.08	151.97	-8,376.58	-15.52	2,481.34	2,328.61	152.72	16.247	
15,100.00	7,557.12	17,763.12	9,750.07	71.52	130.39	151.85	-8,470.84	-15.31	2,484.40	2,329.89	154.51	16.080	
15,200.00	7,557.11	17,832.19	9,751.50	72.23	131.34	151.80	-8,539.88	-14.01	2,488.41	2,332.45	155.96	15.956	
15,300.00	7,557.11	17,939.60	9,753.09	72.95	132.83	151.68	-8,647.26	-14.02	2,492.79	2,334.91	157.88	15.789	
15,400.00	7,557.11	18,026.40	9,753.22	73.67	134.02	151.52	-8,734.02	-16.59	2,497.43	2,337.79	159.64	15.644	
15,500.00	7,557.10	18,140.12	9,752.68	74.39	135.57	151.28	-8,847.67	-20.53	2,501.77	2,339.99	161.77	15.465	
15,600.00	7,557.10	18,229.22	9,752.87	75.11	136.79	151.11	-8,936.73	-23.16	2,506.50	2,342.93	163.57	15.323	
15,700.00	7,557.10	18,399.42	9,753.42	75.83	139.15	150.90	-9,106.92	-23.16	2,509.99	2,343.76	166.23	15.100	
15,800.00	7,557.09	18,494.70	9,751.97	76.55	140.47	150.75	-9,202.19	-23.75	2,512.14	2,344.05	168.09	14.945	
15,900.00	7,557.09	18,607.37	9,750.28	77.27	142.03	150.58	-9,314.84	-23.69	2,513.99	2,343.85	170.13	14.777	
16,000.00	7,557.08	18,707.98	9,748.68	78.00	143.43	150.44	-9,415.44	-23.48	2,515.70	2,343.66	172.04	14.623	
16,100.00	7,557.08	18,802.70	9,747.27	78.72	144.75	150.32	-9,510.15	-22.85	2,517.31	2,343.43	173.88	14.477	
16,200.00	7,557.08	18,884.88	9,746.88	79.45	145.90	150.22	-9,592.32	-22.07	2,519.64	2,344.08	175.56	14.352	
16,300.00	7,557.07	18,986.43	9,746.48	80.18	147.31	150.10	-9,693.86	-21.27	2,522.15	2,344.68	177.46	14.212	
16,400.00	7,557.07	19,088.27	9,745.76	80.90	148.73	149.97	-9,795.71	-21.22	2,524.77	2,345.38	179.39	14.074	
16,500.00	7,557.07	19,206.71	9,744.25	81.63	150.38	149.80	-9,914.14	-21.01	2,526.84	2,345.33	181.51	13.921	
16,600.00	7,557.06	19,304.95	9,742.38	82.36	151.75	149.65	-10,012.35	-21.10	2,528.52	2,345.09	183.43	13.785	
16,700.00	7,557.06	19,389.35	9,741.06	83.09	152.93	149.53	-10,096.75	-21.32	2,530.61	2,345.42	185.19	13.665	
16,800.00	7,557.06	19,507.22	9,739.95	83.82	154.58	149.37	-10,214.61	-20.99	2,533.02	2,345.71	187.31	13.523	
16,900.00	7,557.05	19,601.91	9,739.12	84.55	155.91	149.27	-10,309.28	-19.49	2,534.79	2,345.64	189.14	13.401	
17,000.00	7,557.05	19,714.46	9,739.66	85.29	157.50	149.22	-10,421.75	-15.14	2,536.56	2,345.48	191.07	13.275	
17,100.00	7,557.04	19,801.00	9,739.67	86.02	158.71	149.16	-10,508.25	-12.73	2,538.45	2,345.68	192.78	13.168	
17,200.00	7,557.04	19,882.26	9,739.32	86.75	159.85	149.06	-10,589.51	-12.01	2,540.94	2,346.46	194.47	13.066	
17,300.00	7,557.04	19,985.89	9,738.35	87.49	161.30	148.92	-10,693.12	-12.31	2,543.65	2,347.18	196.47	12.947	
17,400.00	7,557.03	20,075.92	9,737.57	88.22	162.56	148.79	-10,783.15	-12.59	2,546.44	2,348.14	198.30	12.841	
17,500.00	7,557.03	20,176.83	9,737.00	88.96	163.97	148.65	-10,884.06	-12.77	2,549.43	2,349.17	200.26	12.731	
17,600.00	7,557.03	20,278.10	9,736.36	89.70	165.39	148.52	-10,985.33	-12.95	2,552.38	2,350.16	202.22	12.621	
17,700.00	7,557.02	20,364.00	9,735.77	90.43	166.60	148.40	-11,071.23	-12.98	2,555.27	2,351.26	204.00	12.526	
17,800.00	7,557.02	20,423.43	9,736.00	91.17	167.43	148.33	-11,130.65	-13.16	2,559.32	2,353.90	205.42	12.459	
17,900.00	7,557.02	20,523.88	9,737.28	91.91	168.83	148.19	-11,231.08	-14.61	2,564.60	2,357.21	207.39	12.366	
18,000.00	7,557.01	20,705.87	9,735.72	92.65	171.38	147.93	-11,413.04	-15.47	2,567.17	2,356.77	210.40	12.201	
18,100.00	7,557.01	20,738.00	9,735.41	93.39	171.84	147.90	-11,445.17	-15.00	2,569.93	2,358.42	211.51	12.150	
18,200.00	7,557.00	20,738.00	9,735.41	94.13	171.84	147.90	-11,445.17	-15.00	2,576.38	2,364.38	212.00	12.153	
18,300.00	7,557.00	20,738.00	9,735.41	94.87	171.84	147.90	-11,445.17	-15.00	2,586.67	2,374.47	212.20	12.190	
18,318.93	7,557.00	20,738.00	9,735.41	95.01	171.84	147.90	-11,445.17	-15.00	2,589.05	2,376.84	212.21	12.200	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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
0.00	0.00	3.43	3.43	0.00	0.01	-72.63	307.31	-982.33	1,029.28				
100.00	100.00	101.32	101.32	0.28	0.16	-72.61	307.71	-982.32	1,029.39	1,028.95	0.44	2,355.516	
200.00	200.00	201.00	200.99	0.63	0.32	-72.54	308.89	-982.28	1,029.70	1,028.75	0.95	1,079.594	
300.00	300.00	308.88	308.86	0.99	0.70	-72.45	310.50	-981.71	1,029.66	1,027.96	1.70	606.668	
400.00	400.00	426.82	426.78	1.35	1.12	-72.34	311.86	-979.84	1,028.53	1,026.06	2.47	415.604	
500.00	500.00	538.74	538.63	1.71	1.52	-72.32	311.19	-976.22	1,025.22	1,021.99	3.23	317.836	
600.00	600.00	641.97	641.80	2.07	1.88	-72.31	310.25	-972.79	1,021.79	1,017.84	3.95	258.908	
700.00	700.00	743.75	743.50	2.43	2.25	-72.29	309.33	-968.91	1,017.88	1,013.21	4.67	218.182	
800.00	800.00	845.39	845.06	2.79	2.61	-72.27	308.53	-964.89	1,013.87	1,008.49	5.39	188.269	
900.00	900.00	946.21	945.79	3.14	2.97	-72.25	307.62	-960.81	1,009.74	1,003.64	6.10	165.449	
1,000.00	1,000.00	1,049.85	1,049.33	3.50	3.35	-72.24	306.29	-956.43	1,005.32	998.49	6.83	147.174	
1,100.00	1,100.00	1,148.13	1,147.51	3.86	3.70	-72.24	304.94	-952.24	1,000.84	993.30	7.54	132.729	
1,200.00	1,200.00	1,245.18	1,244.47	4.22	4.05	-72.25	303.63	-948.27	996.54	988.29	8.25	120.848	
1,300.00	1,300.00	1,339.63	1,338.86	4.58	4.39	-72.25	302.45	-944.90	992.76	983.81	8.94	111.007	
1,400.00	1,400.00	1,438.92	1,438.08	4.94	4.75	-72.26	301.27	-941.60	989.23	979.57	9.66	102.437	
1,500.00	1,500.00	1,537.46	1,536.57	5.29	5.11	-72.27	300.10	-938.40	985.78	975.41	10.37	95.076	
1,600.00	1,600.00	1,632.67	1,631.73	5.65	5.45	-72.27	299.16	-935.53	982.60	971.54	11.07	88.777	
1,700.00	1,700.00	1,725.79	1,724.82	6.01	5.79	-72.26	298.62	-933.28	980.12	968.36	11.76	83.338	
1,800.00	1,800.00	1,822.75	1,821.76	6.37	6.13	-72.24	298.23	-931.39	978.14	965.67	12.47	78.461	
1,900.00	1,900.00	1,927.66	1,926.65	6.73	6.51	-72.21	298.15	-929.27	976.21	963.01	13.20	73.952	
2,000.00	2,000.00	2,043.42	2,042.34	7.09	6.93	-72.19	297.43	-925.67	973.05	959.08	13.97	69.647	
2,100.00	2,099.98	2,146.79	2,145.61	7.43	7.30	143.83	296.55	-921.24	970.12	955.44	14.68	66.072	
2,200.00	2,199.84	2,262.11	2,260.79	7.76	7.72	144.10	295.55	-915.53	969.40	953.98	15.42	62.880	
2,249.52	2,249.20	2,322.62	2,321.17	7.92	7.95	144.29	294.72	-911.67	969.33	953.54	15.79	61.387	CC
2,300.00	2,299.45	2,384.27	2,382.64	8.09	8.17	144.52	293.63	-907.06	969.40	953.23	16.17	59.954	ES
2,400.00	2,398.70	2,498.44	2,496.32	8.42	8.60	145.05	291.34	-896.80	970.18	953.28	16.90	57.417	
2,500.00	2,497.47	2,594.31	2,591.69	8.76	8.95	145.70	291.20	-886.99	973.38	955.80	17.58	55.366	
2,600.00	2,595.62	2,682.73	2,679.71	9.10	9.28	146.37	291.61	-878.59	980.53	962.28	18.25	53.736	
2,644.93	2,639.49	2,723.00	2,719.82	9.25	9.43	146.69	291.89	-875.06	985.09	966.55	18.55	53.109	
2,700.00	2,693.18	2,777.77	2,774.38	9.44	9.64	147.20	292.30	-870.33	991.20	972.27	18.93	52.355	
2,800.00	2,790.65	2,877.59	2,873.81	9.78	10.01	148.12	293.03	-861.53	1,002.31	982.68	19.63	51.051	
2,900.00	2,888.13	2,976.97	2,972.79	10.13	10.38	149.00	293.58	-852.71	1,013.55	993.21	20.34	49.836	
3,000.00	2,985.61	3,076.25	3,071.68	10.48	10.75	149.87	294.10	-843.78	1,024.89	1,003.85	21.05	48.700	
3,100.00	3,083.08	3,180.46	3,175.42	10.83	11.14	150.77	294.77	-834.03	1,036.19	1,014.42	21.77	47.595	
3,200.00	3,180.56	3,306.12	3,300.27	11.19	11.61	151.90	295.73	-819.82	1,046.02	1,023.46	22.56	46.368	
3,300.00	3,278.04	3,403.91	3,397.26	11.55	11.99	152.80	296.48	-807.38	1,054.87	1,031.59	23.28	45.318	
3,400.00	3,375.51	3,496.62	3,489.24	11.91	12.34	153.63	297.27	-795.80	1,064.22	1,040.23	23.98	44.372	
3,500.00	3,472.99	3,583.49	3,575.53	12.27	12.68	154.39	298.13	-785.75	1,074.68	1,050.01	24.67	43.554	
3,600.00	3,570.47	3,679.75	3,671.21	12.64	13.04	155.20	299.28	-775.31	1,086.10	1,060.70	25.39	42.770	
3,700.00	3,667.94	3,801.78	3,792.29	13.00	13.51	156.25	300.79	-760.19	1,096.40	1,070.21	26.19	41.859	
3,800.00	3,765.42	3,904.24	3,893.75	13.37	13.91	157.16	302.05	-745.99	1,105.73	1,078.79	26.94	41.046	
3,900.00	3,862.90	3,999.46	3,988.05	13.74	14.28	157.99	303.28	-732.86	1,115.42	1,087.75	27.67	40.315	
4,000.00	3,960.37	4,097.05	4,084.72	14.11	14.67	158.83	304.60	-719.60	1,125.55	1,097.15	28.40	39.626	
4,100.00	4,057.85	4,196.78	4,183.49	14.48	15.06	159.68	306.07	-705.86	1,135.83	1,106.68	29.15	38.964	
4,200.00	4,155.33	4,295.60	4,281.34	14.86	15.45	160.51	307.61	-692.04	1,146.23	1,116.34	29.90	38.340	
4,300.00	4,252.80	4,392.86	4,377.62	15.23	15.83	161.32	309.13	-678.44	1,156.88	1,126.24	30.64	37.758	
4,400.00	4,350.28	4,490.59	4,474.39	15.61	16.21	162.12	310.73	-664.81	1,167.83	1,136.44	31.39	37.209	
4,500.00	4,447.76	4,589.94	4,572.73	15.98	16.61	162.92	312.42	-650.86	1,178.96	1,146.82	32.14	36.683	
4,600.00	4,545.23	4,689.69	4,671.46	16.36	17.00	163.72	314.14	-636.66	1,190.19	1,157.29	32.90	36.179	
4,700.00	4,642.71	4,787.26	4,768.01	16.74	17.39	164.48	315.78	-622.71	1,201.57	1,167.92	33.65	35.709	
4,800.00	4,740.19	4,884.52	4,864.29	17.11	17.78	165.22	317.28	-609.00	1,213.22	1,178.82	34.40	35.268	
4,900.00	4,837.66	4,984.18	4,962.95	17.49	18.17	165.96	318.69	-595.03	1,225.06	1,189.90	35.16	34.841	

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 4H
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 4H	**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
5,000.00	4,935.14	5,076.73	5,054.62	17.87	18.54	166.61	319.88	-582.32	1,237.23	1,201.33	35.90	34.466	
5,100.00	5,032.62	5,170.12	5,147.19	18.25	18.91	167.25	321.00	-570.08	1,249.99	1,213.35	36.63	34.120	
5,200.00	5,130.09	5,256.64	5,233.05	18.64	19.25	167.80	322.04	-559.47	1,263.53	1,226.19	37.34	33.837	
5,300.00	5,227.57	5,352.64	5,328.42	19.02	19.62	168.37	323.18	-548.51	1,277.83	1,239.74	38.09	33.552	
5,400.00	5,325.05	5,457.08	5,432.19	19.40	20.03	168.97	323.96	-536.72	1,292.06	1,253.20	38.86	33.247	
5,500.00	5,422.52	5,562.91	5,537.37	19.78	20.44	169.51	323.62	-525.03	1,305.86	1,266.22	39.65	32.939	
5,600.00	5,520.00	5,667.72	5,641.52	20.16	20.84	170.02	322.55	-513.30	1,319.18	1,278.76	40.42	32.635	
5,700.00	5,617.48	5,766.95	5,740.11	20.55	21.23	170.48	321.30	-502.12	1,332.36	1,291.19	41.18	32.357	
5,800.00	5,714.95	5,864.47	5,837.00	20.93	21.61	170.93	320.06	-491.16	1,345.65	1,303.72	41.93	32.096	
5,900.00	5,812.43	5,954.62	5,926.60	21.31	21.96	171.33	318.92	-481.25	1,359.21	1,316.56	42.64	31.874	
6,000.00	5,909.91	6,032.58	6,004.22	21.70	22.25	171.63	317.96	-474.09	1,374.08	1,330.78	43.30	31.732	
6,100.00	6,007.38	6,117.00	6,088.37	22.08	22.57	171.92	317.11	-467.36	1,390.05	1,346.07	43.98	31.606	
6,200.00	6,104.86	6,201.41	6,172.57	22.47	22.88	172.19	316.66	-461.43	1,407.05	1,362.40	44.65	31.512	
6,300.00	6,202.34	6,281.47	6,252.49	22.85	23.17	172.43	316.76	-456.78	1,425.34	1,380.05	45.29	31.468	
6,400.00	6,299.81	6,362.50	6,333.43	23.24	23.46	172.66	317.37	-452.97	1,444.88	1,398.94	45.93	31.455	
6,421.23	6,320.51	6,379.77	6,350.68	23.32	23.53	172.70	317.58	-452.25	1,449.17	1,403.10	46.07	31.456	
6,500.00	6,397.52	6,450.49	6,421.35	23.62	23.78	172.92	318.49	-449.68	1,464.38	1,417.77	46.61	31.421	
6,600.00	6,495.90	6,541.94	6,512.77	24.00	24.10	173.12	319.16	-447.36	1,481.01	1,433.72	47.29	31.320	
6,700.00	6,594.84	6,636.38	6,607.20	24.37	24.42	173.25	319.17	-446.43	1,494.72	1,446.75	47.97	31.159	
6,800.00	6,694.23	6,734.55	6,705.37	24.74	24.76	173.33	318.88	-445.91	1,505.09	1,456.42	48.67	30.926	
6,900.00	6,793.94	6,828.09	6,798.91	25.09	25.06	173.37	318.63	-445.69	1,512.22	1,462.90	49.32	30.662	
7,000.00	6,893.85	6,922.46	6,893.28	25.44	25.37	173.40	318.72	-445.78	1,516.39	1,466.43	49.96	30.353	
7,066.16	6,960.00	6,986.84	6,957.66	25.67	25.57	-42.49	318.85	-445.95	1,517.36	1,466.98	50.38	30.118	
7,100.00	6,993.82	7,019.76	6,990.58	25.78	25.67	148.97	318.92	-446.07	1,518.36	1,467.76	50.60	30.008	
7,150.00	7,043.55	7,067.71	7,038.53	25.96	25.82	148.83	319.04	-446.29	1,523.00	1,472.07	50.93	29.906	
7,200.00	7,092.63	7,113.23	7,084.04	26.14	25.96	148.54	319.09	-446.69	1,531.44	1,480.19	51.25	29.882	
7,250.00	7,140.71	7,157.72	7,128.53	26.34	26.10	148.10	319.03	-447.36	1,543.65	1,492.07	51.57	29.930	
7,300.00	7,187.41	7,200.12	7,170.92	26.53	26.23	147.50	318.94	-448.19	1,559.56	1,507.67	51.89	30.054	
7,350.00	7,232.38	7,240.89	7,211.68	26.73	26.36	146.70	318.87	-449.14	1,579.10	1,526.89	52.20	30.249	
7,400.00	7,275.27	7,283.07	7,253.85	26.93	26.49	145.71	318.79	-450.23	1,602.08	1,549.55	52.53	30.500	
7,450.00	7,315.77	7,323.50	7,294.26	27.13	26.61	144.48	318.67	-451.33	1,628.29	1,575.45	52.84	30.815	
7,500.00	7,353.56	7,360.88	7,331.63	27.34	26.73	142.92	318.53	-452.38	1,657.58	1,604.45	53.14	31.195	
7,550.00	7,388.35	7,395.03	7,365.76	27.54	26.83	140.97	318.39	-453.38	1,689.77	1,636.36	53.41	31.638	
7,600.00	7,419.89	7,425.98	7,396.70	27.74	26.93	138.51	318.24	-454.32	1,724.64	1,670.98	53.66	32.140	
7,650.00	7,447.92	7,455.40	7,426.10	27.94	27.02	135.47	318.07	-455.24	1,761.94	1,708.05	53.90	32.692	
7,700.00	7,472.24	7,481.15	7,451.84	28.14	27.10	131.64	317.89	-456.06	1,801.40	1,747.30	54.10	33.296	
7,750.00	7,492.67	7,502.87	7,473.55	28.33	27.16	126.76	317.71	-456.75	1,842.75	1,788.47	54.28	33.949	
7,800.00	7,509.03	7,520.38	7,491.05	28.52	27.22	120.59	317.55	-457.31	1,885.69	1,831.26	54.42	34.648	
7,816.16	7,513.43	7,525.11	7,495.78	28.58	27.23	118.27	317.50	-457.46	1,899.85	1,845.39	54.46	34.882	
7,900.00	7,532.50	7,546.20	7,516.85	28.88	27.30	111.08	317.29	-458.14	1,973.93	1,919.29	54.64	36.128	
8,000.00	7,548.24	7,564.17	7,534.81	29.24	27.35	102.30	317.09	-458.72	2,062.65	2,007.85	54.79	37.645	
8,100.00	7,556.27	7,573.96	7,544.60	29.58	27.38	93.64	316.97	-459.03	2,151.28	2,096.39	54.89	39.192	
8,153.26	7,557.37	7,575.76	7,546.40	29.76	27.39	89.20	316.95	-459.09	2,198.28	2,143.36	54.92	40.028	
8,200.00	7,557.37	7,576.29	7,546.92	29.92	27.39	89.23	316.94	-459.10	2,239.53	2,184.60	54.94	40.766	
8,300.00	7,557.36	7,577.43	7,548.06	30.26	27.39	89.29	316.93	-459.14	2,328.49	2,273.51	54.98	42.354	
8,400.00	7,557.36	7,578.58	7,549.21	30.63	27.40	89.36	316.91	-459.18	2,418.31	2,363.30	55.02	43.956	
8,500.00	7,557.36	7,579.74	7,550.37	31.00	27.40	89.42	316.90	-459.21	2,508.90	2,453.85	55.06	45.570	
8,600.00	7,557.35	7,580.92	7,551.55	31.39	27.40	89.48	316.88	-459.25	2,600.18	2,545.09	55.09	47.195	
8,700.00	7,557.35	12,068.72	9,947.91	31.79	49.77	153.58	-2,112.14	-444.29	2,666.08	2,610.02	56.06	47.556	
8,800.00	7,557.35	12,161.16	9,948.13	32.21	50.73	153.50	-2,204.56	-442.49	2,668.33	2,611.08	57.25	46.605	
8,900.00	7,557.34	12,262.67	9,948.61	32.64	51.79	153.42	-2,306.04	-440.49	2,670.79	2,612.26	58.53	45.634	
9,000.00	7,557.34	12,363.47	9,949.06	33.08	52.87	153.34	-2,406.82	-438.30	2,673.12	2,613.30	59.82	44.686	

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 4H
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 4H	**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	7,557.34	12,447.39	9,949.32	33.54	53.78	153.26	-2,490.73	-437.16	2,675.73	2,614.69	61.04	43.835	
9,200.00	7,557.33	12,529.48	9,949.11	34.00	54.68	153.13	-2,572.81	-438.19	2,679.01	2,616.71	62.30	43.001	
9,300.00	7,557.33	12,613.79	9,949.07	34.48	55.60	152.99	-2,657.10	-440.09	2,682.94	2,619.33	63.61	42.181	
9,400.00	7,557.32	12,709.39	9,949.48	34.96	56.67	152.84	-2,752.68	-442.26	2,687.33	2,622.32	65.01	41.338	
9,500.00	7,557.32	12,812.37	9,949.97	35.46	57.83	152.68	-2,855.63	-444.29	2,691.64	2,625.15	66.48	40.486	
9,600.00	7,557.32	12,913.39	9,950.40	35.97	58.98	152.52	-2,956.64	-446.21	2,695.89	2,627.93	67.96	39.667	
9,700.00	7,557.31	13,008.00	9,950.80	36.48	60.07	152.37	-3,051.23	-448.10	2,700.21	2,630.80	69.42	38.900	
9,800.00	7,557.31	13,106.74	9,951.46	37.00	61.22	152.22	-3,149.94	-449.98	2,704.72	2,633.81	70.91	38.141	
9,900.00	7,557.31	13,207.15	9,952.17	37.54	62.40	152.08	-3,250.34	-451.73	2,709.21	2,636.77	72.44	37.400	
10,000.00	7,557.30	13,361.78	9,952.67	38.08	64.25	151.88	-3,404.96	-452.55	2,712.87	2,638.47	74.40	36.461	
10,100.00	7,557.30	13,481.12	9,952.21	38.63	65.70	151.77	-3,524.28	-450.48	2,714.74	2,638.67	76.07	35.685	
10,200.00	7,557.30	13,584.99	9,951.86	39.18	66.97	151.68	-3,628.12	-448.16	2,716.47	2,638.84	77.63	34.991	
10,300.00	7,557.29	13,684.90	9,951.49	39.74	68.20	151.60	-3,728.01	-445.76	2,718.10	2,638.92	79.17	34.331	
10,400.00	7,557.29	13,781.96	9,951.03	40.31	69.41	151.52	-3,825.04	-443.73	2,719.79	2,639.08	80.71	33.699	
10,500.00	7,557.28	13,883.19	9,950.62	40.89	70.67	151.43	-3,926.25	-441.58	2,721.53	2,639.24	82.29	33.074	
10,600.00	7,557.28	13,980.00	9,950.34	41.47	71.89	151.35	-4,023.03	-439.43	2,723.33	2,639.49	83.84	32.483	
10,700.00	7,557.28	14,078.67	9,950.12	42.06	73.14	151.27	-4,121.68	-437.26	2,725.21	2,639.79	85.42	31.905	
10,800.00	7,557.27	14,172.08	9,949.89	42.66	74.32	151.19	-4,215.07	-435.50	2,727.22	2,640.26	86.96	31.360	
10,900.00	7,557.27	14,283.27	9,949.60	43.26	75.74	151.10	-4,326.23	-433.00	2,729.04	2,640.37	88.67	30.779	
11,000.00	7,557.27	14,370.45	9,949.54	43.86	76.86	151.03	-4,413.39	-431.00	2,731.01	2,640.84	90.17	30.286	
11,100.00	7,557.26	14,463.71	9,949.75	44.47	78.06	150.96	-4,506.63	-428.98	2,733.32	2,641.58	91.74	29.794	
11,200.00	7,557.26	14,555.06	9,950.19	45.09	79.24	150.89	-4,597.96	-427.14	2,735.93	2,642.63	93.30	29.325	
11,300.00	7,557.26	14,641.00	9,950.64	45.71	80.36	150.82	-4,683.88	-425.50	2,738.67	2,643.86	94.81	28.885	
11,400.00	7,557.25	14,736.00	9,951.09	46.33	81.59	150.72	-4,778.87	-425.19	2,742.10	2,645.66	96.44	28.433	
11,500.00	7,557.25	14,806.04	9,951.59	46.96	82.49	150.63	-4,848.91	-426.01	2,746.37	2,648.52	97.85	28.066	
11,600.00	7,557.24	14,885.46	9,952.49	47.60	83.52	150.52	-4,928.31	-427.08	2,751.25	2,651.89	99.36	27.691	
11,700.00	7,557.24	14,966.24	9,953.56	48.24	84.57	150.40	-5,009.06	-429.28	2,756.94	2,656.05	100.89	27.326	
11,800.00	7,557.24	15,090.21	9,956.15	48.88	86.19	150.24	-5,132.97	-431.41	2,762.92	2,660.07	102.85	26.864	
11,900.00	7,557.23	15,194.39	9,958.43	49.52	87.56	150.15	-5,237.13	-430.85	2,767.78	2,663.19	104.58	26.465	
12,000.00	7,557.23	15,286.03	9,960.39	50.17	88.78	150.07	-5,328.75	-430.89	2,772.90	2,666.70	106.20	26.109	
12,100.00	7,557.23	15,441.44	9,962.10	50.82	90.83	149.91	-5,484.14	-430.51	2,776.89	2,668.42	108.46	25.602	
12,200.00	7,557.22	15,531.96	9,962.60	51.48	92.04	149.82	-5,574.67	-429.95	2,780.33	2,670.23	110.10	25.254	
12,300.00	7,557.22	15,625.97	9,963.19	52.14	93.29	149.72	-5,668.67	-429.92	2,784.13	2,672.35	111.78	24.908	
12,400.00	7,557.22	15,723.67	9,963.79	52.80	94.59	149.61	-5,766.37	-429.92	2,787.95	2,674.46	113.50	24.564	
12,500.00	7,557.21	15,844.72	9,964.12	53.46	96.20	149.46	-5,887.41	-430.62	2,791.84	2,676.37	115.47	24.177	
12,600.00	7,557.21	15,963.39	9,963.59	54.13	97.80	149.33	-6,006.08	-430.13	2,794.55	2,677.13	117.42	23.800	
12,700.00	7,557.20	16,067.05	9,963.03	54.80	99.19	149.22	-6,109.74	-429.28	2,796.99	2,677.78	119.22	23.462	
12,800.00	7,557.20	16,162.02	9,962.49	55.48	100.47	149.12	-6,204.70	-428.60	2,799.48	2,678.54	120.94	23.148	
12,900.00	7,557.20	16,256.98	9,961.94	56.15	101.75	149.01	-6,299.66	-428.27	2,802.14	2,679.48	122.67	22.844	
13,000.00	7,557.19	16,359.19	9,961.54	56.83	103.13	148.90	-6,401.87	-427.88	2,804.97	2,680.50	124.47	22.535	
13,100.00	7,557.19	16,484.14	9,960.66	57.51	104.83	148.78	-6,526.80	-425.86	2,806.83	2,680.34	126.49	22.191	
13,200.00	7,557.19	16,567.20	9,960.28	58.19	105.96	148.71	-6,609.84	-424.41	2,808.91	2,680.82	128.09	21.929	
13,300.00	7,557.18	16,650.58	9,960.02	58.88	107.09	148.62	-6,693.22	-423.78	2,811.64	2,681.93	129.71	21.676	
13,400.00	7,557.18	16,740.32	9,959.78	59.57	108.31	148.52	-6,782.96	-423.80	2,814.82	2,683.40	131.41	21.419	
13,500.00	7,557.18	16,827.23	9,959.69	60.25	109.49	148.41	-6,869.87	-424.23	2,818.40	2,685.31	133.09	21.176	
13,600.00	7,557.17	16,910.00	9,959.75	60.95	110.61	148.30	-6,952.63	-425.36	2,822.59	2,687.85	134.74	20.949	
13,700.00	7,557.17	17,018.02	9,959.74	61.64	112.08	148.15	-7,060.63	-427.22	2,826.92	2,690.25	136.67	20.684	
13,800.00	7,557.16	17,120.82	9,959.58	62.33	113.48	148.00	-7,163.42	-428.89	2,831.10	2,692.54	138.56	20.433	
13,900.00	7,557.16	17,236.91	9,959.36	63.03	115.06	147.85	-7,279.51	-429.88	2,834.85	2,694.27	140.58	20.165	
14,000.00	7,557.16	17,370.34	9,959.36	63.73	116.89	147.72	-7,412.93	-428.89	2,837.97	2,695.23	142.75	19.881	
14,100.00	7,557.15	17,500.20	9,958.51	64.43	118.68	147.61	-7,542.75	-426.06	2,839.73	2,694.88	144.85	19.605	
14,200.00	7,557.15	17,627.15	9,956.00	65.13	120.43	147.48	-7,669.65	-423.84	2,840.63	2,693.69	146.94	19.332	

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 4H
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 4H	**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
14,300.00	7,557.15	17,716.81	9,952.78	65.84	121.67	147.36	-7,759.25	-423.53	2,840.95	2,692.23	148.72	19.102	
14,400.00	7,557.14	17,812.65	9,949.70	66.54	122.99	147.21	-7,855.05	-423.90	2,841.96	2,691.38	150.58	18.874	
14,500.00	7,557.14	17,896.97	9,947.03	67.25	124.15	147.09	-7,939.33	-423.97	2,842.92	2,690.61	152.31	18.666	
14,600.00	7,557.14	17,969.49	9,945.84	67.96	125.15	147.00	-8,011.83	-423.76	2,844.89	2,691.01	153.89	18.487	
14,700.00	7,557.13	18,062.38	9,944.66	68.66	126.43	146.88	-8,104.72	-424.09	2,847.56	2,691.87	155.70	18.289	
14,800.00	7,557.13	18,199.09	9,942.62	69.38	128.32	146.72	-8,241.41	-423.32	2,849.57	2,691.61	157.96	18.040	
14,900.00	7,557.12	18,290.15	9,941.97	70.09	129.59	146.66	-8,332.42	-420.64	2,850.95	2,691.26	159.69	17.853	
15,000.00	7,557.12	18,374.53	9,942.03	70.80	130.77	146.61	-8,416.77	-418.13	2,852.95	2,691.60	161.35	17.682	
15,100.00	7,557.12	18,497.24	9,941.95	71.52	132.48	146.53	-8,539.43	-414.90	2,855.09	2,691.69	163.40	17.473	
15,200.00	7,557.11	18,579.44	9,941.85	72.23	133.62	146.48	-8,621.59	-412.15	2,856.75	2,691.71	165.04	17.310	
15,300.00	7,557.11	18,673.62	9,942.19	72.95	134.94	146.43	-8,715.72	-409.39	2,859.03	2,692.23	166.80	17.141	
15,400.00	7,557.11	18,774.99	9,942.44	73.67	136.35	146.37	-8,817.06	-406.55	2,861.28	2,692.64	168.63	16.967	
15,500.00	7,557.10	18,880.52	9,942.36	74.39	137.83	146.30	-8,922.54	-403.87	2,863.42	2,692.90	170.53	16.792	
15,600.00	7,557.10	18,981.00	9,941.90	75.11	139.23	146.23	-9,023.00	-401.33	2,865.25	2,692.87	172.38	16.622	
15,700.00	7,557.10	19,074.00	9,942.31	75.83	140.54	146.18	-9,115.95	-398.38	2,867.47	2,693.35	174.13	16.468	
15,800.00	7,557.09	19,189.45	9,941.73	76.55	142.15	146.09	-9,231.36	-396.21	2,869.66	2,693.50	176.15	16.291	
15,900.00	7,557.09	19,280.15	9,939.94	77.27	143.42	145.97	-9,322.05	-396.00	2,871.54	2,693.56	177.97	16.135	
16,000.00	7,557.08	19,367.72	9,938.62	78.00	144.64	145.87	-9,409.60	-395.85	2,873.84	2,694.08	179.75	15.988	
16,100.00	7,557.08	19,450.00	9,937.64	78.72	145.79	145.77	-9,491.88	-395.65	2,876.42	2,694.95	181.47	15.851	
16,200.00	7,557.08	19,544.00	9,937.33	79.45	147.10	145.67	-9,585.88	-395.24	2,879.58	2,696.28	183.30	15.710	
16,300.00	7,557.07	19,629.35	9,937.75	80.18	148.29	145.59	-9,671.22	-394.81	2,883.34	2,698.32	185.02	15.584	
16,400.00	7,557.07	19,764.69	9,937.91	80.90	150.19	145.49	-9,806.54	-392.35	2,885.93	2,698.64	187.29	15.409	
16,500.00	7,557.07	19,827.00	9,938.20	81.63	151.06	145.44	-9,868.84	-391.63	2,889.29	2,700.55	188.75	15.308	
16,600.00	7,557.06	19,930.54	9,938.61	82.36	152.51	145.34	-9,972.38	-391.55	2,893.28	2,702.58	190.70	15.172	
16,700.00	7,557.06	20,035.60	9,938.64	83.09	153.98	145.22	-10,077.44	-391.67	2,897.09	2,704.41	192.68	15.036	
16,800.00	7,557.06	20,162.59	9,937.62	83.82	155.76	145.08	-10,204.42	-391.62	2,900.09	2,705.15	194.94	14.877	
16,900.00	7,557.05	20,256.04	9,936.73	84.55	157.07	144.98	-10,297.87	-391.24	2,902.81	2,706.02	196.79	14.750	
17,000.00	7,557.05	20,353.65	9,936.28	85.29	158.44	144.88	-10,395.48	-390.77	2,905.90	2,707.21	198.69	14.625	
17,100.00	7,557.04	20,464.73	9,935.41	86.02	160.00	144.76	-10,506.55	-390.22	2,908.73	2,707.97	200.76	14.489	
17,200.00	7,557.04	20,554.42	9,934.55	86.75	161.26	144.66	-10,596.24	-389.85	2,911.48	2,708.90	202.58	14.372	
17,300.00	7,557.04	20,640.23	9,934.15	87.49	162.46	144.57	-10,682.05	-389.64	2,914.73	2,710.38	204.35	14.264	
17,400.00	7,557.03	20,723.37	9,934.20	88.22	163.63	144.49	-10,765.19	-389.53	2,918.48	2,712.41	206.08	14.162	
17,500.00	7,557.03	20,825.04	9,934.56	88.96	165.05	144.38	-10,866.86	-389.82	2,922.73	2,714.69	208.04	14.049	
17,600.00	7,557.03	20,918.04	9,934.77	89.70	166.36	144.29	-10,959.86	-389.72	2,926.67	2,716.78	209.89	13.944	
17,700.00	7,557.02	21,019.00	9,935.10	90.43	167.78	144.18	-11,060.81	-390.39	2,931.13	2,719.27	211.86	13.835	
17,800.00	7,557.02	21,144.41	9,934.46	91.17	169.54	144.04	-11,186.22	-390.72	2,934.63	2,720.49	214.14	13.704	
17,900.00	7,557.02	21,242.00	9,933.58	91.91	170.91	143.92	-11,283.80	-391.04	2,937.93	2,721.84	216.09	13.596	
18,000.00	7,557.01	21,310.01	9,933.98	92.65	171.87	143.86	-11,351.81	-390.89	2,942.05	2,724.42	217.63	13.519	
18,100.00	7,557.01	21,398.00	9,935.23	93.39	173.11	143.79	-11,439.79	-390.34	2,946.68	2,727.29	219.39	13.431	
18,200.00	7,557.00	21,398.00	9,935.23	94.13	173.11	143.79	-11,439.79	-390.34	2,953.31	2,733.40	219.91	13.430	SF
18,300.00	7,557.00	21,398.00	9,935.23	94.87	173.11	143.79	-11,439.79	-390.34	2,963.30	2,743.10	220.20	13.457	
18,318.93	7,557.00	21,398.00	9,935.23	95.01	173.11	143.79	-11,439.79	-390.34	2,965.57	2,745.33	220.23	13.466	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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
0.00	0.00	0.00	0.00	0.00	0.00	-88.91	0.76	-39.98	39.99				
100.00	100.00	100.00	100.00	0.28	0.28	-88.91	0.76	-39.98	39.99	39.44	0.55	72.434	
200.00	200.00	200.00	200.00	0.63	0.63	-88.91	0.76	-39.98	39.99	38.72	1.27	31.511	
300.00	300.00	300.00	300.00	0.99	0.99	-88.91	0.76	-39.98	39.99	38.00	1.99	20.135	
400.00	400.00	400.00	400.00	1.35	1.35	-88.91	0.76	-39.98	39.99	37.28	2.70	14.794	
500.00	500.00	500.00	500.00	1.71	1.71	-88.91	0.76	-39.98	39.99	36.57	3.42	11.693	
600.00	600.00	600.00	600.00	2.07	2.07	-88.91	0.76	-39.98	39.99	35.85	4.14	9.666	
700.00	700.00	700.00	700.00	2.43	2.43	-88.91	0.76	-39.98	39.99	35.13	4.85	8.238	
800.00	800.00	800.00	800.00	2.79	2.79	-88.91	0.76	-39.98	39.99	34.42	5.57	7.178	
900.00	900.00	900.00	900.00	3.14	3.14	-88.91	0.76	-39.98	39.99	33.70	6.29	6.360	
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	-88.91	0.76	-39.98	39.99	32.98	7.00	5.709	
1,100.00	1,100.00	1,100.00	1,100.00	3.86	3.86	-88.91	0.76	-39.98	39.99	32.27	7.72	5.179	
1,200.00	1,200.00	1,200.00	1,200.00	4.22	4.22	-88.91	0.76	-39.98	39.99	31.55	8.44	4.739	
1,300.00	1,300.00	1,300.00	1,300.00	4.58	4.58	-88.91	0.76	-39.98	39.99	30.83	9.16	4.368	
1,400.00	1,400.00	1,400.00	1,400.00	4.94	4.94	-88.91	0.76	-39.98	39.99	30.11	9.87	4.050	
1,500.00	1,500.00	1,500.00	1,500.00	5.29	5.29	-88.91	0.76	-39.98	39.99	29.40	10.59	3.776	
1,600.00	1,600.00	1,600.00	1,600.00	5.65	5.65	-88.91	0.76	-39.98	39.99	28.68	11.31	3.537	
1,700.00	1,700.00	1,700.00	1,700.00	6.01	6.01	-88.91	0.76	-39.98	39.99	27.96	12.02	3.326	
1,800.00	1,800.00	1,800.00	1,800.00	6.37	6.37	-88.91	0.76	-39.98	39.99	27.25	12.74	3.139	
1,900.00	1,900.00	1,900.69	1,900.67	6.73	6.71	-91.12	-0.77	-39.08	39.10	25.66	13.44	2.909	
2,000.00	2,000.00	2,001.14	2,000.97	7.09	7.04	-98.32	-5.33	-36.40	36.80	22.68	14.12	2.606	
2,100.00	2,099.98	2,101.25	2,100.70	7.43	7.38	106.75	-12.88	-31.96	34.93	20.13	14.80	2.361	
2,160.38	2,160.29	2,161.58	2,160.62	7.63	7.58	99.76	-18.89	-28.44	34.61	19.41	15.20	2.278	CC
2,200.00	2,199.84	2,201.12	2,199.81	7.76	7.71	95.14	-23.41	-25.78	34.75	19.29	15.46	2.248	ES, SF
2,300.00	2,299.45	2,300.74	2,298.19	8.09	8.04	83.97	-36.88	-17.87	36.31	20.19	16.12	2.253	
2,400.00	2,398.70	2,400.56	2,396.45	8.42	8.38	76.23	-52.04	-8.96	38.90	22.12	16.77	2.319	
2,500.00	2,497.47	2,500.52	2,494.84	8.76	8.72	74.12	-67.24	-0.03	41.02	23.57	17.45	2.351	
2,600.00	2,595.62	2,600.49	2,593.25	9.10	9.06	76.74	-82.44	8.90	42.25	24.11	18.14	2.330	
2,644.93	2,639.49	2,645.37	2,637.43	9.25	9.22	79.36	-89.26	12.91	42.61	24.16	18.45	2.310	
2,700.00	2,693.18	2,700.37	2,691.56	9.44	9.41	83.09	-97.62	17.83	43.11	24.28	18.83	2.289	
2,800.00	2,790.65	2,800.24	2,789.87	9.78	9.76	89.57	-112.81	26.75	44.48	24.95	19.53	2.278	
2,900.00	2,888.13	2,900.11	2,888.17	10.13	10.11	95.60	-127.99	35.67	46.38	26.15	20.23	2.293	
3,000.00	2,985.61	2,999.97	2,986.47	10.48	10.46	101.10	-143.17	44.59	48.75	27.82	20.93	2.329	
3,100.00	3,083.08	3,099.84	3,084.78	10.83	10.82	106.05	-158.36	53.51	51.53	29.90	21.63	2.382	
3,200.00	3,180.56	3,199.71	3,183.08	11.19	11.18	110.46	-173.54	62.43	54.65	32.31	22.33	2.447	
3,300.00	3,278.04	3,299.58	3,281.38	11.55	11.54	114.38	-188.72	71.35	58.06	35.02	23.04	2.520	
3,400.00	3,375.51	3,399.44	3,379.68	11.91	11.90	117.85	-203.90	80.27	61.71	37.96	23.75	2.598	
3,500.00	3,472.99	3,499.31	3,477.99	12.27	12.26	120.92	-219.09	89.19	65.56	41.09	24.47	2.679	
3,600.00	3,570.47	3,599.18	3,576.29	12.64	12.62	123.65	-234.27	98.11	69.58	44.39	25.19	2.763	
3,700.00	3,667.94	3,699.05	3,674.59	13.00	12.98	126.07	-249.45	107.03	73.74	47.83	25.91	2.846	
3,800.00	3,765.42	3,798.91	3,772.89	13.37	13.35	128.23	-264.64	115.95	78.01	51.38	26.63	2.929	
3,900.00	3,862.90	3,898.78	3,871.20	13.74	13.71	130.16	-279.82	124.87	82.39	55.03	27.36	3.011	
4,000.00	3,960.37	3,998.65	3,969.50	14.11	14.08	131.90	-295.00	133.79	86.85	58.76	28.09	3.091	
4,100.00	4,057.85	4,098.52	4,067.80	14.48	14.45	133.47	-310.18	142.71	91.38	62.55	28.83	3.170	
4,200.00	4,155.33	4,198.38	4,166.11	14.86	14.81	134.89	-325.37	151.63	95.97	66.41	29.56	3.246	
4,300.00	4,252.80	4,298.25	4,264.41	15.23	15.18	136.17	-340.55	160.55	100.62	70.32	30.30	3.321	
4,400.00	4,350.28	4,398.12	4,362.71	15.61	15.55	137.35	-355.73	169.48	105.31	74.27	31.04	3.393	
4,500.00	4,447.76	4,497.99	4,461.01	15.98	15.92	138.42	-370.92	178.40	110.05	78.26	31.78	3.463	
4,600.00	4,545.23	4,597.85	4,559.32	16.36	16.29	139.40	-386.10	187.32	114.82	82.29	32.53	3.530	
4,700.00	4,642.71	4,697.72	4,657.62	16.74	16.66	140.31	-401.28	196.24	119.62	86.34	33.27	3.595	
4,800.00	4,740.19	4,797.59	4,755.92	17.11	17.03	141.14	-416.46	205.16	124.44	90.42	34.02	3.658	
4,900.00	4,837.66	4,897.46	4,854.23	17.49	17.40	141.92	-431.65	214.08	129.29	94.53	34.77	3.719	

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 4H
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 4H	**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
5,000.00	4,935.14	4,997.33	4,952.53	17.87	17.78	142.63	-446.83	223.00	134.17	98.65	35.51	3.778	
5,100.00	5,032.62	5,097.19	5,050.83	18.25	18.15	143.30	-462.01	231.92	139.06	102.80	36.26	3.835	
5,200.00	5,130.09	5,197.06	5,149.13	18.64	18.52	143.92	-477.20	240.84	143.97	106.96	37.02	3.889	
5,300.00	5,227.57	5,296.93	5,247.44	19.02	18.89	144.50	-492.38	249.76	148.90	111.13	37.77	3.942	
5,400.00	5,325.05	5,396.80	5,345.74	19.40	19.27	145.05	-507.56	258.68	153.84	115.32	38.52	3.994	
5,500.00	5,422.52	5,496.66	5,444.04	19.78	19.64	145.55	-522.75	267.60	158.79	119.52	39.28	4.043	
5,600.00	5,520.00	5,596.53	5,542.35	20.16	20.02	146.03	-537.93	276.52	163.76	123.73	40.03	4.091	
5,700.00	5,617.48	5,696.40	5,640.65	20.55	20.39	146.48	-553.11	285.44	168.73	127.95	40.79	4.137	
5,800.00	5,714.95	5,796.27	5,738.95	20.93	20.76	146.91	-568.29	294.36	173.72	132.18	41.54	4.182	
5,900.00	5,812.43	5,896.13	5,837.25	21.31	21.14	147.31	-583.48	303.28	178.71	136.41	42.30	4.225	
6,000.00	5,909.91	5,996.00	5,935.56	21.70	21.51	147.69	-598.66	312.21	183.71	140.66	43.06	4.267	
6,100.00	6,007.38	6,095.87	6,033.86	22.08	21.89	148.05	-613.84	321.13	188.73	144.91	43.82	4.307	
6,200.00	6,104.86	6,195.74	6,132.16	22.47	22.26	148.39	-629.03	330.05	193.74	149.17	44.57	4.347	
6,300.00	6,202.34	6,295.60	6,230.47	22.85	22.64	148.71	-644.21	338.97	198.77	153.43	45.33	4.385	
6,400.00	6,299.81	6,395.47	6,328.77	23.24	23.02	149.02	-659.39	347.89	203.80	157.70	46.09	4.421	
6,421.23	6,320.51	6,416.67	6,349.63	23.32	23.10	149.08	-662.61	349.78	204.87	158.61	46.25	4.429	
6,500.00	6,397.52	6,495.38	6,427.11	23.62	23.39	149.19	-674.58	356.81	207.90	161.05	46.85	4.437	
6,600.00	6,495.90	6,595.36	6,525.53	24.00	23.77	148.86	-689.78	365.74	209.08	161.47	47.61	4.392	
6,700.00	6,594.84	6,695.29	6,623.89	24.37	24.15	147.99	-704.97	374.67	207.30	158.94	48.36	4.286	
6,800.00	6,694.23	6,795.06	6,722.09	24.74	24.52	146.55	-720.14	383.58	202.65	153.53	49.11	4.126	
6,900.00	6,793.94	6,894.53	6,820.00	25.09	24.90	144.43	-735.26	392.47	195.27	145.41	49.86	3.917	
7,000.00	6,893.85	6,993.59	6,917.51	25.44	25.27	141.47	-750.32	401.31	185.42	134.82	50.60	3.665	
7,066.16	6,960.00	7,058.83	6,981.74	25.67	25.52	-76.97	-760.24	407.14	177.73	126.65	51.08	3.480	
7,100.00	6,993.82	7,092.30	7,014.67	25.78	25.64	113.74	-765.33	410.13	174.04	122.72	51.32	3.391	
7,150.00	7,043.55	7,142.09	7,063.69	25.96	25.83	113.50	-772.90	414.58	170.11	118.42	51.69	3.291	
7,200.00	7,092.63	7,191.98	7,112.80	26.14	26.02	114.43	-780.48	419.04	167.95	115.88	52.06	3.226	
7,231.04	7,122.62	7,222.84	7,143.17	26.26	26.14	115.60	-785.18	421.79	167.55	115.26	52.29	3.204	
7,250.00	7,140.71	7,241.59	7,161.62	26.34	26.21	116.53	-788.03	423.47	167.71	115.28	52.43	3.199	
7,300.00	7,187.41	7,290.53	7,209.80	26.53	26.39	119.66	-795.47	427.84	169.83	117.04	52.79	3.217	
7,350.00	7,232.38	7,338.43	7,256.95	26.73	26.57	123.51	-802.75	432.12	174.91	121.77	53.15	3.291	
7,400.00	7,275.27	7,384.93	7,302.73	26.93	26.75	127.74	-809.82	436.27	183.63	130.14	53.49	3.433	
7,450.00	7,315.77	7,427.75	7,344.90	27.13	26.91	131.75	-816.18	440.01	196.72	142.90	53.82	3.655	
7,500.00	7,353.56	7,467.37	7,384.01	27.34	27.06	135.33	-821.60	443.19	214.93	160.80	54.14	3.970	
7,550.00	7,388.35	7,503.98	7,420.24	27.54	27.19	138.29	-826.20	445.89	238.30	183.88	54.42	4.379	
7,600.00	7,419.89	7,537.28	7,453.24	27.74	27.32	140.48	-830.03	448.14	266.57	211.89	54.68	4.875	
7,650.00	7,447.92	7,567.01	7,482.74	27.94	27.43	141.79	-833.17	449.99	299.29	244.39	54.90	5.451	
7,700.00	7,472.24	7,592.97	7,508.54	28.14	27.52	142.13	-835.69	451.47	335.92	280.83	55.09	6.098	
7,750.00	7,492.67	7,615.05	7,530.50	28.33	27.60	141.34	-837.68	452.64	375.89	320.64	55.25	6.804	
7,800.00	7,509.03	7,633.19	7,548.55	28.52	27.67	139.11	-839.21	453.54	418.63	363.26	55.37	7.560	
7,816.16	7,513.43	7,638.20	7,553.54	28.58	27.69	138.00	-839.61	453.78	432.94	377.53	55.41	7.814	
7,900.00	7,532.50	7,660.36	7,575.62	28.88	27.77	133.34	-841.31	454.77	508.96	453.41	55.54	9.163	
8,000.00	7,548.24	7,679.77	7,594.96	29.24	27.84	124.66	-842.68	455.58	602.11	546.45	55.66	10.818	
8,100.00	7,556.27	7,700.00	7,615.13	29.58	27.91	114.44	-843.98	456.34	697.09	641.29	55.81	12.491	
8,153.26	7,557.37	7,700.00	7,615.13	29.76	27.91	105.74	-843.98	456.34	748.04	692.25	55.79	13.408	
8,200.00	7,557.37	7,700.00	7,615.13	29.92	27.91	105.74	-843.98	456.34	792.96	737.18	55.78	14.215	
8,300.00	7,557.36	9,083.07	8,436.28	30.26	33.08	178.19	-1,662.99	687.14	879.92	847.40	32.52	27.055	
8,400.00	7,557.36	9,212.70	8,437.43	30.63	33.51	177.75	-1,792.58	688.87	880.75	847.85	32.90	26.774	
8,500.00	7,557.36	9,312.50	8,437.43	31.00	33.85	177.35	-1,892.39	689.06	881.02	847.18	33.83	26.039	
8,600.00	7,557.35	9,412.30	8,437.42	31.39	34.20	176.94	-1,992.19	689.26	881.33	846.50	34.83	25.304	
8,700.00	7,557.35	9,512.10	8,437.42	31.79	34.56	176.53	-2,091.99	689.45	881.69	845.82	35.88	24.575	
8,800.00	7,557.35	9,611.90	8,437.41	32.21	34.94	176.12	-2,191.79	689.65	882.10	845.13	36.97	23.859	
8,900.00	7,557.34	9,711.70	8,437.41	32.64	35.32	175.71	-2,291.59	689.85	882.55	844.44	38.11	23.159	

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 4H
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 4H	**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
9,000.00	7,557.34	9,811.51	8,437.41	33.08	35.72	175.31	-2,391.39	690.04	883.04	843.75	39.29	22.477	
9,100.00	7,557.34	9,911.31	8,437.40	33.54	36.14	174.90	-2,491.19	690.24	883.58	843.08	40.50	21.817	
9,200.00	7,557.33	10,011.11	8,437.40	34.00	36.56	174.49	-2,590.99	690.43	884.16	842.42	41.75	21.180	
9,300.00	7,557.33	10,110.91	8,437.39	34.48	36.99	174.09	-2,690.79	690.63	884.79	841.77	43.02	20.566	
9,400.00	7,557.32	10,210.71	8,437.39	34.96	37.44	173.68	-2,790.59	690.83	885.46	841.13	44.33	19.976	
9,500.00	7,557.32	10,310.51	8,437.38	35.46	37.89	173.28	-2,890.39	691.02	886.18	840.52	45.66	19.410	
9,600.00	7,557.32	10,410.31	8,437.38	35.97	38.35	172.88	-2,990.20	691.22	886.94	839.93	47.01	18.867	
9,700.00	7,557.31	10,510.11	8,437.38	36.48	38.83	172.47	-3,090.00	691.41	887.74	839.36	48.38	18.348	
9,800.00	7,557.31	10,609.91	8,437.37	37.00	39.31	172.07	-3,189.80	691.61	888.59	838.81	49.78	17.852	
9,900.00	7,557.31	10,709.72	8,437.37	37.54	39.80	171.67	-3,289.60	691.81	889.48	838.30	51.19	17.377	
10,000.00	7,557.30	10,809.52	8,437.36	38.08	40.30	171.27	-3,389.40	692.00	890.42	837.80	52.62	16.923	
10,100.00	7,557.30	10,909.32	8,437.36	38.63	40.80	170.87	-3,489.20	692.20	891.40	837.34	54.06	16.489	
10,200.00	7,557.30	11,009.12	8,437.35	39.18	41.32	170.47	-3,589.00	692.39	892.42	836.91	55.52	16.075	
10,300.00	7,557.29	11,108.92	8,437.35	39.74	41.84	170.07	-3,688.80	692.59	893.49	836.50	56.99	15.679	
10,400.00	7,557.29	11,208.72	8,437.35	40.31	42.37	169.67	-3,788.60	692.79	894.60	836.13	58.47	15.301	
10,500.00	7,557.28	11,308.52	8,437.34	40.89	42.90	169.28	-3,888.40	692.98	895.75	835.79	59.96	14.939	
10,600.00	7,557.28	11,408.32	8,437.34	41.47	43.45	168.88	-3,988.20	693.18	896.95	835.49	61.46	14.593	
10,700.00	7,557.28	11,508.12	8,437.33	42.06	44.00	168.49	-4,088.01	693.37	898.19	835.21	62.97	14.263	
10,800.00	7,557.27	11,607.93	8,437.33	42.66	44.55	168.10	-4,187.81	693.57	899.47	834.97	64.50	13.946	
10,900.00	7,557.27	11,707.73	8,437.32	43.26	45.11	167.71	-4,287.61	693.77	900.79	834.77	66.02	13.643	
11,000.00	7,557.27	11,807.53	8,437.32	43.86	45.68	167.31	-4,387.41	693.96	902.16	834.60	67.56	13.354	
11,100.00	7,557.26	11,907.33	8,437.31	44.47	46.26	166.93	-4,487.21	694.16	903.56	834.46	69.10	13.076	
11,200.00	7,557.26	12,007.13	8,437.31	45.09	46.83	166.54	-4,587.01	694.35	905.01	834.36	70.65	12.810	
11,300.00	7,557.26	12,106.93	8,437.31	45.71	47.42	166.15	-4,686.81	694.55	906.50	834.30	72.21	12.554	
11,400.00	7,557.25	12,206.73	8,437.30	46.33	48.01	165.77	-4,786.61	694.75	908.04	834.27	73.77	12.310	
11,500.00	7,557.25	12,306.53	8,437.30	46.96	48.60	165.38	-4,886.41	694.94	909.61	834.28	75.33	12.075	
11,600.00	7,557.24	12,406.33	8,437.29	47.60	49.20	165.00	-4,986.21	695.14	911.22	834.32	76.90	11.849	
11,700.00	7,557.24	12,506.14	8,437.29	48.24	49.80	164.62	-5,086.01	695.33	912.88	834.40	78.48	11.632	
11,800.00	7,557.24	12,605.94	8,437.28	48.88	50.41	164.24	-5,185.82	695.53	914.57	834.52	80.05	11.424	
11,900.00	7,557.23	12,705.74	8,437.28	49.52	51.02	163.86	-5,285.62	695.73	916.31	834.67	81.64	11.224	
12,000.00	7,557.23	12,805.54	8,437.28	50.17	51.63	163.48	-5,385.42	695.92	918.08	834.86	83.22	11.032	
12,100.00	7,557.23	12,905.34	8,437.27	50.82	52.25	163.10	-5,485.22	696.12	919.90	835.09	84.81	10.846	
12,200.00	7,557.22	13,005.14	8,437.27	51.48	52.87	162.73	-5,585.02	696.31	921.75	835.35	86.40	10.668	
12,300.00	7,557.22	13,104.94	8,437.26	52.14	53.50	162.36	-5,684.82	696.51	923.65	835.65	88.00	10.496	
12,400.00	7,557.22	13,204.74	8,437.26	52.80	54.13	161.99	-5,784.62	696.71	925.58	835.99	89.59	10.331	
12,500.00	7,557.21	13,304.54	8,437.25	53.46	54.76	161.62	-5,884.42	696.90	927.55	836.36	91.19	10.171	
12,600.00	7,557.21	13,404.34	8,437.25	54.13	55.40	161.25	-5,984.22	697.10	929.56	836.77	92.79	10.018	
12,700.00	7,557.20	13,504.15	8,437.24	54.80	56.04	160.88	-6,084.02	697.29	931.61	837.21	94.40	9.869	
12,800.00	7,557.20	13,603.95	8,437.24	55.48	56.68	160.52	-6,183.82	697.49	933.70	837.69	96.00	9.726	
12,900.00	7,557.20	13,703.75	8,437.24	56.15	57.33	160.15	-6,283.62	697.69	935.82	838.21	97.61	9.588	
13,000.00	7,557.19	13,803.55	8,437.23	56.83	57.98	159.79	-6,383.43	697.88	937.98	838.77	99.22	9.454	
13,100.00	7,557.19	13,903.35	8,437.23	57.51	58.63	159.43	-6,483.23	698.08	940.18	839.36	100.82	9.325	
13,200.00	7,557.19	14,003.15	8,437.22	58.19	59.28	159.07	-6,583.03	698.27	942.42	839.98	102.44	9.200	
13,300.00	7,557.18	14,102.95	8,437.22	58.88	59.94	158.72	-6,682.83	698.47	944.69	840.65	104.05	9.080	
13,400.00	7,557.18	14,202.75	8,437.21	59.57	60.60	158.36	-6,782.63	698.67	947.00	841.34	105.66	8.963	
13,500.00	7,557.18	14,302.55	8,437.21	60.25	61.26	158.01	-6,882.43	698.86	949.35	842.08	107.27	8.850	
13,600.00	7,557.17	14,402.36	8,437.21	60.95	61.92	157.66	-6,982.23	699.06	951.73	842.84	108.89	8.741	
13,700.00	7,557.17	14,502.16	8,437.20	61.64	62.59	157.31	-7,082.03	699.25	954.15	843.65	110.50	8.635	
13,800.00	7,557.16	14,601.96	8,437.20	62.33	63.26	156.96	-7,181.83	699.45	956.60	844.49	112.12	8.532	
13,900.00	7,557.16	14,701.76	8,437.19	63.03	63.93	156.61	-7,281.63	699.65	959.09	845.36	113.73	8.433	
14,000.00	7,557.16	14,801.56	8,437.19	63.73	64.60	156.27	-7,381.43	699.84	961.61	846.27	115.35	8.337	
14,100.00	7,557.15	14,901.36	8,437.18	64.43	65.27	155.93	-7,481.24	700.04	964.17	847.21	116.96	8.243	

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 4H
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 4H	**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
14,200.00	7,557.15	15,001.16	8,437.18	65.13	65.95	155.59	-7,581.04	700.23	966.76	848.18	118.58	8.153	
14,300.00	7,557.15	15,100.96	8,437.18	65.84	66.63	155.25	-7,680.84	700.43	969.39	849.19	120.20	8.065	
14,400.00	7,557.14	15,200.76	8,437.17	66.54	67.31	154.91	-7,780.64	700.63	972.05	850.24	121.81	7.980	
14,500.00	7,557.14	15,300.57	8,437.17	67.25	67.99	154.58	-7,880.44	700.82	974.74	851.31	123.43	7.897	
14,600.00	7,557.14	15,400.37	8,437.16	67.96	68.67	154.24	-7,980.24	701.02	977.47	852.42	125.05	7.817	
14,700.00	7,557.13	15,500.17	8,437.16	68.66	69.36	153.91	-8,080.04	701.21	980.23	853.57	126.66	7.739	
14,800.00	7,557.13	15,599.97	8,437.15	69.38	70.04	153.58	-8,179.84	701.41	983.02	854.74	128.28	7.663	
14,900.00	7,557.12	15,699.77	8,437.15	70.09	70.73	153.26	-8,279.64	701.61	985.85	855.95	129.90	7.590	
15,000.00	7,557.12	15,799.57	8,437.14	70.80	71.42	152.93	-8,379.44	701.80	988.70	857.19	131.51	7.518	
15,100.00	7,557.12	15,899.37	8,437.14	71.52	72.11	152.61	-8,479.24	702.00	991.59	858.46	133.13	7.448	
15,200.00	7,557.11	15,999.17	8,437.14	72.23	72.80	152.28	-8,579.05	702.19	994.51	859.77	134.74	7.381	
15,300.00	7,557.11	16,098.97	8,437.13	72.95	73.50	151.96	-8,678.85	702.39	997.46	861.11	136.36	7.315	
15,400.00	7,557.11	16,198.78	8,437.13	73.67	74.19	151.65	-8,778.65	702.59	1,000.45	862.47	137.97	7.251	
15,500.00	7,557.10	16,298.58	8,437.12	74.39	74.89	151.33	-8,878.45	702.78	1,003.46	863.87	139.59	7.189	
15,600.00	7,557.10	16,398.38	8,437.12	75.11	75.59	151.01	-8,978.25	702.98	1,006.50	865.30	141.20	7.128	
15,700.00	7,557.10	16,498.18	8,437.11	75.83	76.29	150.70	-9,078.05	703.17	1,009.58	866.76	142.81	7.069	
15,800.00	7,557.09	16,597.98	8,437.11	76.55	76.99	150.39	-9,177.85	703.37	1,012.68	868.26	144.43	7.012	
15,900.00	7,557.09	16,697.78	8,437.11	77.27	77.69	150.08	-9,277.65	703.57	1,015.82	869.78	146.04	6.956	
16,000.00	7,557.08	16,797.58	8,437.10	78.00	78.39	149.78	-9,377.45	703.76	1,018.98	871.33	147.65	6.901	
16,100.00	7,557.08	16,897.38	8,437.10	78.72	79.10	149.47	-9,477.25	703.96	1,022.17	872.91	149.26	6.848	
16,200.00	7,557.08	16,997.18	8,437.09	79.45	79.80	149.17	-9,577.05	704.15	1,025.39	874.52	150.87	6.796	
16,300.00	7,557.07	17,096.98	8,437.09	80.18	80.51	148.87	-9,676.86	704.35	1,028.64	876.16	152.48	6.746	
16,400.00	7,557.07	17,196.79	8,437.08	80.90	81.21	148.57	-9,776.66	704.55	1,031.92	877.83	154.09	6.697	
16,500.00	7,557.07	17,296.59	8,437.08	81.63	81.92	148.27	-9,876.46	704.74	1,035.22	879.52	155.70	6.649	
16,600.00	7,557.06	17,396.39	8,437.07	82.36	82.63	147.97	-9,976.26	704.94	1,038.56	881.25	157.31	6.602	
16,700.00	7,557.06	17,496.19	8,437.07	83.09	83.34	147.68	-10,076.06	705.13	1,041.92	883.00	158.91	6.556	
16,800.00	7,557.06	17,595.99	8,437.07	83.82	84.05	147.39	-10,175.86	705.33	1,045.31	884.79	160.52	6.512	
16,900.00	7,557.05	17,695.79	8,437.06	84.55	84.76	147.10	-10,275.66	705.53	1,048.72	886.60	162.13	6.469	
17,000.00	7,557.05	17,795.59	8,437.06	85.29	85.48	146.81	-10,375.46	705.72	1,052.16	888.43	163.73	6.426	
17,100.00	7,557.04	17,895.39	8,437.05	86.02	86.19	146.53	-10,475.26	705.92	1,055.63	890.30	165.34	6.385	
17,200.00	7,557.04	17,995.19	8,437.05	86.75	86.90	146.24	-10,575.06	706.11	1,059.13	892.19	166.94	6.344	
17,300.00	7,557.04	18,095.00	8,437.04	87.49	87.62	145.96	-10,674.86	706.31	1,062.65	894.11	168.54	6.305	
17,400.00	7,557.03	18,194.80	8,437.04	88.22	88.34	145.68	-10,774.66	706.51	1,066.19	896.05	170.14	6.266	
17,500.00	7,557.03	18,294.60	8,437.04	88.96	89.05	145.40	-10,874.47	706.70	1,069.76	898.02	171.74	6.229	
17,600.00	7,557.03	18,394.40	8,437.03	89.70	89.77	145.12	-10,974.27	706.90	1,073.36	900.02	173.34	6.192	
17,700.00	7,557.02	18,494.20	8,437.03	90.43	90.49	144.85	-11,074.07	707.09	1,076.98	902.04	174.94	6.156	
17,800.00	7,557.02	18,594.00	8,437.02	91.17	91.21	144.58	-11,173.87	707.29	1,080.63	904.09	176.54	6.121	
17,900.00	7,557.02	18,693.80	8,437.02	91.91	91.93	144.31	-11,273.67	707.49	1,084.30	906.16	178.14	6.087	
18,000.00	7,557.01	18,793.60	8,437.01	92.65	92.65	144.04	-11,373.47	707.68	1,087.99	908.26	179.74	6.053	
18,100.00	7,557.01	18,893.40	8,437.01	93.39	93.37	143.77	-11,473.27	707.88	1,091.71	910.38	181.33	6.020	
18,200.00	7,557.00	18,993.21	8,437.00	94.13	94.09	143.50	-11,573.07	708.07	1,095.45	912.53	182.93	5.988	
18,300.00	7,557.00	19,093.01	8,437.00	94.87	94.81	143.24	-11,672.87	708.27	1,099.22	914.70	184.52	5.957	
18,318.93	7,557.00	19,103.82	8,437.00	95.01	94.91	143.21	-11,683.68	708.29	1,099.97	915.18	184.78	5.953	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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	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	1,100.21	1,100.19	3.86	3.84	-93.74	-1.27	-19.39	19.43	11.73	7.70	2.522	
1,200.00	1,200.00	1,200.18	1,200.01	4.22	4.17	-109.38	-6.19	-17.60	18.66	10.27	8.39	2.223	
1,202.85	1,202.85	1,203.02	1,202.85	4.23	4.18	-109.99	-6.38	-17.53	18.65	10.24	8.41	2.218	CC, ES, SF
1,300.00	1,300.00	1,299.66	1,299.11	4.58	4.51	-134.40	-14.33	-14.63	20.50	11.43	9.07	2.259	
1,400.00	1,400.00	1,398.85	1,397.59	4.94	4.84	-158.01	-25.36	-10.24	27.46	17.71	9.75	2.817	
1,500.00	1,500.00	1,497.82	1,495.54	5.29	5.18	-175.71	-37.38	-2.80	37.74	27.32	10.42	3.621	
1,600.00	1,600.00	1,596.01	1,592.32	5.65	5.52	171.04	-49.95	7.87	51.15	40.06	11.09	4.613	
1,700.00	1,700.00	1,693.45	1,687.90	6.01	5.86	161.09	-63.05	21.60	67.74	55.99	11.74	5.768	
1,800.00	1,800.00	1,791.37	1,783.77	6.37	6.21	154.56	-76.40	36.35	86.15	73.72	12.43	6.931	
1,900.00	1,900.00	1,889.28	1,879.65	6.73	6.57	150.35	-89.74	51.09	105.25	92.13	13.12	8.020	
2,000.00	2,000.00	1,987.20	1,975.52	7.09	6.92	147.44	-103.09	65.84	124.74	110.92	13.82	9.024	
2,100.00	2,099.98	2,085.44	2,071.72	7.43	7.28	1.21	-116.48	80.63	142.75	128.23	14.51	9.837	
2,200.00	2,199.84	2,184.26	2,168.48	7.76	7.65	-0.43	-129.95	95.51	157.45	142.26	15.19	10.364	
2,300.00	2,299.45	2,283.53	2,265.68	8.09	8.01	-1.83	-143.48	110.46	168.80	152.92	15.88	10.630	
2,400.00	2,398.70	2,383.13	2,363.20	8.42	8.38	-3.10	-157.06	125.46	176.77	160.20	16.58	10.665	
2,500.00	2,497.47	2,482.94	2,460.93	8.76	8.76	-4.35	-170.66	140.49	181.35	164.07	17.28	10.496	
2,600.00	2,595.62	2,582.85	2,558.76	9.10	9.13	-5.64	-184.28	155.53	182.54	164.55	17.98	10.150	
2,644.93	2,639.49	2,627.73	2,602.70	9.25	9.30	-6.26	-190.40	162.29	181.97	163.67	18.30	9.942	
2,700.00	2,693.18	2,682.73	2,656.56	9.44	9.51	-7.04	-197.90	170.57	180.88	162.18	18.70	9.675	
2,800.00	2,790.65	2,782.61	2,754.36	9.78	9.88	-8.47	-211.51	185.61	178.98	159.56	19.41	9.220	
2,900.00	2,888.13	2,882.49	2,852.16	10.13	10.26	-9.93	-225.13	200.65	177.19	157.06	20.13	8.801	
3,000.00	2,985.61	2,982.38	2,949.96	10.48	10.64	-11.42	-238.74	215.69	175.52	154.66	20.86	8.415	
3,100.00	3,083.08	3,082.26	3,047.76	10.83	11.01	-12.94	-252.36	230.73	173.98	152.39	21.59	8.058	
3,200.00	3,180.56	3,182.14	3,145.55	11.19	11.39	-14.49	-265.97	245.77	172.55	150.23	22.32	7.730	
3,300.00	3,278.04	3,282.02	3,243.35	11.55	11.77	-16.05	-279.58	260.81	171.26	148.20	23.06	7.426	
3,400.00	3,375.51	3,381.90	3,341.15	11.91	12.15	-17.65	-293.20	275.85	170.10	146.30	23.80	7.146	
3,500.00	3,472.99	3,481.78	3,438.95	12.27	12.53	-19.26	-306.81	290.89	169.07	144.52	24.55	6.888	
3,600.00	3,570.47	3,581.66	3,536.75	12.64	12.91	-20.89	-320.43	305.93	168.17	142.88	25.29	6.649	
3,700.00	3,667.94	3,681.54	3,634.55	13.00	13.29	-22.54	-334.04	320.97	167.42	141.37	26.04	6.428	
3,800.00	3,765.42	3,781.42	3,732.35	13.37	13.68	-24.20	-347.66	336.01	166.80	140.00	26.80	6.224	
3,900.00	3,862.90	3,881.30	3,830.14	13.74	14.06	-25.87	-361.27	351.05	166.33	138.77	27.55	6.037	
4,000.00	3,960.37	3,981.18	3,927.94	14.11	14.44	-27.55	-374.89	366.09	165.99	137.68	28.31	5.863	
4,100.00	4,057.85	4,081.06	4,025.74	14.48	14.82	-29.23	-388.50	381.13	165.81	136.73	29.07	5.703	
4,181.20	4,137.00	4,162.16	4,105.15	14.79	15.13	-30.60	-399.56	393.34	165.76	136.07	29.69	5.583	
4,200.00	4,155.33	4,180.94	4,123.54	14.86	15.20	-30.92	-402.12	396.17	165.76	135.93	29.83	5.556	
4,300.00	4,252.80	4,280.82	4,221.34	15.23	15.59	-32.61	-415.73	411.21	165.86	135.26	30.60	5.420	
4,400.00	4,350.28	4,380.70	4,319.14	15.61	15.97	-34.29	-429.34	426.25	166.10	134.74	31.37	5.296	
4,500.00	4,447.76	4,480.58	4,416.94	15.98	16.35	-35.97	-442.96	441.29	166.49	134.36	32.13	5.181	
4,600.00	4,545.23	4,580.46	4,514.73	16.36	16.74	-37.63	-456.57	456.33	167.02	134.11	32.90	5.076	
4,700.00	4,642.71	4,680.34	4,612.53	16.74	17.12	-39.29	-470.19	471.37	167.69	134.01	33.67	4.980	
4,800.00	4,740.19	4,780.22	4,710.33	17.11	17.51	-40.93	-483.80	486.41	168.49	134.05	34.45	4.892	

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 4H
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 4H	**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
4,900.00	4,837.66	4,880.11	4,808.13	17.49	17.89	-42.55	-497.42	501.45	169.44	134.22	35.22	4.811	
5,000.00	4,935.14	4,979.99	4,905.93	17.87	18.27	-44.16	-511.03	516.49	170.52	134.53	35.99	4.737	
5,100.00	5,032.62	5,079.87	5,003.73	18.25	18.66	-45.74	-524.65	531.53	171.73	134.96	36.77	4.671	
5,200.00	5,130.09	5,179.75	5,101.53	18.64	19.04	-47.30	-538.26	546.57	173.07	135.53	37.54	4.610	
5,300.00	5,227.57	5,279.63	5,199.32	19.02	19.43	-48.84	-551.88	561.61	174.54	136.22	38.32	4.555	
5,400.00	5,325.05	5,379.51	5,297.12	19.40	19.81	-50.35	-565.49	576.65	176.14	137.04	39.10	4.505	
5,500.00	5,422.52	5,479.39	5,394.92	19.78	20.20	-51.83	-579.10	591.69	177.85	137.97	39.88	4.460	
5,600.00	5,520.00	5,579.27	5,492.72	20.16	20.58	-53.28	-592.72	606.73	179.68	139.02	40.65	4.420	
5,700.00	5,617.48	5,679.15	5,590.52	20.55	20.97	-54.70	-606.33	621.77	181.62	140.19	41.43	4.384	
5,800.00	5,714.95	5,779.03	5,688.32	20.93	21.35	-56.09	-619.95	636.81	183.67	141.46	42.21	4.351	
5,900.00	5,812.43	5,878.91	5,786.12	21.31	21.74	-57.45	-633.56	651.85	185.83	142.84	42.99	4.323	
6,000.00	5,909.91	5,978.79	5,883.91	21.70	22.12	-58.78	-647.18	666.89	188.09	144.32	43.77	4.297	
6,100.00	6,007.38	6,078.67	5,981.71	22.08	22.51	-60.07	-660.79	681.93	190.45	145.90	44.55	4.275	
6,200.00	6,104.86	6,178.55	6,079.51	22.47	22.89	-61.33	-674.41	696.97	192.90	147.58	45.32	4.256	
6,300.00	6,202.34	6,278.43	6,177.31	22.85	23.28	-62.56	-688.02	712.01	195.44	149.34	46.10	4.239	
6,400.00	6,299.81	6,378.31	6,275.11	23.24	23.67	-63.76	-701.63	727.05	198.08	151.20	46.88	4.225	
6,421.23	6,320.51	6,399.51	6,295.87	23.32	23.75	-64.01	-704.52	730.24	198.65	151.60	47.05	4.222	
6,500.00	6,397.52	6,478.21	6,372.92	23.62	24.05	-64.70	-715.25	742.09	201.25	153.60	47.66	4.223	
6,600.00	6,495.90	6,578.10	6,470.73	24.00	24.44	-64.78	-728.87	757.13	205.91	157.49	48.42	4.253	
6,700.00	6,594.84	6,677.85	6,568.40	24.37	24.82	-64.03	-742.46	772.15	212.08	162.90	49.18	4.313	
6,800.00	6,694.23	6,777.36	6,665.83	24.74	25.21	-62.55	-756.03	787.14	219.88	169.96	49.92	4.405	
6,900.00	6,793.94	6,876.49	6,762.90	25.09	25.59	-60.46	-769.54	802.06	229.55	178.90	50.65	4.532	
7,000.00	6,893.85	6,975.12	6,859.48	25.44	25.97	-57.89	-782.98	816.92	241.39	190.02	51.37	4.699	
7,066.16	6,960.00	7,040.04	6,923.05	25.67	26.22	88.11	-791.83	826.69	250.57	198.74	51.83	4.834	
7,100.00	6,993.82	7,073.33	6,955.63	25.78	26.35	-79.06	-796.37	831.70	255.42	203.35	52.07	4.905	
7,150.00	7,043.55	7,122.85	7,004.13	25.96	26.54	-78.01	-803.12	839.16	261.94	209.50	52.44	4.995	
7,200.00	7,092.63	7,172.46	7,052.70	26.14	26.73	-77.98	-809.88	846.63	267.58	214.76	52.82	5.066	
7,250.00	7,140.71	7,221.77	7,100.98	26.34	26.93	-78.89	-816.60	854.06	272.41	219.20	53.21	5.120	
7,300.00	7,187.41	7,270.41	7,148.61	26.53	27.11	-80.65	-823.23	861.38	276.69	223.09	53.60	5.162	
7,350.00	7,232.38	7,318.01	7,195.22	26.73	27.30	-83.13	-829.72	868.55	280.86	226.86	54.00	5.201	
7,400.00	7,275.27	7,364.21	7,240.45	26.93	27.48	-86.15	-836.02	875.51	285.50	231.10	54.40	5.248	
7,450.00	7,315.77	7,408.66	7,283.97	27.13	27.65	-89.53	-842.08	882.20	291.31	236.53	54.79	5.317	
7,500.00	7,353.56	7,451.01	7,325.45	27.34	27.81	-93.03	-847.85	888.58	299.03	243.87	55.16	5.421	
7,550.00	7,388.35	7,490.95	7,364.55	27.54	27.97	-96.41	-853.30	894.59	309.39	253.87	55.51	5.573	
7,600.00	7,419.89	7,528.17	7,401.00	27.74	28.11	-99.45	-858.37	900.20	323.00	267.16	55.84	5.784	
7,650.00	7,447.92	7,562.39	7,434.50	27.94	28.24	-101.94	-863.03	905.35	340.32	284.19	56.14	6.062	
7,700.00	7,472.24	7,593.35	7,464.82	28.14	28.36	-103.73	-867.25	910.01	361.58	305.19	56.40	6.411	
7,750.00	7,492.67	7,620.81	7,491.71	28.33	28.47	-104.65	-871.00	914.14	386.80	330.18	56.62	6.831	
7,800.00	7,509.03	7,644.56	7,514.96	28.52	28.56	-104.59	-874.23	917.72	415.79	358.98	56.81	7.319	
7,816.16	7,513.43	7,651.41	7,521.67	28.58	28.59	-104.34	-875.17	918.75	425.91	369.05	56.86	7.491	
7,900.00	7,532.50	7,683.26	7,552.85	28.88	28.71	-106.59	-879.51	923.55	483.99	426.90	57.09	8.478	
8,000.00	7,548.24	7,714.15	7,583.10	29.24	28.83	-107.08	-883.72	928.20	563.09	505.78	57.30	9.827	
8,100.00	7,556.27	7,737.10	7,605.57	29.58	28.92	-104.73	-886.85	931.65	649.74	592.29	57.45	11.309	
8,153.26	7,557.37	7,746.02	7,614.30	29.76	28.95	-101.99	-888.06	933.00	698.11	640.60	57.51	12.139	
8,200.00	7,557.37	7,752.83	7,620.97	29.92	28.98	-103.30	-888.99	934.02	741.30	683.75	57.55	12.881	
8,300.00	7,557.36	7,767.03	7,634.88	30.26	29.03	-105.96	-890.93	936.16	834.80	777.16	57.64	14.483	
8,400.00	7,557.36	7,779.56	7,647.15	30.63	29.08	-108.22	-892.61	938.02	929.45	871.73	57.72	16.103	
8,500.00	7,557.36	7,791.56	7,658.92	31.00	29.13	-110.31	-894.19	939.76	1,024.94	967.14	57.80	17.733	
8,600.00	7,557.35	7,800.00	7,667.21	31.39	29.16	-111.74	-895.28	940.96	1,121.08	1,063.22	57.86	19.376	
8,700.00	7,557.35	7,814.13	7,681.08	31.79	29.21	-114.04	-897.06	942.94	1,217.71	1,159.75	57.96	21.011	
8,800.00	7,557.35	7,824.75	7,691.52	32.21	29.26	-115.71	-898.38	944.39	1,314.73	1,256.70	58.03	22.655	
8,900.00	7,557.34	7,834.97	7,701.57	32.64	29.29	-117.25	-899.61	945.76	1,412.08	1,353.97	58.11	24.300	

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 4H
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 4H	**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
9,000.00	7,557.34	10,246.54	8,862.19	33.08	38.65	-153.97	-2,390.05	1,400.86	1,452.66	1,411.00	41.66	34.866	
9,100.00	7,557.34	10,346.34	8,862.19	33.54	39.04	-154.20	-2,489.85	1,401.05	1,449.90	1,407.43	42.47	34.143	
9,200.00	7,557.33	10,446.14	8,862.18	34.00	39.44	-154.42	-2,589.65	1,401.23	1,447.16	1,403.85	43.31	33.414	
9,300.00	7,557.33	10,545.94	8,862.18	34.48	39.85	-154.65	-2,689.45	1,401.42	1,444.44	1,400.25	44.19	32.684	
9,400.00	7,557.32	10,645.74	8,862.18	34.96	40.26	-154.87	-2,789.25	1,401.60	1,441.74	1,396.63	45.11	31.957	
9,500.00	7,557.32	10,745.54	8,862.18	35.46	40.69	-155.10	-2,889.05	1,401.79	1,439.07	1,393.00	46.07	31.235	
9,600.00	7,557.32	10,845.34	8,862.18	35.97	41.13	-155.33	-2,988.85	1,401.98	1,436.42	1,389.36	47.06	30.522	
9,700.00	7,557.31	10,945.14	8,862.17	36.48	41.57	-155.56	-3,088.65	1,402.16	1,433.79	1,385.71	48.08	29.819	
9,800.00	7,557.31	11,044.94	8,862.17	37.00	42.03	-155.79	-3,188.45	1,402.35	1,431.19	1,382.05	49.13	29.128	
9,900.00	7,557.31	11,144.74	8,862.17	37.54	42.49	-156.02	-3,288.25	1,402.53	1,428.61	1,378.39	50.21	28.450	
10,000.00	7,557.30	11,244.54	8,862.17	38.08	42.96	-156.25	-3,388.05	1,402.72	1,426.05	1,374.73	51.32	27.788	
10,100.00	7,557.30	11,344.34	8,862.17	38.63	43.44	-156.48	-3,487.85	1,402.91	1,423.52	1,371.07	52.45	27.141	
10,200.00	7,557.30	11,444.14	8,862.16	39.18	43.92	-156.72	-3,587.65	1,403.09	1,421.01	1,367.40	53.60	26.510	
10,300.00	7,557.29	11,543.94	8,862.16	39.74	44.42	-156.95	-3,687.45	1,403.28	1,418.52	1,363.74	54.78	25.896	
10,400.00	7,557.29	11,643.74	8,862.16	40.31	44.92	-157.18	-3,787.25	1,403.46	1,416.06	1,360.08	55.97	25.299	
10,500.00	7,557.28	11,743.54	8,862.16	40.89	45.43	-157.42	-3,887.05	1,403.65	1,413.62	1,356.43	57.19	24.719	
10,600.00	7,557.28	11,843.34	8,862.16	41.47	45.94	-157.66	-3,986.85	1,403.84	1,411.20	1,352.78	58.42	24.156	
10,700.00	7,557.28	11,943.14	8,862.15	42.06	46.46	-157.89	-4,086.65	1,404.02	1,408.81	1,349.14	59.67	23.609	
10,800.00	7,557.27	12,042.94	8,862.15	42.66	46.99	-158.13	-4,186.45	1,404.21	1,406.44	1,345.51	60.94	23.080	
10,900.00	7,557.27	12,142.74	8,862.15	43.26	47.52	-158.37	-4,286.25	1,404.39	1,404.10	1,341.88	62.22	22.567	
11,000.00	7,557.27	12,242.55	8,862.15	43.86	48.06	-158.61	-4,386.05	1,404.58	1,401.78	1,338.27	63.52	22.070	
11,100.00	7,557.26	12,342.35	8,862.15	44.47	48.61	-158.85	-4,485.85	1,404.77	1,399.49	1,334.66	64.83	21.588	
11,200.00	7,557.26	12,442.15	8,862.14	45.09	49.16	-159.09	-4,585.65	1,404.95	1,397.22	1,331.07	66.15	21.122	
11,300.00	7,557.26	12,541.95	8,862.14	45.71	49.72	-159.33	-4,685.45	1,405.14	1,394.98	1,327.49	67.49	20.671	
11,400.00	7,557.25	12,641.75	8,862.14	46.33	50.28	-159.58	-4,785.25	1,405.32	1,392.76	1,323.93	68.83	20.234	
11,500.00	7,557.25	12,741.55	8,862.14	46.96	50.85	-159.82	-4,885.05	1,405.51	1,390.57	1,320.38	70.19	19.811	
11,600.00	7,557.24	12,841.35	8,862.14	47.60	51.42	-160.06	-4,984.85	1,405.70	1,388.40	1,316.84	71.56	19.402	
11,700.00	7,557.24	12,941.15	8,862.13	48.24	51.99	-160.31	-5,084.65	1,405.88	1,386.26	1,313.32	72.94	19.006	
11,800.00	7,557.24	13,040.95	8,862.13	48.88	52.58	-160.55	-5,184.45	1,406.07	1,384.14	1,309.82	74.33	18.623	
11,900.00	7,557.23	13,140.75	8,862.13	49.52	53.16	-160.80	-5,284.25	1,406.25	1,382.05	1,306.33	75.72	18.252	
12,000.00	7,557.23	13,240.55	8,862.13	50.17	53.75	-161.05	-5,384.05	1,406.44	1,379.98	1,302.86	77.13	17.892	
12,100.00	7,557.23	13,340.35	8,862.13	50.82	54.35	-161.30	-5,483.85	1,406.63	1,377.94	1,299.40	78.54	17.544	
12,200.00	7,557.22	13,440.15	8,862.12	51.48	54.94	-161.54	-5,583.66	1,406.81	1,375.93	1,295.97	79.96	17.207	
12,300.00	7,557.22	13,539.95	8,862.12	52.14	55.55	-161.79	-5,683.46	1,407.00	1,373.94	1,292.55	81.39	16.881	
12,400.00	7,557.22	13,639.75	8,862.12	52.80	56.15	-162.04	-5,783.26	1,407.18	1,371.98	1,289.15	82.83	16.564	
12,500.00	7,557.21	13,739.55	8,862.12	53.46	56.76	-162.29	-5,883.06	1,407.37	1,370.04	1,285.77	84.27	16.258	
12,600.00	7,557.21	13,839.35	8,862.12	54.13	57.38	-162.55	-5,982.86	1,407.55	1,368.13	1,282.41	85.72	15.960	
12,700.00	7,557.20	13,939.15	8,862.11	54.80	57.99	-162.80	-6,082.66	1,407.74	1,366.25	1,279.08	87.18	15.672	
12,800.00	7,557.20	14,038.95	8,862.11	55.48	58.61	-163.05	-6,182.46	1,407.93	1,364.40	1,275.76	88.64	15.393	
12,900.00	7,557.20	14,138.75	8,862.11	56.15	59.24	-163.30	-6,282.26	1,408.11	1,362.57	1,272.46	90.11	15.122	
13,000.00	7,557.19	14,238.55	8,862.11	56.83	59.86	-163.56	-6,382.06	1,408.30	1,360.76	1,269.18	91.58	14.859	
13,100.00	7,557.19	14,338.35	8,862.11	57.51	60.49	-163.81	-6,481.86	1,408.48	1,358.99	1,265.93	93.06	14.604	
13,200.00	7,557.19	14,438.15	8,862.10	58.19	61.13	-164.07	-6,581.66	1,408.67	1,357.24	1,262.70	94.54	14.356	
13,300.00	7,557.18	14,537.96	8,862.10	58.88	61.76	-164.33	-6,681.46	1,408.86	1,355.52	1,259.49	96.03	14.115	
13,400.00	7,557.18	14,637.76	8,862.10	59.57	62.40	-164.58	-6,781.26	1,409.04	1,353.83	1,256.30	97.52	13.882	
13,500.00	7,557.18	14,737.56	8,862.10	60.25	63.04	-164.84	-6,881.06	1,409.23	1,352.16	1,253.14	99.02	13.655	
13,600.00	7,557.17	14,837.36	8,862.10	60.95	63.69	-165.10	-6,980.86	1,409.41	1,350.52	1,249.99	100.52	13.435	
13,700.00	7,557.17	14,937.16	8,862.09	61.64	64.33	-165.36	-7,080.66	1,409.60	1,348.91	1,246.88	102.03	13.220	
13,800.00	7,557.16	15,036.96	8,862.09	62.33	64.98	-165.62	-7,180.46	1,409.79	1,347.32	1,243.78	103.54	13.012	
13,900.00	7,557.16	15,136.76	8,862.09	63.03	65.63	-165.88	-7,280.26	1,409.97	1,345.77	1,240.71	105.06	12.810	
14,000.00	7,557.16	15,236.56	8,862.09	63.73	66.29	-166.14	-7,380.06	1,410.16	1,344.24	1,237.66	106.58	12.613	
14,100.00	7,557.15	15,336.36	8,862.09	64.43	66.94	-166.40	-7,479.86	1,410.34	1,342.74	1,234.64	108.10	12.421	

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 4H
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 4H	**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
14,200.00	7,557.15	15,436.16	8,862.08	65.13	67.60	-166.66	-7,579.66	1,410.53	1,341.27	1,231.64	109.63	12.235	
14,300.00	7,557.15	15,535.96	8,862.08	65.84	68.26	-166.92	-7,679.46	1,410.72	1,339.82	1,228.67	111.16	12.054	
14,400.00	7,557.14	15,635.76	8,862.08	66.54	68.92	-167.18	-7,779.26	1,410.90	1,338.41	1,225.72	112.69	11.877	
14,500.00	7,557.14	15,735.56	8,862.08	67.25	69.59	-167.45	-7,879.06	1,411.09	1,337.02	1,222.79	114.23	11.705	
14,600.00	7,557.14	15,835.36	8,862.08	67.96	70.25	-167.71	-7,978.86	1,411.27	1,335.66	1,219.90	115.77	11.538	
14,700.00	7,557.13	15,935.16	8,862.07	68.66	70.92	-167.98	-8,078.66	1,411.46	1,334.33	1,217.02	117.31	11.375	
14,800.00	7,557.13	16,034.96	8,862.07	69.38	71.59	-168.24	-8,178.46	1,411.65	1,333.03	1,214.17	118.85	11.216	
14,900.00	7,557.12	16,134.76	8,862.07	70.09	72.27	-168.51	-8,278.26	1,411.83	1,331.75	1,211.35	120.40	11.061	
15,000.00	7,557.12	16,234.56	8,862.07	70.80	72.94	-168.77	-8,378.06	1,412.02	1,330.51	1,208.55	121.96	10.910	
15,100.00	7,557.12	16,334.36	8,862.07	71.52	73.61	-169.04	-8,477.86	1,412.20	1,329.29	1,205.78	123.51	10.763	
15,200.00	7,557.11	16,434.16	8,862.06	72.23	74.29	-169.31	-8,577.66	1,412.39	1,328.11	1,203.04	125.07	10.619	
15,300.00	7,557.11	16,533.96	8,862.06	72.95	74.97	-169.57	-8,677.46	1,412.58	1,326.95	1,200.32	126.63	10.479	
15,400.00	7,557.11	16,633.76	8,862.06	73.67	75.65	-169.84	-8,777.26	1,412.76	1,325.82	1,197.63	128.19	10.343	
15,500.00	7,557.10	16,733.57	8,862.06	74.39	76.33	-170.11	-8,877.06	1,412.95	1,324.72	1,194.97	129.75	10.209	
15,600.00	7,557.10	16,833.37	8,862.06	75.11	77.02	-170.38	-8,976.86	1,413.13	1,323.65	1,192.33	131.32	10.079	
15,700.00	7,557.10	16,933.17	8,862.05	75.83	77.70	-170.65	-9,076.66	1,413.32	1,322.61	1,189.72	132.89	9.952	
15,800.00	7,557.09	17,032.97	8,862.05	76.55	78.39	-170.92	-9,176.46	1,413.51	1,321.60	1,187.13	134.46	9.829	
15,900.00	7,557.09	17,132.77	8,862.05	77.27	79.08	-171.19	-9,276.27	1,413.69	1,320.61	1,184.58	136.04	9.708	
16,000.00	7,557.08	17,232.57	8,862.05	78.00	79.76	-171.46	-9,376.07	1,413.88	1,319.66	1,182.05	137.62	9.589	
16,100.00	7,557.08	17,332.37	8,862.05	78.72	80.46	-171.73	-9,475.87	1,414.06	1,318.74	1,179.54	139.19	9.474	
16,200.00	7,557.08	17,432.17	8,862.04	79.45	81.15	-172.00	-9,575.67	1,414.25	1,317.84	1,177.07	140.78	9.361	
16,300.00	7,557.07	17,531.97	8,862.04	80.18	81.84	-172.27	-9,675.47	1,414.43	1,316.98	1,174.62	142.36	9.251	
16,400.00	7,557.07	17,631.77	8,862.04	80.90	82.53	-172.54	-9,775.27	1,414.62	1,316.15	1,172.20	143.94	9.143	
16,500.00	7,557.07	17,731.57	8,862.04	81.63	83.23	-172.81	-9,875.07	1,414.81	1,315.34	1,169.81	145.53	9.038	
16,600.00	7,557.06	17,831.37	8,862.04	82.36	83.93	-173.09	-9,974.87	1,414.99	1,314.57	1,167.45	147.12	8.935	
16,700.00	7,557.06	17,931.17	8,862.03	83.09	84.62	-173.36	-10,074.67	1,415.18	1,313.82	1,165.11	148.71	8.835	
16,800.00	7,557.06	18,030.97	8,862.03	83.82	85.32	-173.63	-10,174.47	1,415.36	1,313.11	1,162.80	150.30	8.736	
16,900.00	7,557.05	18,130.77	8,862.03	84.55	86.02	-173.91	-10,274.27	1,415.55	1,312.42	1,160.52	151.90	8.640	
17,000.00	7,557.05	18,230.57	8,862.03	85.29	86.72	-174.18	-10,374.07	1,415.74	1,311.77	1,158.27	153.49	8.546	
17,100.00	7,557.04	18,330.37	8,862.02	86.02	87.43	-174.45	-10,473.87	1,415.92	1,311.14	1,156.05	155.09	8.454	
17,200.00	7,557.04	18,430.17	8,862.02	86.75	88.13	-174.73	-10,573.67	1,416.11	1,310.55	1,153.86	156.69	8.364	
17,300.00	7,557.04	18,529.97	8,862.02	87.49	88.83	-175.00	-10,673.47	1,416.29	1,309.98	1,151.69	158.29	8.276	
17,400.00	7,557.03	18,629.77	8,862.02	88.22	89.54	-175.28	-10,773.27	1,416.48	1,309.45	1,149.56	159.89	8.190	
17,500.00	7,557.03	18,729.57	8,862.02	88.96	90.24	-175.55	-10,873.07	1,416.67	1,308.94	1,147.45	161.50	8.105	
17,600.00	7,557.03	18,829.37	8,862.01	89.70	90.95	-175.83	-10,972.87	1,416.85	1,308.47	1,145.37	163.10	8.022	
17,700.00	7,557.02	18,929.17	8,862.01	90.43	91.66	-176.10	-11,072.67	1,417.04	1,308.03	1,143.32	164.71	7.941	
17,800.00	7,557.02	19,028.98	8,862.01	91.17	92.37	-176.38	-11,172.47	1,417.22	1,307.61	1,141.30	166.32	7.862	
17,900.00	7,557.02	19,128.78	8,862.01	91.91	93.08	-176.65	-11,272.27	1,417.41	1,307.23	1,139.30	167.93	7.785	
18,000.00	7,557.01	19,228.58	8,862.01	92.65	93.79	-176.93	-11,372.07	1,417.60	1,306.88	1,137.34	169.54	7.708	
18,100.00	7,557.01	19,328.38	8,862.00	93.39	94.50	-177.21	-11,471.87	1,417.78	1,306.56	1,135.41	171.15	7.634	
18,200.00	7,557.00	19,428.18	8,862.00	94.13	95.21	-177.48	-11,571.67	1,417.97	1,306.26	1,133.50	172.76	7.561	
18,300.00	7,557.00	19,527.98	8,862.00	94.87	95.92	-177.76	-11,671.47	1,418.15	1,306.00	1,131.63	174.38	7.490	
18,318.93	7,557.00	19,546.87	8,862.00	95.01	96.06	-177.81	-11,690.36	1,418.19	1,305.96	1,131.27	174.68	7.476	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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	91.09	-0.38	20.00	20.00				
100.00	100.00	100.00	100.00	0.28	0.28	91.09	-0.38	20.00	20.00	19.45	0.55	36.235	
200.00	200.00	200.00	200.00	0.63	0.63	91.09	-0.38	20.00	20.00	18.73	1.27	15.763	
300.00	300.00	300.00	300.00	0.99	0.99	91.09	-0.38	20.00	20.00	18.02	1.99	10.073	
400.00	400.00	400.00	400.00	1.35	1.35	91.09	-0.38	20.00	20.00	17.30	2.70	7.401	
500.00	500.00	500.00	500.00	1.71	1.71	91.09	-0.38	20.00	20.00	16.58	3.42	5.849	
600.00	600.00	600.00	600.00	2.07	2.07	91.09	-0.38	20.00	20.00	15.87	4.14	4.836	
700.00	700.00	700.00	700.00	2.43	2.43	91.09	-0.38	20.00	20.00	15.15	4.85	4.121	
800.00	800.00	800.00	800.00	2.79	2.79	91.09	-0.38	20.00	20.00	14.43	5.57	3.591	
900.00	900.00	900.00	900.00	3.14	3.14	91.09	-0.38	20.00	20.00	13.72	6.29	3.181	
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	91.09	-0.38	20.00	20.00	13.00	7.00	2.856	
1,100.00	1,100.00	1,100.00	1,100.00	3.86	3.86	91.09	-0.38	20.00	20.00	12.28	7.72	2.591	
1,200.00	1,200.00	1,200.00	1,200.00	4.22	4.22	91.09	-0.38	20.00	20.00	11.57	8.44	2.371	
1,300.00	1,300.00	1,300.00	1,300.00	4.58	4.58	91.09	-0.38	20.00	20.00	10.85	9.16	2.185	
1,400.00	1,400.00	1,400.00	1,400.00	4.94	4.94	91.09	-0.38	20.00	20.00	10.13	9.87	2.026	CC, ES, SF
1,500.00	1,500.00	1,499.40	1,499.38	5.29	5.28	93.86	-1.44	21.36	21.42	10.85	10.57	2.026	
1,600.00	1,600.00	1,598.57	1,598.41	5.65	5.61	100.29	-4.62	25.42	25.89	14.64	11.24	2.302	
1,700.00	1,700.00	1,697.26	1,696.73	6.01	5.94	107.06	-9.87	32.14	33.78	21.88	11.91	2.837	
1,800.00	1,800.00	1,795.25	1,794.00	6.37	6.27	112.46	-17.14	41.45	45.26	32.70	12.55	3.605	
1,900.00	1,900.00	1,892.32	1,889.90	6.73	6.61	116.34	-26.36	53.25	60.27	47.09	13.18	4.571	
2,000.00	2,000.00	1,988.26	1,984.13	7.09	6.94	119.04	-37.43	67.43	78.74	64.94	13.80	5.706	
2,100.00	2,099.98	2,083.24	2,076.78	7.43	7.27	-23.39	-50.30	83.90	98.98	84.60	14.38	6.882	
2,200.00	2,199.84	2,178.72	2,169.20	7.76	7.61	-22.70	-65.05	102.78	119.19	104.22	14.97	7.964	
2,300.00	2,299.45	2,277.10	2,264.24	8.09	7.96	-22.70	-80.73	122.85	137.05	121.41	15.64	8.764	
2,400.00	2,398.70	2,376.00	2,359.76	8.42	8.32	-23.21	-96.49	143.02	151.73	135.41	16.32	9.298	
2,500.00	2,497.47	2,475.29	2,455.67	8.76	8.69	-24.13	-112.31	163.27	163.28	146.26	17.01	9.598	
2,600.00	2,595.62	2,574.85	2,551.83	9.10	9.05	-25.43	-128.18	183.57	171.72	154.01	17.71	9.694	
2,644.93	2,639.49	2,619.63	2,595.09	9.25	9.22	-26.14	-135.31	192.70	174.53	156.49	18.03	9.678	
2,700.00	2,693.18	2,674.54	2,648.13	9.44	9.43	-27.08	-144.06	203.90	177.62	159.19	18.43	9.640	
2,800.00	2,790.65	2,774.25	2,744.44	9.78	9.80	-28.69	-159.95	224.24	183.35	164.20	19.15	9.577	
2,900.00	2,888.13	2,873.96	2,840.75	10.13	10.18	-30.21	-175.84	244.57	189.22	169.35	19.87	9.522	
3,000.00	2,985.61	2,973.66	2,937.06	10.48	10.56	-31.63	-191.72	264.91	195.21	174.61	20.60	9.474	
3,100.00	3,083.08	3,073.37	3,033.37	10.83	10.94	-32.97	-207.61	285.24	201.32	179.97	21.34	9.433	
3,200.00	3,180.56	3,173.07	3,129.68	11.19	11.32	-34.23	-223.50	305.58	207.53	185.44	22.09	9.397	
3,300.00	3,278.04	3,272.78	3,225.98	11.55	11.70	-35.42	-239.39	325.92	213.83	191.00	22.83	9.365	
3,400.00	3,375.51	3,372.49	3,322.29	11.91	12.09	-36.53	-255.27	346.25	220.22	196.64	23.58	9.338	
3,500.00	3,472.99	3,472.19	3,418.60	12.27	12.47	-37.59	-271.16	366.59	226.69	202.35	24.34	9.314	
3,600.00	3,570.47	3,571.90	3,514.91	12.64	12.86	-38.58	-287.05	386.92	233.23	208.14	25.09	9.294	
3,700.00	3,667.94	3,671.60	3,611.22	13.00	13.25	-39.53	-302.94	407.26	239.84	213.98	25.86	9.276	
3,800.00	3,765.42	3,771.31	3,707.53	13.37	13.63	-40.42	-318.83	427.59	246.51	219.89	26.62	9.261	
3,900.00	3,862.90	3,871.02	3,803.84	13.74	14.02	-41.26	-334.71	447.93	253.23	225.85	27.38	9.248	
4,000.00	3,960.37	3,970.72	3,900.14	14.11	14.41	-42.06	-350.60	468.26	260.01	231.86	28.15	9.236	
4,100.00	4,057.85	4,070.43	3,996.45	14.48	14.81	-42.82	-366.49	488.60	266.83	237.91	28.92	9.227	
4,200.00	4,155.33	4,170.13	4,092.76	14.86	15.20	-43.54	-382.38	508.93	273.70	244.01	29.69	9.218	
4,300.00	4,252.80	4,269.84	4,189.07	15.23	15.59	-44.23	-398.26	529.27	280.61	250.15	30.46	9.211	
4,400.00	4,350.28	4,369.55	4,285.38	15.61	15.98	-44.88	-414.15	549.60	287.56	256.32	31.24	9.205	
4,500.00	4,447.76	4,469.25	4,381.69	15.98	16.38	-45.50	-430.04	569.94	294.54	262.53	32.01	9.201	
4,600.00	4,545.23	4,568.96	4,478.00	16.36	16.77	-46.09	-445.93	590.27	301.56	268.77	32.79	9.197	
4,700.00	4,642.71	4,668.66	4,574.30	16.74	17.17	-46.66	-461.81	610.61	308.61	275.04	33.57	9.193	
4,800.00	4,740.19	4,768.37	4,670.61	17.11	17.56	-47.20	-477.70	630.94	315.68	281.33	34.35	9.191	
4,900.00	4,837.66	4,868.08	4,766.92	17.49	17.96	-47.72	-493.59	651.28	322.78	287.66	35.13	9.189	
5,000.00	4,935.14	4,967.78	4,863.23	17.87	18.35	-48.21	-509.48	671.61	329.91	294.00	35.91	9.187	

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 4H
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 4H	**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
5,100.00	5,032.62	5,067.49	4,959.54	18.25	18.75	-48.69	-525.36	691.95	337.06	300.37	36.69	9.186	
5,200.00	5,130.09	5,169.10	5,057.70	18.64	19.15	-49.15	-541.52	712.62	344.19	306.69	37.50	9.179	
5,300.00	5,227.57	5,278.03	5,163.59	19.02	19.58	-49.88	-557.22	732.76	349.30	310.91	38.38	9.101	
5,400.00	5,325.05	5,377.83	5,260.92	19.40	19.97	-50.66	-570.80	750.19	353.37	314.22	39.16	9.024	
5,500.00	5,422.52	5,477.63	5,358.25	19.78	20.35	-51.41	-584.37	767.61	357.52	317.58	39.94	8.952	
5,600.00	5,520.00	5,577.44	5,455.58	20.16	20.74	-52.15	-597.95	785.04	361.72	321.00	40.72	8.884	
5,700.00	5,617.48	5,677.24	5,552.90	20.55	21.13	-52.87	-611.53	802.47	365.98	324.49	41.50	8.819	
5,800.00	5,714.95	5,777.05	5,650.23	20.93	21.52	-53.58	-625.10	819.89	370.30	328.02	42.28	8.759	
5,900.00	5,812.43	5,876.85	5,747.56	21.31	21.91	-54.27	-638.68	837.32	374.68	331.62	43.06	8.701	
6,000.00	5,909.91	5,976.65	5,844.89	21.70	22.30	-54.94	-652.26	854.75	379.10	335.26	43.84	8.647	
6,100.00	6,007.38	6,076.46	5,942.22	22.08	22.69	-55.60	-665.84	872.17	383.58	338.96	44.62	8.596	
6,200.00	6,104.86	6,176.26	6,039.55	22.47	23.08	-56.24	-679.41	889.60	388.11	342.70	45.40	8.548	
6,300.00	6,202.34	6,276.07	6,136.87	22.85	23.47	-56.86	-692.99	907.03	392.68	346.49	46.19	8.502	
6,400.00	6,299.81	6,375.87	6,234.20	23.24	23.86	-57.48	-706.57	924.45	397.30	350.33	46.97	8.459	
6,421.23	6,320.51	6,397.06	6,254.86	23.32	23.94	-57.60	-709.45	928.15	398.29	351.15	47.13	8.450	
6,500.00	6,397.52	6,475.68	6,331.53	23.62	24.25	-58.02	-720.14	941.88	402.54	354.79	47.75	8.430	
6,600.00	6,495.90	6,575.42	6,428.80	24.00	24.64	-58.18	-733.71	959.30	409.59	361.07	48.52	8.442	
6,700.00	6,594.84	6,674.99	6,525.90	24.37	25.03	-57.97	-747.26	976.68	418.49	369.21	49.28	8.492	
6,800.00	6,694.23	6,774.25	6,622.70	24.74	25.42	-57.42	-760.76	994.01	429.27	379.24	50.03	8.581	
6,900.00	6,793.94	6,873.09	6,719.09	25.09	25.80	-56.55	-774.21	1,011.27	442.03	391.27	50.76	8.708	
7,000.00	6,893.85	6,971.38	6,814.94	25.44	26.19	-55.42	-787.58	1,028.44	456.90	405.42	51.49	8.874	
7,066.16	6,960.00	7,036.06	6,878.01	25.67	26.44	89.55	-796.37	1,039.73	467.98	416.03	51.95	9.008	
7,100.00	6,993.82	7,069.21	6,910.34	25.78	26.57	-77.94	-800.88	1,045.52	473.73	421.54	52.19	9.077	
7,150.00	7,043.55	7,118.56	6,958.47	25.96	26.76	-76.97	-807.60	1,054.13	481.49	428.93	52.56	9.161	
7,200.00	7,092.63	7,168.01	7,006.70	26.14	26.95	-76.60	-814.33	1,062.77	488.29	435.35	52.94	9.224	
7,250.00	7,140.71	7,217.19	7,054.66	26.34	27.15	-76.81	-821.02	1,071.36	494.14	440.81	53.33	9.266	
7,300.00	7,187.41	7,265.73	7,101.99	26.53	27.34	-77.54	-827.62	1,079.83	499.16	445.43	53.73	9.291	
7,350.00	7,232.38	7,313.25	7,148.34	26.73	27.52	-78.73	-834.08	1,088.13	503.58	449.46	54.13	9.304	
7,400.00	7,275.27	7,359.40	7,193.34	26.93	27.70	-80.30	-840.36	1,096.19	507.73	453.20	54.53	9.312	
7,450.00	7,315.77	7,403.82	7,236.65	27.13	27.88	-82.14	-846.40	1,103.94	511.99	457.06	54.92	9.322	
7,500.00	7,353.56	7,446.17	7,277.96	27.34	28.04	-84.14	-852.17	1,111.34	516.81	461.50	55.31	9.343	
7,550.00	7,388.35	7,486.14	7,316.93	27.54	28.20	-86.18	-857.60	1,118.32	522.69	467.00	55.69	9.386	
7,600.00	7,419.89	7,523.41	7,353.28	27.74	28.35	-88.13	-862.67	1,124.82	530.12	474.07	56.05	9.457	
7,650.00	7,447.92	7,557.70	7,386.72	27.94	28.48	-89.84	-867.34	1,130.81	539.57	483.17	56.40	9.567	
7,700.00	7,472.24	7,588.76	7,417.01	28.14	28.60	-91.20	-871.56	1,136.24	551.44	494.72	56.71	9.723	
7,750.00	7,492.67	7,616.35	7,443.91	28.33	28.71	-92.09	-875.32	1,141.05	566.04	509.03	57.00	9.930	
7,800.00	7,509.03	7,640.25	7,467.22	28.52	28.80	-92.40	-878.57	1,145.23	583.57	526.31	57.25	10.192	
7,816.16	7,513.43	7,647.16	7,473.95	28.58	28.83	-92.37	-879.51	1,146.43	589.87	532.54	57.33	10.289	
7,900.00	7,532.50	7,679.26	7,505.26	28.88	28.96	-94.02	-883.87	1,152.04	628.59	570.93	57.67	10.901	
8,000.00	7,548.24	7,710.40	7,535.63	29.24	29.08	-94.39	-888.11	1,157.48	687.04	629.07	57.97	11.851	
8,100.00	7,556.27	7,733.55	7,558.20	29.58	29.17	-92.83	-891.26	1,161.52	756.43	698.25	58.18	13.001	
8,153.26	7,557.37	7,742.54	7,566.98	29.76	29.20	-91.10	-892.48	1,163.09	796.98	738.71	58.26	13.679	
8,200.00	7,557.37	7,749.42	7,573.68	29.92	29.23	-91.87	-893.42	1,164.29	833.98	775.67	58.32	14.301	
8,300.00	7,557.36	7,764.12	7,588.02	30.26	29.29	-93.50	-895.42	1,166.86	915.98	857.55	58.43	15.677	
8,400.00	7,557.36	7,778.83	7,602.36	30.63	29.35	-95.11	-897.42	1,169.42	1,001.03	942.50	58.53	17.103	
8,500.00	7,557.36	7,793.54	7,616.70	31.00	29.40	-96.69	-899.42	1,171.99	1,088.43	1,029.80	58.63	18.565	
8,600.00	7,557.35	7,808.24	7,631.05	31.39	29.46	-98.25	-901.42	1,174.56	1,177.65	1,118.93	58.73	20.054	
8,700.00	7,557.35	7,822.95	7,645.39	31.79	29.52	-99.78	-903.42	1,177.13	1,268.32	1,209.49	58.82	21.562	
8,800.00	7,557.35	7,837.66	7,659.73	32.21	29.58	-101.28	-905.42	1,179.70	1,360.13	1,301.21	58.92	23.084	
8,900.00	7,557.34	7,852.36	7,674.07	32.64	29.63	-102.76	-907.42	1,182.26	1,452.87	1,393.85	59.02	24.617	
9,000.00	7,557.34	10,052.82	8,446.56	33.08	39.40	-125.45	-2,391.18	2,014.00	1,535.29	1,479.72	55.57	27.630	
9,100.00	7,557.34	10,152.62	8,446.35	33.54	39.77	-125.58	-2,490.98	2,014.15	1,530.00	1,473.75	56.25	27.201	

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 4H
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 4H	**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
9,200.00	7,557.33	10,252.42	8,446.14	34.00	40.16	-125.71	-2,590.78	2,014.30	1,524.72	1,467.76	56.96	26.769	
9,300.00	7,557.33	10,352.22	8,445.93	34.48	40.56	-125.85	-2,690.58	2,014.45	1,519.44	1,461.74	57.70	26.333	
9,400.00	7,557.32	10,452.01	8,445.72	34.96	40.96	-125.98	-2,790.37	2,014.60	1,514.18	1,455.70	58.47	25.896	
9,500.00	7,557.32	10,551.81	8,445.51	35.46	41.38	-126.12	-2,890.17	2,014.76	1,508.92	1,449.65	59.27	25.458	
9,600.00	7,557.32	10,651.61	8,445.30	35.97	41.80	-126.25	-2,989.97	2,014.91	1,503.67	1,443.57	60.10	25.021	
9,700.00	7,557.31	10,751.41	8,445.09	36.48	42.24	-126.39	-3,089.77	2,015.06	1,498.43	1,437.48	60.95	24.585	
9,800.00	7,557.31	10,851.21	8,444.88	37.00	42.68	-126.53	-3,189.56	2,015.21	1,493.19	1,431.37	61.83	24.151	
9,900.00	7,557.31	10,951.00	8,444.67	37.54	43.13	-126.67	-3,289.36	2,015.36	1,487.97	1,425.24	62.73	23.721	
10,000.00	7,557.30	11,050.80	8,444.46	38.08	43.59	-126.81	-3,389.16	2,015.51	1,482.75	1,419.10	63.65	23.295	
10,100.00	7,557.30	11,150.60	8,444.25	38.63	44.06	-126.95	-3,488.96	2,015.66	1,477.55	1,412.95	64.60	22.874	
10,200.00	7,557.30	11,250.40	8,444.04	39.18	44.53	-127.09	-3,588.75	2,015.81	1,472.35	1,406.79	65.56	22.457	
10,300.00	7,557.29	11,350.20	8,443.83	39.74	45.01	-127.23	-3,688.55	2,015.96	1,467.16	1,400.61	66.55	22.047	
10,400.00	7,557.29	11,449.99	8,443.62	40.31	45.50	-127.38	-3,788.35	2,016.12	1,461.98	1,394.43	67.55	21.642	
10,500.00	7,557.28	11,549.79	8,443.41	40.89	46.00	-127.52	-3,888.15	2,016.27	1,456.81	1,388.24	68.58	21.243	
10,600.00	7,557.28	11,649.59	8,443.20	41.47	46.51	-127.67	-3,987.95	2,016.42	1,451.65	1,382.04	69.62	20.851	
10,700.00	7,557.28	11,749.39	8,442.99	42.06	47.02	-127.82	-4,087.74	2,016.57	1,446.50	1,375.83	70.68	20.466	
10,800.00	7,557.27	11,849.19	8,442.78	42.66	47.53	-127.96	-4,187.54	2,016.72	1,441.36	1,369.61	71.75	20.088	
10,900.00	7,557.27	11,948.98	8,442.57	43.26	48.06	-128.11	-4,287.34	2,016.87	1,436.23	1,363.39	72.84	19.717	
11,000.00	7,557.27	12,048.78	8,442.36	43.86	48.59	-128.26	-4,387.14	2,017.02	1,431.11	1,357.16	73.95	19.353	
11,100.00	7,557.26	12,148.58	8,442.15	44.47	49.12	-128.42	-4,486.93	2,017.17	1,426.00	1,350.93	75.06	18.997	
11,200.00	7,557.26	12,248.38	8,441.94	45.09	49.66	-128.57	-4,586.73	2,017.33	1,420.90	1,344.70	76.20	18.648	
11,300.00	7,557.26	12,348.18	8,441.73	45.71	50.21	-128.72	-4,686.53	2,017.48	1,415.81	1,338.46	77.34	18.306	
11,400.00	7,557.25	12,447.97	8,441.53	46.33	50.76	-128.88	-4,786.33	2,017.63	1,410.72	1,332.23	78.50	17.971	
11,500.00	7,557.25	12,547.77	8,441.32	46.96	51.32	-129.03	-4,886.12	2,017.78	1,405.65	1,325.99	79.67	17.644	
11,600.00	7,557.24	12,647.57	8,441.11	47.60	51.88	-129.19	-4,985.92	2,017.93	1,400.59	1,319.74	80.85	17.324	
11,700.00	7,557.24	12,747.37	8,440.90	48.24	52.45	-129.35	-5,085.72	2,018.08	1,395.54	1,313.50	82.04	17.011	
11,800.00	7,557.24	12,847.17	8,440.69	48.88	53.02	-129.51	-5,185.52	2,018.23	1,390.50	1,307.26	83.24	16.705	
11,900.00	7,557.23	12,946.97	8,440.48	49.52	53.60	-129.67	-5,285.32	2,018.38	1,385.47	1,301.02	84.45	16.405	
12,000.00	7,557.23	13,046.76	8,440.27	50.17	54.18	-129.83	-5,385.11	2,018.54	1,380.46	1,294.78	85.67	16.113	
12,100.00	7,557.23	13,146.56	8,440.06	50.82	54.77	-129.99	-5,484.91	2,018.69	1,375.45	1,288.55	86.90	15.827	
12,200.00	7,557.22	13,246.36	8,439.85	51.48	55.36	-130.15	-5,584.71	2,018.84	1,370.45	1,282.31	88.14	15.548	
12,300.00	7,557.22	13,346.16	8,439.64	52.14	55.95	-130.32	-5,684.51	2,018.99	1,365.47	1,276.08	89.39	15.275	
12,400.00	7,557.22	13,445.96	8,439.43	52.80	56.55	-130.49	-5,784.30	2,019.14	1,360.50	1,269.85	90.65	15.009	
12,500.00	7,557.21	13,545.75	8,439.22	53.46	57.15	-130.65	-5,884.10	2,019.29	1,355.54	1,263.63	91.91	14.748	
12,600.00	7,557.21	13,645.55	8,439.01	54.13	57.76	-130.82	-5,983.90	2,019.44	1,350.59	1,257.41	93.18	14.494	
12,700.00	7,557.20	13,745.35	8,438.80	54.80	58.37	-130.99	-6,083.70	2,019.59	1,345.65	1,251.19	94.46	14.246	
12,800.00	7,557.20	13,845.15	8,438.59	55.48	58.98	-131.16	-6,183.49	2,019.74	1,340.72	1,244.98	95.75	14.003	
12,900.00	7,557.20	13,944.95	8,438.38	56.15	59.60	-131.33	-6,283.29	2,019.90	1,335.81	1,238.77	97.04	13.766	
13,000.00	7,557.19	14,044.74	8,438.17	56.83	60.22	-131.51	-6,383.09	2,020.05	1,330.91	1,232.57	98.34	13.534	
13,100.00	7,557.19	14,144.54	8,437.96	57.51	60.84	-131.68	-6,482.89	2,020.20	1,326.02	1,226.38	99.64	13.308	
13,200.00	7,557.19	14,244.34	8,437.75	58.19	61.47	-131.86	-6,582.69	2,020.35	1,321.14	1,220.19	100.95	13.087	
13,300.00	7,557.18	14,344.14	8,437.54	58.88	62.09	-132.04	-6,682.48	2,020.50	1,316.28	1,214.01	102.27	12.871	
13,400.00	7,557.18	14,443.94	8,437.33	59.57	62.73	-132.22	-6,782.28	2,020.65	1,311.43	1,207.83	103.59	12.660	
13,500.00	7,557.18	14,543.73	8,437.12	60.25	63.36	-132.40	-6,882.08	2,020.80	1,306.59	1,201.67	104.92	12.453	
13,600.00	7,557.17	14,643.53	8,436.91	60.95	64.00	-132.58	-6,981.88	2,020.95	1,301.76	1,195.51	106.25	12.252	
13,700.00	7,557.17	14,743.33	8,436.70	61.64	64.64	-132.76	-7,081.67	2,021.11	1,296.95	1,189.36	107.59	12.054	
13,800.00	7,557.16	14,843.13	8,436.49	62.33	65.28	-132.95	-7,181.47	2,021.26	1,292.15	1,183.22	108.93	11.862	
13,900.00	7,557.16	14,942.93	8,436.28	63.03	65.93	-133.13	-7,281.27	2,021.41	1,287.36	1,177.08	110.28	11.673	
14,000.00	7,557.16	15,042.72	8,436.07	63.73	66.57	-133.32	-7,381.07	2,021.56	1,282.59	1,170.96	111.63	11.489	
14,100.00	7,557.15	15,142.52	8,435.86	64.43	67.22	-133.51	-7,480.86	2,021.71	1,277.83	1,164.84	112.99	11.309	
14,200.00	7,557.15	15,242.32	8,435.65	65.13	67.88	-133.70	-7,580.66	2,021.86	1,273.09	1,158.74	114.35	11.133	
14,300.00	7,557.15	15,342.12	8,435.44	65.84	68.53	-133.89	-7,680.46	2,022.01	1,268.36	1,152.64	115.72	10.961	

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 4H
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 4H	**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
14,400.00	7,557.14	15,441.92	8,435.23	66.54	69.19	-134.08	-7,780.26	2,022.16	1,263.64	1,146.56	117.09	10.792	
14,500.00	7,557.14	15,541.71	8,435.02	67.25	69.85	-134.27	-7,880.06	2,022.32	1,258.94	1,140.48	118.46	10.627	
14,600.00	7,557.14	15,641.51	8,434.81	67.96	70.51	-134.47	-7,979.85	2,022.47	1,254.25	1,134.42	119.84	10.466	
14,700.00	7,557.13	15,741.31	8,434.60	68.66	71.17	-134.67	-8,079.65	2,022.62	1,249.58	1,128.36	121.22	10.308	
14,800.00	7,557.13	15,841.11	8,434.39	69.38	71.84	-134.87	-8,179.45	2,022.77	1,244.92	1,122.32	122.61	10.154	
14,900.00	7,557.12	15,940.91	8,434.18	70.09	72.50	-135.07	-8,279.25	2,022.92	1,240.28	1,116.29	123.99	10.003	
15,000.00	7,557.12	16,040.70	8,433.98	70.80	73.17	-135.27	-8,379.04	2,023.07	1,235.65	1,110.27	125.39	9.855	
15,100.00	7,557.12	16,140.50	8,433.77	71.52	73.84	-135.47	-8,478.84	2,023.22	1,231.04	1,104.26	126.78	9.710	
15,200.00	7,557.11	16,240.30	8,433.56	72.23	74.51	-135.67	-8,578.64	2,023.37	1,226.45	1,098.27	128.18	9.568	
15,300.00	7,557.11	16,340.10	8,433.35	72.95	75.19	-135.88	-8,678.44	2,023.52	1,221.87	1,092.28	129.58	9.429	
15,400.00	7,557.11	16,439.90	8,433.14	73.67	75.86	-136.09	-8,778.23	2,023.68	1,217.30	1,086.31	130.99	9.293	
15,500.00	7,557.10	16,539.69	8,432.93	74.39	76.54	-136.30	-8,878.03	2,023.83	1,212.75	1,080.36	132.39	9.160	
15,600.00	7,557.10	16,639.49	8,432.72	75.11	77.22	-136.51	-8,977.83	2,023.98	1,208.22	1,074.41	133.81	9.030	
15,700.00	7,557.10	16,739.29	8,432.51	75.83	77.90	-136.72	-9,077.63	2,024.13	1,203.70	1,068.48	135.22	8.902	
15,800.00	7,557.09	16,839.09	8,432.30	76.55	78.58	-136.93	-9,177.43	2,024.28	1,199.20	1,062.57	136.64	8.777	
15,900.00	7,557.09	16,938.89	8,432.09	77.27	79.27	-137.15	-9,277.22	2,024.43	1,194.72	1,056.66	138.06	8.654	
16,000.00	7,557.08	17,038.68	8,431.88	78.00	79.95	-137.37	-9,377.02	2,024.58	1,190.26	1,050.78	139.48	8.534	
16,100.00	7,557.08	17,138.48	8,431.67	78.72	80.64	-137.58	-9,476.82	2,024.73	1,185.81	1,044.90	140.91	8.416	
16,200.00	7,557.08	17,238.28	8,431.46	79.45	81.32	-137.81	-9,576.62	2,024.89	1,181.38	1,039.04	142.33	8.300	
16,300.00	7,557.07	17,338.08	8,431.25	80.18	82.01	-138.03	-9,676.41	2,025.04	1,176.96	1,033.20	143.77	8.187	
16,400.00	7,557.07	17,437.88	8,431.04	80.90	82.70	-138.25	-9,776.21	2,025.19	1,172.57	1,027.37	145.20	8.076	
16,500.00	7,557.07	17,537.67	8,430.83	81.63	83.39	-138.48	-9,876.01	2,025.34	1,168.19	1,021.56	146.63	7.967	
16,600.00	7,557.06	17,637.47	8,430.62	82.36	84.09	-138.70	-9,975.81	2,025.49	1,163.83	1,015.76	148.07	7.860	
16,700.00	7,557.06	17,737.27	8,430.41	83.09	84.78	-138.93	-10,075.60	2,025.64	1,159.49	1,009.98	149.51	7.755	
16,800.00	7,557.06	17,837.07	8,430.20	83.82	85.48	-139.16	-10,175.40	2,025.79	1,155.17	1,004.21	150.96	7.652	
16,900.00	7,557.05	17,936.87	8,429.99	84.55	86.17	-139.39	-10,275.20	2,025.94	1,150.87	998.46	152.40	7.551	
17,000.00	7,557.05	18,036.66	8,429.78	85.29	86.87	-139.63	-10,375.00	2,026.10	1,146.58	992.73	153.85	7.452	
17,100.00	7,557.04	18,136.46	8,429.57	86.02	87.57	-139.86	-10,474.80	2,026.25	1,142.32	987.01	155.30	7.355	
17,200.00	7,557.04	18,236.26	8,429.36	86.75	88.27	-140.10	-10,574.59	2,026.40	1,138.07	981.31	156.76	7.260	
17,300.00	7,557.04	18,336.06	8,429.15	87.49	88.97	-140.34	-10,674.39	2,026.55	1,133.84	975.63	158.21	7.167	
17,400.00	7,557.03	18,435.86	8,428.94	88.22	89.67	-140.58	-10,774.19	2,026.70	1,129.64	969.97	159.67	7.075	
17,500.00	7,557.03	18,535.65	8,428.73	88.96	90.37	-140.82	-10,873.99	2,026.85	1,125.45	964.32	161.13	6.985	
17,600.00	7,557.03	18,635.45	8,428.52	89.70	91.07	-141.07	-10,973.78	2,027.00	1,121.29	958.69	162.60	6.896	
17,700.00	7,557.02	18,735.25	8,428.31	90.43	91.78	-141.32	-11,073.58	2,027.15	1,117.14	953.08	164.06	6.809	
17,800.00	7,557.02	18,835.05	8,428.10	91.17	92.48	-141.56	-11,173.38	2,027.30	1,113.02	947.49	165.53	6.724	
17,900.00	7,557.02	18,934.85	8,427.89	91.91	93.19	-141.81	-11,273.18	2,027.46	1,108.92	941.92	167.00	6.640	
18,000.00	7,557.01	19,034.64	8,427.68	92.65	93.90	-142.07	-11,372.97	2,027.61	1,104.83	936.37	168.47	6.558	
18,100.00	7,557.01	19,134.44	8,427.47	93.39	94.61	-142.32	-11,472.77	2,027.76	1,100.77	930.83	169.94	6.477	
18,200.00	7,557.00	19,234.24	8,427.26	94.13	95.31	-142.57	-11,572.57	2,027.91	1,096.74	925.32	171.42	6.398	
18,300.00	7,557.00	19,334.04	8,427.05	94.87	96.02	-142.83	-11,672.37	2,028.06	1,092.72	919.82	172.90	6.320	
18,318.93	7,557.00	19,352.93	8,427.01	95.01	96.16	-142.88	-11,691.26	2,028.09	1,091.96	918.78	173.18	6.305	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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
0.00	0.00	0.00	0.00	0.00	0.00	91.10	-1.15	59.98	59.99				
100.00	100.00	100.00	100.00	0.28	0.28	91.10	-1.15	59.98	59.99	59.44	0.55	108.670	
200.00	200.00	200.00	200.00	0.63	0.63	91.10	-1.15	59.98	59.99	58.72	1.27	47.275	
300.00	300.00	300.00	300.00	0.99	0.99	91.10	-1.15	59.98	59.99	58.01	1.99	30.208	
400.00	400.00	400.00	400.00	1.35	1.35	91.10	-1.15	59.98	59.99	57.29	2.70	22.195	
500.00	500.00	500.00	500.00	1.71	1.71	91.10	-1.15	59.98	59.99	56.57	3.42	17.542	
600.00	600.00	600.00	600.00	2.07	2.07	91.10	-1.15	59.98	59.99	55.85	4.14	14.502	
700.00	700.00	700.00	700.00	2.43	2.43	91.10	-1.15	59.98	59.99	55.14	4.85	12.360	
800.00	800.00	800.00	800.00	2.79	2.79	91.10	-1.15	59.98	59.99	54.42	5.57	10.769	
900.00	900.00	900.00	900.00	3.14	3.14	91.10	-1.15	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	91.10	-1.15	59.98	59.99	52.99	7.00	8.565	CC, ES
1,100.00	1,100.00	1,098.31	1,098.30	3.86	3.84	92.04	-2.19	61.31	61.37	53.67	7.70	7.971	
1,200.00	1,200.00	1,196.40	1,196.24	4.22	4.17	94.64	-5.29	65.28	65.60	57.23	8.38	7.831	
1,300.00	1,300.00	1,294.02	1,293.51	4.58	4.50	98.26	-10.43	71.86	72.90	63.85	9.05	8.056	
1,400.00	1,400.00	1,390.97	1,389.75	4.94	4.83	102.23	-17.55	80.97	83.48	73.77	9.71	8.596	
1,500.00	1,500.00	1,487.02	1,484.68	5.29	5.17	106.03	-26.58	92.52	97.48	87.11	10.36	9.407	
1,600.00	1,600.00	1,581.98	1,577.98	5.65	5.50	109.38	-37.42	106.40	114.92	103.92	11.00	10.449	
1,700.00	1,700.00	1,675.66	1,669.41	6.01	5.83	112.20	-49.98	122.48	135.77	124.15	11.62	11.685	
1,800.00	1,800.00	1,771.58	1,762.50	6.37	6.18	114.53	-64.20	140.68	159.12	146.83	12.29	12.947	
1,900.00	1,900.00	1,868.61	1,856.65	6.73	6.53	116.29	-78.65	159.18	182.77	169.78	12.99	14.074	
2,000.00	2,000.00	1,965.63	1,950.80	7.09	6.89	117.66	-93.10	177.68	206.54	192.85	13.69	15.090	
2,100.00	2,099.98	2,063.05	2,045.32	7.43	7.25	-25.36	-107.61	196.25	228.86	214.49	14.38	15.919	
2,200.00	2,199.84	2,161.16	2,140.52	7.76	7.62	-24.81	-122.23	214.95	248.13	233.08	15.06	16.478	
2,300.00	2,299.45	2,259.84	2,236.27	8.09	7.99	-24.66	-136.92	233.76	264.29	248.54	15.75	16.781	
2,400.00	2,398.70	2,358.97	2,332.45	8.42	8.36	-24.84	-151.69	252.66	277.31	260.86	16.45	16.858	
2,500.00	2,497.47	2,458.44	2,428.97	8.76	8.74	-25.32	-166.50	271.62	287.20	270.05	17.16	16.739	
2,600.00	2,595.62	2,558.12	2,525.68	9.10	9.12	-26.09	-181.35	290.63	294.00	276.12	17.87	16.449	
2,644.93	2,639.49	2,602.94	2,569.17	9.25	9.30	-26.53	-188.03	299.17	296.05	277.86	18.20	16.270	
2,700.00	2,693.18	2,657.88	2,622.48	9.44	9.51	-27.11	-196.21	309.64	298.21	279.62	18.59	16.038	
2,800.00	2,790.65	2,757.65	2,719.29	9.78	9.89	-28.16	-211.07	328.66	302.21	282.89	19.32	15.640	
2,900.00	2,888.13	2,857.42	2,816.09	10.13	10.28	-29.17	-225.93	347.68	306.31	286.26	20.06	15.272	
3,000.00	2,985.61	2,957.19	2,912.90	10.48	10.66	-30.17	-240.79	366.70	310.51	289.71	20.80	14.931	
3,100.00	3,083.08	3,056.96	3,009.71	10.83	11.05	-31.13	-255.65	385.72	314.79	293.25	21.54	14.615	
3,200.00	3,180.56	3,156.73	3,106.51	11.19	11.44	-32.07	-270.51	404.74	319.16	296.88	22.29	14.322	
3,300.00	3,278.04	3,256.50	3,203.32	11.55	11.82	-32.98	-285.37	423.76	323.62	300.58	23.04	14.049	
3,400.00	3,375.51	3,356.27	3,300.12	11.91	12.21	-33.87	-300.23	442.78	328.15	304.36	23.79	13.794	
3,500.00	3,472.99	3,456.04	3,396.93	12.27	12.60	-34.73	-315.09	461.80	332.76	308.22	24.55	13.557	
3,600.00	3,570.47	3,555.81	3,493.74	12.64	12.99	-35.57	-329.95	480.82	337.45	312.14	25.30	13.336	
3,700.00	3,667.94	3,655.58	3,590.54	13.00	13.38	-36.38	-344.81	499.84	342.20	316.14	26.07	13.128	
3,800.00	3,765.42	3,755.35	3,687.35	13.37	13.77	-37.18	-359.67	518.86	347.02	320.19	26.83	12.934	
3,900.00	3,862.90	3,855.12	3,784.15	13.74	14.17	-37.95	-374.53	537.88	351.91	324.32	27.60	12.753	
4,000.00	3,960.37	3,954.88	3,880.96	14.11	14.56	-38.70	-389.39	556.90	356.86	328.50	28.36	12.582	
4,100.00	4,057.85	4,054.65	3,977.77	14.48	14.95	-39.43	-404.25	575.92	361.87	332.74	29.13	12.422	
4,200.00	4,155.33	4,154.42	4,074.57	14.86	15.34	-40.14	-419.11	594.94	366.93	337.03	29.90	12.271	
4,300.00	4,252.80	4,254.19	4,171.38	15.23	15.74	-40.83	-433.97	613.96	372.05	341.38	30.68	12.129	
4,400.00	4,350.28	4,353.96	4,268.18	15.61	16.13	-41.50	-448.83	632.98	377.23	345.78	31.45	11.995	
4,500.00	4,447.76	4,453.73	4,364.99	15.98	16.52	-42.15	-463.69	652.00	382.45	350.23	32.22	11.868	
4,600.00	4,545.23	4,553.50	4,461.80	16.36	16.92	-42.79	-478.55	671.02	387.72	354.72	33.00	11.749	
4,700.00	4,642.71	4,653.27	4,558.60	16.74	17.31	-43.41	-493.41	690.04	393.04	359.26	33.78	11.636	
4,800.00	4,740.19	4,753.04	4,655.41	17.11	17.70	-44.01	-508.27	709.06	398.40	363.85	34.56	11.529	
4,900.00	4,837.66	4,852.81	4,752.21	17.49	18.10	-44.60	-523.13	728.08	403.81	368.47	35.34	11.428	
5,000.00	4,935.14	4,952.58	4,849.02	17.87	18.49	-45.17	-537.99	747.10	409.25	373.14	36.12	11.332	

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 4H
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 4H	**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

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	5,032.62	5,052.35	4,945.83	18.25	18.89	-45.72	-552.85	766.12	414.74	377.84	36.90	11.241	
5,200.00	5,130.09	5,152.12	5,042.63	18.64	19.28	-46.26	-567.71	785.14	420.26	382.59	37.68	11.154	
5,300.00	5,227.57	5,251.89	5,139.44	19.02	19.68	-46.79	-582.57	804.16	425.82	387.36	38.46	11.072	
5,400.00	5,325.05	5,351.66	5,236.24	19.40	20.07	-47.30	-597.43	823.18	431.42	392.18	39.24	10.994	
5,500.00	5,422.52	5,451.43	5,333.05	19.78	20.47	-47.80	-612.29	842.20	437.05	397.02	40.03	10.919	
5,600.00	5,520.00	5,551.20	5,429.86	20.16	20.86	-48.29	-627.15	861.22	442.71	401.90	40.81	10.848	
5,700.00	5,617.48	5,650.97	5,526.66	20.55	21.26	-48.77	-642.01	880.24	448.40	406.81	41.59	10.780	
5,800.00	5,714.95	5,750.74	5,623.47	20.93	21.65	-49.23	-656.87	899.26	454.12	411.74	42.38	10.716	
5,900.00	5,812.43	5,850.51	5,720.27	21.31	22.05	-49.68	-671.73	918.28	459.87	416.71	43.16	10.654	
6,000.00	5,909.91	5,950.28	5,817.08	21.70	22.44	-50.12	-686.59	937.30	465.65	421.70	43.95	10.595	
6,100.00	6,007.38	6,050.05	5,913.89	22.08	22.84	-50.55	-701.45	956.32	471.46	426.72	44.74	10.539	
6,200.00	6,104.86	6,149.82	6,010.69	22.47	23.24	-50.97	-716.31	975.34	477.29	431.77	45.52	10.485	
6,300.00	6,202.34	6,249.59	6,107.50	22.85	23.63	-51.38	-731.16	994.36	483.15	436.84	46.31	10.433	
6,400.00	6,299.81	6,349.36	6,204.30	23.24	24.03	-51.78	-746.02	1,013.38	489.03	441.93	47.10	10.383	
6,421.23	6,320.51	6,370.53	6,224.85	23.32	24.11	-51.86	-749.18	1,017.41	490.28	443.02	47.26	10.373	
6,500.00	6,397.52	6,449.10	6,301.09	23.62	24.42	-52.15	-760.88	1,032.39	495.60	447.71	47.88	10.350	
6,600.00	6,495.90	6,548.72	6,397.75	24.00	24.82	-52.27	-775.72	1,051.38	504.26	455.60	48.66	10.363	
6,700.00	6,594.84	6,648.09	6,494.17	24.37	25.21	-52.11	-790.52	1,070.33	515.05	465.63	49.42	10.421	
6,800.00	6,694.23	6,747.08	6,590.22	24.74	25.61	-51.69	-805.26	1,089.20	528.01	477.84	50.18	10.523	
6,900.00	6,793.94	6,845.58	6,685.79	25.09	26.00	-51.06	-819.93	1,107.98	543.21	492.29	50.92	10.669	
7,000.00	6,893.85	6,943.47	6,780.77	25.44	26.39	-50.24	-834.51	1,126.64	560.73	509.09	51.64	10.858	
7,066.16	6,960.00	7,007.83	6,843.22	25.67	26.64	94.50	-844.10	1,138.91	573.65	521.54	52.11	11.008	
7,100.00	6,993.82	7,040.84	6,875.25	25.78	26.78	-73.00	-849.02	1,145.20	580.28	527.93	52.35	11.084	
7,150.00	7,043.55	7,090.02	6,922.97	25.96	26.97	-71.99	-856.34	1,154.58	589.03	536.31	52.72	11.172	
7,200.00	7,092.63	7,139.39	6,970.87	26.14	27.17	-71.53	-863.69	1,163.99	596.46	543.35	53.11	11.232	
7,250.00	7,140.71	7,188.55	7,018.57	26.34	27.36	-71.58	-871.02	1,173.36	602.56	549.06	53.50	11.263	
7,300.00	7,187.41	7,237.14	7,065.72	26.53	27.56	-72.11	-878.25	1,182.62	607.42	553.52	53.90	11.270	
7,350.00	7,232.38	7,284.79	7,111.95	26.73	27.75	-73.06	-885.35	1,191.70	611.22	556.92	54.30	11.256	
7,400.00	7,275.27	7,320.98	7,147.04	26.93	27.89	-73.99	-890.81	1,198.70	614.38	559.77	54.61	11.250	
7,450.00	7,315.77	7,350.00	7,174.84	27.13	28.01	-74.76	-895.93	1,205.25	618.37	563.52	54.84	11.275	
7,500.00	7,353.56	7,369.41	7,193.19	27.34	28.09	-75.13	-899.83	1,210.24	623.40	568.45	54.95	11.346	
7,550.00	7,388.35	7,400.00	7,221.63	27.54	28.22	-76.00	-906.75	1,219.10	629.74	574.54	55.20	11.408	
7,600.00	7,419.89	7,415.67	7,235.96	27.74	28.29	-76.09	-910.66	1,224.10	637.23	582.00	55.24	11.536	
7,650.00	7,447.92	7,437.85	7,255.93	27.94	28.39	-76.44	-916.59	1,231.69	646.17	590.78	55.39	11.665	
7,700.00	7,472.24	7,450.00	7,266.71	28.14	28.44	-76.10	-920.04	1,236.11	656.66	601.27	55.39	11.855	
7,750.00	7,492.67	7,480.03	7,292.82	28.33	28.58	-76.75	-929.17	1,247.80	668.40	612.61	55.78	11.982	
7,800.00	7,509.03	7,500.00	7,309.74	28.52	28.67	-76.69	-935.71	1,256.16	681.75	625.72	56.02	12.169	
7,816.16	7,513.43	7,500.00	7,309.74	28.58	28.67	-76.21	-935.71	1,256.16	686.43	630.44	55.99	12.261	
7,900.00	7,532.50	7,538.16	7,341.00	28.88	28.85	-77.73	-949.18	1,273.40	714.92	658.34	56.58	12.636	
8,000.00	7,548.24	7,575.77	7,370.30	29.24	29.03	-78.25	-963.68	1,291.96	758.83	701.65	57.18	13.270	
8,100.00	7,556.27	7,612.48	7,397.36	29.58	29.21	-77.87	-978.95	1,311.50	812.09	754.30	57.79	14.052	
8,153.26	7,557.37	7,631.56	7,410.79	29.76	29.31	-77.29	-987.30	1,322.19	843.74	785.64	58.10	14.522	
8,200.00	7,557.37	7,650.00	7,423.32	29.92	29.40	-78.52	-995.62	1,332.84	872.99	814.61	58.38	14.953	
8,300.00	7,557.36	7,688.44	7,448.02	30.26	29.59	-80.89	-1,013.75	1,356.05	938.82	879.91	58.91	15.937	
8,400.00	7,557.36	7,733.11	7,474.16	30.63	29.81	-83.30	-1,036.04	1,384.58	1,008.08	948.64	59.44	16.960	
8,500.00	7,557.36	7,782.92	7,499.89	31.00	30.07	-85.56	-1,062.29	1,418.18	1,079.74	1,019.77	59.97	18.004	
8,600.00	7,557.35	7,837.94	7,523.88	31.39	30.35	-87.53	-1,092.76	1,457.17	1,152.96	1,092.44	60.52	19.051	
8,700.00	7,557.35	7,897.86	7,544.48	31.79	30.65	-89.10	-1,127.38	1,501.49	1,227.09	1,166.01	61.09	20.088	
8,800.00	7,557.35	7,961.79	7,560.64	32.21	30.97	-90.22	-1,165.45	1,550.22	1,301.66	1,239.98	61.67	21.106	
8,900.00	7,557.34	8,027.65	7,573.45	32.64	31.30	-91.01	-1,205.22	1,601.12	1,376.38	1,314.10	62.28	22.101	
9,000.00	7,557.34	8,094.81	7,582.67	33.08	31.64	-91.50	-1,246.17	1,653.54	1,451.14	1,388.24	62.90	23.071	
9,100.00	7,557.34	8,162.84	7,588.02	33.54	31.98	-91.73	-1,287.92	1,706.97	1,525.86	1,462.33	63.53	24.019	

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 4H
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 4H	**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
9,200.00	7,557.33	8,230.93	7,589.40	34.00	32.32	-91.72	-1,329.83	1,760.61	1,600.50	1,536.34	64.16	24.945	
9,300.00	7,557.33	8,297.49	7,589.40	34.48	32.66	-91.65	-1,370.80	1,813.06	1,675.12	1,610.33	64.79	25.853	
9,400.00	7,557.32	8,364.05	7,589.40	34.96	33.01	-91.58	-1,411.78	1,865.51	1,749.74	1,684.30	65.44	26.736	
9,500.00	7,557.32	8,430.61	7,589.40	35.46	33.37	-91.51	-1,452.76	1,917.95	1,824.36	1,758.25	66.11	27.596	
9,600.00	7,557.32	10,197.64	7,589.36	35.97	43.04	-90.99	-2,986.27	2,662.66	1,861.50	1,787.88	73.61	25.287	
9,700.00	7,557.31	10,297.44	7,589.36	36.48	43.46	-90.99	-3,086.07	2,662.85	1,855.20	1,780.61	74.58	24.874	
9,800.00	7,557.31	10,397.24	7,589.36	37.00	43.89	-91.00	-3,185.87	2,663.05	1,848.89	1,773.32	75.57	24.465	
9,900.00	7,557.31	10,497.05	7,589.35	37.54	44.32	-91.00	-3,285.67	2,663.25	1,842.59	1,766.01	76.58	24.061	
10,000.00	7,557.30	10,596.85	7,589.35	38.08	44.76	-91.00	-3,385.47	2,663.45	1,836.29	1,758.68	77.60	23.662	
10,100.00	7,557.30	10,696.65	7,589.34	38.63	45.22	-91.01	-3,485.27	2,663.64	1,829.99	1,751.34	78.64	23.269	
10,200.00	7,557.30	10,796.45	7,589.34	39.18	45.68	-91.01	-3,585.07	2,663.84	1,823.68	1,743.98	79.70	22.882	
10,300.00	7,557.29	10,896.25	7,589.33	39.74	46.14	-91.01	-3,684.87	2,664.04	1,817.38	1,736.61	80.77	22.500	
10,400.00	7,557.29	10,996.05	7,589.33	40.31	46.62	-91.02	-3,784.68	2,664.23	1,811.08	1,729.22	81.86	22.124	
10,500.00	7,557.28	11,095.85	7,589.33	40.89	47.10	-91.02	-3,884.48	2,664.43	1,804.78	1,721.82	82.96	21.755	
10,600.00	7,557.28	11,195.65	7,589.32	41.47	47.59	-91.02	-3,984.28	2,664.63	1,798.47	1,714.40	84.07	21.392	
10,700.00	7,557.28	11,295.45	7,589.32	42.06	48.09	-91.03	-4,084.08	2,664.82	1,792.17	1,706.97	85.20	21.035	
10,800.00	7,557.27	11,395.26	7,589.31	42.66	48.59	-91.03	-4,183.88	2,665.02	1,785.87	1,699.53	86.34	20.684	
10,900.00	7,557.27	11,495.06	7,589.31	43.26	49.10	-91.03	-4,283.68	2,665.22	1,779.57	1,692.08	87.49	20.340	
11,000.00	7,557.27	11,594.86	7,589.31	43.86	49.61	-91.04	-4,383.48	2,665.42	1,773.27	1,684.61	88.66	20.002	
11,100.00	7,557.26	11,694.66	7,589.30	44.47	50.13	-91.04	-4,483.28	2,665.61	1,766.96	1,677.13	89.83	19.670	
11,200.00	7,557.26	11,794.46	7,589.30	45.09	50.66	-91.04	-4,583.08	2,665.81	1,760.66	1,669.65	91.01	19.345	
11,300.00	7,557.26	11,894.26	7,589.29	45.71	51.20	-91.05	-4,682.88	2,666.01	1,754.36	1,662.15	92.21	19.026	
11,400.00	7,557.25	11,994.06	7,589.29	46.33	51.74	-91.05	-4,782.69	2,666.20	1,748.06	1,654.64	93.41	18.713	
11,500.00	7,557.25	12,093.86	7,589.28	46.96	52.28	-91.06	-4,882.49	2,666.40	1,741.75	1,647.12	94.63	18.406	
11,600.00	7,557.24	12,193.67	7,589.28	47.60	52.83	-91.06	-4,982.29	2,666.60	1,735.45	1,639.60	95.85	18.105	
11,700.00	7,557.24	12,293.47	7,589.28	48.24	53.38	-91.06	-5,082.09	2,666.79	1,729.15	1,632.06	97.09	17.811	
11,800.00	7,557.24	12,393.27	7,589.27	48.88	53.94	-91.07	-5,181.89	2,666.99	1,722.85	1,624.52	98.33	17.522	
11,900.00	7,557.23	12,493.07	7,589.27	49.52	54.51	-91.07	-5,281.69	2,667.19	1,716.54	1,616.97	99.58	17.239	
12,000.00	7,557.23	12,592.87	7,589.26	50.17	55.08	-91.08	-5,381.49	2,667.39	1,710.24	1,609.41	100.83	16.961	
12,100.00	7,557.23	12,692.67	7,589.26	50.82	55.65	-91.08	-5,481.29	2,667.58	1,703.94	1,601.84	102.10	16.689	
12,200.00	7,557.22	12,792.47	7,589.26	51.48	56.23	-91.08	-5,581.09	2,667.78	1,697.64	1,594.27	103.37	16.423	
12,300.00	7,557.22	12,892.27	7,589.25	52.14	56.81	-91.09	-5,680.89	2,667.98	1,691.34	1,586.69	104.65	16.162	
12,400.00	7,557.22	12,992.07	7,589.25	52.80	57.40	-91.09	-5,780.69	2,668.17	1,685.03	1,579.10	105.93	15.907	
12,500.00	7,557.21	13,091.88	7,589.24	53.46	57.99	-91.10	-5,880.50	2,668.37	1,678.73	1,571.51	107.22	15.656	
12,600.00	7,557.21	13,191.68	7,589.24	54.13	58.59	-91.10	-5,980.30	2,668.57	1,672.43	1,563.91	108.52	15.411	
12,700.00	7,557.20	13,291.48	7,589.23	54.80	59.19	-91.10	-6,080.10	2,668.77	1,666.13	1,556.30	109.83	15.170	
12,800.00	7,557.20	13,391.28	7,589.23	55.48	59.79	-91.11	-6,179.90	2,668.96	1,659.82	1,548.69	111.14	14.935	
12,900.00	7,557.20	13,491.08	7,589.23	56.15	60.40	-91.11	-6,279.70	2,669.16	1,653.52	1,541.07	112.45	14.704	
13,000.00	7,557.19	13,590.88	7,589.22	56.83	61.01	-91.12	-6,379.50	2,669.36	1,647.22	1,533.45	113.77	14.478	
13,100.00	7,557.19	13,690.68	7,589.22	57.51	61.62	-91.12	-6,479.30	2,669.55	1,640.92	1,525.82	115.10	14.256	
13,200.00	7,557.19	13,790.48	7,589.21	58.19	62.24	-91.13	-6,579.10	2,669.75	1,634.62	1,518.18	116.43	14.039	
13,300.00	7,557.18	13,890.28	7,589.21	58.88	62.86	-91.13	-6,678.90	2,669.95	1,628.31	1,510.55	117.77	13.826	
13,400.00	7,557.18	13,990.09	7,589.21	59.57	63.48	-91.13	-6,778.70	2,670.14	1,622.01	1,502.90	119.11	13.618	
13,500.00	7,557.18	14,089.89	7,589.20	60.25	64.11	-91.14	-6,878.50	2,670.34	1,615.71	1,495.25	120.45	13.413	
13,600.00	7,557.17	14,189.69	7,589.20	60.95	64.73	-91.14	-6,978.31	2,670.54	1,609.41	1,487.60	121.81	13.213	
13,700.00	7,557.17	14,289.49	7,589.19	61.64	65.37	-91.15	-7,078.11	2,670.74	1,603.10	1,479.95	123.16	13.016	
13,800.00	7,557.16	14,389.29	7,589.19	62.33	66.00	-91.15	-7,177.91	2,670.93	1,596.80	1,472.28	124.52	12.824	
13,900.00	7,557.16	14,489.09	7,589.18	63.03	66.64	-91.16	-7,277.71	2,671.13	1,590.50	1,464.62	125.88	12.635	
14,000.00	7,557.16	14,588.89	7,589.18	63.73	67.28	-91.16	-7,377.51	2,671.33	1,584.20	1,456.95	127.25	12.450	
14,100.00	7,557.15	14,688.69	7,589.18	64.43	67.92	-91.17	-7,477.31	2,671.52	1,577.90	1,449.28	128.62	12.268	
14,200.00	7,557.15	14,788.49	7,589.17	65.13	68.56	-91.17	-7,577.11	2,671.72	1,571.59	1,441.60	129.99	12.090	
14,300.00	7,557.15	14,888.30	7,589.17	65.84	69.21	-91.17	-7,676.91	2,671.92	1,565.29	1,433.92	131.37	11.915	

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 4H
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 4H	**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
14,400.00	7,557.14	14,988.10	7,589.16	66.54	69.86	-91.18	-7,776.71	2,672.11	1,558.99	1,426.24	132.75	11.744	
14,500.00	7,557.14	15,087.90	7,589.16	67.25	70.51	-91.18	-7,876.51	2,672.31	1,552.69	1,418.56	134.13	11.576	
14,600.00	7,557.14	15,187.70	7,589.16	67.96	71.17	-91.19	-7,976.32	2,672.51	1,546.39	1,410.87	135.52	11.411	
14,700.00	7,557.13	15,287.50	7,589.15	68.66	71.82	-91.19	-8,076.12	2,672.71	1,540.08	1,403.17	136.91	11.249	
14,800.00	7,557.13	15,387.30	7,589.15	69.38	72.48	-91.20	-8,175.92	2,672.90	1,533.78	1,395.48	138.30	11.090	
14,900.00	7,557.12	15,487.10	7,589.14	70.09	73.14	-91.20	-8,275.72	2,673.10	1,527.48	1,387.78	139.70	10.934	
15,000.00	7,557.12	15,586.90	7,589.14	70.80	73.81	-91.21	-8,375.52	2,673.30	1,521.18	1,380.08	141.10	10.781	
15,100.00	7,557.12	15,686.71	7,589.13	71.52	74.47	-91.21	-8,475.32	2,673.49	1,514.88	1,372.37	142.50	10.631	
15,200.00	7,557.11	15,786.51	7,589.13	72.23	75.14	-91.22	-8,575.12	2,673.69	1,508.57	1,364.67	143.91	10.483	
15,300.00	7,557.11	15,886.31	7,589.13	72.95	75.80	-91.22	-8,674.92	2,673.89	1,502.27	1,356.96	145.31	10.338	
15,400.00	7,557.11	15,986.11	7,589.12	73.67	76.47	-91.23	-8,774.72	2,674.08	1,495.97	1,349.25	146.72	10.196	
15,500.00	7,557.10	16,085.91	7,589.12	74.39	77.15	-91.23	-8,874.52	2,674.28	1,489.67	1,341.53	148.13	10.056	
15,600.00	7,557.10	16,185.71	7,589.11	75.11	77.82	-91.24	-8,974.32	2,674.48	1,483.37	1,333.82	149.55	9.919	
15,700.00	7,557.10	16,285.51	7,589.11	75.83	78.49	-91.24	-9,074.13	2,674.68	1,477.06	1,326.10	150.97	9.784	
15,800.00	7,557.09	16,385.31	7,589.11	76.55	79.17	-91.25	-9,173.93	2,674.87	1,470.76	1,318.38	152.39	9.652	
15,900.00	7,557.09	16,485.11	7,589.10	77.27	79.85	-91.26	-9,273.73	2,675.07	1,464.46	1,310.65	153.81	9.521	
16,000.00	7,557.08	16,584.92	7,589.10	78.00	80.53	-91.26	-9,373.53	2,675.27	1,458.16	1,302.93	155.23	9.394	
16,100.00	7,557.08	16,684.72	7,589.09	78.72	81.21	-91.27	-9,473.33	2,675.46	1,451.86	1,295.20	156.66	9.268	
16,200.00	7,557.08	16,784.52	7,589.09	79.45	81.89	-91.27	-9,573.13	2,675.66	1,445.56	1,287.47	158.08	9.144	
16,300.00	7,557.07	16,884.32	7,589.08	80.18	82.58	-91.28	-9,672.93	2,675.86	1,439.25	1,279.74	159.51	9.023	
16,400.00	7,557.07	16,984.12	7,589.08	80.90	83.26	-91.28	-9,772.73	2,676.05	1,432.95	1,272.01	160.94	8.903	
16,500.00	7,557.07	17,083.92	7,589.08	81.63	83.95	-91.29	-9,872.53	2,676.25	1,426.65	1,264.27	162.38	8.786	
16,600.00	7,557.06	17,183.72	7,589.07	82.36	84.64	-91.29	-9,972.33	2,676.45	1,420.35	1,256.54	163.81	8.671	
16,700.00	7,557.06	17,283.52	7,589.07	83.09	85.33	-91.30	-10,072.14	2,676.65	1,414.05	1,248.80	165.25	8.557	
16,800.00	7,557.06	17,383.32	7,589.06	83.82	86.02	-91.31	-10,171.94	2,676.84	1,407.74	1,241.06	166.69	8.445	
16,900.00	7,557.05	17,483.13	7,589.06	84.55	86.71	-91.31	-10,271.74	2,677.04	1,401.44	1,233.32	168.13	8.336	
17,000.00	7,557.05	17,582.93	7,589.06	85.29	87.40	-91.32	-10,371.54	2,677.24	1,395.14	1,225.57	169.57	8.228	
17,100.00	7,557.04	17,682.73	7,589.05	86.02	88.10	-91.32	-10,471.34	2,677.43	1,388.84	1,217.83	171.01	8.121	
17,200.00	7,557.04	17,782.53	7,589.05	86.75	88.79	-91.33	-10,571.14	2,677.63	1,382.54	1,210.08	172.46	8.017	
17,300.00	7,557.04	17,882.33	7,589.04	87.49	89.49	-91.34	-10,670.94	2,677.83	1,376.24	1,202.33	173.90	7.914	
17,400.00	7,557.03	17,982.13	7,589.04	88.22	90.19	-91.34	-10,770.74	2,678.02	1,369.93	1,194.59	175.35	7.813	
17,500.00	7,557.03	18,081.93	7,589.03	88.96	90.89	-91.35	-10,870.54	2,678.22	1,363.63	1,186.83	176.80	7.713	
17,600.00	7,557.03	18,181.73	7,589.03	89.70	91.59	-91.35	-10,970.34	2,678.42	1,357.33	1,179.08	178.25	7.615	
17,700.00	7,557.02	18,281.53	7,589.03	90.43	92.29	-91.36	-11,070.14	2,678.62	1,351.03	1,171.33	179.70	7.518	
17,800.00	7,557.02	18,381.34	7,589.02	91.17	92.99	-91.37	-11,169.95	2,678.81	1,344.73	1,163.57	181.15	7.423	
17,900.00	7,557.02	18,481.14	7,589.02	91.91	93.69	-91.37	-11,269.75	2,679.01	1,338.43	1,155.82	182.61	7.329	
18,000.00	7,557.01	18,580.94	7,589.01	92.65	94.39	-91.38	-11,369.55	2,679.21	1,332.12	1,148.06	184.06	7.237	
18,100.00	7,557.01	18,680.74	7,589.01	93.39	95.10	-91.39	-11,469.35	2,679.40	1,325.82	1,140.30	185.52	7.146	
18,200.00	7,557.00	18,780.54	7,589.01	94.13	95.80	-91.39	-11,569.15	2,679.60	1,319.52	1,132.54	186.98	7.057	
18,300.00	7,557.00	18,880.34	7,589.00	94.87	96.51	-91.40	-11,668.95	2,679.80	1,313.22	1,124.78	188.44	6.969	
18,318.93	7,557.00	18,899.23	7,589.00	95.01	96.64	-91.40	-11,687.84	2,679.83	1,312.03	1,123.31	188.71	6.952	SF

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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 8H - 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	91.09	-0.76	39.99	40.00				
100.00	100.00	100.00	100.00	0.28	0.28	91.09	-0.76	39.99	40.00	39.45	0.55	72.453	
200.00	200.00	200.00	200.00	0.63	0.63	91.09	-0.76	39.99	40.00	38.73	1.27	31.519	
300.00	300.00	300.00	300.00	0.99	0.99	91.09	-0.76	39.99	40.00	38.01	1.99	20.140	
400.00	400.00	400.00	400.00	1.35	1.35	91.09	-0.76	39.99	40.00	37.29	2.70	14.798	
500.00	500.00	500.00	500.00	1.71	1.71	91.09	-0.76	39.99	40.00	36.58	3.42	11.696	
600.00	600.00	600.00	600.00	2.07	2.07	91.09	-0.76	39.99	40.00	35.86	4.14	9.669	
700.00	700.00	700.00	700.00	2.43	2.43	91.09	-0.76	39.99	40.00	35.14	4.85	8.241	
800.00	800.00	800.00	800.00	2.79	2.79	91.09	-0.76	39.99	40.00	34.43	5.57	7.180	
900.00	900.00	900.00	900.00	3.14	3.14	91.09	-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	91.09	-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	91.09	-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	91.09	-0.76	39.99	40.00	31.56	8.44	4.740	CC, ES
1,300.00	1,300.00	1,298.75	1,298.73	4.58	4.56	92.22	-1.61	41.46	41.51	32.38	9.13	4.545	SF
1,400.00	1,400.00	1,397.27	1,397.12	4.94	4.89	95.18	-4.15	45.87	46.15	36.34	9.81	4.703	
1,500.00	1,500.00	1,495.33	1,494.80	5.29	5.22	98.94	-8.36	53.16	54.07	43.59	10.48	5.159	
1,600.00	1,600.00	1,592.69	1,591.46	5.65	5.56	102.65	-14.20	63.26	65.39	54.26	11.13	5.873	
1,700.00	1,700.00	1,689.15	1,686.78	6.01	5.89	105.85	-21.59	76.07	80.17	68.39	11.78	6.808	
1,800.00	1,800.00	1,784.51	1,780.46	6.37	6.23	108.43	-30.47	91.45	98.35	85.95	12.40	7.931	
1,900.00	1,900.00	1,881.39	1,875.18	6.73	6.57	110.46	-40.69	109.07	119.03	105.96	13.07	9.105	
2,000.00	2,000.00	1,979.13	1,970.71	7.09	6.92	111.91	-51.06	126.94	139.92	126.16	13.77	10.163	
2,100.00	2,099.98	2,077.19	2,066.55	7.43	7.27	-31.24	-61.47	144.87	159.42	144.97	14.45	11.031	
2,200.00	2,199.84	2,175.80	2,162.94	7.76	7.63	-31.07	-71.93	162.89	175.99	160.86	15.13	11.634	
2,300.00	2,299.45	2,274.85	2,259.75	8.09	7.99	-31.48	-82.44	181.00	189.62	173.80	15.81	11.992	
2,400.00	2,398.70	2,374.21	2,356.86	8.42	8.36	-32.38	-92.99	199.17	200.33	183.82	16.50	12.138	
2,500.00	2,497.47	2,473.76	2,454.17	8.76	8.73	-33.73	-103.56	217.37	208.20	190.99	17.20	12.102	
2,600.00	2,595.62	2,573.39	2,551.54	9.10	9.10	-35.54	-114.13	235.58	213.35	195.43	17.91	11.912	
2,644.93	2,639.49	2,618.14	2,595.28	9.25	9.26	-36.51	-118.88	243.76	214.82	196.59	18.23	11.783	
2,700.00	2,693.18	2,672.98	2,648.88	9.44	9.47	-37.77	-124.70	253.79	216.37	197.74	18.62	11.617	
2,800.00	2,790.65	2,772.57	2,746.22	9.78	9.84	-40.02	-135.27	271.99	219.44	200.10	19.35	11.343	
2,900.00	2,888.13	2,872.15	2,843.55	10.13	10.21	-42.20	-145.84	290.20	222.85	202.78	20.07	11.102	
3,000.00	2,985.61	2,971.74	2,940.89	10.48	10.59	-44.31	-156.40	308.41	226.57	205.77	20.80	10.890	
3,100.00	3,083.08	3,071.33	3,038.22	10.83	10.96	-46.34	-166.97	326.61	230.59	209.05	21.54	10.704	
3,200.00	3,180.56	3,170.91	3,135.56	11.19	11.34	-48.31	-177.54	344.82	234.89	212.61	22.28	10.541	
3,300.00	3,278.04	3,270.50	3,232.89	11.55	11.72	-50.21	-188.11	363.02	239.46	216.43	23.03	10.399	
3,400.00	3,375.51	3,370.08	3,330.23	11.91	12.10	-52.03	-198.68	381.23	244.28	220.51	23.78	10.274	
3,500.00	3,472.99	3,469.67	3,427.57	12.27	12.47	-53.78	-209.25	399.44	249.35	224.82	24.53	10.166	
3,600.00	3,570.47	3,569.26	3,524.90	12.64	12.85	-55.46	-219.82	417.64	254.63	229.35	25.28	10.072	
3,700.00	3,667.94	3,668.84	3,622.24	13.00	13.23	-57.07	-230.39	435.85	260.13	234.09	26.04	9.991	
3,800.00	3,765.42	3,768.43	3,719.57	13.37	13.61	-58.62	-240.95	454.05	265.82	239.03	26.80	9.920	
3,900.00	3,862.90	3,868.01	3,816.91	13.74	13.99	-60.09	-251.52	472.26	271.70	244.15	27.56	9.860	
4,000.00	3,960.37	3,967.60	3,914.24	14.11	14.38	-61.51	-262.09	490.47	277.75	249.44	28.32	9.809	
4,100.00	4,057.85	4,067.18	4,011.58	14.48	14.76	-62.86	-272.66	508.67	283.97	254.89	29.08	9.765	
4,200.00	4,155.33	4,166.77	4,108.91	14.86	15.14	-64.16	-283.23	526.88	290.34	260.49	29.84	9.729	
4,300.00	4,252.80	4,266.36	4,206.25	15.23	15.52	-65.40	-293.80	545.08	296.84	266.24	30.61	9.698	
4,400.00	4,350.28	4,365.94	4,303.58	15.61	15.90	-66.58	-304.37	563.29	303.49	272.11	31.37	9.673	
4,500.00	4,447.76	4,465.53	4,400.92	15.98	16.29	-67.72	-314.94	581.50	310.25	278.11	32.14	9.653	
4,600.00	4,545.23	4,565.11	4,498.25	16.36	16.67	-68.80	-325.51	599.70	317.13	284.23	32.91	9.637	
4,700.00	4,642.71	4,664.70	4,595.59	16.74	17.05	-69.84	-336.07	617.91	324.12	290.45	33.68	9.625	
4,800.00	4,740.19	4,764.28	4,692.92	17.11	17.43	-70.84	-346.64	636.11	331.22	296.77	34.44	9.616	
4,900.00	4,837.66	4,863.87	4,790.26	17.49	17.82	-71.79	-357.21	654.32	338.41	303.19	35.21	9.610	
5,000.00	4,935.14	4,963.46	4,887.59	17.87	18.20	-72.71	-367.78	672.52	345.69	309.70	35.98	9.607	

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 4H
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 4H	**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 8H - 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	5,032.62	5,063.04	4,984.93	18.25	18.59	-73.58	-378.35	690.73	353.05	316.30	36.75	9.606	
5,200.00	5,130.09	5,162.63	5,082.27	18.64	18.97	-74.43	-388.92	708.94	360.49	322.97	37.52	9.607	
5,300.00	5,227.57	5,262.21	5,179.60	19.02	19.35	-75.23	-399.49	727.14	368.01	329.71	38.29	9.610	
5,400.00	5,325.05	5,361.80	5,276.94	19.40	19.74	-76.01	-410.06	745.35	375.59	336.53	39.06	9.615	
5,500.00	5,422.52	5,461.38	5,374.27	19.78	20.12	-76.75	-420.62	763.55	383.24	343.41	39.84	9.621	
5,600.00	5,520.00	5,560.97	5,471.61	20.16	20.51	-77.46	-431.19	781.76	390.96	350.35	40.61	9.628	
5,700.00	5,617.48	5,660.56	5,568.94	20.55	20.89	-78.15	-441.76	799.97	398.73	357.35	41.38	9.636	
5,800.00	5,714.95	5,760.14	5,666.28	20.93	21.28	-78.81	-452.33	818.17	406.55	364.40	42.15	9.645	
5,900.00	5,812.43	5,859.73	5,763.61	21.31	21.66	-79.44	-462.90	836.38	414.43	371.51	42.92	9.655	
6,000.00	5,909.91	5,959.31	5,860.95	21.70	22.05	-80.06	-473.47	854.58	422.36	378.66	43.70	9.666	
6,100.00	6,007.38	6,058.90	5,958.28	22.08	22.43	-80.65	-484.04	872.79	430.33	385.86	44.47	9.677	
6,200.00	6,104.86	6,158.48	6,055.62	22.47	22.82	-81.21	-494.61	891.00	438.35	393.11	45.24	9.689	
6,300.00	6,202.34	6,258.07	6,152.95	22.85	23.20	-81.76	-505.17	909.20	446.40	400.39	46.01	9.702	
6,400.00	6,299.81	6,357.66	6,250.29	23.24	23.59	-82.29	-515.74	927.41	454.50	407.71	46.79	9.714	
6,421.23	6,320.51	6,378.79	6,270.95	23.32	23.67	-82.40	-517.99	931.27	456.22	409.27	46.95	9.717	
6,500.00	6,397.52	6,457.26	6,347.65	23.62	23.98	-82.79	-526.31	945.62	462.77	415.21	47.56	9.731	
6,600.00	6,495.90	6,556.88	6,445.01	24.00	24.36	-82.92	-536.89	963.83	471.48	423.15	48.32	9.757	
6,700.00	6,594.84	6,656.38	6,542.26	24.37	24.75	-82.64	-547.45	982.02	480.63	431.55	49.08	9.793	
6,800.00	6,694.23	6,755.65	6,639.29	24.74	25.13	-81.98	-557.98	1,000.17	490.29	440.46	49.83	9.839	
6,900.00	6,793.94	6,854.56	6,735.97	25.09	25.52	-80.98	-568.48	1,018.25	500.60	450.03	50.57	9.900	
7,000.00	6,893.85	6,953.00	6,832.18	25.44	25.90	-79.67	-578.93	1,036.25	511.75	460.45	51.30	9.976	
7,066.16	6,960.00	7,017.80	6,895.52	25.67	26.15	65.46	-585.80	1,048.09	519.70	467.93	51.77	10.039	
7,100.00	6,993.82	7,051.00	6,927.97	25.78	26.28	-102.08	-589.33	1,054.16	524.14	472.13	52.01	10.078	
7,150.00	7,043.55	7,100.32	6,976.17	25.96	26.47	-100.97	-594.56	1,063.18	531.50	479.13	52.38	10.148	
7,200.00	7,092.63	7,149.62	7,024.36	26.14	26.66	-100.24	-599.79	1,072.19	539.70	486.94	52.75	10.230	
7,250.00	7,140.71	7,198.53	7,072.16	26.34	26.85	-99.88	-604.98	1,081.13	548.68	495.54	53.14	10.326	
7,300.00	7,187.41	7,246.68	7,119.22	26.53	27.04	-99.84	-610.09	1,089.94	558.49	504.97	53.52	10.435	
7,350.00	7,232.38	7,293.70	7,165.18	26.73	27.22	-100.07	-615.08	1,098.53	569.27	515.36	53.90	10.561	
7,400.00	7,275.27	7,341.12	7,211.54	26.93	27.40	-100.56	-620.09	1,107.16	581.16	526.86	54.30	10.703	
7,450.00	7,315.77	7,389.84	7,259.31	27.13	27.59	-101.36	-624.91	1,115.46	594.12	539.41	54.70	10.861	
7,500.00	7,353.56	7,435.61	7,304.31	27.34	27.76	-102.24	-629.07	1,122.62	608.43	553.34	55.09	11.045	
7,550.00	7,388.35	7,477.95	7,346.07	27.54	27.92	-103.03	-632.59	1,128.69	624.47	569.03	55.45	11.263	
7,600.00	7,419.89	7,516.48	7,384.15	27.74	28.07	-103.59	-635.53	1,133.75	642.59	586.81	55.78	11.521	
7,650.00	7,447.92	7,550.88	7,418.22	27.94	28.20	-103.80	-637.93	1,137.89	663.07	606.99	56.08	11.824	
7,700.00	7,472.24	7,580.92	7,448.01	28.14	28.31	-103.52	-639.86	1,141.22	686.08	629.73	56.35	12.176	
7,750.00	7,492.67	7,606.42	7,473.34	28.33	28.40	-102.63	-641.38	1,143.83	711.71	655.13	56.58	12.579	
7,800.00	7,509.03	7,627.28	7,494.07	28.52	28.48	-101.04	-642.54	1,145.82	739.92	683.14	56.78	13.032	
7,816.16	7,513.43	7,633.02	7,499.78	28.58	28.50	-100.35	-642.84	1,146.35	749.56	692.73	56.83	13.189	
7,900.00	7,532.50	7,658.25	7,524.87	28.88	28.59	-100.24	-644.11	1,148.54	804.02	746.94	57.07	14.087	
8,000.00	7,548.24	7,679.97	7,546.50	29.24	28.67	-98.30	-645.12	1,150.27	877.59	820.31	57.29	15.319	
8,100.00	7,556.27	7,693.00	7,559.48	29.58	28.71	-94.03	-645.68	1,151.24	958.55	901.13	57.42	16.694	
8,153.26	7,557.37	7,696.54	7,563.01	29.76	28.73	-90.64	-645.83	1,151.50	1,004.01	946.54	57.46	17.472	
8,200.00	7,557.37	7,700.00	7,566.46	29.92	28.74	-91.03	-645.97	1,151.74	1,044.75	987.25	57.50	18.170	
8,300.00	7,557.36	7,702.96	7,569.41	30.26	28.75	-91.37	-646.09	1,151.95	1,133.47	1,075.92	57.54	19.698	
8,400.00	7,557.36	7,707.15	7,573.58	30.63	28.76	-91.84	-646.26	1,152.24	1,223.91	1,166.32	57.59	21.252	
8,500.00	7,557.36	7,711.18	7,577.60	31.00	28.78	-92.30	-646.42	1,152.51	1,315.72	1,258.09	57.63	22.829	
8,600.00	7,557.35	7,715.07	7,581.48	31.39	28.79	-92.74	-646.57	1,152.77	1,408.63	1,350.96	57.67	24.424	
8,700.00	7,557.35	7,718.83	7,585.23	31.79	28.80	-93.17	-646.71	1,153.02	1,502.45	1,444.73	57.71	26.032	
8,800.00	7,557.35	7,722.46	7,588.85	32.21	28.82	-93.58	-646.85	1,153.25	1,597.00	1,539.25	57.75	27.652	
8,900.00	7,557.34	7,725.97	7,592.36	32.64	28.83	-93.97	-646.98	1,153.47	1,692.18	1,634.38	57.79	29.281	
9,000.00	7,557.34	7,729.37	7,595.74	33.08	28.84	-94.35	-647.10	1,153.68	1,787.87	1,730.04	57.83	30.917	
9,100.00	7,557.34	7,732.66	7,599.02	33.54	28.85	-94.72	-647.22	1,153.89	1,884.00	1,826.13	57.87	32.558	

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 4H
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 4H	**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 8H - 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
9,200.00	7,557.33	7,735.84	7,602.20	34.00	28.86	-95.08	-647.33	1,154.08	1,980.51	1,922.61	57.90	34.204	
9,300.00	7,557.33	10,104.87	8,887.48	34.48	38.27	-135.92	-1,697.82	2,007.88	2,063.45	2,003.87	59.58	34.635	
9,400.00	7,557.32	10,256.54	8,887.48	34.96	39.06	-134.08	-1,817.32	2,101.27	2,107.05	2,046.03	61.02	34.529	
9,500.00	7,557.32	10,460.86	8,887.48	35.46	40.16	-131.99	-1,985.66	2,216.98	2,147.00	2,084.48	62.52	34.341	
9,600.00	7,557.32	10,682.47	8,887.48	35.97	41.37	-130.15	-2,177.07	2,328.57	2,182.25	2,118.28	63.97	34.115	
9,700.00	7,557.31	10,920.68	8,887.47	36.48	42.68	-128.61	-2,391.76	2,431.63	2,211.98	2,146.67	65.31	33.867	
9,800.00	7,557.31	11,173.80	8,887.47	37.00	44.04	-127.40	-2,628.40	2,521.20	2,235.44	2,168.95	66.49	33.621	
9,900.00	7,557.31	11,438.98	8,887.46	37.54	45.42	-126.56	-2,883.79	2,592.26	2,251.96	2,184.54	67.42	33.401	
10,000.00	7,557.30	11,712.30	8,887.45	38.08	46.79	-126.09	-3,152.71	2,640.47	2,261.02	2,192.97	68.05	33.224	
10,100.00	7,557.30	11,989.02	8,887.43	38.63	48.08	-126.03	-3,428.42	2,662.95	2,262.34	2,193.99	68.35	33.098	
10,200.00	7,557.30	12,145.94	8,887.42	39.18	48.77	-126.15	-3,585.32	2,664.64	2,257.65	2,188.60	69.05	32.697	
10,300.00	7,557.29	12,245.74	8,887.42	39.74	49.22	-126.25	-3,685.12	2,664.83	2,252.55	2,182.50	70.05	32.155	
10,400.00	7,557.29	12,345.54	8,887.41	40.31	49.67	-126.34	-3,784.92	2,665.02	2,247.46	2,176.38	71.08	31.620	
10,500.00	7,557.28	12,445.34	8,887.41	40.89	50.13	-126.44	-3,884.72	2,665.21	2,242.37	2,170.25	72.12	31.093	
10,600.00	7,557.28	12,545.14	8,887.40	41.47	50.60	-126.53	-3,984.52	2,665.39	2,237.29	2,164.11	73.18	30.573	
10,700.00	7,557.28	12,644.94	8,887.40	42.06	51.07	-126.63	-4,084.32	2,665.58	2,232.21	2,157.96	74.25	30.062	
10,800.00	7,557.27	12,744.75	8,887.39	42.66	51.55	-126.73	-4,184.12	2,665.77	2,227.15	2,151.80	75.34	29.560	
10,900.00	7,557.27	12,844.55	8,887.39	43.26	52.04	-126.82	-4,283.92	2,665.95	2,222.08	2,145.64	76.45	29.067	
11,000.00	7,557.27	12,944.35	8,887.38	43.86	52.53	-126.92	-4,383.72	2,666.14	2,217.03	2,139.46	77.57	28.582	
11,100.00	7,557.26	13,044.15	8,887.38	44.47	53.03	-127.02	-4,483.52	2,666.33	2,211.98	2,133.28	78.70	28.106	
11,200.00	7,557.26	13,143.95	8,887.37	45.09	53.54	-127.12	-4,583.32	2,666.52	2,206.94	2,127.09	79.85	27.640	
11,300.00	7,557.26	13,243.75	8,887.37	45.71	54.05	-127.22	-4,683.12	2,666.70	2,201.90	2,120.90	81.00	27.182	
11,400.00	7,557.25	13,343.55	8,887.36	46.33	54.56	-127.32	-4,782.92	2,666.89	2,196.88	2,114.70	82.18	26.734	
11,500.00	7,557.25	13,443.35	8,887.36	46.96	55.08	-127.42	-4,882.73	2,667.08	2,191.85	2,108.50	83.36	26.295	
11,600.00	7,557.24	13,543.15	8,887.35	47.60	55.61	-127.52	-4,982.53	2,667.26	2,186.84	2,102.29	84.55	25.864	
11,700.00	7,557.24	13,642.95	8,887.35	48.24	56.14	-127.62	-5,082.33	2,667.45	2,181.83	2,096.08	85.75	25.443	
11,800.00	7,557.24	13,742.75	8,887.34	48.88	56.68	-127.72	-5,182.13	2,667.64	2,176.83	2,089.86	86.97	25.030	
11,900.00	7,557.23	13,842.55	8,887.34	49.52	57.22	-127.82	-5,281.93	2,667.82	2,171.83	2,083.64	88.19	24.627	
12,000.00	7,557.23	13,942.35	8,887.33	50.17	57.77	-127.92	-5,381.73	2,668.01	2,166.84	2,077.42	89.42	24.231	
12,100.00	7,557.23	14,042.15	8,887.33	50.82	58.32	-128.03	-5,481.53	2,668.20	2,161.86	2,071.20	90.66	23.845	
12,200.00	7,557.22	14,141.95	8,887.32	51.48	58.88	-128.13	-5,581.33	2,668.39	2,156.89	2,064.97	91.92	23.466	
12,300.00	7,557.22	14,241.75	8,887.32	52.14	59.44	-128.23	-5,681.13	2,668.57	2,151.92	2,058.75	93.17	23.096	
12,400.00	7,557.22	14,341.55	8,887.31	52.80	60.00	-128.34	-5,780.93	2,668.76	2,146.96	2,052.52	94.44	22.734	
12,500.00	7,557.21	14,441.35	8,887.30	53.46	60.57	-128.44	-5,880.73	2,668.95	2,142.01	2,046.29	95.71	22.379	
12,600.00	7,557.21	14,541.15	8,887.30	54.13	61.15	-128.55	-5,980.53	2,669.13	2,137.06	2,040.06	97.00	22.032	
12,700.00	7,557.20	14,640.96	8,887.29	54.80	61.72	-128.65	-6,080.33	2,669.32	2,132.12	2,033.84	98.28	21.693	
12,800.00	7,557.20	14,740.76	8,887.29	55.48	62.31	-128.76	-6,180.13	2,669.51	2,127.19	2,027.61	99.58	21.362	
12,900.00	7,557.20	14,840.56	8,887.28	56.15	62.89	-128.87	-6,279.93	2,669.70	2,122.27	2,021.38	100.88	21.037	
13,000.00	7,557.19	14,940.36	8,887.28	56.83	63.48	-128.97	-6,379.73	2,669.88	2,117.35	2,015.16	102.19	20.720	
13,100.00	7,557.19	15,040.16	8,887.27	57.51	64.07	-129.08	-6,479.53	2,670.07	2,112.44	2,008.94	103.50	20.409	
13,200.00	7,557.19	15,139.96	8,887.27	58.19	64.67	-129.19	-6,579.33	2,670.26	2,107.54	2,002.71	104.83	20.105	
13,300.00	7,557.18	15,239.76	8,887.26	58.88	65.27	-129.30	-6,679.13	2,670.44	2,102.64	1,996.49	106.15	19.808	
13,400.00	7,557.18	15,339.56	8,887.26	59.57	65.87	-129.41	-6,778.93	2,670.63	2,097.76	1,990.27	107.48	19.517	
13,500.00	7,557.18	15,439.36	8,887.25	60.25	66.48	-129.52	-6,878.73	2,670.82	2,092.88	1,984.06	108.82	19.233	
13,600.00	7,557.17	15,539.16	8,887.25	60.95	67.09	-129.63	-6,978.53	2,671.01	2,088.01	1,977.84	110.16	18.954	
13,700.00	7,557.17	15,638.96	8,887.24	61.64	67.70	-129.74	-7,078.33	2,671.19	2,083.14	1,971.63	111.51	18.682	
13,800.00	7,557.16	15,738.76	8,887.24	62.33	68.31	-129.85	-7,178.13	2,671.38	2,078.29	1,965.43	112.86	18.415	
13,900.00	7,557.16	15,838.56	8,887.23	63.03	68.93	-129.96	-7,277.93	2,671.57	2,073.44	1,959.22	114.22	18.154	
14,000.00	7,557.16	15,938.36	8,887.23	63.73	69.55	-130.07	-7,377.73	2,671.75	2,068.60	1,953.02	115.58	17.898	
14,100.00	7,557.15	16,038.16	8,887.22	64.43	70.18	-130.18	-7,477.53	2,671.94	2,063.77	1,946.82	116.94	17.648	
14,200.00	7,557.15	16,137.96	8,887.22	65.13	70.80	-130.30	-7,577.33	2,672.13	2,058.94	1,940.63	118.31	17.403	
14,300.00	7,557.15	16,237.76	8,887.21	65.84	71.43	-130.41	-7,677.13	2,672.32	2,054.13	1,934.44	119.68	17.163	

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 4H
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 4H	**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 8H - 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
14,400.00	7,557.14	16,337.56	8,887.21	66.54	72.06	-130.52	-7,776.94	2,672.50	2,049.32	1,928.26	121.06	16.928	
14,500.00	7,557.14	16,437.36	8,887.20	67.25	72.70	-130.64	-7,876.74	2,672.69	2,044.52	1,922.08	122.44	16.698	
14,600.00	7,557.14	16,537.16	8,887.20	67.96	73.33	-130.76	-7,976.54	2,672.88	2,039.73	1,915.90	123.83	16.473	
14,700.00	7,557.13	16,636.97	8,887.19	68.66	73.97	-130.87	-8,076.34	2,673.06	2,034.94	1,909.73	125.21	16.252	
14,800.00	7,557.13	16,736.77	8,887.18	69.38	74.62	-130.99	-8,176.14	2,673.25	2,030.17	1,903.56	126.61	16.035	
14,900.00	7,557.12	16,836.57	8,887.18	70.09	75.26	-131.10	-8,275.94	2,673.44	2,025.40	1,897.40	128.00	15.823	
15,000.00	7,557.12	16,936.37	8,887.17	70.80	75.90	-131.22	-8,375.74	2,673.63	2,020.64	1,891.25	129.40	15.616	
15,100.00	7,557.12	17,036.17	8,887.17	71.52	76.55	-131.34	-8,475.54	2,673.81	2,015.89	1,885.09	130.80	15.412	
15,200.00	7,557.11	17,135.97	8,887.16	72.23	77.20	-131.46	-8,575.34	2,674.00	2,011.15	1,878.95	132.20	15.212	
15,300.00	7,557.11	17,235.77	8,887.16	72.95	77.85	-131.58	-8,675.14	2,674.19	2,006.42	1,872.81	133.61	15.017	
15,400.00	7,557.11	17,335.57	8,887.15	73.67	78.51	-131.70	-8,774.94	2,674.37	2,001.70	1,866.68	135.02	14.825	
15,500.00	7,557.10	17,435.37	8,887.15	74.39	79.17	-131.82	-8,874.74	2,674.56	1,996.98	1,860.55	136.43	14.637	
15,600.00	7,557.10	17,535.17	8,887.14	75.11	79.82	-131.94	-8,974.54	2,674.75	1,992.28	1,854.43	137.85	14.452	
15,700.00	7,557.10	17,634.97	8,887.14	75.83	80.48	-132.06	-9,074.34	2,674.94	1,987.58	1,848.31	139.27	14.272	
15,800.00	7,557.09	17,734.77	8,887.13	76.55	81.14	-132.18	-9,174.14	2,675.12	1,982.89	1,842.20	140.69	14.094	
15,900.00	7,557.09	17,834.57	8,887.13	77.27	81.81	-132.31	-9,273.94	2,675.31	1,978.21	1,836.10	142.11	13.920	
16,000.00	7,557.08	17,934.37	8,887.12	78.00	82.47	-132.43	-9,373.74	2,675.50	1,973.54	1,830.00	143.54	13.749	
16,100.00	7,557.08	18,034.17	8,887.12	78.72	83.14	-132.55	-9,473.54	2,675.68	1,968.88	1,823.92	144.97	13.582	
16,200.00	7,557.08	18,133.97	8,887.11	79.45	83.81	-132.68	-9,573.34	2,675.87	1,964.23	1,817.83	146.40	13.417	
16,300.00	7,557.07	18,233.77	8,887.11	80.18	84.48	-132.80	-9,673.14	2,676.06	1,959.59	1,811.76	147.83	13.256	
16,400.00	7,557.07	18,333.57	8,887.10	80.90	85.15	-132.93	-9,772.94	2,676.25	1,954.96	1,805.69	149.27	13.097	
16,500.00	7,557.07	18,433.37	8,887.10	81.63	85.82	-133.05	-9,872.74	2,676.43	1,950.33	1,799.63	150.70	12.941	
16,600.00	7,557.06	18,533.18	8,887.09	82.36	86.50	-133.18	-9,972.54	2,676.62	1,945.72	1,793.58	152.14	12.789	
16,700.00	7,557.06	18,632.98	8,887.09	83.09	87.17	-133.31	-10,072.34	2,676.81	1,941.12	1,787.53	153.59	12.639	
16,800.00	7,557.06	18,732.78	8,887.08	83.82	87.85	-133.44	-10,172.14	2,676.99	1,936.52	1,781.49	155.03	12.491	
16,900.00	7,557.05	18,832.58	8,887.08	84.55	88.53	-133.56	-10,271.94	2,677.18	1,931.94	1,775.46	156.47	12.347	
17,000.00	7,557.05	18,932.38	8,887.07	85.29	89.21	-133.69	-10,371.74	2,677.37	1,927.36	1,769.44	157.92	12.204	
17,100.00	7,557.04	19,032.18	8,887.06	86.02	89.89	-133.82	-10,471.54	2,677.56	1,922.80	1,763.42	159.37	12.065	
17,200.00	7,557.04	19,131.98	8,887.06	86.75	90.58	-133.95	-10,571.34	2,677.74	1,918.24	1,757.42	160.82	11.928	
17,300.00	7,557.04	19,231.78	8,887.05	87.49	91.26	-134.08	-10,671.15	2,677.93	1,913.70	1,751.42	162.28	11.793	
17,400.00	7,557.03	19,331.58	8,887.05	88.22	91.95	-134.22	-10,770.95	2,678.12	1,909.16	1,745.43	163.73	11.660	
17,500.00	7,557.03	19,431.38	8,887.04	88.96	92.63	-134.35	-10,870.75	2,678.30	1,904.63	1,739.45	165.19	11.530	
17,600.00	7,557.03	19,531.18	8,887.04	89.70	93.32	-134.48	-10,970.55	2,678.49	1,900.12	1,733.47	166.65	11.402	
17,700.00	7,557.02	19,630.98	8,887.03	90.43	94.01	-134.61	-11,070.35	2,678.68	1,895.61	1,727.51	168.11	11.276	
17,800.00	7,557.02	19,730.78	8,887.03	91.17	94.70	-134.75	-11,170.15	2,678.87	1,891.12	1,721.55	169.57	11.153	
17,900.00	7,557.02	19,830.58	8,887.02	91.91	95.39	-134.88	-11,269.95	2,679.05	1,886.64	1,715.60	171.03	11.031	
18,000.00	7,557.01	19,930.38	8,887.02	92.65	96.08	-135.02	-11,369.75	2,679.24	1,882.16	1,709.67	172.50	10.911	
18,100.00	7,557.01	20,030.18	8,887.01	93.39	96.78	-135.16	-11,469.55	2,679.43	1,877.70	1,703.74	173.96	10.794	
18,200.00	7,557.00	20,129.98	8,887.01	94.13	97.47	-135.29	-11,569.35	2,679.61	1,873.25	1,697.82	175.43	10.678	
18,300.00	7,557.00	20,229.78	8,887.00	94.87	98.17	-135.43	-11,669.15	2,679.80	1,868.81	1,691.91	176.90	10.564	
18,318.93	7,557.00	20,248.68	8,887.00	95.01	98.30	-135.46	-11,688.04	2,679.84	1,867.97	1,690.79	177.18	10.543	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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	-169.64	-6,151.12	-1,124.91	6,253.33				
100.00	100.00	45.00	45.00	0.28	0.71	-169.64	-6,151.14	-1,124.93	6,253.16	6,252.18	0.99	6,342.291	
200.00	200.00	139.77	139.77	0.63	0.76	-169.63	-6,151.27	-1,125.14	6,253.33	6,251.94	1.40	4,482.477	
300.00	300.00	251.13	251.12	0.99	0.98	-169.62	-6,151.14	-1,126.51	6,253.45	6,251.48	1.97	3,174.860	
400.00	400.00	365.18	365.14	1.35	1.29	-169.60	-6,150.58	-1,128.76	6,253.32	6,250.68	2.64	2,367.625	
500.00	500.00	452.41	452.35	1.71	1.56	-169.58	-6,150.09	-1,130.53	6,253.13	6,249.87	3.27	1,914.453	
600.00	600.00	575.88	575.81	2.07	1.95	-169.56	-6,149.45	-1,132.61	6,252.93	6,248.91	4.02	1,555.693	
700.00	700.00	770.33	770.23	2.43	2.59	-169.55	-6,146.57	-1,133.59	6,251.37	6,246.35	5.02	1,245.609	
800.00	800.00	875.92	875.79	2.79	2.95	-169.54	-6,144.36	-1,133.93	6,249.36	6,243.63	5.73	1,090.150	
900.00	900.00	1,022.44	1,022.27	3.14	3.45	-169.53	-6,140.60	-1,135.03	6,246.97	6,240.38	6.59	947.949	
1,000.00	1,000.00	1,100.00	1,099.78	3.50	3.72	-169.51	-6,138.30	-1,136.19	6,244.35	6,237.13	7.22	865.397	
1,100.00	1,100.00	1,159.57	1,159.31	3.86	3.93	-169.50	-6,136.79	-1,137.38	6,242.24	6,234.46	7.78	802.299	
1,200.00	1,200.00	1,200.00	1,199.73	4.22	4.07	-169.49	-6,136.02	-1,138.31	6,240.90	6,232.62	8.28	753.779	
1,300.00	1,300.00	1,262.00	1,261.70	4.58	4.28	-169.48	-6,135.30	-1,139.85	6,240.30	6,231.44	8.85	704.913	
1,321.15	1,321.15	1,272.47	1,272.18	4.65	4.32	-169.47	-6,135.24	-1,140.12	6,240.28	6,231.31	8.96	696.099	
1,400.00	1,400.00	1,315.97	1,315.66	4.94	4.47	-169.46	-6,135.17	-1,141.27	6,240.52	6,231.12	9.40	664.052	
1,500.00	1,500.00	1,400.00	1,399.65	5.29	4.76	-169.44	-6,135.49	-1,143.60	6,241.37	6,231.32	10.05	621.229	
1,600.00	1,600.00	1,456.73	1,456.36	5.65	4.95	-169.43	-6,135.96	-1,145.28	6,242.64	6,232.04	10.60	588.876	
1,700.00	1,700.00	1,534.40	1,533.98	6.01	5.22	-169.41	-6,136.85	-1,147.76	6,244.36	6,233.13	11.23	556.123	
1,800.00	1,800.00	1,619.14	1,618.67	6.37	5.52	-169.38	-6,138.05	-1,150.56	6,246.36	6,234.48	11.88	525.757	
1,900.00	1,900.00	1,707.14	1,706.61	6.73	5.83	-169.36	-6,139.46	-1,153.65	6,248.57	6,236.03	12.54	498.101	
2,000.00	2,000.00	1,800.00	1,799.40	7.09	6.15	-169.33	-6,141.15	-1,156.65	6,250.96	6,237.74	13.23	472.641	
2,100.00	2,099.98	1,909.19	1,908.54	7.43	6.53	46.57	-6,143.36	-1,158.98	6,252.15	6,238.21	13.95	448.318	
2,200.00	2,199.84	2,039.95	2,039.27	7.76	6.98	46.64	-6,145.93	-1,159.67	6,250.58	6,235.85	14.73	424.424	
2,300.00	2,299.45	2,157.33	2,156.63	8.09	7.39	46.77	-6,147.99	-1,158.95	6,246.20	6,230.73	15.47	403.877	
2,400.00	2,398.70	2,287.81	2,287.05	8.42	7.84	46.94	-6,150.35	-1,155.70	6,239.16	6,222.90	16.25	383.839	
2,500.00	2,497.47	2,363.98	2,363.14	8.76	8.10	47.13	-6,151.82	-1,152.56	6,229.57	6,212.71	16.86	369.542	
2,600.00	2,595.62	2,454.18	2,453.21	9.10	8.42	47.38	-6,154.06	-1,148.25	6,218.01	6,200.50	17.51	355.043	
2,644.93	2,639.49	2,504.68	2,503.65	9.25	8.60	47.52	-6,155.20	-1,146.21	6,212.03	6,194.19	17.84	348.123	
2,700.00	2,693.18	2,571.65	2,570.58	9.44	8.83	47.60	-6,156.50	-1,144.09	6,204.33	6,186.07	18.27	339.675	
2,800.00	2,790.65	2,685.01	2,683.89	9.78	9.23	47.76	-6,158.17	-1,141.76	6,190.14	6,171.14	19.00	325.761	
2,900.00	2,888.13	2,804.51	2,803.37	10.13	9.64	47.92	-6,159.48	-1,139.81	6,175.72	6,155.96	19.76	312.500	
3,000.00	2,985.61	2,900.00	2,898.85	10.48	9.97	48.05	-6,160.40	-1,138.23	6,161.18	6,140.74	20.44	301.394	
3,100.00	3,083.08	2,998.41	2,997.24	10.83	10.32	48.19	-6,161.31	-1,136.77	6,146.68	6,125.55	21.14	290.829	
3,200.00	3,180.56	3,104.93	3,103.75	11.19	10.69	48.35	-6,162.12	-1,135.64	6,132.14	6,110.28	21.86	280.545	
3,300.00	3,278.04	3,200.00	3,198.82	11.55	11.02	48.49	-6,162.69	-1,134.80	6,117.53	6,094.98	22.54	271.363	
3,400.00	3,375.51	3,288.01	3,286.82	11.91	11.32	48.62	-6,163.32	-1,133.98	6,103.06	6,079.85	23.21	262.977	
3,500.00	3,472.99	3,365.15	3,363.95	12.27	11.59	48.73	-6,164.11	-1,133.30	6,088.92	6,065.08	23.84	255.447	
3,600.00	3,570.47	3,457.61	3,456.40	12.64	11.91	48.88	-6,165.26	-1,132.75	6,075.10	6,050.58	24.52	247.766	
3,700.00	3,667.94	3,563.06	3,561.85	13.00	12.28	49.04	-6,166.39	-1,132.56	6,061.24	6,035.99	25.25	240.060	
3,800.00	3,765.42	3,664.22	3,663.00	13.37	12.63	49.20	-6,167.34	-1,132.47	6,047.32	6,021.36	25.97	232.903	
3,900.00	3,862.90	3,756.67	3,755.45	13.74	12.95	49.35	-6,168.21	-1,132.41	6,033.45	6,006.80	26.65	226.371	
4,000.00	3,960.37	3,851.49	3,850.26	14.11	13.28	49.50	-6,169.18	-1,132.51	6,019.74	5,992.39	27.35	220.097	
4,100.00	4,057.85	3,952.44	3,951.21	14.48	13.64	49.67	-6,170.17	-1,132.68	6,006.05	5,977.98	28.07	213.967	
4,200.00	4,155.33	4,050.13	4,048.90	14.86	13.98	49.83	-6,171.04	-1,133.01	5,992.36	5,963.58	28.78	208.216	
4,300.00	4,252.80	4,145.59	4,144.36	15.23	14.31	49.99	-6,171.89	-1,133.45	5,978.75	5,949.27	29.48	202.788	
4,400.00	4,350.28	4,241.26	4,240.01	15.61	14.64	50.15	-6,172.74	-1,134.04	5,965.22	5,935.04	30.19	197.605	
4,500.00	4,447.76	4,331.16	4,329.91	15.98	14.96	50.30	-6,173.55	-1,134.76	5,951.80	5,920.93	30.87	192.777	
4,600.00	4,545.23	4,413.99	4,412.73	16.36	15.25	50.45	-6,174.49	-1,135.42	5,938.64	5,907.11	31.54	188.304	
4,700.00	4,642.71	4,500.00	4,498.73	16.74	15.55	50.59	-6,175.65	-1,136.10	5,925.75	5,893.53	32.21	183.957	
4,800.00	4,740.19	4,591.82	4,590.54	17.11	15.87	50.75	-6,177.02	-1,136.85	5,913.05	5,880.14	32.91	179.682	
4,900.00	4,837.66	4,686.82	4,685.52	17.49	16.20	50.92	-6,178.53	-1,137.60	5,900.47	5,866.86	33.62	175.528	

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 4H
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 4H	**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
5,000.00	4,935.14	4,767.86	4,766.54	17.87	16.48	51.06	-6,179.95	-1,138.14	5,888.09	5,853.81	34.28	171.783	
5,100.00	5,032.62	4,848.50	4,847.17	18.25	16.76	51.19	-6,181.67	-1,138.53	5,876.06	5,841.12	34.94	168.193	
5,200.00	5,130.09	4,935.69	4,934.33	18.64	17.07	51.34	-6,183.76	-1,138.96	5,864.33	5,828.71	35.62	164.640	
5,300.00	5,227.57	5,029.75	5,028.37	19.02	17.40	51.50	-6,186.10	-1,139.40	5,852.74	5,816.41	36.33	161.117	
5,400.00	5,325.05	5,133.58	5,132.16	19.40	17.76	51.68	-6,188.78	-1,139.84	5,841.27	5,804.21	37.07	157.589	
5,500.00	5,422.52	5,252.17	5,250.72	19.78	18.17	51.88	-6,191.37	-1,140.16	5,829.42	5,791.56	37.86	153.984	
5,600.00	5,520.00	5,348.48	5,347.00	20.16	18.51	52.04	-6,193.44	-1,140.41	5,817.60	5,779.03	38.57	150.819	
5,700.00	5,617.48	5,442.86	5,441.37	20.55	18.84	52.21	-6,195.45	-1,140.69	5,805.83	5,766.55	39.28	147.794	
5,800.00	5,714.95	5,533.16	5,531.64	20.93	19.16	52.36	-6,197.45	-1,141.14	5,794.24	5,754.26	39.98	144.928	
5,900.00	5,812.43	5,628.40	5,626.86	21.31	19.49	52.53	-6,199.67	-1,141.51	5,782.78	5,742.08	40.69	142.103	
6,000.00	5,909.91	5,725.54	5,723.97	21.70	19.83	52.70	-6,201.96	-1,141.91	5,771.40	5,729.99	41.41	139.356	
6,100.00	6,007.38	5,849.90	5,848.29	22.08	20.26	52.92	-6,204.75	-1,142.33	5,759.98	5,717.75	42.23	136.406	
6,200.00	6,104.86	5,964.58	5,962.96	22.47	20.67	53.12	-6,206.73	-1,142.21	5,747.96	5,704.95	43.01	133.655	
6,300.00	6,202.34	6,067.55	6,065.91	22.85	21.03	53.29	-6,208.52	-1,142.05	5,736.00	5,692.25	43.75	131.118	
6,400.00	6,299.81	6,169.08	6,167.43	23.24	21.38	53.47	-6,210.12	-1,141.90	5,723.94	5,679.46	44.48	128.677	
6,421.23	6,320.51	6,189.76	6,188.10	23.32	21.45	53.51	-6,210.44	-1,141.86	5,721.39	5,676.75	44.64	128.178	
6,500.00	6,397.52	6,267.54	6,265.88	23.62	21.72	53.49	-6,211.67	-1,141.73	5,712.57	5,667.36	45.21	126.363	
6,600.00	6,495.90	6,364.75	6,363.07	24.00	22.07	53.48	-6,213.20	-1,141.55	5,703.25	5,657.33	45.92	124.192	
6,700.00	6,594.84	6,519.72	6,518.03	24.37	22.61	53.53	-6,214.85	-1,141.98	5,695.75	5,648.93	46.82	121.655	
6,800.00	6,694.23	6,616.41	6,614.71	24.74	22.94	53.54	-6,214.97	-1,143.46	5,689.75	5,642.23	47.52	119.735	
6,900.00	6,793.94	6,715.34	6,713.56	25.09	23.29	53.57	-6,214.39	-1,147.26	5,685.87	5,637.64	48.22	117.912	
7,000.00	6,893.85	6,864.85	6,862.86	25.44	23.81	53.66	-6,212.04	-1,154.79	5,683.45	5,634.38	49.08	115.807	
7,066.16	6,960.00	6,961.72	6,959.66	25.67	24.15	-162.20	-6,210.44	-1,158.03	5,682.65	5,633.03	49.63	114.511	
7,100.00	6,993.82	7,017.18	7,015.09	25.78	24.35	29.39	-6,209.29	-1,159.71	5,681.43	5,631.50	49.92	113.801	
7,150.00	7,043.55	7,065.63	7,063.51	25.96	24.51	29.68	-6,208.30	-1,160.97	5,676.38	5,626.11	50.27	112.913	
7,200.00	7,092.63	7,126.54	7,124.39	26.14	24.73	30.20	-6,207.07	-1,162.21	5,667.53	5,616.87	50.66	111.864	
7,250.00	7,140.71	7,199.32	7,197.16	26.34	24.98	30.99	-6,205.56	-1,162.99	5,654.83	5,603.74	51.10	110.671	
7,300.00	7,187.41	7,249.72	7,247.54	26.53	25.15	32.00	-6,204.51	-1,163.13	5,638.45	5,586.99	51.46	109.568	
7,350.00	7,232.38	7,298.02	7,295.83	26.73	25.32	33.30	-6,203.53	-1,163.06	5,618.60	5,566.78	51.82	108.430	
7,400.00	7,275.27	7,341.81	7,339.61	26.93	25.47	34.91	-6,202.65	-1,162.92	5,595.47	5,543.32	52.16	107.279	
7,450.00	7,315.77	7,382.92	7,380.72	27.13	25.62	36.89	-6,201.80	-1,162.82	5,569.26	5,516.78	52.48	106.112	
7,500.00	7,353.56	7,422.31	7,420.10	27.34	25.75	39.30	-6,200.97	-1,162.73	5,540.18	5,487.38	52.80	104.931	
7,550.00	7,388.35	7,459.33	7,457.11	27.54	25.88	42.21	-6,200.19	-1,162.60	5,508.46	5,455.36	53.10	103.747	
7,600.00	7,419.89	7,492.76	7,490.53	27.74	26.00	45.71	-6,199.49	-1,162.43	5,474.35	5,420.98	53.37	102.572	
7,650.00	7,447.92	7,500.00	7,497.77	27.94	26.02	49.65	-6,199.33	-1,162.38	5,438.19	5,384.63	53.56	101.537	
7,700.00	7,472.24	7,525.11	7,522.87	28.14	26.11	54.51	-6,198.85	-1,162.22	5,400.24	5,346.45	53.78	100.404	
7,750.00	7,492.67	7,536.40	7,534.16	28.33	26.15	60.05	-6,198.67	-1,162.14	5,360.84	5,306.88	53.96	99.352	
7,800.00	7,509.03	7,545.44	7,543.20	28.52	26.18	66.38	-6,198.54	-1,162.08	5,320.27	5,266.16	54.11	98.321	
7,816.16	7,513.43	7,547.86	7,545.62	28.58	26.19	68.59	-6,198.50	-1,162.06	5,306.96	5,252.80	54.16	97.992	
7,900.00	7,532.50	7,558.35	7,556.11	28.88	26.22	72.75	-6,198.37	-1,161.99	5,236.61	5,182.24	54.37	96.314	
8,000.00	7,548.24	7,566.94	7,564.70	29.24	26.25	79.00	-6,198.27	-1,161.92	5,150.22	5,095.63	54.59	94.344	
8,100.00	7,556.27	7,571.11	7,568.87	29.58	26.27	86.81	-6,198.23	-1,161.89	5,061.68	5,006.91	54.77	92.415	
8,153.26	7,557.37	7,571.47	7,569.23	29.76	26.27	91.61	-6,198.22	-1,161.88	5,013.85	4,959.00	54.85	91.406	
8,200.00	7,557.37	7,571.21	7,568.96	29.92	26.27	91.61	-6,198.23	-1,161.89	4,971.75	4,916.83	54.92	90.529	
8,300.00	7,557.36	7,570.64	7,568.39	30.26	26.27	91.59	-6,198.23	-1,161.89	4,881.96	4,826.89	55.07	88.655	
8,400.00	7,557.36	7,570.05	7,567.81	30.63	26.26	91.58	-6,198.24	-1,161.90	4,792.57	4,737.34	55.23	86.780	
8,500.00	7,557.36	7,569.46	7,567.22	31.00	26.26	91.56	-6,198.24	-1,161.90	4,703.61	4,648.21	55.40	84.905	
8,600.00	7,557.35	7,568.86	7,566.61	31.39	26.26	91.54	-6,198.25	-1,161.91	4,615.10	4,559.52	55.58	83.031	
8,700.00	7,557.35	7,568.24	7,566.00	31.79	26.26	91.53	-6,198.26	-1,161.91	4,527.07	4,471.29	55.78	81.159	
8,800.00	7,557.35	7,567.61	7,565.37	32.21	26.26	91.51	-6,198.26	-1,161.91	4,439.55	4,383.56	55.99	79.288	
8,900.00	7,557.34	7,566.97	7,564.73	32.64	26.25	91.49	-6,198.27	-1,161.92	4,352.57	4,296.35	56.22	77.420	
9,000.00	7,557.34	7,566.31	7,564.07	33.08	26.25	91.48	-6,198.28	-1,161.92	4,266.15	4,209.69	56.46	75.555	

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 4H
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 4H	**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
9,100.00	7,557.34	7,565.65	7,563.40	33.54	26.25	91.46	-6,198.29	-1,161.93	4,180.34	4,123.62	56.73	73.695	
9,200.00	7,557.33	7,564.96	7,562.72	34.00	26.25	91.44	-6,198.29	-1,161.94	4,095.18	4,038.17	57.00	71.839	
9,300.00	7,557.33	7,564.27	7,562.03	34.48	26.24	91.42	-6,198.30	-1,161.94	4,010.70	3,953.39	57.30	69.990	
9,400.00	7,557.32	7,563.56	7,561.31	34.96	26.24	91.40	-6,198.31	-1,161.95	3,926.94	3,869.32	57.62	68.148	
9,500.00	7,557.32	7,562.83	7,560.59	35.46	26.24	91.38	-6,198.32	-1,161.95	3,843.97	3,786.00	57.97	66.315	
9,600.00	7,557.32	7,562.09	7,559.85	35.97	26.24	91.36	-6,198.32	-1,161.96	3,761.82	3,703.49	58.33	64.492	
9,700.00	7,557.31	7,561.33	7,559.09	36.48	26.23	91.34	-6,198.33	-1,161.96	3,680.56	3,621.84	58.72	62.680	
9,800.00	7,557.31	7,560.55	7,558.31	37.00	26.23	91.32	-6,198.34	-1,161.97	3,600.24	3,541.10	59.13	60.882	
9,900.00	7,557.31	7,559.76	7,557.52	37.54	26.23	91.30	-6,198.35	-1,161.97	3,520.93	3,461.35	59.58	59.099	
10,000.00	7,557.30	7,558.95	7,556.71	38.08	26.23	91.28	-6,198.36	-1,161.98	3,442.69	3,382.64	60.05	57.333	
10,100.00	7,557.30	7,558.12	7,555.88	38.63	26.22	91.26	-6,198.37	-1,161.99	3,365.61	3,305.06	60.55	55.586	
10,200.00	7,557.30	7,557.27	7,555.03	39.18	26.22	91.24	-6,198.38	-1,161.99	3,289.76	3,228.68	61.08	53.861	
10,300.00	7,557.29	7,556.40	7,554.16	39.74	26.22	91.21	-6,198.39	-1,162.00	3,215.23	3,153.59	61.64	52.160	
10,400.00	7,557.29	7,555.52	7,553.27	40.31	26.21	91.19	-6,198.40	-1,162.01	3,142.12	3,079.88	62.24	50.486	
10,500.00	7,557.28	7,554.61	7,552.36	40.89	26.21	91.17	-6,198.41	-1,162.01	3,070.52	3,007.65	62.87	48.841	
10,600.00	7,557.28	7,553.67	7,551.43	41.47	26.21	91.14	-6,198.43	-1,162.02	3,000.55	2,937.01	63.53	47.229	
10,700.00	7,557.28	7,552.72	7,550.48	42.06	26.20	91.12	-6,198.44	-1,162.03	2,932.31	2,868.08	64.23	45.653	
10,800.00	7,557.27	7,551.74	7,549.50	42.66	26.20	91.09	-6,198.45	-1,162.03	2,865.95	2,800.98	64.96	44.115	
10,900.00	7,557.27	7,550.73	7,548.49	43.26	26.20	91.06	-6,198.46	-1,162.04	2,801.58	2,735.84	65.73	42.621	
11,000.00	7,557.27	7,549.70	7,547.46	43.86	26.19	91.04	-6,198.48	-1,162.05	2,739.34	2,672.81	66.53	41.172	
11,100.00	7,557.26	7,548.65	7,546.41	44.47	26.19	91.01	-6,198.49	-1,162.06	2,679.40	2,612.03	67.37	39.774	
11,200.00	7,557.26	7,547.56	7,545.32	45.09	26.19	90.98	-6,198.51	-1,162.07	2,621.90	2,553.67	68.23	38.428	
11,300.00	7,557.26	7,546.45	7,544.21	45.71	26.18	90.95	-6,198.52	-1,162.07	2,567.01	2,497.89	69.12	37.140	
11,400.00	7,557.25	7,545.31	7,543.07	46.33	26.18	90.92	-6,198.54	-1,162.08	2,514.89	2,444.87	70.03	35.913	
11,500.00	7,557.25	7,544.14	7,541.90	46.96	26.17	90.89	-6,198.55	-1,162.09	2,465.74	2,394.78	70.96	34.750	
11,600.00	7,557.24	7,542.93	7,540.69	47.60	26.17	90.86	-6,198.57	-1,162.10	2,419.71	2,347.82	71.90	33.655	
11,700.00	7,557.24	7,541.69	7,539.45	48.24	26.17	90.83	-6,198.59	-1,162.11	2,377.01	2,304.16	72.85	32.631	
11,800.00	7,557.24	7,540.41	7,538.17	48.88	26.16	90.79	-6,198.61	-1,162.12	2,337.80	2,264.01	73.79	31.682	
11,900.00	7,557.23	7,539.10	7,536.86	49.52	26.16	90.76	-6,198.63	-1,162.13	2,302.28	2,227.55	74.72	30.810	
12,000.00	7,557.23	7,537.75	7,535.51	50.17	26.15	90.72	-6,198.65	-1,162.14	2,270.60	2,194.96	75.64	30.018	
12,100.00	7,557.23	7,536.36	7,534.12	50.82	26.15	90.68	-6,198.67	-1,162.15	2,242.94	2,166.41	76.53	29.309	
12,200.00	7,557.22	7,534.93	7,532.69	51.48	26.14	90.65	-6,198.69	-1,162.16	2,219.44	2,142.06	77.38	28.684	
12,300.00	7,557.22	7,533.45	7,531.21	52.14	26.14	90.61	-6,198.72	-1,162.17	2,200.23	2,122.06	78.18	28.145	
12,400.00	7,557.22	7,531.93	7,529.69	52.80	26.13	90.57	-6,198.74	-1,162.18	2,185.44	2,106.52	78.92	27.693	
12,500.00	7,557.21	7,530.35	7,528.12	53.46	26.13	90.53	-6,198.77	-1,162.19	2,175.15	2,095.56	79.60	27.328	
12,600.00	7,557.21	7,528.73	7,526.49	54.13	26.12	90.48	-6,198.79	-1,162.20	2,169.42	2,089.22	80.20	27.050	
12,674.44	7,557.21	7,527.49	7,525.25	54.63	26.12	90.45	-6,198.81	-1,162.21	2,168.15	2,087.55	80.60	26.900	CC, ES
12,700.00	7,557.20	7,527.06	7,524.82	54.80	26.11	90.44	-6,198.82	-1,162.21	2,168.30	2,087.57	80.73	26.860	
12,800.00	7,557.20	7,525.33	7,523.09	55.48	26.11	90.39	-6,198.85	-1,162.22	2,171.78	2,090.61	81.17	26.757	
12,900.00	7,557.20	7,523.54	7,521.30	56.15	26.10	90.35	-6,198.88	-1,162.23	2,179.84	2,098.32	81.52	26.739	
13,000.00	7,557.19	7,521.69	7,519.45	56.83	26.10	90.30	-6,198.91	-1,162.25	2,192.45	2,110.65	81.79	26.804	
13,100.00	7,557.19	7,519.77	7,517.54	57.51	26.09	90.25	-6,198.95	-1,162.26	2,209.50	2,127.52	81.98	26.952	
13,200.00	7,557.19	7,517.79	7,515.56	58.19	26.08	90.19	-6,198.98	-1,162.27	2,230.92	2,148.84	82.08	27.179	
13,300.00	7,557.18	7,515.74	7,513.50	58.88	26.08	90.14	-6,199.02	-1,162.28	2,256.56	2,174.46	82.11	27.484	
13,400.00	7,557.18	7,513.61	7,511.37	59.57	26.07	90.08	-6,199.06	-1,162.30	2,286.29	2,204.24	82.06	27.863	
13,500.00	7,557.18	7,511.40	7,509.16	60.25	26.06	90.03	-6,199.10	-1,162.31	2,319.96	2,238.02	81.94	28.313	
13,600.00	7,557.17	7,509.10	7,506.87	60.95	26.05	89.96	-6,199.15	-1,162.33	2,357.38	2,275.62	81.76	28.832	
13,700.00	7,557.17	7,506.72	7,504.48	61.64	26.04	89.90	-6,199.20	-1,162.34	2,398.39	2,316.86	81.53	29.417	
13,800.00	7,557.16	7,504.24	7,502.00	62.33	26.04	89.84	-6,199.25	-1,162.36	2,442.81	2,361.55	81.25	30.064	
13,900.00	7,557.16	7,501.66	7,499.42	63.03	26.03	89.77	-6,199.30	-1,162.37	2,490.45	2,409.51	80.94	30.770	
14,000.00	7,557.16	7,499.14	7,496.90	63.73	26.02	89.70	-6,199.35	-1,162.39	2,541.13	2,460.54	80.59	31.531	
14,100.00	7,557.15	7,496.85	7,494.62	64.43	26.01	89.64	-6,199.40	-1,162.40	2,594.68	2,514.46	80.22	32.345	

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 4H
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 4H	**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
14,200.00	7,557.15	7,494.56	7,492.33	65.13	26.00	89.58	-6,199.45	-1,162.42	2,650.91	2,571.09	79.83	33.208	
14,300.00	7,557.15	7,492.27	7,490.04	65.84	25.99	89.52	-6,199.50	-1,162.43	2,709.67	2,630.25	79.42	34.118	
14,400.00	7,557.14	7,489.98	7,487.75	66.54	25.99	89.46	-6,199.55	-1,162.44	2,770.79	2,691.79	79.00	35.072	
14,500.00	7,557.14	9,443.14	8,289.02	67.25	35.83	106.50	-7,578.71	-1,541.86	2,790.26	2,689.19	101.07	27.606	
14,600.00	7,557.14	9,552.90	8,291.29	67.96	37.02	106.44	-7,687.91	-1,552.66	2,806.41	2,703.45	102.97	27.256	
14,700.00	7,557.13	9,604.89	8,292.59	68.66	37.60	106.41	-7,739.57	-1,558.32	2,823.76	2,719.67	104.09	27.127	
14,800.00	7,557.13	9,662.71	8,294.47	69.38	38.25	106.38	-7,796.91	-1,565.56	2,842.79	2,737.49	105.30	26.997	
14,900.00	7,557.12	9,796.82	8,298.28	70.09	39.83	106.31	-7,929.86	-1,582.69	2,862.09	2,754.43	107.66	26.584	
15,000.00	7,557.12	9,922.85	8,300.74	70.80	41.35	106.23	-8,055.02	-1,597.24	2,879.88	2,769.93	109.95	26.193	
15,100.00	7,557.12	10,052.35	8,301.38	71.52	42.97	106.12	-8,183.72	-1,611.56	2,896.86	2,784.53	112.33	25.789	
15,200.00	7,557.11	10,151.00	8,300.74	72.23	44.22	106.01	-8,281.83	-1,621.90	2,912.97	2,798.70	114.27	25.491	
15,300.00	7,557.11	10,215.00	8,300.19	72.95	45.05	105.94	-8,345.40	-1,629.26	2,929.97	2,814.28	115.70	25.325	
15,400.00	7,557.11	10,254.32	8,300.06	73.67	45.56	105.89	-8,384.38	-1,634.44	2,948.61	2,831.90	116.71	25.264	
15,500.00	7,557.10	10,320.39	8,300.33	74.39	46.44	105.82	-8,449.74	-1,644.05	2,968.81	2,850.66	118.15	25.127	
15,600.00	7,557.10	10,412.38	8,300.33	75.11	47.67	105.72	-8,540.68	-1,657.92	2,989.52	2,869.47	120.05	24.902	
15,700.00	7,557.10	10,813.90	8,302.66	75.83	53.16	105.43	-8,940.03	-1,694.85	3,003.07	2,876.12	126.95	23.656	
15,800.00	7,557.09	10,852.00	8,302.00	76.55	53.69	105.40	-8,978.05	-1,697.16	3,014.83	2,886.72	128.11	23.533	
15,900.00	7,557.09	10,894.22	8,301.85	77.27	54.28	105.37	-9,020.15	-1,700.42	3,028.53	2,899.22	129.30	23.422	
16,000.00	7,557.08	10,971.86	8,302.66	78.00	55.38	105.32	-9,097.45	-1,707.67	3,043.94	2,912.90	131.05	23.228	
16,100.00	7,557.08	11,098.18	8,302.47	78.72	57.18	105.22	-9,223.28	-1,718.72	3,058.49	2,924.88	133.61	22.891	
16,200.00	7,557.08	11,150.52	8,302.01	79.45	57.93	105.17	-9,275.38	-1,723.67	3,073.70	2,938.74	134.95	22.776	
16,300.00	7,557.07	11,204.17	8,301.80	80.18	58.71	105.12	-9,328.70	-1,729.60	3,090.46	2,954.16	136.30	22.675	
16,400.00	7,557.07	11,289.33	8,302.05	80.90	59.94	105.05	-9,413.24	-1,739.85	3,108.35	2,970.16	138.19	22.493	
16,500.00	7,557.07	11,390.17	8,301.30	81.63	61.42	104.94	-9,513.38	-1,751.67	3,125.71	2,985.33	140.37	22.267	
16,600.00	7,557.06	11,482.20	8,301.03	82.36	62.77	104.86	-9,604.66	-1,763.39	3,144.13	3,001.73	142.41	22.078	
16,700.00	7,557.06	11,528.68	8,300.83	83.09	63.46	104.81	-9,650.75	-1,769.41	3,162.86	3,019.26	143.60	22.025	
16,800.00	7,557.06	11,578.84	8,300.71	83.82	64.21	104.76	-9,700.35	-1,776.86	3,183.30	3,038.46	144.84	21.979	
16,900.00	7,557.05	11,642.61	8,300.57	84.55	65.16	104.69	-9,763.30	-1,787.06	3,204.92	3,058.60	146.32	21.904	
17,000.00	7,557.05	12,088.60	8,307.06	85.29	71.83	104.48	-10,206.78	-1,829.24	3,217.02	3,062.29	154.72	20.792	
17,100.00	7,557.04	12,162.33	8,304.96	86.02	72.93	104.40	-10,280.31	-1,834.08	3,228.94	3,072.41	156.53	20.629	
17,200.00	7,557.04	12,228.21	8,302.44	86.75	73.93	104.31	-10,345.96	-1,839.08	3,241.67	3,083.47	158.19	20.492	
17,300.00	7,557.04	12,281.52	8,300.11	87.49	74.74	104.24	-10,399.00	-1,843.88	3,255.63	3,096.00	159.63	20.395	
17,400.00	7,557.03	12,314.00	8,299.00	88.22	75.23	104.20	-10,431.30	-1,847.14	3,271.17	3,110.51	160.66	20.361	
17,500.00	7,557.03	12,377.00	8,298.83	88.96	76.19	104.15	-10,493.90	-1,854.11	3,288.21	3,126.00	162.21	20.272	
17,600.00	7,557.03	12,494.68	8,302.10	89.70	77.99	104.11	-10,610.82	-1,867.09	3,305.85	3,141.08	164.77	20.063	
17,700.00	7,557.02	12,595.07	8,303.28	90.43	79.53	104.06	-10,710.60	-1,878.06	3,322.98	3,155.96	167.03	19.895	
17,800.00	7,557.02	12,705.59	8,304.02	91.17	81.23	103.99	-10,820.45	-1,890.16	3,340.04	3,170.56	169.48	19.708	
17,900.00	7,557.02	12,937.45	8,305.33	91.91	84.81	103.87	-11,051.45	-1,909.62	3,354.23	3,180.14	174.09	19.268	
18,000.00	7,557.01	13,028.08	8,305.22	92.65	86.21	103.82	-11,141.86	-1,915.92	3,367.24	3,191.05	176.19	19.111	
18,100.00	7,557.01	13,120.96	8,306.49	93.39	87.64	103.79	-11,234.53	-1,922.12	3,380.34	3,202.01	178.33	18.956	
18,200.00	7,557.00	13,272.47	8,305.16	94.13	89.99	103.69	-11,385.69	-1,932.15	3,392.85	3,211.37	181.48	18.695	
18,300.00	7,557.00	13,305.00	8,304.53	94.87	90.49	103.66	-11,418.15	-1,934.14	3,405.29	3,222.68	182.60	18.649	SF
18,318.93	7,557.00	13,305.00	8,304.53	95.01	90.49	103.66	-11,418.15	-1,934.14	3,407.94	3,225.24	182.70	18.653	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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
0.00	0.00	0.00	0.00	0.00	0.50	30.17	3,824.22	2,222.72	4,423.30				
100.00	100.00	54.41	54.41	0.28	0.51	30.17	3,824.39	2,222.73	4,423.48	4,422.70	0.78	5,662.037	
200.00	200.00	142.94	142.94	0.63	0.59	30.16	3,825.20	2,222.83	4,424.31	4,423.09	1.22	3,619.653	
300.00	300.00	246.65	246.65	0.99	0.84	30.16	3,825.95	2,223.09	4,425.06	4,423.22	1.84	2,409.319	
400.00	400.00	384.46	384.45	1.35	1.27	30.16	3,826.49	2,223.71	4,425.71	4,423.10	2.62	1,691.223	
498.90	498.90	478.90	478.89	1.71	1.57	30.17	3,825.99	2,224.06	4,425.45	4,422.18	3.28	1,350.504	
500.00	500.00	479.71	479.69	1.71	1.57	30.17	3,825.99	2,224.06	4,425.45	4,422.17	3.28	1,347.790	
600.00	600.00	562.13	562.11	2.07	1.85	30.17	3,826.08	2,224.32	4,425.69	4,421.77	3.92	1,128.981	
700.00	700.00	657.60	657.58	2.43	2.18	30.17	3,826.52	2,224.49	4,426.19	4,421.58	4.61	960.621	
800.00	800.00	750.13	750.12	2.79	2.50	30.17	3,827.07	2,224.58	4,426.75	4,421.46	5.29	837.188	
900.00	900.00	846.34	846.32	3.14	2.84	30.16	3,827.89	2,224.58	4,427.49	4,421.51	5.98	740.115	
1,000.00	1,000.00	935.36	935.34	3.50	3.15	30.16	3,828.80	2,224.55	4,428.35	4,421.70	6.65	665.635	
1,100.00	1,100.00	1,040.78	1,040.75	3.86	3.52	30.14	3,830.21	2,224.23	4,429.36	4,421.98	7.38	600.067	
1,200.00	1,200.00	1,146.52	1,146.48	4.22	3.89	30.13	3,831.44	2,223.87	4,430.20	4,422.09	8.11	546.121	
1,300.00	1,300.00	1,290.02	1,289.97	4.58	4.39	30.12	3,832.31	2,223.05	4,430.42	4,421.45	8.97	493.933	
1,400.00	1,400.00	1,398.12	1,398.07	4.94	4.76	30.11	3,832.35	2,222.18	4,430.05	4,420.35	9.70	456.797	
1,500.00	1,500.00	1,490.32	1,490.26	5.29	5.08	30.10	3,832.43	2,221.43	4,429.72	4,419.34	10.37	426.986	
1,600.00	1,600.00	1,620.43	1,620.33	5.65	5.53	30.06	3,833.23	2,218.36	4,429.04	4,417.86	11.19	395.927	
1,700.00	1,700.00	1,713.68	1,713.48	6.01	5.86	30.00	3,834.66	2,214.28	4,428.18	4,416.30	11.87	372.965	
1,800.00	1,800.00	1,808.05	1,807.77	6.37	6.20	29.95	3,836.11	2,210.55	4,427.53	4,414.97	12.56	352.380	
1,900.00	1,900.00	1,896.37	1,896.03	6.73	6.51	29.91	3,837.23	2,207.57	4,426.96	4,413.72	13.24	334.466	
1,962.63	1,962.63	1,943.00	1,942.63	6.95	6.67	29.89	3,838.02	2,206.01	4,426.84	4,413.21	13.63	324.885	
2,000.00	2,000.00	1,968.17	1,967.78	7.09	6.76	29.88	3,838.52	2,205.21	4,426.89	4,413.04	13.85	319.641	
2,100.00	2,099.98	2,032.00	2,031.57	7.43	6.99	-114.24	3,840.00	2,203.47	4,428.27	4,413.86	14.42	307.120	
2,200.00	2,199.84	2,121.00	2,120.53	7.76	7.31	-114.27	3,842.15	2,201.83	4,431.60	4,416.54	15.06	294.178	
2,300.00	2,299.45	2,211.00	2,210.43	8.09	7.63	-114.32	3,845.17	2,199.13	4,436.65	4,420.93	15.72	282.281	
2,400.00	2,398.70	2,323.19	2,322.33	8.42	8.04	-114.46	3,850.38	2,192.97	4,443.06	4,426.60	16.45	270.019	
2,500.00	2,497.47	2,410.64	2,409.65	8.76	8.35	-114.54	3,853.63	2,189.72	4,451.05	4,433.94	17.10	260.231	
2,600.00	2,595.62	2,505.38	2,504.34	9.10	8.69	-114.61	3,856.36	2,187.80	4,460.67	4,442.88	17.78	250.850	
2,644.93	2,639.49	2,544.84	2,543.74	9.25	8.83	-114.65	3,857.89	2,186.36	4,465.53	4,447.46	18.08	247.029	
2,700.00	2,693.18	2,594.55	2,593.30	9.44	9.01	-114.82	3,860.40	2,183.59	4,471.77	4,453.32	18.44	242.452	
2,800.00	2,790.65	2,695.14	2,693.49	9.78	9.38	-115.20	3,866.20	2,176.58	4,483.21	4,464.05	19.15	234.065	
2,900.00	2,888.13	2,797.19	2,795.07	10.13	9.75	-115.58	3,872.13	2,168.95	4,494.64	4,474.77	19.87	226.161	
3,000.00	2,985.61	2,864.46	2,862.01	10.48	10.00	-115.83	3,876.25	2,163.63	4,506.39	4,485.92	20.47	220.174	
3,100.00	3,083.08	2,929.00	2,926.09	10.83	10.24	-116.09	3,881.40	2,158.03	4,519.38	4,498.33	21.05	214.666	
3,200.00	3,180.56	2,968.75	2,965.48	11.19	10.39	-116.26	3,885.18	2,154.21	4,533.34	4,511.80	21.55	210.411	
3,300.00	3,278.04	3,050.76	3,046.52	11.55	10.69	-116.61	3,893.85	2,145.11	4,548.07	4,525.87	22.21	204.822	
3,400.00	3,375.51	3,159.33	3,153.71	11.91	11.11	-117.09	3,905.56	2,132.44	4,563.02	4,540.04	22.98	198.597	
3,500.00	3,472.99	3,234.94	3,228.37	12.27	11.40	-117.42	3,913.53	2,123.55	4,578.01	4,554.40	23.62	193.833	
3,600.00	3,570.47	3,287.00	3,279.64	12.64	11.60	-117.66	3,919.69	2,116.99	4,594.00	4,569.83	24.16	190.110	
3,700.00	3,667.94	3,335.32	3,327.12	13.00	11.79	-117.88	3,926.04	2,110.59	4,611.09	4,586.40	24.70	186.707	
3,800.00	3,765.42	3,392.59	3,383.23	13.37	12.01	-118.15	3,934.31	2,102.74	4,629.34	4,604.07	25.27	183.224	
3,900.00	3,862.90	3,512.71	3,500.91	13.74	12.49	-118.72	3,951.64	2,085.94	4,647.82	4,621.71	26.11	177.997	
4,000.00	3,960.37	3,657.62	3,643.11	14.11	13.07	-119.39	3,971.15	2,066.06	4,665.92	4,638.85	27.07	172.369	
4,100.00	4,057.85	3,768.44	3,752.06	14.48	13.52	-119.89	3,984.88	2,051.06	4,683.39	4,655.51	27.88	167.981	
4,200.00	4,155.33	12,483.00	8,406.46	14.86	67.42	-88.99	-310.63	1,998.72	4,616.90	4,566.79	50.12	92.119	
4,300.00	4,252.80	12,499.41	8,406.72	15.23	67.63	-88.47	-327.03	1,998.39	4,521.95	4,471.32	50.62	89.323	
4,400.00	4,350.28	12,516.97	8,406.99	15.61	67.86	-87.91	-344.59	1,998.05	4,427.14	4,375.98	51.15	86.545	
4,500.00	4,447.76	12,534.56	8,407.27	15.98	68.09	-87.34	-362.18	1,997.72	4,332.48	4,280.78	51.70	83.801	
4,600.00	4,545.23	12,552.18	8,407.55	16.36	68.32	-86.76	-379.79	1,997.42	4,237.99	4,185.73	52.26	81.091	
4,700.00	4,642.71	12,572.00	8,407.86	16.74	68.57	-86.10	-399.60	1,997.09	4,143.67	4,090.81	52.86	78.389	
4,800.00	4,740.19	12,592.04	8,408.16	17.11	68.83	-85.42	-419.64	1,996.79	4,049.54	3,996.06	53.48	75.722	

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 4H
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 4H	**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	4,837.66	12,614.65	8,408.48	17.49	69.13	-84.64	-442.24	1,996.46	3,955.58	3,901.44	54.14	73.062	
5,000.00	4,935.14	12,636.98	8,408.76	17.87	69.42	-83.85	-464.57	1,996.16	3,861.81	3,806.99	54.82	70.446	
5,100.00	5,032.62	12,659.04	8,409.00	18.25	69.70	-83.06	-486.63	1,995.87	3,768.25	3,712.73	55.52	67.872	
5,200.00	5,130.09	12,681.52	8,409.23	18.64	70.00	-82.24	-509.11	1,995.60	3,674.91	3,618.66	56.25	65.333	
5,300.00	5,227.57	12,703.85	8,409.44	19.02	70.29	-81.41	-531.43	1,995.31	3,581.82	3,524.82	57.00	62.835	
5,400.00	5,325.05	12,725.96	8,409.62	19.40	70.58	-80.58	-553.54	1,995.02	3,488.99	3,431.20	57.78	60.380	
5,500.00	5,422.52	12,747.87	8,409.79	19.78	70.86	-79.74	-575.44	1,994.72	3,396.44	3,337.85	58.59	57.967	
5,600.00	5,520.00	12,769.32	8,409.92	20.16	71.14	-78.91	-596.90	1,994.43	3,304.21	3,244.78	59.43	55.597	
5,700.00	5,617.48	12,790.35	8,410.01	20.55	71.42	-78.08	-617.92	1,994.20	3,212.32	3,152.02	60.30	53.270	
5,800.00	5,714.95	12,810.99	8,410.05	20.93	71.69	-77.25	-638.56	1,994.01	3,120.81	3,059.60	61.21	50.985	
5,900.00	5,812.43	12,831.24	8,410.05	21.31	71.95	-76.43	-658.81	1,993.87	3,029.71	2,967.55	62.16	48.743	
6,000.00	5,909.91	12,849.29	8,410.03	21.70	72.19	-75.68	-676.86	1,993.77	2,939.07	2,875.94	63.13	46.557	
6,100.00	6,007.38	12,865.88	8,410.00	22.08	72.41	-74.99	-693.45	1,993.69	2,848.95	2,784.81	64.14	44.420	
6,200.00	6,104.86	12,882.53	8,409.99	22.47	72.62	-74.29	-710.10	1,993.61	2,759.41	2,694.21	65.20	42.323	
6,300.00	6,202.34	12,899.25	8,409.97	22.85	72.84	-73.59	-726.82	1,993.54	2,670.49	2,604.17	66.32	40.268	
6,400.00	6,299.81	12,916.05	8,409.97	23.24	73.06	-72.87	-743.62	1,993.48	2,582.27	2,514.77	67.50	38.256	
6,421.23	6,320.51	12,919.62	8,409.97	23.32	73.11	-72.71	-747.19	1,993.46	2,563.64	2,495.88	67.76	37.835	
6,500.00	6,397.52	12,932.43	8,409.96	23.62	73.28	-69.51	-760.00	1,993.42	2,494.99	2,426.23	68.76	36.288	
6,600.00	6,495.90	12,947.33	8,409.95	24.00	73.48	-65.77	-774.90	1,993.37	2,409.21	2,339.10	70.11	34.364	
6,700.00	6,594.84	12,959.21	8,409.94	24.37	73.63	-62.47	-786.78	1,993.35	2,325.28	2,253.73	71.55	32.497	
6,800.00	6,694.23	12,968.11	8,409.92	24.74	73.75	-59.61	-795.68	1,993.34	2,243.56	2,170.46	73.10	30.693	
6,900.00	6,793.94	12,974.06	8,409.90	25.09	73.83	-57.15	-801.63	1,993.33	2,164.43	2,089.69	74.74	28.959	
7,000.00	6,893.85	12,977.10	8,409.90	25.44	73.87	-55.08	-804.67	1,993.33	2,088.31	2,011.83	76.49	27.303	
7,066.16	6,960.00	12,977.53	8,409.90	25.67	73.87	90.21	-805.10	1,993.33	2,039.84	1,962.15	77.69	26.255	
7,100.00	6,993.82	12,978.42	8,409.89	25.78	73.89	-81.72	-805.99	1,993.33	2,015.46	1,937.13	78.33	25.729	
7,150.00	7,043.55	12,983.28	8,409.88	25.96	73.95	-86.64	-810.85	1,993.33	1,979.60	1,900.26	79.33	24.953	
7,200.00	7,092.63	12,992.34	8,409.85	26.14	74.07	-91.30	-819.91	1,993.33	1,944.15	1,863.77	80.38	24.187	
7,250.00	7,140.71	13,005.47	8,409.79	26.34	74.24	-95.63	-833.04	1,993.33	1,909.36	1,827.89	81.47	23.437	
7,300.00	7,187.41	13,018.00	8,409.73	26.53	74.41	-99.75	-845.57	1,993.35	1,875.45	1,792.92	82.53	22.724	
7,350.00	7,232.38	13,039.23	8,409.62	26.73	74.69	-103.28	-866.80	1,993.42	1,842.64	1,758.97	83.68	22.021	
7,400.00	7,275.27	13,059.83	8,409.53	26.93	74.96	-106.56	-887.39	1,993.54	1,811.16	1,726.38	84.78	21.363	
7,450.00	7,315.77	13,083.43	8,409.43	27.13	75.27	-109.47	-911.00	1,993.76	1,781.19	1,695.30	85.89	20.739	
7,500.00	7,353.56	13,108.00	8,409.34	27.34	75.60	-112.07	-935.57	1,994.06	1,752.90	1,665.94	86.95	20.159	
7,550.00	7,388.35	13,137.45	8,409.27	27.54	75.99	-114.29	-965.01	1,994.53	1,726.45	1,638.43	88.03	19.613	
7,600.00	7,419.89	13,167.51	8,409.27	27.74	76.39	-116.27	-995.07	1,995.13	1,702.01	1,612.96	89.04	19.114	
7,650.00	7,447.92	13,197.00	8,409.34	27.94	76.78	-118.03	-1,024.55	1,995.84	1,679.70	1,589.71	89.98	18.667	
7,700.00	7,472.24	13,235.00	8,409.50	28.14	77.29	-119.47	-1,062.53	1,996.97	1,659.64	1,568.68	90.95	18.247	
7,750.00	7,492.67	13,277.53	8,409.73	28.33	77.86	-120.71	-1,105.03	1,998.38	1,641.82	1,549.92	91.90	17.865	
7,800.00	7,509.03	13,295.00	8,409.82	28.52	78.09	-121.96	-1,122.50	1,998.96	1,626.43	1,534.00	92.44	17.595	
7,816.16	7,513.43	13,295.00	8,409.82	28.58	78.09	-122.33	-1,122.50	1,998.96	1,622.20	1,529.69	92.51	17.535	
7,900.00	7,532.50	13,295.00	8,409.82	28.88	78.09	-123.20	-1,122.50	1,998.96	1,605.91	1,513.13	92.78	17.308	
7,999.92	7,548.23	13,295.00	8,409.82	29.24	78.09	-123.73	-1,122.50	1,998.96	1,599.01	1,506.15	92.86	17.220	CC, ES, SF
8,000.00	7,548.24	13,295.00	8,409.82	29.24	78.09	-123.73	-1,122.50	1,998.96	1,599.01	1,506.15	92.86	17.220	
8,100.00	7,556.27	13,295.00	8,409.82	29.58	78.09	-123.74	-1,122.50	1,998.96	1,605.93	1,513.29	92.65	17.334	
8,153.26	7,557.37	13,295.00	8,409.82	29.76	78.09	-123.53	-1,122.50	1,998.96	1,615.20	1,522.78	92.42	17.477	
8,200.00	7,557.37	13,295.00	8,409.82	29.92	78.09	-123.53	-1,122.50	1,998.96	1,625.65	1,533.48	92.17	17.638	
8,300.00	7,557.36	13,295.00	8,409.82	30.26	78.09	-123.53	-1,122.50	1,998.96	1,652.24	1,560.69	91.54	18.048	
8,400.00	7,557.36	13,295.00	8,409.82	30.63	78.09	-123.53	-1,122.50	1,998.96	1,684.35	1,593.54	90.80	18.550	
8,500.00	7,557.36	13,295.00	8,409.82	31.00	78.09	-123.53	-1,122.50	1,998.96	1,721.67	1,631.71	89.96	19.138	
8,600.00	7,557.35	13,295.00	8,409.82	31.39	78.09	-123.53	-1,122.50	1,998.96	1,763.89	1,674.84	89.04	19.809	
8,700.00	7,557.35	13,295.00	8,409.82	31.79	78.09	-123.53	-1,122.50	1,998.96	1,810.64	1,722.58	88.07	20.560	
8,800.00	7,557.35	13,295.00	8,409.82	32.21	78.09	-123.53	-1,122.50	1,998.96	1,861.60	1,774.56	87.05	21.386	

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 4H
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 4H	**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
8,900.00	7,557.34	13,295.00	8,409.82	32.64	78.09	-123.53	-1,122.50	1,998.96	1,916.43	1,830.42	86.01	22.282	
9,000.00	7,557.34	13,295.00	8,409.82	33.08	78.09	-123.53	-1,122.50	1,998.96	1,974.80	1,889.84	84.97	23.242	
9,100.00	7,557.34	13,295.00	8,409.82	33.54	78.09	-123.53	-1,122.50	1,998.96	2,036.41	1,952.49	83.93	24.264	
9,200.00	7,557.33	13,295.00	8,409.82	34.00	78.09	-123.53	-1,122.50	1,998.96	2,100.98	2,018.07	82.91	25.341	
9,300.00	7,557.33	13,295.00	8,409.82	34.48	78.09	-123.53	-1,122.50	1,998.96	2,168.24	2,086.32	81.91	26.469	
9,400.00	7,557.32	13,295.00	8,409.82	34.96	78.09	-123.53	-1,122.50	1,998.96	2,237.94	2,156.99	80.95	27.644	
9,500.00	7,557.32	13,295.00	8,409.82	35.46	78.09	-123.53	-1,122.50	1,998.96	2,309.88	2,229.84	80.03	28.862	
9,600.00	7,557.32	13,295.00	8,409.82	35.97	78.09	-123.53	-1,122.50	1,998.96	2,383.83	2,304.68	79.15	30.118	
9,700.00	7,557.31	13,295.00	8,409.82	36.48	78.09	-123.53	-1,122.50	1,998.96	2,459.63	2,381.32	78.31	31.408	
9,800.00	7,557.31	13,295.00	8,409.82	37.00	78.09	-123.53	-1,122.50	1,998.96	2,537.11	2,459.60	77.52	32.730	
9,900.00	7,557.31	13,295.00	8,409.82	37.54	78.09	-123.53	-1,122.50	1,998.96	2,616.12	2,539.35	76.77	34.080	
10,000.00	7,557.30	13,295.00	8,409.82	38.08	78.09	-123.53	-1,122.50	1,998.96	2,696.52	2,620.46	76.06	35.454	
10,100.00	7,557.30	13,295.00	8,409.82	38.63	78.09	-123.53	-1,122.50	1,998.96	2,778.19	2,702.80	75.39	36.850	
10,200.00	7,557.30	13,295.00	8,409.82	39.18	78.09	-123.53	-1,122.50	1,998.96	2,861.03	2,786.26	74.77	38.266	
10,300.00	7,557.29	13,295.00	8,409.82	39.74	78.09	-123.53	-1,122.50	1,998.96	2,944.93	2,870.75	74.18	39.700	
10,400.00	7,557.29	13,295.00	8,409.82	40.31	78.09	-123.53	-1,122.50	1,998.96	3,029.81	2,956.18	73.63	41.148	
10,500.00	7,557.28	13,295.00	8,409.82	40.89	78.09	-123.53	-1,122.50	1,998.96	3,115.59	3,042.47	73.12	42.609	
10,600.00	7,557.28	13,295.00	8,409.82	41.47	78.09	-123.53	-1,122.50	1,998.96	3,202.19	3,129.55	72.64	44.082	
10,700.00	7,557.28	13,295.00	8,409.82	42.06	78.09	-123.53	-1,122.50	1,998.96	3,289.55	3,217.36	72.20	45.564	
10,800.00	7,557.27	13,295.00	8,409.82	42.66	78.09	-123.53	-1,122.50	1,998.96	3,377.62	3,305.84	71.78	47.055	
10,900.00	7,557.27	13,295.00	8,409.82	43.26	78.09	-123.53	-1,122.50	1,998.96	3,466.33	3,394.94	71.39	48.552	
11,000.00	7,557.27	13,295.00	8,409.82	43.86	78.09	-123.53	-1,122.50	1,998.96	3,555.64	3,484.61	71.03	50.056	
11,100.00	7,557.26	13,295.00	8,409.82	44.47	78.09	-123.53	-1,122.50	1,998.96	3,645.51	3,574.81	70.70	51.564	
11,200.00	7,557.26	13,295.00	8,409.82	45.09	78.09	-123.53	-1,122.50	1,998.96	3,735.89	3,665.50	70.39	53.076	
11,300.00	7,557.26	13,295.00	8,409.82	45.71	78.09	-123.53	-1,122.50	1,998.96	3,826.75	3,756.65	70.10	54.592	
11,400.00	7,557.25	13,295.00	8,409.82	46.33	78.09	-123.53	-1,122.50	1,998.96	3,918.05	3,848.22	69.83	56.109	
11,500.00	7,557.25	13,295.00	8,409.82	46.96	78.09	-123.53	-1,122.50	1,998.96	4,009.77	3,940.19	69.58	57.628	
11,600.00	7,557.24	13,295.00	8,409.82	47.60	78.09	-123.53	-1,122.50	1,998.96	4,101.88	4,032.53	69.35	59.148	
11,700.00	7,557.24	13,295.00	8,409.82	48.24	78.09	-123.53	-1,122.50	1,998.96	4,194.35	4,125.21	69.14	60.669	
11,800.00	7,557.24	13,295.00	8,409.82	48.88	78.09	-123.53	-1,122.50	1,998.96	4,287.15	4,218.21	68.94	62.189	
11,900.00	7,557.23	13,295.00	8,409.82	49.52	78.09	-123.53	-1,122.50	1,998.96	4,380.27	4,311.52	68.75	63.709	
12,000.00	7,557.23	13,295.00	8,409.82	50.17	78.09	-123.53	-1,122.50	1,998.96	4,473.69	4,405.11	68.59	65.228	
12,100.00	7,557.23	13,295.00	8,409.82	50.82	78.09	-123.53	-1,122.50	1,998.96	4,567.39	4,498.96	68.43	66.746	
12,200.00	7,557.22	13,295.00	8,409.82	51.48	78.09	-123.53	-1,122.50	1,998.96	4,661.35	4,593.07	68.29	68.262	
12,300.00	7,557.22	13,295.00	8,409.82	52.14	78.09	-123.53	-1,122.50	1,998.96	4,755.56	4,687.41	68.15	69.777	
12,400.00	7,557.22	13,295.00	8,409.82	52.80	78.09	-123.53	-1,122.50	1,998.96	4,850.00	4,781.97	68.03	71.289	
12,500.00	7,557.21	13,295.00	8,409.82	53.46	78.09	-123.53	-1,122.50	1,998.96	4,944.66	4,876.73	67.92	72.799	
12,600.00	7,557.21	13,295.00	8,409.82	54.13	78.09	-123.53	-1,122.50	1,998.96	5,039.52	4,971.70	67.82	74.307	
12,700.00	7,557.20	13,295.00	8,409.82	54.80	78.09	-123.53	-1,122.50	1,998.96	5,134.58	5,066.85	67.73	75.812	
12,800.00	7,557.20	13,295.00	8,409.82	55.48	78.09	-123.53	-1,122.50	1,998.96	5,229.82	5,162.18	67.64	77.314	
12,900.00	7,557.20	13,295.00	8,409.82	56.15	78.09	-123.53	-1,122.50	1,998.96	5,325.24	5,257.67	67.57	78.813	
13,000.00	7,557.19	13,295.00	8,409.82	56.83	78.09	-123.53	-1,122.50	1,998.96	5,420.82	5,353.32	67.50	80.310	
13,100.00	7,557.19	13,295.00	8,409.82	57.51	78.09	-123.53	-1,122.50	1,998.96	5,516.56	5,449.12	67.44	81.803	
13,200.00	7,557.19	13,295.00	8,409.82	58.19	78.09	-123.53	-1,122.50	1,998.96	5,612.45	5,545.07	67.38	83.293	
13,300.00	7,557.18	13,295.00	8,409.82	58.88	78.09	-123.53	-1,122.50	1,998.96	5,708.48	5,641.14	67.33	84.779	
13,400.00	7,557.18	13,295.00	8,409.82	59.57	78.09	-123.53	-1,122.50	1,998.96	5,804.64	5,737.35	67.29	86.262	
13,500.00	7,557.18	13,295.00	8,409.82	60.25	78.09	-123.53	-1,122.50	1,998.96	5,900.93	5,833.68	67.25	87.741	
13,600.00	7,557.17	13,295.00	8,409.82	60.95	78.09	-123.53	-1,122.50	1,998.96	5,997.34	5,930.12	67.22	89.217	
13,700.00	7,557.17	13,295.00	8,409.82	61.64	78.09	-123.53	-1,122.50	1,998.96	6,093.87	6,026.68	67.20	90.689	
13,800.00	7,557.16	13,295.00	8,409.82	62.33	78.09	-123.53	-1,122.50	1,998.96	6,190.51	6,123.34	67.17	92.157	
13,900.00	7,557.16	13,295.00	8,409.82	63.03	78.09	-123.53	-1,122.50	1,998.96	6,287.25	6,220.10	67.16	93.622	
14,000.00	7,557.16	13,295.00	8,409.82	63.73	78.09	-123.53	-1,122.50	1,998.96	6,384.10	6,316.95	67.14	95.083	

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 4H
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 4H	**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
14,100.00	7,557.15	13,295.00	8,409.82	64.43	78.09	-123.53	-1,122.50	1,998.96	6,481.04	6,413.90	67.13	96.539	
14,200.00	7,557.15	13,295.00	8,409.82	65.13	78.09	-123.53	-1,122.50	1,998.96	6,578.07	6,510.94	67.13	97.992	
14,300.00	7,557.15	13,295.00	8,409.82	65.84	78.09	-123.53	-1,122.50	1,998.96	6,675.18	6,608.06	67.13	99.441	
14,400.00	7,557.14	13,295.00	8,409.82	66.54	78.09	-123.53	-1,122.50	1,998.96	6,772.39	6,705.26	67.13	100.887	
14,500.00	7,557.14	13,295.00	8,409.82	67.25	78.09	-123.53	-1,122.50	1,998.96	6,869.67	6,802.54	67.13	102.328	
14,600.00	7,557.14	13,295.00	8,409.82	67.96	78.09	-123.53	-1,122.50	1,998.96	6,967.03	6,899.89	67.14	103.765	
14,700.00	7,557.13	13,295.00	8,409.82	68.66	78.09	-123.53	-1,122.50	1,998.96	7,064.46	6,997.31	67.15	105.198	
14,800.00	7,557.13	13,295.00	8,409.82	69.38	78.09	-123.53	-1,122.50	1,998.96	7,161.97	7,094.80	67.17	106.626	
14,900.00	7,557.12	13,295.00	8,409.82	70.09	78.09	-123.53	-1,122.50	1,998.96	7,259.54	7,192.35	67.19	108.051	
15,000.00	7,557.12	13,295.00	8,409.82	70.80	78.09	-123.53	-1,122.50	1,998.96	7,357.18	7,289.97	67.21	109.472	
15,100.00	7,557.12	13,295.00	8,409.82	71.52	78.09	-123.53	-1,122.50	1,998.96	7,454.88	7,387.65	67.23	110.889	
15,200.00	7,557.11	13,295.00	8,409.82	72.23	78.09	-123.53	-1,122.50	1,998.96	7,552.64	7,485.38	67.25	112.301	
15,300.00	7,557.11	13,295.00	8,409.82	72.95	78.09	-123.53	-1,122.50	1,998.96	7,650.45	7,583.17	67.28	113.709	
15,400.00	7,557.11	13,295.00	8,409.82	73.67	78.09	-123.53	-1,122.50	1,998.96	7,748.33	7,681.02	67.31	115.113	
15,500.00	7,557.10	13,295.00	8,409.82	74.39	78.09	-123.53	-1,122.50	1,998.96	7,846.26	7,778.91	67.34	116.513	
15,600.00	7,557.10	13,295.00	8,409.82	75.11	78.09	-123.53	-1,122.50	1,998.96	7,944.24	7,876.86	67.38	117.909	
15,700.00	7,557.10	13,295.00	8,409.82	75.83	78.09	-123.53	-1,122.50	1,998.96	8,042.26	7,974.85	67.41	119.300	
15,800.00	7,557.09	13,295.00	8,409.82	76.55	78.09	-123.53	-1,122.50	1,998.96	8,140.34	8,072.89	67.45	120.687	
15,900.00	7,557.09	13,295.00	8,409.82	77.27	78.09	-123.53	-1,122.50	1,998.96	8,238.46	8,170.97	67.49	122.070	
16,000.00	7,557.08	13,295.00	8,409.82	78.00	78.09	-123.53	-1,122.50	1,998.96	8,336.63	8,269.10	67.53	123.449	
16,100.00	7,557.08	13,295.00	8,409.82	78.72	78.09	-123.53	-1,122.50	1,998.96	8,434.84	8,367.27	67.57	124.824	
16,200.00	7,557.08	13,295.00	8,409.82	79.45	78.09	-123.53	-1,122.50	1,998.96	8,533.09	8,465.47	67.62	126.194	
16,300.00	7,557.07	13,295.00	8,409.82	80.18	78.09	-123.53	-1,122.50	1,998.96	8,631.39	8,563.72	67.67	127.560	
16,400.00	7,557.07	13,295.00	8,409.82	80.90	78.09	-123.53	-1,122.50	1,998.96	8,729.72	8,662.00	67.71	128.921	
16,500.00	7,557.07	13,295.00	8,409.82	81.63	78.09	-123.53	-1,122.50	1,998.96	8,828.09	8,760.32	67.76	130.279	
16,600.00	7,557.06	13,295.00	8,409.82	82.36	78.09	-123.53	-1,122.50	1,998.96	8,926.49	8,858.68	67.81	131.632	
16,700.00	7,557.06	13,295.00	8,409.82	83.09	78.09	-123.53	-1,122.50	1,998.96	9,024.93	8,957.06	67.87	132.981	
16,800.00	7,557.06	13,295.00	8,409.82	83.82	78.09	-123.53	-1,122.50	1,998.96	9,123.40	9,055.48	67.92	134.325	
16,900.00	7,557.05	13,295.00	8,409.82	84.55	78.09	-123.53	-1,122.50	1,998.96	9,221.91	9,153.94	67.98	135.665	
17,000.00	7,557.05	13,295.00	8,409.82	85.29	78.09	-123.53	-1,122.50	1,998.96	9,320.45	9,252.42	68.03	137.001	
17,100.00	7,557.04	13,295.00	8,409.82	86.02	78.09	-123.53	-1,122.50	1,998.96	9,419.02	9,350.93	68.09	138.333	
17,200.00	7,557.04	13,295.00	8,409.82	86.75	78.09	-123.53	-1,122.50	1,998.96	9,517.62	9,449.47	68.15	139.660	
17,300.00	7,557.04	13,295.00	8,409.82	87.49	78.09	-123.53	-1,122.50	1,998.96	9,616.25	9,548.04	68.21	140.983	
17,400.00	7,557.03	13,295.00	8,409.82	88.22	78.09	-123.53	-1,122.50	1,998.96	9,714.90	9,646.63	68.27	142.301	
17,500.00	7,557.03	13,295.00	8,409.82	88.96	78.09	-123.53	-1,122.50	1,998.96	9,813.59	9,745.25	68.33	143.615	
17,600.00	7,557.03	13,295.00	8,409.82	89.70	78.09	-123.53	-1,122.50	1,998.96	9,912.30	9,843.90	68.40	144.925	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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	Warning
0.00	0.00	0.00	0.00	0.00	0.50	29.83	3,824.22	2,192.71	4,408.29				
100.00	100.00	54.82	54.82	0.28	0.51	29.83	3,824.36	2,192.79	4,408.49	4,407.70	0.78	5,630.295	
200.00	200.00	145.00	144.99	0.63	0.55	29.83	3,825.22	2,193.26	4,409.53	4,408.35	1.18	3,738.948	
300.00	300.00	261.89	261.88	0.99	0.80	29.83	3,825.88	2,193.87	4,410.30	4,408.51	1.80	2,453.638	
400.00	400.00	334.00	333.99	1.35	1.02	29.83	3,826.39	2,194.31	4,411.17	4,408.80	2.37	1,861.729	
500.00	500.00	437.29	437.27	1.71	1.35	29.84	3,827.30	2,195.23	4,412.39	4,409.32	3.06	1,440.897	
600.00	600.00	540.51	540.48	2.07	1.70	29.84	3,827.86	2,195.91	4,413.18	4,409.41	3.77	1,170.773	
700.00	700.00	620.84	620.81	2.43	1.98	29.84	3,828.78	2,196.26	4,414.38	4,409.97	4.40	1,002.494	
800.00	800.00	721.60	721.56	2.79	2.32	29.83	3,830.29	2,196.38	4,415.74	4,410.63	5.11	864.172	
900.00	900.00	814.30	814.24	3.14	2.65	29.82	3,831.65	2,196.55	4,417.11	4,411.31	5.79	762.735	
1,000.00	1,000.00	909.43	909.35	3.50	2.98	29.81	3,833.52	2,196.50	4,418.78	4,412.30	6.48	681.686	
1,100.00	1,100.00	1,040.10	1,039.98	3.86	3.43	29.78	3,836.38	2,194.91	4,420.08	4,412.79	7.30	605.872	
1,200.00	1,200.00	1,166.13	1,165.89	4.22	3.87	29.70	3,839.62	2,190.48	4,420.53	4,412.44	8.09	546.379	
1,300.00	1,300.00	1,256.41	1,256.06	4.58	4.19	29.65	3,842.31	2,186.83	4,421.11	4,412.34	8.76	504.451	
1,400.00	1,400.00	1,408.73	1,408.22	4.94	4.72	29.56	3,845.66	2,180.88	4,421.09	4,411.44	9.66	457.878	
1,500.00	1,500.00	1,496.00	1,495.42	5.29	5.03	29.51	3,847.09	2,177.70	4,420.71	4,410.39	10.32	428.339	
1,600.00	1,600.00	1,647.70	1,646.97	5.65	5.56	29.42	3,849.42	2,171.15	4,419.99	4,408.77	11.21	394.208	
1,700.00	1,700.00	1,738.49	1,737.61	6.01	5.88	29.36	3,850.62	2,166.15	4,418.45	4,406.55	11.89	371.534	
1,800.00	1,800.00	1,814.29	1,813.30	6.37	6.15	29.31	3,851.94	2,162.26	4,417.44	4,404.92	12.52	352.799	
1,900.00	1,900.00	1,914.67	1,913.57	6.73	6.51	29.25	3,853.68	2,157.94	4,416.85	4,403.62	13.24	333.676	
2,000.00	2,000.00	2,070.68	2,069.50	7.09	7.05	29.20	3,853.69	2,153.57	4,415.50	4,401.37	14.14	312.341	
2,100.00	2,099.98	2,185.39	2,184.17	7.43	7.45	-114.97	3,852.05	2,151.19	4,413.96	4,399.08	14.87	296.791	
2,191.09	2,190.95	2,297.94	2,296.66	7.73	7.84	-115.08	3,850.84	2,147.52	4,413.63	4,398.07	15.56	283.627	
2,200.00	2,199.84	2,310.02	2,308.73	7.76	7.88	-115.09	3,850.65	2,147.14	4,413.63	4,398.00	15.63	282.341	
2,300.00	2,299.45	2,421.72	2,420.35	8.09	8.27	-115.22	3,848.52	2,143.67	4,414.14	4,397.79	16.35	269.994	
2,400.00	2,398.70	2,498.78	2,497.38	8.42	8.54	-115.30	3,846.73	2,142.26	4,416.44	4,399.49	16.95	260.558	
2,500.00	2,497.47	2,578.34	2,576.91	8.76	8.81	-115.38	3,845.55	2,140.42	4,420.77	4,403.21	17.56	251.704	
2,600.00	2,595.62	2,671.64	2,670.15	9.10	9.15	-115.51	3,844.98	2,137.19	4,426.87	4,408.64	18.23	242.796	
2,644.93	2,639.49	2,712.25	2,710.74	9.25	9.29	-115.57	3,844.82	2,135.70	4,430.18	4,411.65	18.53	239.078	
2,700.00	2,693.18	2,762.18	2,760.63	9.44	9.47	-115.72	3,844.72	2,133.78	4,434.50	4,415.60	18.90	234.675	
2,800.00	2,790.65	2,840.00	2,838.34	9.78	9.75	-115.97	3,845.22	2,129.70	4,442.55	4,423.03	19.52	227.583	
2,900.00	2,888.13	2,921.59	2,919.65	10.13	10.05	-116.26	3,847.19	2,123.31	4,451.10	4,430.93	20.17	220.686	
3,000.00	2,985.61	2,990.91	2,988.50	10.48	10.31	-116.54	3,850.33	2,115.97	4,460.40	4,439.62	20.78	214.693	
3,100.00	3,083.08	3,058.66	3,055.53	10.83	10.56	-116.84	3,854.70	2,107.10	4,470.48	4,449.10	21.38	209.115	
3,200.00	3,180.56	3,131.46	3,127.18	11.19	10.83	-117.18	3,860.77	2,095.77	4,481.36	4,459.35	22.00	203.665	
3,300.00	3,278.04	3,224.31	3,218.32	11.55	11.19	-117.64	3,869.24	2,080.13	4,492.69	4,469.97	22.72	197.770	
3,400.00	3,375.51	3,326.67	3,318.68	11.91	11.58	-118.15	3,878.72	2,062.45	4,504.29	4,480.82	23.47	191.877	
3,500.00	3,472.99	3,437.17	3,426.95	12.27	12.02	-118.70	3,888.73	2,042.71	4,515.81	4,491.53	24.27	186.034	
3,600.00	3,570.47	3,539.81	3,527.51	12.64	12.43	-119.20	3,897.74	2,024.27	4,527.40	4,502.35	25.05	180.760	
3,700.00	3,667.94	3,650.65	3,636.23	13.00	12.88	-119.74	3,906.91	2,004.74	4,539.02	4,513.16	25.86	175.545	
3,800.00	3,765.42	3,748.45	3,732.24	13.37	13.27	-120.21	3,914.55	1,987.78	4,550.66	4,524.04	26.62	170.970	
3,900.00	3,862.90	3,831.23	3,813.44	13.74	13.61	-120.61	3,921.25	1,973.08	4,562.69	4,535.37	27.32	167.021	
4,000.00	3,960.37	3,947.74	3,927.50	14.11	14.09	-121.18	3,930.82	1,951.36	4,574.83	4,546.66	28.17	162.403	
4,100.00	4,057.85	4,056.10	4,033.44	14.48	14.55	-121.71	3,939.56	1,930.30	4,586.91	4,557.91	28.99	158.208	
4,200.00	4,155.33	4,162.99	4,137.83	14.86	15.00	-122.24	3,948.00	1,908.95	4,598.98	4,569.17	29.82	154.236	
4,300.00	4,252.80	4,269.24	4,241.56	15.23	15.46	-122.77	3,956.12	1,887.44	4,611.10	4,580.45	30.64	150.470	
4,400.00	4,350.28	4,375.44	4,345.20	15.61	15.91	-123.30	3,963.97	1,865.66	4,623.25	4,591.78	31.47	146.900	
4,500.00	4,447.76	4,496.48	4,463.32	15.98	16.44	-123.90	3,972.47	1,840.62	4,635.40	4,603.03	32.37	143.216	
4,600.00	4,545.23	4,656.14	4,619.59	16.36	17.12	-124.65	3,981.24	1,809.12	4,646.81	4,613.39	33.43	139.009	
4,700.00	4,642.71	4,852.53	4,813.24	16.74	17.93	-125.48	3,984.88	1,776.91	4,655.81	4,621.20	34.60	134.546	
4,800.00	4,740.19	4,945.53	4,905.26	17.11	18.30	-125.84	3,984.95	1,763.56	4,664.58	4,629.24	35.35	131.966	
4,900.00	4,837.66	4,985.00	4,944.44	17.49	18.45	-125.98	3,985.15	1,758.78	4,674.57	4,638.69	35.88	130.296	

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 4H
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 4H	**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
5,000.00	4,935.14	4,985.00	4,944.44	17.87	18.45	-125.98	3,985.15	1,758.78	4,686.24	4,650.00	36.24	129.303	
5,100.00	5,032.62	5,056.76	5,015.76	18.25	18.72	-126.24	3,986.61	1,751.01	4,698.61	4,661.72	36.89	127.381	
5,200.00	5,130.09	5,093.76	5,052.57	18.64	18.87	-126.36	3,987.94	1,747.45	4,712.65	4,675.26	37.39	126.052	
5,300.00	5,227.57	5,164.00	5,122.46	19.02	19.13	-126.60	3,991.50	1,741.52	4,728.32	4,690.29	38.02	124.363	
5,400.00	5,325.05	5,178.01	5,136.41	19.40	19.19	-126.64	3,992.34	1,740.45	4,744.69	4,706.28	38.41	123.518	
5,500.00	5,422.52	14,208.00	9,899.30	19.78	72.46	-107.82	-506.50	1,671.73	4,668.34	4,615.32	53.02	88.056	
5,600.00	5,520.00	14,208.00	9,899.30	20.16	72.46	-107.82	-506.50	1,671.73	4,571.27	4,517.97	53.30	85.758	
5,700.00	5,617.48	14,208.00	9,899.30	20.55	72.46	-107.82	-506.50	1,671.73	4,474.33	4,420.73	53.60	83.472	
5,800.00	5,714.95	14,241.91	9,899.80	20.93	72.89	-106.76	-540.40	1,672.67	4,377.46	4,323.29	54.17	80.810	
5,900.00	5,812.43	14,276.56	9,900.01	21.31	73.33	-105.60	-575.01	1,674.25	4,280.57	4,225.81	54.76	78.172	
6,000.00	5,909.91	14,308.97	9,899.93	21.70	73.74	-104.43	-607.35	1,676.28	4,183.67	4,128.33	55.34	75.594	
6,100.00	6,007.38	14,338.52	9,899.68	22.08	74.12	-103.31	-636.82	1,678.39	4,086.79	4,030.87	55.92	73.080	
6,200.00	6,104.86	14,367.08	9,899.32	22.47	74.48	-102.17	-665.30	1,680.57	3,989.92	3,933.42	56.51	70.611	
6,300.00	6,202.34	14,394.52	9,898.86	22.85	74.83	-101.03	-692.65	1,682.79	3,893.09	3,836.00	57.09	68.187	
6,400.00	6,299.81	14,396.41	9,898.82	23.24	74.85	-100.95	-694.53	1,682.95	3,796.35	3,738.87	57.48	66.042	
6,421.23	6,320.51	14,397.00	9,898.81	23.32	74.86	-100.92	-695.12	1,683.00	3,775.84	3,718.27	57.57	65.588	
6,500.00	6,397.52	14,397.00	9,898.81	23.62	74.86	-95.09	-695.12	1,683.00	3,699.74	3,641.86	57.88	63.919	
6,600.00	6,495.90	14,397.00	9,898.81	24.00	74.86	-87.73	-695.12	1,683.00	3,603.24	3,544.92	58.31	61.793	
6,700.00	6,594.84	14,593.00	9,893.67	24.37	77.38	-69.27	-890.53	1,695.57	3,506.78	3,446.33	60.44	58.016	
6,800.00	6,694.23	14,593.00	9,893.67	24.74	77.38	-62.75	-890.53	1,695.57	3,410.49	3,349.52	60.97	55.939	
6,900.00	6,793.94	14,593.00	9,893.67	25.09	77.38	-57.10	-890.53	1,695.57	3,314.88	3,253.34	61.54	53.865	
7,000.00	6,893.85	14,593.00	9,893.67	25.44	77.38	-52.27	-890.53	1,695.57	3,220.14	3,157.97	62.17	51.797	
7,066.16	6,960.00	14,593.00	9,893.67	25.67	77.38	94.64	-890.53	1,695.57	3,158.03	3,095.42	62.62	50.436	
7,100.00	6,993.82	14,593.00	9,893.67	25.78	77.38	-82.72	-890.53	1,695.57	3,126.33	3,063.48	62.85	49.741	
7,150.00	7,043.55	14,593.00	9,893.67	25.96	77.38	-96.17	-890.53	1,695.57	3,079.45	3,016.25	63.20	48.723	
7,200.00	7,092.63	14,593.00	9,893.67	26.14	77.38	-108.74	-890.53	1,695.57	3,032.84	2,969.29	63.55	47.724	
7,250.00	7,140.71	14,593.00	9,893.67	26.34	77.38	-119.41	-890.53	1,695.57	2,986.86	2,922.98	63.89	46.754	
7,300.00	7,187.41	14,593.00	9,893.67	26.53	77.38	-127.95	-890.53	1,695.57	2,941.92	2,877.71	64.21	45.818	
7,350.00	7,232.38	14,593.00	9,893.67	26.73	77.38	-134.59	-890.53	1,695.57	2,898.40	2,833.89	64.52	44.925	
7,400.00	7,275.27	14,593.00	9,893.67	26.93	77.38	-139.73	-890.53	1,695.57	2,856.72	2,791.91	64.81	44.080	
7,450.00	7,315.77	14,593.00	9,893.67	27.13	77.38	-143.71	-890.53	1,695.57	2,817.27	2,752.19	65.08	43.289	
7,500.00	7,353.56	14,593.00	9,893.67	27.34	77.38	-146.81	-890.53	1,695.57	2,780.47	2,715.13	65.33	42.559	
7,550.00	7,388.35	14,593.00	9,893.67	27.54	77.38	-149.24	-890.53	1,695.57	2,746.69	2,681.13	65.56	41.893	
7,600.00	7,419.89	14,593.00	9,893.67	27.74	77.38	-151.15	-890.53	1,695.57	2,716.32	2,650.54	65.78	41.297	
7,650.00	7,447.92	14,593.00	9,893.67	27.94	77.38	-152.63	-890.53	1,695.57	2,689.70	2,623.73	65.97	40.774	
7,700.00	7,472.24	14,593.00	9,893.67	28.14	77.38	-153.77	-890.53	1,695.57	2,667.15	2,601.02	66.14	40.329	
7,750.00	7,492.67	14,593.00	9,893.67	28.33	77.38	-154.62	-890.53	1,695.57	2,648.96	2,582.67	66.28	39.963	
7,800.00	7,509.03	14,593.00	9,893.67	28.52	77.38	-155.22	-890.53	1,695.57	2,635.34	2,568.93	66.41	39.682	
7,816.16	7,513.43	14,593.00	9,893.67	28.58	77.38	-155.37	-890.53	1,695.57	2,631.95	2,565.51	66.45	39.610	
7,900.00	7,532.50	14,593.00	9,893.67	28.88	77.38	-155.79	-890.53	1,695.57	2,619.98	2,553.33	66.65	39.308	
7,972.58	7,544.69	14,593.00	9,893.67	29.14	77.38	-156.06	-890.53	1,695.57	2,616.69	2,549.83	66.85	39.141	CC, ES
8,000.00	7,548.24	14,593.00	9,893.67	29.24	77.38	-156.14	-890.53	1,695.57	2,617.16	2,550.22	66.93	39.102	
8,100.00	7,556.27	14,593.00	9,893.67	29.58	77.38	-156.35	-890.53	1,695.57	2,626.83	2,559.60	67.23	39.071	SF
8,153.26	7,557.37	14,593.00	9,893.67	29.76	77.38	-156.41	-890.53	1,695.57	2,637.02	2,569.63	67.40	39.128	
8,200.00	7,557.37	14,593.00	9,893.67	29.92	77.38	-156.41	-890.53	1,695.57	2,647.88	2,580.34	67.54	39.206	
8,300.00	7,557.36	14,593.00	9,893.67	30.26	77.38	-156.41	-890.53	1,695.57	2,673.70	2,605.85	67.85	39.408	
8,400.00	7,557.36	14,593.00	9,893.67	30.63	77.38	-156.41	-890.53	1,695.57	2,702.97	2,634.81	68.16	39.659	
8,500.00	7,557.36	14,593.00	9,893.67	31.00	77.38	-156.41	-890.53	1,695.57	2,735.58	2,667.12	68.46	39.957	
8,600.00	7,557.35	14,593.00	9,893.67	31.39	77.38	-156.41	-890.53	1,695.57	2,771.43	2,702.67	68.76	40.305	
8,700.00	7,557.35	14,593.00	9,893.67	31.79	77.38	-156.41	-890.53	1,695.57	2,810.37	2,741.33	69.05	40.702	
8,800.00	7,557.35	14,593.00	9,893.67	32.21	77.38	-156.41	-890.53	1,695.57	2,852.29	2,782.97	69.32	41.147	
8,900.00	7,557.34	14,593.00	9,893.67	32.64	77.38	-156.41	-890.53	1,695.57	2,897.06	2,827.48	69.58	41.637	

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 4H
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 4H	**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
9,000.00	7,557.34	14,593.00	9,893.67	33.08	77.38	-156.41	-890.53	1,695.57	2,944.55	2,874.73	69.82	42.173	
9,100.00	7,557.34	14,593.00	9,893.67	33.54	77.38	-156.41	-890.53	1,695.57	2,994.62	2,924.57	70.05	42.751	
9,200.00	7,557.33	14,593.00	9,893.67	34.00	77.38	-156.41	-890.53	1,695.57	3,047.15	2,976.89	70.26	43.370	
9,300.00	7,557.33	14,593.00	9,893.67	34.48	77.38	-156.41	-890.53	1,695.57	3,102.02	3,031.56	70.46	44.028	
9,400.00	7,557.32	14,593.00	9,893.67	34.96	77.38	-156.41	-890.53	1,695.57	3,159.10	3,088.46	70.64	44.721	
9,500.00	7,557.32	14,593.00	9,893.67	35.46	77.38	-156.41	-890.53	1,695.57	3,218.28	3,147.46	70.81	45.449	
9,600.00	7,557.32	14,593.00	9,893.67	35.97	77.38	-156.41	-890.53	1,695.57	3,279.43	3,208.46	70.97	46.208	
9,700.00	7,557.31	14,593.00	9,893.67	36.48	77.38	-156.41	-890.53	1,695.57	3,342.47	3,271.35	71.12	46.998	
9,800.00	7,557.31	14,593.00	9,893.67	37.00	77.38	-156.41	-890.53	1,695.57	3,407.27	3,336.01	71.26	47.815	
9,900.00	7,557.31	14,593.00	9,893.67	37.54	77.38	-156.41	-890.53	1,695.57	3,473.74	3,402.35	71.39	48.659	
10,000.00	7,557.30	14,593.00	9,893.67	38.08	77.38	-156.41	-890.53	1,695.57	3,541.78	3,470.27	71.51	49.526	
10,100.00	7,557.30	14,593.00	9,893.67	38.63	77.38	-156.41	-890.53	1,695.57	3,611.32	3,539.69	71.63	50.416	
10,200.00	7,557.30	14,593.00	9,893.67	39.18	77.38	-156.41	-890.53	1,695.57	3,682.26	3,610.51	71.74	51.327	
10,300.00	7,557.29	14,593.00	9,893.67	39.74	77.38	-156.41	-890.53	1,695.57	3,754.52	3,682.67	71.85	52.257	
10,400.00	7,557.29	14,593.00	9,893.67	40.31	77.38	-156.41	-890.53	1,695.57	3,828.03	3,756.08	71.95	53.205	
10,500.00	7,557.28	14,593.00	9,893.67	40.89	77.38	-156.41	-890.53	1,695.57	3,902.71	3,830.67	72.05	54.169	
10,600.00	7,557.28	14,593.00	9,893.67	41.47	77.38	-156.41	-890.53	1,695.57	3,978.51	3,906.37	72.14	55.150	
10,700.00	7,557.28	14,593.00	9,893.67	42.06	77.38	-156.41	-890.53	1,695.57	4,055.36	3,983.13	72.23	56.144	
10,800.00	7,557.27	14,593.00	9,893.67	42.66	77.38	-156.41	-890.53	1,695.57	4,133.20	4,060.88	72.32	57.152	
10,900.00	7,557.27	14,593.00	9,893.67	43.26	77.38	-156.41	-890.53	1,695.57	4,211.97	4,139.57	72.41	58.172	
11,000.00	7,557.27	14,593.00	9,893.67	43.86	77.38	-156.41	-890.53	1,695.57	4,291.63	4,219.14	72.49	59.203	
11,100.00	7,557.26	14,593.00	9,893.67	44.47	77.38	-156.41	-890.53	1,695.57	4,372.13	4,299.55	72.57	60.245	
11,200.00	7,557.26	14,593.00	9,893.67	45.09	77.38	-156.41	-890.53	1,695.57	4,453.41	4,380.76	72.65	61.296	
11,300.00	7,557.26	14,593.00	9,893.67	45.71	77.38	-156.41	-890.53	1,695.57	4,535.45	4,462.71	72.73	62.357	
11,400.00	7,557.25	14,593.00	9,893.67	46.33	77.38	-156.41	-890.53	1,695.57	4,618.19	4,545.37	72.81	63.425	
11,500.00	7,557.25	14,593.00	9,893.67	46.96	77.38	-156.41	-890.53	1,695.57	4,701.60	4,628.71	72.89	64.502	
11,600.00	7,557.24	14,593.00	9,893.67	47.60	77.38	-156.41	-890.53	1,695.57	4,785.65	4,712.68	72.97	65.585	
11,700.00	7,557.24	14,593.00	9,893.67	48.24	77.38	-156.41	-890.53	1,695.57	4,870.30	4,797.26	73.04	66.675	
11,800.00	7,557.24	14,593.00	9,893.67	48.88	77.38	-156.41	-890.53	1,695.57	4,955.52	4,882.40	73.12	67.772	
11,900.00	7,557.23	14,593.00	9,893.67	49.52	77.38	-156.41	-890.53	1,695.57	5,041.29	4,968.09	73.20	68.873	
12,000.00	7,557.23	14,593.00	9,893.67	50.17	77.38	-156.41	-890.53	1,695.57	5,127.57	5,054.30	73.27	69.980	
12,100.00	7,557.23	14,593.00	9,893.67	50.82	77.38	-156.41	-890.53	1,695.57	5,214.34	5,141.00	73.35	71.092	
12,200.00	7,557.22	14,593.00	9,893.67	51.48	77.38	-156.41	-890.53	1,695.57	5,301.58	5,228.16	73.42	72.208	
12,300.00	7,557.22	14,593.00	9,893.67	52.14	77.38	-156.41	-890.53	1,695.57	5,389.26	5,315.77	73.50	73.328	
12,400.00	7,557.22	14,593.00	9,893.67	52.80	77.38	-156.41	-890.53	1,695.57	5,477.37	5,403.80	73.57	74.451	
12,500.00	7,557.21	14,593.00	9,893.67	53.46	77.38	-156.41	-890.53	1,695.57	5,565.87	5,492.23	73.64	75.578	
12,600.00	7,557.21	14,593.00	9,893.67	54.13	77.38	-156.41	-890.53	1,695.57	5,654.76	5,581.04	73.72	76.708	
12,700.00	7,557.20	14,593.00	9,893.67	54.80	77.38	-156.41	-890.53	1,695.57	5,744.01	5,670.22	73.79	77.841	
12,800.00	7,557.20	14,593.00	9,893.67	55.48	77.38	-156.41	-890.53	1,695.57	5,833.62	5,759.75	73.87	78.977	
12,900.00	7,557.20	14,593.00	9,893.67	56.15	77.38	-156.41	-890.53	1,695.57	5,923.55	5,849.61	73.94	80.114	
13,000.00	7,557.19	14,593.00	9,893.67	56.83	77.38	-156.41	-890.53	1,695.57	6,013.81	5,939.79	74.01	81.254	
13,100.00	7,557.19	14,593.00	9,893.67	57.51	77.38	-156.41	-890.53	1,695.57	6,104.36	6,030.28	74.09	82.395	
13,200.00	7,557.19	14,593.00	9,893.67	58.19	77.38	-156.41	-890.53	1,695.57	6,195.21	6,121.05	74.16	83.538	
13,300.00	7,557.18	14,593.00	9,893.67	58.88	77.38	-156.41	-890.53	1,695.57	6,286.34	6,212.10	74.23	84.683	
13,400.00	7,557.18	14,593.00	9,893.67	59.57	77.38	-156.41	-890.53	1,695.57	6,377.73	6,303.42	74.31	85.828	
13,500.00	7,557.18	14,593.00	9,893.67	60.25	77.38	-156.41	-890.53	1,695.57	6,469.37	6,394.99	74.38	86.975	
13,600.00	7,557.17	14,593.00	9,893.67	60.95	77.38	-156.41	-890.53	1,695.57	6,561.26	6,486.81	74.46	88.123	
13,700.00	7,557.17	14,593.00	9,893.67	61.64	77.38	-156.41	-890.53	1,695.57	6,653.39	6,578.86	74.53	89.271	
13,800.00	7,557.16	14,593.00	9,893.67	62.33	77.38	-156.41	-890.53	1,695.57	6,745.74	6,671.13	74.60	90.421	
13,900.00	7,557.16	14,593.00	9,893.67	63.03	77.38	-156.41	-890.53	1,695.57	6,838.30	6,763.62	74.68	91.570	
14,000.00	7,557.16	14,593.00	9,893.67	63.73	77.38	-156.41	-890.53	1,695.57	6,931.07	6,856.32	74.75	92.720	
14,100.00	7,557.15	14,593.00	9,893.67	64.43	77.38	-156.41	-890.53	1,695.57	7,024.04	6,949.21	74.83	93.870	

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 4H
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 4H	**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
14,200.00	7,557.15	14,593.00	9,893.67	65.13	77.38	-156.41	-890.53	1,695.57	7,117.20	7,042.30	74.90	95.020	
14,300.00	7,557.15	14,593.00	9,893.67	65.84	77.38	-156.41	-890.53	1,695.57	7,210.54	7,135.56	74.98	96.170	
14,400.00	7,557.14	14,593.00	9,893.67	66.54	77.38	-156.41	-890.53	1,695.57	7,304.06	7,229.01	75.05	97.320	
14,500.00	7,557.14	14,593.00	9,893.67	67.25	77.38	-156.41	-890.53	1,695.57	7,397.75	7,322.62	75.13	98.470	
14,600.00	7,557.14	14,593.00	9,893.67	67.96	77.38	-156.41	-890.53	1,695.57	7,491.60	7,416.40	75.20	99.620	
14,700.00	7,557.13	14,593.00	9,893.67	68.66	77.38	-156.41	-890.53	1,695.57	7,585.61	7,510.33	75.28	100.769	
14,800.00	7,557.13	14,593.00	9,893.67	69.38	77.38	-156.41	-890.53	1,695.57	7,679.77	7,604.41	75.35	101.917	
14,900.00	7,557.12	14,593.00	9,893.67	70.09	77.38	-156.41	-890.53	1,695.57	7,774.07	7,698.64	75.43	103.065	
15,000.00	7,557.12	14,593.00	9,893.67	70.80	77.38	-156.41	-890.53	1,695.57	7,868.52	7,793.02	75.50	104.212	
15,100.00	7,557.12	14,593.00	9,893.67	71.52	77.38	-156.41	-890.53	1,695.57	7,963.10	7,887.52	75.58	105.359	
15,200.00	7,557.11	14,593.00	9,893.67	72.23	77.38	-156.41	-890.53	1,695.57	8,057.82	7,982.16	75.66	106.504	
15,300.00	7,557.11	14,593.00	9,893.67	72.95	77.38	-156.41	-890.53	1,695.57	8,152.65	8,076.92	75.73	107.649	
15,400.00	7,557.11	14,593.00	9,893.67	73.67	77.38	-156.41	-890.53	1,695.57	8,247.62	8,171.80	75.81	108.793	
15,500.00	7,557.10	14,593.00	9,893.67	74.39	77.38	-156.41	-890.53	1,695.57	8,342.69	8,266.81	75.89	109.935	
15,600.00	7,557.10	14,593.00	9,893.67	75.11	77.38	-156.41	-890.53	1,695.57	8,437.89	8,361.92	75.96	111.077	
15,700.00	7,557.10	14,593.00	9,893.67	75.83	77.38	-156.41	-890.53	1,695.57	8,533.19	8,457.15	76.04	112.217	
15,800.00	7,557.09	14,593.00	9,893.67	76.55	77.38	-156.41	-890.53	1,695.57	8,628.60	8,552.48	76.12	113.356	
15,900.00	7,557.09	14,593.00	9,893.67	77.27	77.38	-156.41	-890.53	1,695.57	8,724.11	8,647.91	76.20	114.493	
16,000.00	7,557.08	14,593.00	9,893.67	78.00	77.38	-156.41	-890.53	1,695.57	8,819.72	8,743.45	76.28	115.630	
16,100.00	7,557.08	14,593.00	9,893.67	78.72	77.38	-156.41	-890.53	1,695.57	8,915.43	8,839.08	76.35	116.765	
16,200.00	7,557.08	14,593.00	9,893.67	79.45	77.38	-156.41	-890.53	1,695.57	9,011.23	8,934.80	76.43	117.898	
16,300.00	7,557.07	14,593.00	9,893.67	80.18	77.38	-156.41	-890.53	1,695.57	9,107.12	9,030.61	76.51	119.030	
16,400.00	7,557.07	14,593.00	9,893.67	80.90	77.38	-156.41	-890.53	1,695.57	9,203.10	9,126.51	76.59	120.160	
16,500.00	7,557.07	14,593.00	9,893.67	81.63	77.38	-156.41	-890.53	1,695.57	9,299.16	9,222.49	76.67	121.289	
16,600.00	7,557.06	14,593.00	9,893.67	82.36	77.38	-156.41	-890.53	1,695.57	9,395.31	9,318.56	76.75	122.416	
16,700.00	7,557.06	14,593.00	9,893.67	83.09	77.38	-156.41	-890.53	1,695.57	9,491.53	9,414.70	76.83	123.541	
16,800.00	7,557.06	14,593.00	9,893.67	83.82	77.38	-156.41	-890.53	1,695.57	9,587.84	9,510.93	76.91	124.664	
16,900.00	7,557.05	14,593.00	9,893.67	84.55	77.38	-156.41	-890.53	1,695.57	9,684.21	9,607.22	76.99	125.786	
17,000.00	7,557.05	14,593.00	9,893.67	85.29	77.38	-156.41	-890.53	1,695.57	9,780.66	9,703.59	77.07	126.906	
17,100.00	7,557.04	14,593.00	9,893.67	86.02	77.38	-156.41	-890.53	1,695.57	9,877.18	9,800.03	77.15	128.024	
17,200.00	7,557.04	14,593.00	9,893.67	86.75	77.38	-156.41	-890.53	1,695.57	9,973.77	9,896.54	77.23	129.140	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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

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	0.50	30.50	3,824.22	2,252.71	4,438.44				
100.00	100.00	55.00	54.99	0.28	0.51	30.51	3,823.99	2,253.40	4,438.61	4,437.84	0.78	5,696.111	
200.00	200.00	119.90	119.88	0.63	0.58	30.52	3,824.27	2,254.13	4,439.56	4,438.35	1.21	3,669.202	
300.00	300.00	262.21	262.15	0.99	0.93	30.48	3,826.94	2,252.13	4,440.48	4,438.56	1.92	2,310.870	
400.00	400.00	334.00	333.94	1.35	1.15	30.47	3,827.79	2,251.80	4,441.25	4,438.74	2.50	1,773.693	
500.00	500.00	565.56	565.47	1.71	1.92	30.43	3,828.03	2,249.00	4,440.62	4,436.99	3.63	1,222.509	
600.00	600.00	661.91	661.78	2.07	2.25	30.41	3,827.19	2,246.72	4,438.67	4,434.35	4.32	1,027.729	
700.00	700.00	729.51	729.37	2.43	2.49	30.40	3,826.70	2,245.44	4,437.12	4,432.21	4.91	903.652	
800.00	800.00	781.00	780.86	2.79	2.66	30.40	3,826.52	2,245.03	4,436.48	4,431.04	5.45	814.520	
821.50	821.50	800.68	800.54	2.86	2.73	30.40	3,826.51	2,244.99	4,436.46	4,430.87	5.59	793.514	
900.00	900.00	846.05	845.91	3.14	2.89	30.40	3,826.65	2,245.10	4,436.77	4,430.74	6.03	736.134	
1,000.00	1,000.00	938.34	938.19	3.50	3.20	30.40	3,827.45	2,245.63	4,437.79	4,431.09	6.70	662.182	
1,100.00	1,100.00	1,059.76	1,059.60	3.86	3.62	30.40	3,828.33	2,245.82	4,438.50	4,431.02	7.48	593.461	
1,200.00	1,200.00	1,125.14	1,124.98	4.22	3.84	30.40	3,828.56	2,246.59	4,439.38	4,431.32	8.06	550.790	
1,300.00	1,300.00	1,189.37	1,189.20	4.58	4.06	30.42	3,828.88	2,248.09	4,441.00	4,432.36	8.64	514.145	
1,400.00	1,400.00	1,246.00	1,245.80	4.94	4.26	30.43	3,829.51	2,249.75	4,443.49	4,434.30	9.19	483.576	
1,500.00	1,500.00	1,316.61	1,316.35	5.29	4.50	30.45	3,830.69	2,252.30	4,446.78	4,436.99	9.79	454.210	
1,600.00	1,600.00	1,389.98	1,389.63	5.65	4.76	30.48	3,832.17	2,255.59	4,450.78	4,440.38	10.40	427.891	
1,700.00	1,700.00	1,499.12	1,498.60	6.01	5.14	30.53	3,834.31	2,261.25	4,455.12	4,443.98	11.14	399.862	
1,800.00	1,800.00	1,625.34	1,624.67	6.37	5.58	30.58	3,836.44	2,266.99	4,458.88	4,446.94	11.95	373.272	
1,900.00	1,900.00	1,745.89	1,745.13	6.73	6.01	30.61	3,838.45	2,271.25	4,462.11	4,449.38	12.73	350.523	
2,000.00	2,000.00	1,834.52	1,833.71	7.09	6.32	30.63	3,839.97	2,273.97	4,465.17	4,451.77	13.40	333.190	
2,100.00	2,099.98	1,910.94	1,910.05	7.43	6.60	-113.39	3,841.36	2,276.93	4,469.40	4,455.39	14.01	318.958	
2,200.00	2,199.84	2,001.44	2,000.44	7.76	6.92	-113.29	3,843.00	2,281.30	4,475.48	4,460.82	14.66	305.267	
2,300.00	2,299.45	2,113.11	2,111.90	8.09	7.32	-113.21	3,844.11	2,287.86	4,482.80	4,467.41	15.39	291.289	
2,400.00	2,398.70	2,248.02	2,246.56	8.42	7.80	-113.16	3,844.30	2,296.22	4,490.89	4,474.69	16.21	277.119	
2,500.00	2,497.47	2,318.00	2,316.40	8.76	8.05	-113.07	3,844.36	2,300.55	4,500.35	4,483.56	16.79	268.062	
2,600.00	2,595.62	2,407.00	2,405.17	9.10	8.37	-112.99	3,844.52	2,306.91	4,511.73	4,494.28	17.44	258.635	
2,644.93	2,639.49	2,433.49	2,431.58	9.25	8.47	-112.93	3,844.56	2,309.00	4,517.43	4,499.74	17.69	255.358	
2,700.00	2,693.18	2,479.38	2,477.33	9.44	8.63	-113.01	3,844.67	2,312.69	4,524.71	4,506.67	18.04	250.783	
2,800.00	2,790.65	2,560.88	2,558.58	9.78	8.93	-113.16	3,845.27	2,318.97	4,538.22	4,519.54	18.68	242.987	
2,900.00	2,888.13	2,664.00	2,661.48	10.13	9.30	-113.37	3,846.93	2,325.42	4,551.80	4,532.41	19.40	234.687	
3,000.00	2,985.61	2,754.00	2,751.28	10.48	9.63	-113.55	3,848.41	2,331.19	4,565.56	4,545.49	20.07	227.508	
3,100.00	3,083.08	2,754.00	2,751.28	10.83	9.63	-113.55	3,848.41	2,331.19	4,580.50	4,560.11	20.40	224.554	
3,200.00	3,180.56	2,807.52	2,804.60	11.19	9.83	-113.65	3,849.98	2,335.56	4,596.61	4,575.68	20.93	219.584	
3,300.00	3,278.04	2,843.00	2,839.87	11.55	9.96	-113.71	3,851.52	2,339.02	4,614.34	4,592.94	21.40	215.666	
3,400.00	3,375.51	2,843.00	2,839.87	11.91	9.96	-113.71	3,851.52	2,339.02	4,633.73	4,612.02	21.71	213.427	
3,500.00	3,472.99	2,899.43	2,895.84	12.27	10.17	-113.81	3,854.90	2,345.36	4,654.09	4,631.83	22.25	209.133	
3,600.00	3,570.47	2,932.00	2,928.06	12.64	10.29	-113.87	3,857.40	2,349.46	4,676.12	4,653.42	22.70	206.037	
3,700.00	3,667.94	2,969.74	2,965.30	13.00	10.43	-113.93	3,860.65	2,354.57	4,699.45	4,676.29	23.16	202.943	
3,800.00	3,765.42	3,022.00	3,016.77	13.37	10.63	-114.01	3,865.59	2,362.22	4,723.98	4,700.30	23.68	199.512	
3,900.00	3,862.90	3,069.04	3,062.99	13.74	10.81	-114.07	3,870.33	2,369.55	4,749.47	4,725.29	24.18	196.456	
4,000.00	3,960.37	3,144.11	3,136.66	14.11	11.10	-114.18	3,878.07	2,381.75	4,775.63	4,750.83	24.80	192.577	
4,100.00	4,057.85	3,247.12	3,237.74	14.48	11.51	-114.32	3,888.87	2,398.37	4,801.93	4,776.38	25.55	187.945	
4,200.00	4,155.33	3,363.15	3,351.70	14.86	11.96	-114.49	3,900.88	2,416.59	4,827.94	4,801.58	26.36	183.137	
4,300.00	4,252.80	3,458.21	3,445.14	15.23	12.34	-114.62	3,910.72	2,431.06	4,853.76	4,826.67	27.08	179.223	
4,400.00	4,350.28	3,636.91	3,621.16	15.61	13.05	-114.89	3,928.26	2,456.34	4,878.52	4,850.33	28.18	173.110	
4,500.00	4,447.76	3,709.14	3,692.41	15.98	13.34	-115.01	3,935.02	2,466.08	4,902.82	4,874.02	28.80	170.226	
4,600.00	4,545.23	3,760.43	3,742.88	16.36	13.54	-115.08	3,940.01	2,473.72	4,928.04	4,898.71	29.33	168.038	
4,700.00	4,642.71	3,826.00	3,807.26	16.74	13.81	-115.16	3,946.81	2,484.13	4,954.19	4,924.27	29.92	165.595	
4,800.00	4,740.19	3,886.28	3,866.36	17.11	14.06	-115.24	3,953.31	2,494.07	4,980.99	4,950.51	30.48	163.398	
4,900.00	4,837.66	3,971.01	3,949.39	17.49	14.41	-115.35	3,962.57	2,508.18	5,008.10	4,976.93	31.17	160.690	

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 4H
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 4H	**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
5,000.00	4,935.14	4,071.01	4,047.41	17.87	14.82	-115.47	3,973.81	2,524.50	5,035.34	5,003.42	31.92	157.738	
5,100.00	5,032.62	4,504.11	4,474.42	18.25	16.58	-116.04	4,009.69	2,586.62	5,058.76	5,024.55	34.21	147.877	
5,200.00	5,130.09	4,592.47	4,561.91	18.64	16.93	-116.16	4,014.68	2,597.84	5,079.60	5,044.68	34.91	145.486	
5,300.00	5,227.57	13,941.16	9,756.66	19.02	70.24	-86.12	-342.49	2,670.49	5,092.53	5,037.00	55.53	91.711	
5,400.00	5,325.05	13,965.99	9,757.19	19.40	70.55	-85.51	-367.29	2,671.53	5,000.39	4,944.18	56.21	88.964	
5,500.00	5,422.52	13,990.61	9,757.70	19.78	70.86	-84.89	-391.88	2,672.56	4,908.45	4,851.55	56.90	86.262	
5,600.00	5,520.00	14,015.01	9,758.19	20.16	71.17	-84.27	-416.26	2,673.58	4,816.73	4,759.12	57.61	83.606	
5,700.00	5,617.48	14,033.37	9,758.54	20.55	71.41	-83.80	-434.60	2,674.36	4,725.25	4,666.96	58.29	81.058	
5,800.00	5,714.95	14,050.17	9,758.85	20.93	71.62	-83.37	-451.37	2,675.12	4,634.05	4,575.06	58.98	78.564	
5,900.00	5,812.43	14,066.92	9,759.14	21.31	71.84	-82.93	-468.10	2,675.93	4,543.14	4,483.44	59.69	76.106	
6,000.00	5,909.91	14,153.23	9,760.11	21.70	72.94	-80.62	-554.30	2,680.14	4,452.51	4,391.51	61.00	72.991	
6,100.00	6,007.38	14,172.28	9,760.19	22.08	73.18	-80.10	-573.34	2,680.96	4,361.93	4,300.15	61.78	70.607	
6,200.00	6,104.86	14,253.58	9,760.07	22.47	74.22	-77.82	-654.58	2,683.81	4,271.41	4,208.32	63.09	67.701	
6,300.00	6,202.34	14,267.91	9,760.00	22.85	74.41	-77.42	-668.90	2,684.26	4,181.26	4,117.38	63.88	65.453	
6,400.00	6,299.81	14,282.33	9,759.93	23.24	74.59	-77.00	-683.32	2,684.71	4,091.51	4,026.81	64.70	63.239	
6,421.23	6,320.51	14,285.41	9,759.92	23.32	74.63	-76.91	-686.39	2,684.81	4,072.51	4,007.63	64.88	62.773	
6,500.00	6,397.52	14,302.00	9,759.86	23.62	74.84	-73.44	-702.97	2,685.35	4,002.30	3,936.70	65.60	61.014	
6,600.00	6,495.90	14,302.00	9,759.86	24.00	74.84	-69.87	-702.97	2,685.35	3,914.01	3,847.63	66.38	58.962	
6,700.00	6,594.84	14,302.00	9,759.86	24.37	74.84	-66.57	-702.97	2,685.35	3,826.89	3,759.66	67.22	56.930	
6,800.00	6,694.23	14,302.00	9,759.86	24.74	74.84	-63.54	-702.97	2,685.35	3,741.12	3,673.00	68.12	54.923	
6,900.00	6,793.94	14,302.00	9,759.86	25.09	74.84	-60.78	-702.97	2,685.35	3,656.91	3,587.84	69.07	52.946	
7,000.00	6,893.85	14,302.00	9,759.86	25.44	74.84	-58.27	-702.97	2,685.35	3,574.48	3,504.40	70.08	51.004	
7,066.16	6,960.00	14,302.00	9,759.86	25.67	74.84	87.36	-702.97	2,685.35	3,521.04	3,450.26	70.78	49.745	
7,100.00	6,993.82	14,302.00	9,759.86	25.78	74.84	-85.64	-702.97	2,685.35	3,493.92	3,422.77	71.15	49.106	
7,150.00	7,043.55	14,302.00	9,759.86	25.96	74.84	-92.30	-702.97	2,685.35	3,453.92	3,382.22	71.70	48.169	
7,200.00	7,092.63	14,328.89	9,759.83	26.14	75.19	-98.09	-729.84	2,686.32	3,414.10	3,341.60	72.50	47.090	
7,250.00	7,140.71	14,335.96	9,759.84	26.34	75.28	-104.05	-736.91	2,686.60	3,375.04	3,301.92	73.12	46.157	
7,300.00	7,187.41	14,345.24	9,759.88	26.53	75.40	-109.49	-746.18	2,686.98	3,336.92	3,263.16	73.76	45.243	
7,350.00	7,232.38	14,356.68	9,759.94	26.73	75.55	-114.34	-757.61	2,687.47	3,300.02	3,225.62	74.40	44.355	
7,400.00	7,275.27	14,370.22	9,760.05	26.93	75.72	-118.59	-771.13	2,688.09	3,264.63	3,189.58	75.05	43.501	
7,450.00	7,315.77	14,396.00	9,760.35	27.13	76.06	-122.15	-796.88	2,689.37	3,231.05	3,155.27	75.79	42.634	
7,500.00	7,353.56	14,396.00	9,760.35	27.34	76.06	-125.53	-796.88	2,689.37	3,199.49	3,123.22	76.27	41.951	
7,550.00	7,388.35	14,422.92	9,760.77	27.54	76.41	-128.14	-823.76	2,690.87	3,170.21	3,093.25	76.97	41.189	
7,600.00	7,419.89	14,446.00	9,761.22	27.74	76.71	-130.40	-846.79	2,692.29	3,143.49	3,065.88	77.60	40.508	
7,650.00	7,447.92	14,484.14	9,762.02	27.94	77.20	-132.22	-884.84	2,694.75	3,119.40	3,041.05	78.34	39.818	
7,700.00	7,472.24	14,503.00	9,762.41	28.14	77.45	-133.84	-903.66	2,695.97	3,098.06	3,019.20	78.86	39.284	
7,750.00	7,492.67	14,503.00	9,762.41	28.33	77.45	-135.21	-903.66	2,695.97	3,080.13	3,000.97	79.17	38.907	
7,800.00	7,509.03	14,503.00	9,762.41	28.52	77.45	-136.25	-903.66	2,695.97	3,065.86	2,986.43	79.42	38.601	
7,816.16	7,513.43	14,503.00	9,762.41	28.58	77.45	-136.52	-903.66	2,695.97	3,062.05	2,982.56	79.49	38.519	
7,900.00	7,532.50	14,503.00	9,762.41	28.88	77.45	-137.18	-903.66	2,695.97	3,047.36	2,967.51	79.85	38.164	
8,000.00	7,548.24	14,503.00	9,762.41	29.24	77.45	-137.63	-903.66	2,695.97	3,040.48	2,960.24	80.24	37.894	
8,008.97	7,549.28	14,503.00	9,762.41	29.27	77.45	-137.66	-903.66	2,695.97	3,040.43	2,960.16	80.27	37.878	CC, ES
8,100.00	7,556.27	14,503.00	9,762.41	29.58	77.45	-137.75	-903.66	2,695.97	3,045.27	2,964.70	80.57	37.796	SF
8,153.26	7,557.37	14,503.00	9,762.41	29.76	77.45	-137.68	-903.66	2,695.97	3,052.57	2,971.84	80.73	37.814	
8,200.00	7,557.37	14,503.00	9,762.41	29.92	77.45	-137.68	-903.66	2,695.97	3,060.76	2,979.91	80.85	37.856	
8,300.00	7,557.36	14,503.00	9,762.41	30.26	77.45	-137.68	-903.66	2,695.97	3,080.58	2,999.46	81.12	37.976	
8,400.00	7,557.36	14,503.00	9,762.41	30.63	77.45	-137.68	-903.66	2,695.97	3,103.51	3,022.13	81.38	38.136	
8,500.00	7,557.36	14,503.00	9,762.41	31.00	77.45	-137.68	-903.66	2,695.97	3,129.46	3,047.83	81.63	38.338	
8,600.00	7,557.35	14,503.00	9,762.41	31.39	77.45	-137.68	-903.66	2,695.97	3,158.37	3,076.51	81.86	38.582	
8,700.00	7,557.35	14,503.00	9,762.41	31.79	77.45	-137.68	-903.66	2,695.97	3,190.15	3,108.07	82.08	38.867	
8,800.00	7,557.35	14,503.00	9,762.41	32.21	77.45	-137.68	-903.66	2,695.97	3,224.72	3,142.44	82.28	39.194	
8,900.00	7,557.34	14,503.00	9,762.41	32.64	77.45	-137.68	-903.66	2,695.97	3,261.99	3,179.53	82.45	39.561	

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 4H
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 4H	**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
9,000.00	7,557.34	14,503.00	9,762.41	33.08	77.45	-137.68	-903.66	2,695.97	3,301.87	3,219.25	82.61	39.969	
9,100.00	7,557.34	14,503.00	9,762.41	33.54	77.45	-137.68	-903.66	2,695.97	3,344.26	3,261.51	82.75	40.415	
9,200.00	7,557.33	14,503.00	9,762.41	34.00	77.45	-137.68	-903.66	2,695.97	3,389.08	3,306.21	82.86	40.899	
9,300.00	7,557.33	14,503.00	9,762.41	34.48	77.45	-137.68	-903.66	2,695.97	3,436.22	3,353.26	82.96	41.420	
9,400.00	7,557.32	14,503.00	9,762.41	34.96	77.45	-137.68	-903.66	2,695.97	3,485.59	3,402.56	83.04	41.976	
9,500.00	7,557.32	14,503.00	9,762.41	35.46	77.45	-137.68	-903.66	2,695.97	3,537.11	3,454.01	83.10	42.567	
9,600.00	7,557.32	14,503.00	9,762.41	35.97	77.45	-137.68	-903.66	2,695.97	3,590.67	3,507.53	83.14	43.190	
9,700.00	7,557.31	14,503.00	9,762.41	36.48	77.45	-137.68	-903.66	2,695.97	3,646.18	3,563.02	83.16	43.844	
9,800.00	7,557.31	14,503.00	9,762.41	37.00	77.45	-137.68	-903.66	2,695.97	3,703.57	3,620.39	83.17	44.528	
9,900.00	7,557.31	14,503.00	9,762.41	37.54	77.45	-137.68	-903.66	2,695.97	3,762.73	3,679.56	83.17	45.241	
10,000.00	7,557.30	14,503.00	9,762.41	38.08	77.45	-137.68	-903.66	2,695.97	3,823.60	3,740.44	83.16	45.980	
10,100.00	7,557.30	14,503.00	9,762.41	38.63	77.45	-137.68	-903.66	2,695.97	3,886.09	3,802.96	83.13	46.746	
10,200.00	7,557.30	14,503.00	9,762.41	39.18	77.45	-137.68	-903.66	2,695.97	3,950.12	3,867.02	83.10	47.536	
10,300.00	7,557.29	14,503.00	9,762.41	39.74	77.45	-137.68	-903.66	2,695.97	4,015.62	3,932.56	83.06	48.349	
10,400.00	7,557.29	14,503.00	9,762.41	40.31	77.45	-137.68	-903.66	2,695.97	4,082.52	3,999.51	83.01	49.183	
10,500.00	7,557.28	14,503.00	9,762.41	40.89	77.45	-137.68	-903.66	2,695.97	4,150.75	4,067.80	82.95	50.039	
10,600.00	7,557.28	14,503.00	9,762.41	41.47	77.45	-137.68	-903.66	2,695.97	4,220.25	4,137.36	82.89	50.914	
10,700.00	7,557.28	14,503.00	9,762.41	42.06	77.45	-137.68	-903.66	2,695.97	4,290.95	4,208.12	82.83	51.807	
10,800.00	7,557.27	14,503.00	9,762.41	42.66	77.45	-137.68	-903.66	2,695.97	4,362.80	4,280.04	82.76	52.718	
10,900.00	7,557.27	14,503.00	9,762.41	43.26	77.45	-137.68	-903.66	2,695.97	4,435.74	4,353.05	82.69	53.646	
11,000.00	7,557.27	14,503.00	9,762.41	43.86	77.45	-137.68	-903.66	2,695.97	4,509.71	4,427.10	82.61	54.588	
11,100.00	7,557.26	14,503.00	9,762.41	44.47	77.45	-137.68	-903.66	2,695.97	4,584.68	4,502.14	82.54	55.546	
11,200.00	7,557.26	14,503.00	9,762.41	45.09	77.45	-137.68	-903.66	2,695.97	4,660.58	4,578.12	82.46	56.517	
11,300.00	7,557.26	14,503.00	9,762.41	45.71	77.45	-137.68	-903.66	2,695.97	4,737.38	4,655.00	82.39	57.500	
11,400.00	7,557.25	14,503.00	9,762.41	46.33	77.45	-137.68	-903.66	2,695.97	4,815.04	4,732.72	82.31	58.496	
11,500.00	7,557.25	14,503.00	9,762.41	46.96	77.45	-137.68	-903.66	2,695.97	4,893.50	4,811.26	82.24	59.504	
11,600.00	7,557.24	14,503.00	9,762.41	47.60	77.45	-137.68	-903.66	2,695.97	4,972.73	4,890.57	82.16	60.521	
11,700.00	7,557.24	14,503.00	9,762.41	48.24	77.45	-137.68	-903.66	2,695.97	5,052.71	4,970.61	82.09	61.549	
11,800.00	7,557.24	14,503.00	9,762.41	48.88	77.45	-137.68	-903.66	2,695.97	5,133.38	5,051.36	82.02	62.587	
11,900.00	7,557.23	14,503.00	9,762.41	49.52	77.45	-137.68	-903.66	2,695.97	5,214.73	5,132.78	81.95	63.633	
12,000.00	7,557.23	14,503.00	9,762.41	50.17	77.45	-137.68	-903.66	2,695.97	5,296.71	5,214.83	81.88	64.687	
12,100.00	7,557.23	14,503.00	9,762.41	50.82	77.45	-137.68	-903.66	2,695.97	5,379.30	5,297.49	81.82	65.749	
12,200.00	7,557.22	14,503.00	9,762.41	51.48	77.45	-137.68	-903.66	2,695.97	5,462.48	5,380.72	81.75	66.818	
12,300.00	7,557.22	14,503.00	9,762.41	52.14	77.45	-137.68	-903.66	2,695.97	5,546.21	5,464.52	81.69	67.893	
12,400.00	7,557.22	14,503.00	9,762.41	52.80	77.45	-137.68	-903.66	2,695.97	5,630.47	5,548.84	81.63	68.975	
12,500.00	7,557.21	14,503.00	9,762.41	53.46	77.45	-137.68	-903.66	2,695.97	5,715.24	5,633.66	81.57	70.063	
12,600.00	7,557.21	14,503.00	9,762.41	54.13	77.45	-137.68	-903.66	2,695.97	5,800.49	5,718.97	81.52	71.156	
12,700.00	7,557.20	14,503.00	9,762.41	54.80	77.45	-137.68	-903.66	2,695.97	5,886.21	5,804.74	81.47	72.254	
12,800.00	7,557.20	14,503.00	9,762.41	55.48	77.45	-137.68	-903.66	2,695.97	5,972.37	5,890.96	81.42	73.357	
12,900.00	7,557.20	14,503.00	9,762.41	56.15	77.45	-137.68	-903.66	2,695.97	6,058.96	5,977.59	81.37	74.464	
13,000.00	7,557.19	14,503.00	9,762.41	56.83	77.45	-137.68	-903.66	2,695.97	6,145.95	6,064.63	81.32	75.575	
13,100.00	7,557.19	14,503.00	9,762.41	57.51	77.45	-137.68	-903.66	2,695.97	6,233.34	6,152.06	81.28	76.690	
13,200.00	7,557.19	14,503.00	9,762.41	58.19	77.45	-137.68	-903.66	2,695.97	6,321.10	6,239.86	81.24	77.808	
13,300.00	7,557.18	14,503.00	9,762.41	58.88	77.45	-137.68	-903.66	2,695.97	6,409.21	6,328.01	81.20	78.930	
13,400.00	7,557.18	14,503.00	9,762.41	59.57	77.45	-137.68	-903.66	2,695.97	6,497.67	6,416.51	81.17	80.054	
13,500.00	7,557.18	14,503.00	9,762.41	60.25	77.45	-137.68	-903.66	2,695.97	6,586.47	6,505.33	81.13	81.181	
13,600.00	7,557.17	14,503.00	9,762.41	60.95	77.45	-137.68	-903.66	2,695.97	6,675.57	6,594.47	81.10	82.310	
13,700.00	7,557.17	14,503.00	9,762.41	61.64	77.45	-137.68	-903.66	2,695.97	6,764.99	6,683.91	81.08	83.441	
13,800.00	7,557.16	14,503.00	9,762.41	62.33	77.45	-137.68	-903.66	2,695.97	6,854.69	6,773.64	81.05	84.574	
13,900.00	7,557.16	14,503.00	9,762.41	63.03	77.45	-137.68	-903.66	2,695.97	6,944.68	6,863.65	81.03	85.709	
14,000.00	7,557.16	14,503.00	9,762.41	63.73	77.45	-137.68	-903.66	2,695.97	7,034.94	6,953.93	81.00	86.846	
14,100.00	7,557.15	14,503.00	9,762.41	64.43	77.45	-137.68	-903.66	2,695.97	7,125.45	7,044.47	80.99	87.984	

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 4H
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 4H	**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
14,200.00	7,557.15	14,503.00	9,762.41	65.13	77.45	-137.68	-903.66	2,695.97	7,216.22	7,135.25	80.97	89.123	
14,300.00	7,557.15	14,503.00	9,762.41	65.84	77.45	-137.68	-903.66	2,695.97	7,307.23	7,226.28	80.95	90.263	
14,400.00	7,557.14	14,503.00	9,762.41	66.54	77.45	-137.68	-903.66	2,695.97	7,398.47	7,317.53	80.94	91.404	
14,500.00	7,557.14	14,503.00	9,762.41	67.25	77.45	-137.68	-903.66	2,695.97	7,489.94	7,409.00	80.93	92.546	
14,600.00	7,557.14	14,503.00	9,762.41	67.96	77.45	-137.68	-903.66	2,695.97	7,581.62	7,500.69	80.92	93.688	
14,700.00	7,557.13	14,503.00	9,762.41	68.66	77.45	-137.68	-903.66	2,695.97	7,673.50	7,592.59	80.92	94.831	
14,800.00	7,557.13	14,503.00	9,762.41	69.38	77.45	-137.68	-903.66	2,695.97	7,765.59	7,684.68	80.91	95.974	
14,900.00	7,557.12	14,503.00	9,762.41	70.09	77.45	-137.68	-903.66	2,695.97	7,857.87	7,776.96	80.91	97.117	
15,000.00	7,557.12	14,503.00	9,762.41	70.80	77.45	-137.68	-903.66	2,695.97	7,950.34	7,869.43	80.91	98.260	
15,100.00	7,557.12	14,503.00	9,762.41	71.52	77.45	-137.68	-903.66	2,695.97	8,042.99	7,962.08	80.91	99.404	
15,200.00	7,557.11	14,503.00	9,762.41	72.23	77.45	-137.68	-903.66	2,695.97	8,135.81	8,054.90	80.92	100.547	
15,300.00	7,557.11	14,503.00	9,762.41	72.95	77.45	-137.68	-903.66	2,695.97	8,228.80	8,147.88	80.92	101.690	
15,400.00	7,557.11	14,503.00	9,762.41	73.67	77.45	-137.68	-903.66	2,695.97	8,321.96	8,241.03	80.93	102.832	
15,500.00	7,557.10	14,503.00	9,762.41	74.39	77.45	-137.68	-903.66	2,695.97	8,415.27	8,334.33	80.94	103.974	
15,600.00	7,557.10	14,503.00	9,762.41	75.11	77.45	-137.68	-903.66	2,695.97	8,508.73	8,427.78	80.95	105.116	
15,700.00	7,557.10	14,503.00	9,762.41	75.83	77.45	-137.68	-903.66	2,695.97	8,602.34	8,521.38	80.96	106.257	
15,800.00	7,557.09	14,503.00	9,762.41	76.55	77.45	-137.68	-903.66	2,695.97	8,696.09	8,615.12	80.97	107.397	
15,900.00	7,557.09	14,503.00	9,762.41	77.27	77.45	-137.68	-903.66	2,695.97	8,789.98	8,709.00	80.99	108.536	
16,000.00	7,557.08	14,503.00	9,762.41	78.00	77.45	-137.68	-903.66	2,695.97	8,884.00	8,803.00	81.00	109.675	
16,100.00	7,557.08	14,503.00	9,762.41	78.72	77.45	-137.68	-903.66	2,695.97	8,978.16	8,897.14	81.02	110.813	
16,200.00	7,557.08	14,503.00	9,762.41	79.45	77.45	-137.68	-903.66	2,695.97	9,072.43	8,991.39	81.04	111.949	
16,300.00	7,557.07	14,503.00	9,762.41	80.18	77.45	-137.68	-903.66	2,695.97	9,166.83	9,085.77	81.06	113.085	
16,400.00	7,557.07	14,503.00	9,762.41	80.90	77.45	-137.68	-903.66	2,695.97	9,261.35	9,180.26	81.08	114.219	
16,500.00	7,557.07	14,503.00	9,762.41	81.63	77.45	-137.68	-903.66	2,695.97	9,355.98	9,274.87	81.11	115.353	
16,600.00	7,557.06	14,503.00	9,762.41	82.36	77.45	-137.68	-903.66	2,695.97	9,450.72	9,369.59	81.13	116.485	
16,700.00	7,557.06	14,503.00	9,762.41	83.09	77.45	-137.68	-903.66	2,695.97	9,545.57	9,464.41	81.16	117.615	
16,800.00	7,557.06	14,503.00	9,762.41	83.82	77.45	-137.68	-903.66	2,695.97	9,640.52	9,559.33	81.19	118.745	
16,900.00	7,557.05	14,503.00	9,762.41	84.55	77.45	-137.68	-903.66	2,695.97	9,735.57	9,654.36	81.22	119.872	
17,000.00	7,557.05	14,503.00	9,762.41	85.29	77.45	-137.68	-903.66	2,695.97	9,830.72	9,749.48	81.25	120.999	
17,100.00	7,557.04	14,503.00	9,762.41	86.02	77.45	-137.68	-903.66	2,695.97	9,925.97	9,844.69	81.28	122.124	

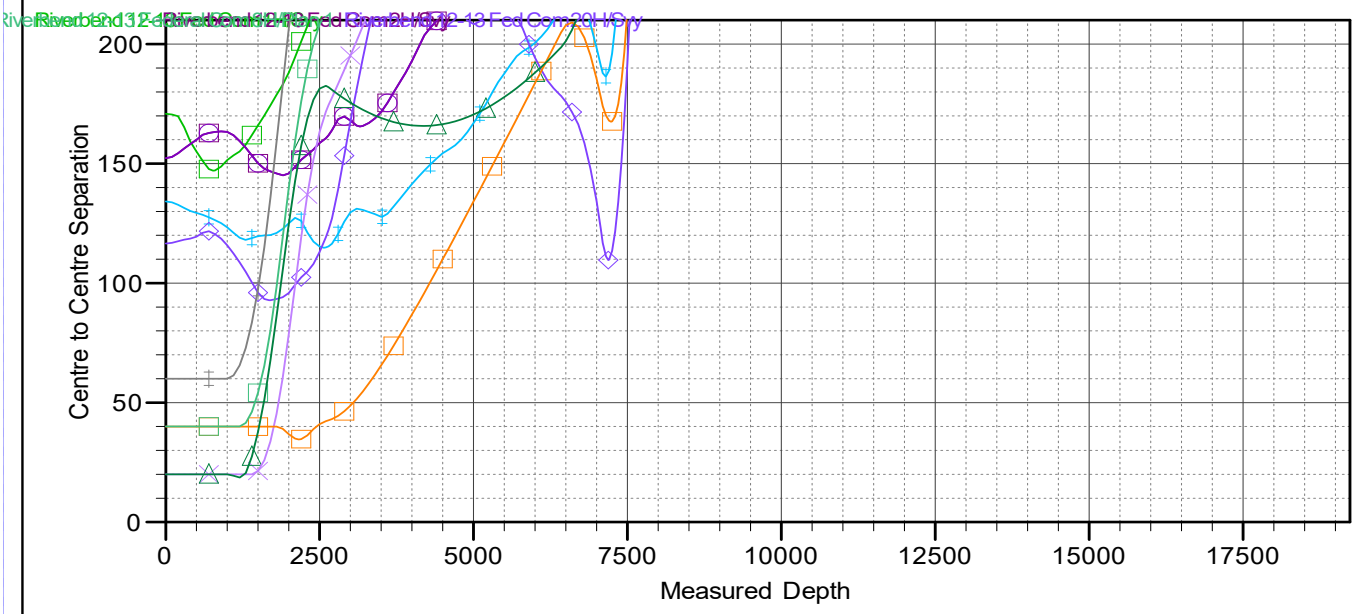
Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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 4H
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 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
- Riverbend 12-13 Federal Com 8H, OH, Plan 1 V0

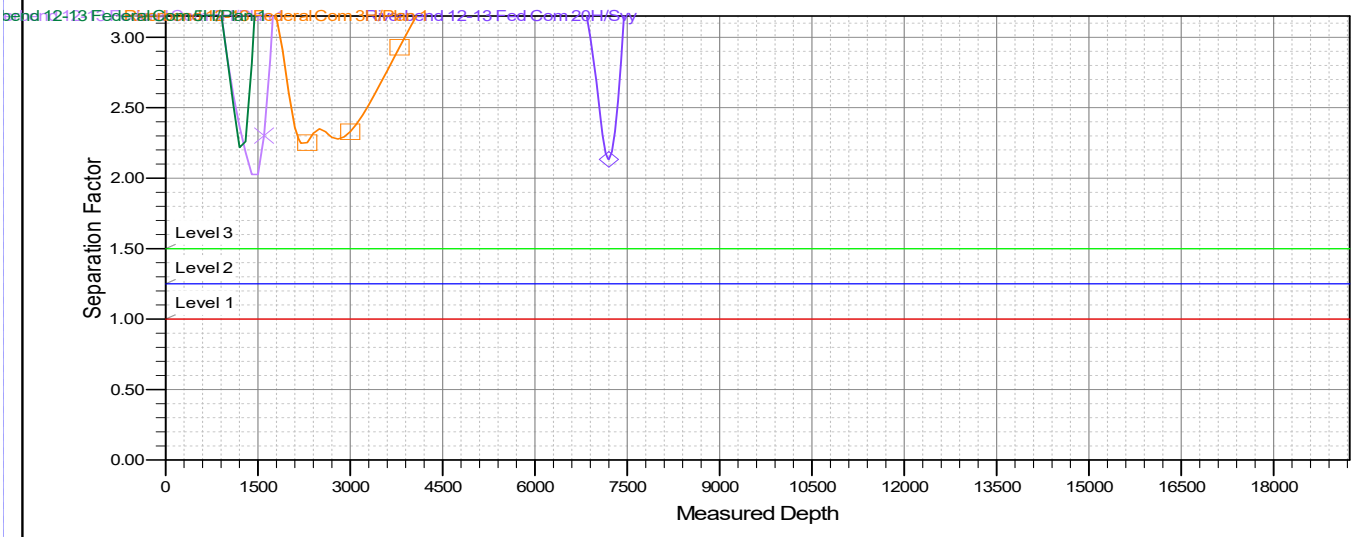
Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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 4H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.16°

Separation Factor 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 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
- Riverbend 12-13 Federal Com 8H, OH, Plan 1 V0

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

Coterra Energy

Site: Riverbend 12-13 Federal Com
Well: Riverbend 12-13 Federal Com 4H
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

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	420301.44	631508.48	32.1551516	-104.0419568	

SECTION DETAILS

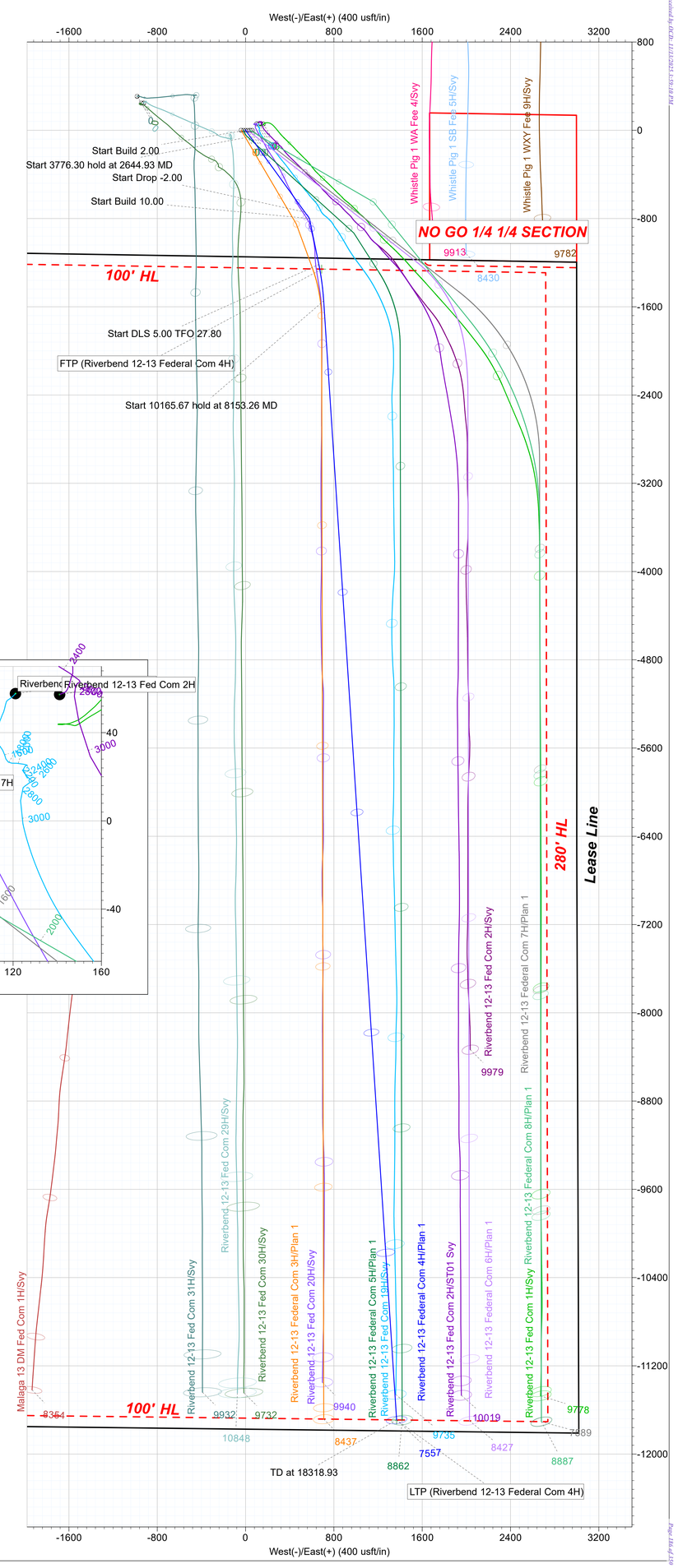
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00	
2644.93	12.90	144.10	2639.49	-58.56	42.38	2.00	144.10	61.19	
6421.23	12.90	144.10	6320.51	-741.44	536.62	0.00	0.00	774.78	
7066.16	0.00	0.00	6960.00	-800.00	579.00	2.00	180.00	835.97	
7816.16	75.00	168.50	7513.43	-1216.14	663.66	10.00	168.50	1256.74	
8153.26	90.00	176.27	7557.37	-1546.26	707.40	5.00	27.80	1589.00	
18318.93	90.00	176.27	7557.00	-11690.43	1368.20	0.00	0.00	11754.67	

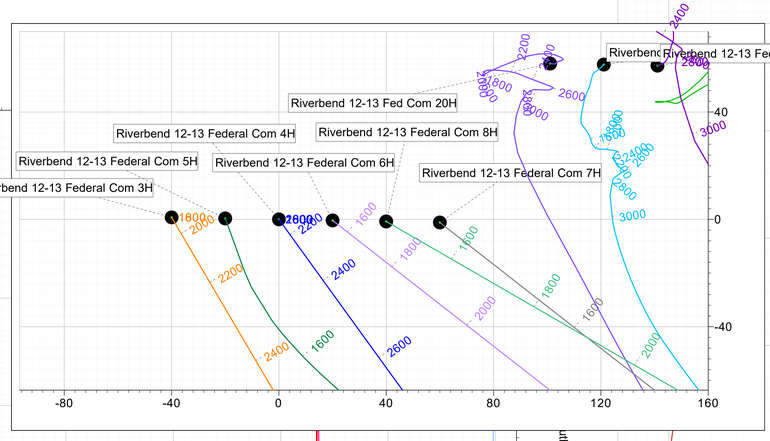
Formations

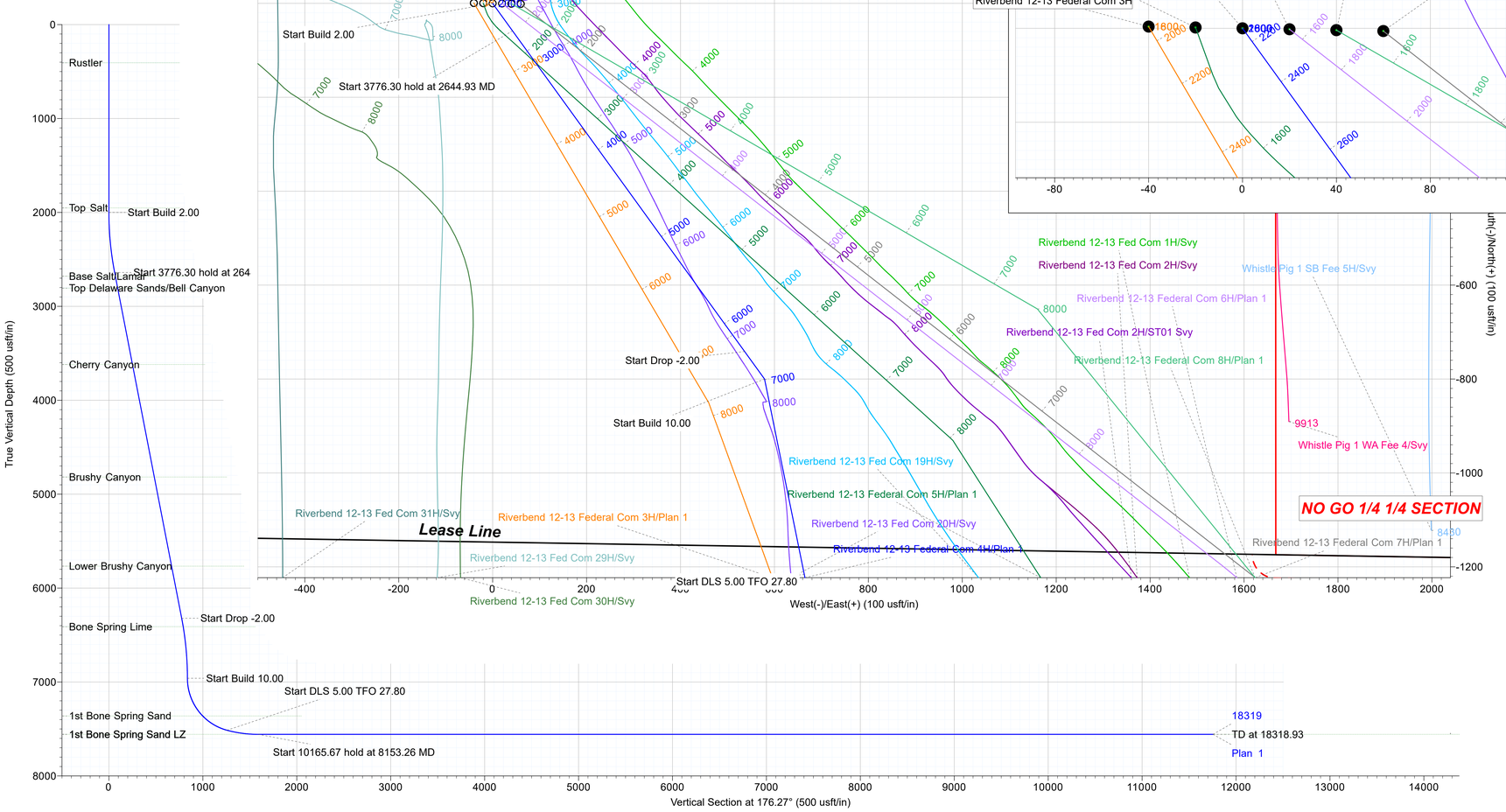
TVDPath	MDPath	Formation
407.00	407.00	Rustler
1952.00	1952.00	Top Salt
2679.00	2685.46	Base Salt/Lamar
2806.00	2815.78	Top Delaware Sands/Bell Canyon
3619.00	3649.79	Cherry Canyon
4817.00	4878.80	Brushy Canyon
5766.00	5852.37	Lower Brushy Canyon
6411.00	6513.74	Bone Spring Lime
7361.00	7510.33	1st Bone Spring Sand
7557.00	8122.39	1st Bone Spring Sand LZ

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FTP (Riverbend 12-13 Federal Com 4H)	0.00	-1258.41	688.98	419043.03	632197.46	32.1516872	-104.0397416
LTP (Riverbend 12-13 Federal Com 4H)	0.00	-11690.43	1368.20	408611.01	632876.68	32.1230054	-104.0376394







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.

Coterra Energy

Eddy County, NM (NAD 83)
Riverbend 12-13 Federal Com
Riverbend 12-13 Federal Com 4H

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 4H
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 4H	**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 4H

Well Position	**+N/-S**	0.00 usft	**Northing:**	420,301.44 usft	**Latitude:**	32.1551516
	+E/-W	0.00 usft	**Easting:**	631,508.48 usft	**Longitude:**	-104.0419568
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	176.27

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

From (usft)	**To (usft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
0.00	18,318.93	Plan 1 (OH)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction

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	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,644.93	12.90	144.10	2,639.49	-58.56	42.38	2.00	2.00	0.00	144.10	
6,421.23	12.90	144.10	6,320.51	-741.44	536.62	0.00	0.00	0.00	0.00	
7,066.16	0.00	0.00	6,960.00	-800.00	579.00	2.00	-2.00	0.00	180.00	
7,816.16	75.00	168.50	7,513.43	-1,216.14	663.66	10.00	10.00	0.00	168.50	
8,153.26	90.00	176.27	7,557.37	-1,546.26	707.40	5.00	4.45	2.31	27.80	
18,318.93	90.00	176.27	7,557.00	-11,690.43	1,368.20	0.00	0.00	0.00	0.00	

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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)
0.00	0.00	0.00	0.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
407.00	0.00	0.00	407.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
Rustler													
500.00	0.00	0.00	500.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
1,952.00	0.00	0.00	1,952.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
Top Salt													
2,000.00	0.00	0.00	2,000.00	0.00	0.00	420,301.44	631,508.48	32.1551516	-104.0419568	0.00	0.00	0.00	0.00
2,100.00	2.00	144.10	2,099.98	-1.41	1.02	420,300.03	631,509.50	32.1551477	-104.0419535	1.48	2.00	2.00	0.00
2,200.00	4.00	144.10	2,199.84	-5.65	4.09	420,295.79	631,512.57	32.1551360	-104.0419436	5.91	2.00	2.00	0.00
2,300.00	6.00	144.10	2,299.45	-12.71	9.20	420,288.73	631,517.68	32.1551166	-104.0419272	13.28	2.00	2.00	0.00
2,400.00	8.00	144.10	2,398.70	-22.59	16.35	420,278.85	631,524.83	32.1550894	-104.0419042	23.60	2.00	2.00	0.00
2,500.00	10.00	144.10	2,497.47	-35.26	25.52	420,266.18	631,534.00	32.1550545	-104.0418747	36.84	2.00	2.00	0.00
2,600.00	12.00	144.10	2,595.62	-50.71	36.70	420,250.73	631,545.18	32.1550119	-104.0418387	52.99	2.00	2.00	0.00
2,644.93	12.90	144.10	2,639.49	-58.56	42.38	420,242.88	631,550.86	32.1549903	-104.0418204	61.19	2.00	2.00	0.00
2,685.46	12.90	144.10	2,679.00	-65.89	47.69	420,235.55	631,556.17	32.1549701	-104.0418033	68.85	0.00	0.00	0.00
Base Salt/Lamar													
2,700.00	12.90	144.10	2,693.18	-68.52	49.59	420,232.92	631,558.07	32.1549629	-104.0417972	71.60	0.00	0.00	0.00
2,800.00	12.90	144.10	2,790.65	-86.60	62.68	420,214.84	631,571.16	32.1549131	-104.0417550	90.50	0.00	0.00	0.00
2,815.74	12.90	144.10	2,806.00	-89.45	64.74	420,211.99	631,573.22	32.1549052	-104.0417484	93.47	0.00	0.00	0.00
Top Delaware Sands/Bell Canyon													

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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)
2,900.00	12.90	144.10	2,888.13	-104.69	75.77	420,196.75	631,584.25	32.1548633	-104.0417129	109.39	0.00	0.00	0.00
3,000.00	12.90	144.10	2,985.61	-122.77	88.85	420,178.67	631,597.33	32.1548135	-104.0416708	128.29	0.00	0.00	0.00
3,100.00	12.90	144.10	3,083.08	-140.85	101.94	420,160.59	631,610.42	32.1547637	-104.0416286	147.19	0.00	0.00	0.00
3,200.00	12.90	144.10	3,180.56	-158.94	115.03	420,142.50	631,623.51	32.1547138	-104.0415865	166.08	0.00	0.00	0.00
3,300.00	12.90	144.10	3,278.04	-177.02	128.12	420,124.42	631,636.60	32.1546640	-104.0415444	184.98	0.00	0.00	0.00
3,400.00	12.90	144.10	3,375.51	-195.10	141.20	420,106.34	631,649.68	32.1546142	-104.0415022	203.87	0.00	0.00	0.00
3,500.00	12.90	144.10	3,472.99	-213.19	154.29	420,088.25	631,662.77	32.1545644	-104.0414601	222.77	0.00	0.00	0.00
3,600.00	12.90	144.10	3,570.47	-231.27	167.38	420,070.17	631,675.86	32.1545146	-104.0414180	241.67	0.00	0.00	0.00
3,649.79	12.90	144.10	3,619.00	-240.27	173.90	420,061.17	631,682.38	32.1544898	-104.0413970	251.08	0.00	0.00	0.00
Cherry Canyon													
3,700.00	12.90	144.10	3,667.94	-249.35	180.47	420,052.09	631,688.95	32.1544648	-104.0413758	260.56	0.00	0.00	0.00
3,800.00	12.90	144.10	3,765.42	-267.44	193.56	420,034.00	631,702.04	32.1544150	-104.0413337	279.46	0.00	0.00	0.00
3,900.00	12.90	144.10	3,862.90	-285.52	206.64	420,015.92	631,715.12	32.1543652	-104.0412916	298.36	0.00	0.00	0.00
4,000.00	12.90	144.10	3,960.37	-303.60	219.73	419,997.84	631,728.21	32.1543154	-104.0412494	317.25	0.00	0.00	0.00
4,100.00	12.90	144.10	4,057.85	-321.69	232.82	419,979.75	631,741.30	32.1542656	-104.0412073	336.15	0.00	0.00	0.00
4,200.00	12.90	144.10	4,155.33	-339.77	245.91	419,961.67	631,754.39	32.1542158	-104.0411652	355.05	0.00	0.00	0.00
4,300.00	12.90	144.10	4,252.80	-357.85	259.00	419,943.59	631,767.48	32.1541660	-104.0411230	373.94	0.00	0.00	0.00
4,400.00	12.90	144.10	4,350.28	-375.94	272.08	419,925.50	631,780.56	32.1541162	-104.0410809	392.84	0.00	0.00	0.00
4,500.00	12.90	144.10	4,447.76	-394.02	285.17	419,907.42	631,793.65	32.1540664	-104.0410388	411.74	0.00	0.00	0.00
4,600.00	12.90	144.10	4,545.23	-412.10	298.26	419,889.34	631,806.74	32.1540166	-104.0409967	430.63	0.00	0.00	0.00
4,700.00	12.90	144.10	4,642.71	-430.19	311.35	419,871.25	631,819.83	32.1539667	-104.0409545	449.53	0.00	0.00	0.00
4,800.00	12.90	144.10	4,740.19	-448.27	324.43	419,853.17	631,832.91	32.1539169	-104.0409124	468.42	0.00	0.00	0.00
4,878.80	12.90	144.10	4,817.00	-462.52	334.75	419,838.92	631,843.23	32.1538777	-104.0408792	483.32	0.00	0.00	0.00
Brushy Canyon													
4,900.00	12.90	144.10	4,837.66	-466.35	337.52	419,835.09	631,846.00	32.1538671	-104.0408703	487.32	0.00	0.00	0.00
5,000.00	12.90	144.10	4,935.14	-484.44	350.61	419,817.00	631,859.09	32.1538173	-104.0408281	506.22	0.00	0.00	0.00
5,100.00	12.90	144.10	5,032.62	-502.52	363.70	419,798.92	631,872.18	32.1537675	-104.0407860	525.11	0.00	0.00	0.00
5,200.00	12.90	144.10	5,130.09	-520.60	376.79	419,780.84	631,885.27	32.1537177	-104.0407439	544.01	0.00	0.00	0.00
5,300.00	12.90	144.10	5,227.57	-538.69	389.87	419,762.75	631,898.35	32.1536679	-104.0407017	562.91	0.00	0.00	0.00
5,400.00	12.90	144.10	5,325.05	-556.77	402.96	419,744.67	631,911.44	32.1536181	-104.0406596	581.80	0.00	0.00	0.00
5,500.00	12.90	144.10	5,422.52	-574.85	416.05	419,726.59	631,924.53	32.1535683	-104.0406175	600.70	0.00	0.00	0.00
5,600.00	12.90	144.10	5,520.00	-592.94	429.14	419,708.50	631,937.62	32.1535185	-104.0405753	619.60	0.00	0.00	0.00
5,700.00	12.90	144.10	5,617.48	-611.02	442.22	419,690.42	631,950.70	32.1534687	-104.0405332	638.49	0.00	0.00	0.00
5,800.00	12.90	144.10	5,714.95	-629.10	455.31	419,672.34	631,963.79	32.1534189	-104.0404911	657.39	0.00	0.00	0.00
5,852.37	12.90	144.10	5,766.00	-638.57	462.17	419,662.87	631,970.65	32.1533928	-104.0404690	667.28	0.00	0.00	0.00
Lower Brushy Canyon													
5,900.00	12.90	144.10	5,812.43	-647.19	468.40	419,654.26	631,976.88	32.1533691	-104.0404489	676.29	0.00	0.00	0.00
6,000.00	12.90	144.10	5,909.91	-665.27	481.49	419,636.17	631,989.97	32.1533193	-104.0404068	695.18	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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)
6,100.00	12.90	144.10	6,007.38	-683.35	494.58	419,618.09	632,003.06	32.1532694	-104.0403647	714.08	0.00	0.00	0.00
6,200.00	12.90	144.10	6,104.86	-701.43	507.66	419,600.01	632,016.14	32.1532196	-104.0403225	732.98	0.00	0.00	0.00
6,300.00	12.90	144.10	6,202.34	-719.52	520.75	419,581.92	632,029.23	32.1531698	-104.0402804	751.87	0.00	0.00	0.00
6,400.00	12.90	144.10	6,299.81	-737.60	533.84	419,563.84	632,042.32	32.1531200	-104.0402383	770.77	0.00	0.00	0.00
6,421.23	12.90	144.10	6,320.51	-741.44	536.62	419,560.00	632,045.10	32.1531095	-104.0402293	774.78	0.00	0.00	0.00
6,500.00	11.32	144.10	6,397.52	-754.83	546.31	419,546.61	632,054.79	32.1530726	-104.0401982	788.77	2.00	-2.00	0.00
6,513.74	11.05	144.10	6,411.00	-756.99	547.87	419,544.45	632,056.35	32.1530666	-104.0401931	791.03	2.00	-2.00	0.00
Bone Spring Lime													
6,600.00	9.32	144.10	6,495.90	-769.34	556.81	419,532.10	632,065.29	32.1530326	-104.0401643	803.94	2.00	-2.00	0.00
6,700.00	7.32	144.10	6,594.84	-781.07	565.30	419,520.37	632,073.78	32.1530003	-104.0401370	816.19	2.00	-2.00	0.00
6,800.00	5.32	144.10	6,694.23	-789.99	571.76	419,511.45	632,080.24	32.1529757	-104.0401162	825.51	2.00	-2.00	0.00
6,900.00	3.32	144.10	6,793.94	-796.10	576.18	419,505.34	632,084.66	32.1529589	-104.0401020	831.89	2.00	-2.00	0.00
7,000.00	1.32	144.10	6,893.85	-799.38	578.55	419,502.06	632,087.03	32.1529499	-104.0400943	835.33	2.00	-2.00	0.00
7,066.16	0.00	0.00	6,960.00	-800.00	579.00	419,501.44	632,087.48	32.1529482	-104.0400929	835.97	2.00	-2.00	0.00
7,100.00	3.38	168.50	6,993.82	-800.98	579.20	419,500.46	632,087.68	32.1529455	-104.0400923	836.96	10.00	10.00	0.00
7,150.00	8.38	168.50	7,043.55	-806.00	580.22	419,495.44	632,088.70	32.1529317	-104.0400890	842.04	10.00	10.00	0.00
7,200.00	13.38	168.50	7,092.63	-815.25	582.10	419,486.19	632,090.58	32.1529062	-104.0400830	851.39	10.00	10.00	0.00
7,250.00	18.38	168.50	7,140.71	-828.66	584.83	419,472.78	632,093.31	32.1528693	-104.0400743	864.95	10.00	10.00	0.00
7,300.00	23.38	168.50	7,187.41	-846.12	588.38	419,455.32	632,096.86	32.1528213	-104.0400630	882.60	10.00	10.00	0.00
7,350.00	28.38	168.50	7,232.38	-867.50	592.73	419,433.94	632,101.21	32.1527625	-104.0400491	904.22	10.00	10.00	0.00
7,400.00	33.38	168.50	7,275.27	-892.64	597.85	419,408.80	632,106.33	32.1526934	-104.0400328	929.64	10.00	10.00	0.00
7,450.00	38.38	168.50	7,315.77	-921.35	603.69	419,380.09	632,112.17	32.1526144	-104.0400142	958.67	10.00	10.00	0.00
7,500.00	43.38	168.50	7,353.56	-953.41	610.21	419,348.03	632,118.69	32.1525262	-104.0399934	991.09	10.00	10.00	0.00
7,510.33	44.42	168.50	7,361.00	-960.43	611.64	419,341.01	632,120.12	32.1525069	-104.0399889	998.18	10.00	10.00	0.00
1st Bone Spring Sand													
7,550.00	48.38	168.50	7,388.35	-988.58	617.37	419,312.86	632,125.85	32.1524295	-104.0399706	1,026.64	10.00	10.00	0.00
7,600.00	53.38	168.50	7,419.89	-1,026.58	625.10	419,274.86	632,133.58	32.1523250	-104.0399459	1,065.07	10.00	10.00	0.00
7,650.00	58.38	168.50	7,447.92	-1,067.13	633.35	419,234.31	632,141.83	32.1522134	-104.0399196	1,106.07	10.00	10.00	0.00
7,700.00	63.38	168.50	7,472.24	-1,109.92	642.05	419,191.52	632,150.53	32.1520957	-104.0398919	1,149.34	10.00	10.00	0.00
7,750.00	68.38	168.50	7,492.67	-1,154.63	651.15	419,146.81	632,159.63	32.1519728	-104.0398629	1,194.54	10.00	10.00	0.00
7,800.00	73.38	168.50	7,509.03	-1,200.91	660.57	419,100.53	632,169.05	32.1518455	-104.0398329	1,241.34	10.00	10.00	0.00
7,816.16	75.00	168.50	7,513.43	-1,216.14	663.66	419,085.30	632,172.14	32.1518036	-104.0398230	1,256.74	10.00	10.00	0.00
7,900.00	78.72	170.49	7,532.50	-1,296.40	678.54	419,005.04	632,187.02	32.1515828	-104.0397757	1,337.80	5.00	4.43	2.38
8,000.00	83.17	172.80	7,548.24	-1,394.08	692.86	418,907.36	632,201.34	32.1513142	-104.0397302	1,436.20	5.00	4.45	2.31
8,100.00	87.63	175.07	7,556.27	-1,493.17	703.38	418,808.27	632,211.86	32.1510418	-104.0396971	1,535.76	5.00	4.46	2.27
8,122.39	88.62	175.58	7,557.00	-1,515.47	705.20	418,785.97	632,213.68	32.1509805	-104.0396914	1,558.14	5.00	4.46	2.26
1st Bone Spring Sand LZ													
8,153.26	90.00	176.27	7,557.37	-1,546.26	707.40	418,755.18	632,215.88	32.1508958	-104.0396846	1,589.00	5.00	4.46	2.25

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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)
8,200.00	90.00	176.27	7,557.37	-1,592.90	710.43	418,708.54	632,218.91	32.1507676	-104.0396752	1,635.74	0.00	0.00	0.00
8,300.00	90.00	176.27	7,557.36	-1,692.69	716.93	418,608.75	632,225.41	32.1504932	-104.0396551	1,735.74	0.00	0.00	0.00
8,400.00	90.00	176.27	7,557.36	-1,792.48	723.43	418,508.96	632,231.91	32.1502189	-104.0396349	1,835.74	0.00	0.00	0.00
8,500.00	90.00	176.27	7,557.36	-1,892.27	729.93	418,409.17	632,238.41	32.1499445	-104.0396148	1,935.74	0.00	0.00	0.00
8,600.00	90.00	176.27	7,557.35	-1,992.06	736.44	418,309.38	632,244.92	32.1496701	-104.0395947	2,035.74	0.00	0.00	0.00
8,700.00	90.00	176.27	7,557.35	-2,091.84	742.94	418,209.60	632,251.42	32.1493958	-104.0395746	2,135.74	0.00	0.00	0.00
8,800.00	90.00	176.27	7,557.35	-2,191.63	749.44	418,109.81	632,257.92	32.1491214	-104.0395545	2,235.74	0.00	0.00	0.00
8,900.00	90.00	176.27	7,557.34	-2,291.42	755.94	418,010.02	632,264.42	32.1488471	-104.0395343	2,335.74	0.00	0.00	0.00
9,000.00	90.00	176.27	7,557.34	-2,391.21	762.44	417,910.23	632,270.92	32.1485727	-104.0395142	2,435.74	0.00	0.00	0.00
9,100.00	90.00	176.27	7,557.34	-2,491.00	768.94	417,810.44	632,277.42	32.1482983	-104.0394941	2,535.74	0.00	0.00	0.00
9,200.00	90.00	176.27	7,557.33	-2,590.79	775.44	417,710.65	632,283.92	32.1480240	-104.0394740	2,635.74	0.00	0.00	0.00
9,300.00	90.00	176.27	7,557.33	-2,690.58	781.94	417,610.86	632,290.42	32.1477496	-104.0394538	2,735.74	0.00	0.00	0.00
9,400.00	90.00	176.27	7,557.32	-2,790.36	788.44	417,511.08	632,296.92	32.1474753	-104.0394337	2,835.74	0.00	0.00	0.00
9,500.00	90.00	176.27	7,557.32	-2,890.15	794.94	417,411.29	632,303.42	32.1472009	-104.0394136	2,935.74	0.00	0.00	0.00
9,600.00	90.00	176.27	7,557.32	-2,989.94	801.44	417,311.50	632,309.92	32.1469266	-104.0393935	3,035.74	0.00	0.00	0.00
9,700.00	90.00	176.27	7,557.31	-3,089.73	807.94	417,211.71	632,316.42	32.1466522	-104.0393733	3,135.74	0.00	0.00	0.00
9,800.00	90.00	176.27	7,557.31	-3,189.52	814.44	417,111.92	632,322.92	32.1463778	-104.0393532	3,235.74	0.00	0.00	0.00
9,900.00	90.00	176.27	7,557.31	-3,289.31	820.94	417,012.13	632,329.42	32.1461035	-104.0393331	3,335.74	0.00	0.00	0.00
10,000.00	90.00	176.27	7,557.30	-3,389.09	827.44	416,912.35	632,335.92	32.1458291	-104.0393130	3,435.74	0.00	0.00	0.00
10,100.00	90.00	176.27	7,557.30	-3,488.88	833.94	416,812.56	632,342.42	32.1455548	-104.0392929	3,535.74	0.00	0.00	0.00
10,200.00	90.00	176.27	7,557.30	-3,588.67	840.44	416,712.77	632,348.92	32.1452804	-104.0392727	3,635.74	0.00	0.00	0.00
10,300.00	90.00	176.27	7,557.29	-3,688.46	846.94	416,612.98	632,355.42	32.1450061	-104.0392526	3,735.74	0.00	0.00	0.00
10,400.00	90.00	176.27	7,557.29	-3,788.25	853.44	416,513.19	632,361.92	32.1447317	-104.0392325	3,835.74	0.00	0.00	0.00
10,500.00	90.00	176.27	7,557.28	-3,888.04	859.94	416,413.40	632,368.42	32.1444573	-104.0392124	3,935.74	0.00	0.00	0.00
10,600.00	90.00	176.27	7,557.28	-3,987.83	866.44	416,313.61	632,374.92	32.1441830	-104.0391922	4,035.74	0.00	0.00	0.00
10,700.00	90.00	176.27	7,557.28	-4,087.61	872.94	416,213.83	632,381.42	32.1439086	-104.0391721	4,135.74	0.00	0.00	0.00
10,800.00	90.00	176.27	7,557.27	-4,187.40	879.44	416,114.04	632,387.92	32.1436343	-104.0391520	4,235.74	0.00	0.00	0.00
10,900.00	90.00	176.27	7,557.27	-4,287.19	885.94	416,014.25	632,394.42	32.1433599	-104.0391319	4,335.74	0.00	0.00	0.00
11,000.00	90.00	176.27	7,557.27	-4,386.98	892.44	415,914.46	632,400.92	32.1430855	-104.0391118	4,435.74	0.00	0.00	0.00
11,100.00	90.00	176.27	7,557.26	-4,486.77	898.94	415,814.67	632,407.42	32.1428112	-104.0390916	4,535.74	0.00	0.00	0.00
11,200.00	90.00	176.27	7,557.26	-4,586.56	905.44	415,714.88	632,413.92	32.1425368	-104.0390715	4,635.74	0.00	0.00	0.00
11,300.00	90.00	176.27	7,557.26	-4,686.35	911.94	415,615.09	632,420.42	32.1422625	-104.0390514	4,735.74	0.00	0.00	0.00
11,400.00	90.00	176.27	7,557.25	-4,786.13	918.45	415,515.31	632,426.93	32.1419881	-104.0390313	4,835.74	0.00	0.00	0.00
11,500.00	90.00	176.27	7,557.25	-4,885.92	924.95	415,415.52	632,433.43	32.1417138	-104.0390112	4,935.74	0.00	0.00	0.00
11,600.00	90.00	176.27	7,557.24	-4,985.71	931.45	415,315.73	632,439.93	32.1414394	-104.0389910	5,035.74	0.00	0.00	0.00
11,700.00	90.00	176.27	7,557.24	-5,085.50	937.95	415,215.94	632,446.43	32.1411650	-104.0389709	5,135.74	0.00	0.00	0.00
11,800.00	90.00	176.27	7,557.24	-5,185.29	944.45	415,116.15	632,452.93	32.1408907	-104.0389508	5,235.74	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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)
11,900.00	90.00	176.27	7,557.23	-5,285.08	950.95	415,016.36	632,459.43	32.1406163	-104.0389307	5,335.74	0.00	0.00	0.00
12,000.00	90.00	176.27	7,557.23	-5,384.86	957.45	414,916.58	632,465.93	32.1403420	-104.0389106	5,435.74	0.00	0.00	0.00
12,100.00	90.00	176.27	7,557.23	-5,484.65	963.95	414,816.79	632,472.43	32.1400676	-104.0388904	5,535.74	0.00	0.00	0.00
12,200.00	90.00	176.27	7,557.22	-5,584.44	970.45	414,717.00	632,478.93	32.1397932	-104.0388703	5,635.74	0.00	0.00	0.00
12,300.00	90.00	176.27	7,557.22	-5,684.23	976.95	414,617.21	632,485.43	32.1395189	-104.0388502	5,735.74	0.00	0.00	0.00
12,400.00	90.00	176.27	7,557.22	-5,784.02	983.45	414,517.42	632,491.93	32.1392445	-104.0388301	5,835.74	0.00	0.00	0.00
12,500.00	90.00	176.27	7,557.21	-5,883.81	989.95	414,417.63	632,498.43	32.1389702	-104.0388100	5,935.74	0.00	0.00	0.00
12,600.00	90.00	176.27	7,557.21	-5,983.60	996.45	414,317.84	632,504.93	32.1386958	-104.0387898	6,035.74	0.00	0.00	0.00
12,700.00	90.00	176.27	7,557.20	-6,083.38	1,002.95	414,218.06	632,511.43	32.1384215	-104.0387697	6,135.74	0.00	0.00	0.00
12,800.00	90.00	176.27	7,557.20	-6,183.17	1,009.45	414,118.27	632,517.93	32.1381471	-104.0387496	6,235.74	0.00	0.00	0.00
12,900.00	90.00	176.27	7,557.20	-6,282.96	1,015.95	414,018.48	632,524.43	32.1378727	-104.0387295	6,335.74	0.00	0.00	0.00
13,000.00	90.00	176.27	7,557.19	-6,382.75	1,022.45	413,918.69	632,530.93	32.1375984	-104.0387094	6,435.74	0.00	0.00	0.00
13,100.00	90.00	176.27	7,557.19	-6,482.54	1,028.95	413,818.90	632,537.43	32.1373240	-104.0386892	6,535.74	0.00	0.00	0.00
13,200.00	90.00	176.27	7,557.19	-6,582.33	1,035.45	413,719.11	632,543.93	32.1370497	-104.0386691	6,635.74	0.00	0.00	0.00
13,300.00	90.00	176.27	7,557.18	-6,682.12	1,041.95	413,619.32	632,550.43	32.1367753	-104.0386490	6,735.74	0.00	0.00	0.00
13,400.00	90.00	176.27	7,557.18	-6,781.90	1,048.45	413,519.54	632,556.93	32.1365010	-104.0386289	6,835.74	0.00	0.00	0.00
13,500.00	90.00	176.27	7,557.18	-6,881.69	1,054.95	413,419.75	632,563.43	32.1362266	-104.0386088	6,935.74	0.00	0.00	0.00
13,600.00	90.00	176.27	7,557.17	-6,981.48	1,061.45	413,319.96	632,569.93	32.1359522	-104.0385886	7,035.74	0.00	0.00	0.00
13,700.00	90.00	176.27	7,557.17	-7,081.27	1,067.95	413,220.17	632,576.43	32.1356779	-104.0385685	7,135.74	0.00	0.00	0.00
13,800.00	90.00	176.27	7,557.16	-7,181.06	1,074.45	413,120.38	632,582.93	32.1354035	-104.0385484	7,235.74	0.00	0.00	0.00
13,900.00	90.00	176.27	7,557.16	-7,280.85	1,080.95	413,020.59	632,589.43	32.1351292	-104.0385283	7,335.74	0.00	0.00	0.00
14,000.00	90.00	176.27	7,557.16	-7,380.63	1,087.45	412,920.81	632,595.93	32.1348548	-104.0385082	7,435.74	0.00	0.00	0.00
14,100.00	90.00	176.27	7,557.15	-7,480.42	1,093.95	412,821.02	632,602.43	32.1345804	-104.0384881	7,535.74	0.00	0.00	0.00
14,200.00	90.00	176.27	7,557.15	-7,580.21	1,100.46	412,721.23	632,608.94	32.1343061	-104.0384679	7,635.74	0.00	0.00	0.00
14,300.00	90.00	176.27	7,557.15	-7,680.00	1,106.96	412,621.44	632,615.44	32.1340317	-104.0384478	7,735.74	0.00	0.00	0.00
14,400.00	90.00	176.27	7,557.14	-7,779.79	1,113.46	412,521.65	632,621.94	32.1337574	-104.0384277	7,835.74	0.00	0.00	0.00
14,500.00	90.00	176.27	7,557.14	-7,879.58	1,119.96	412,421.86	632,628.44	32.1334830	-104.0384076	7,935.74	0.00	0.00	0.00
14,600.00	90.00	176.27	7,557.14	-7,979.37	1,126.46	412,322.07	632,634.94	32.1332086	-104.0383875	8,035.74	0.00	0.00	0.00
14,700.00	90.00	176.27	7,557.13	-8,079.15	1,132.96	412,222.29	632,641.44	32.1329343	-104.0383674	8,135.74	0.00	0.00	0.00
14,800.00	90.00	176.27	7,557.13	-8,178.94	1,139.46	412,122.50	632,647.94	32.1326599	-104.0383472	8,235.74	0.00	0.00	0.00
14,900.00	90.00	176.27	7,557.12	-8,278.73	1,145.96	412,022.71	632,654.44	32.1323856	-104.0383271	8,335.74	0.00	0.00	0.00
15,000.00	90.00	176.27	7,557.12	-8,378.52	1,152.46	411,922.92	632,660.94	32.1321112	-104.0383070	8,435.74	0.00	0.00	0.00
15,100.00	90.00	176.27	7,557.12	-8,478.31	1,158.96	411,823.13	632,667.44	32.1318369	-104.0382869	8,535.74	0.00	0.00	0.00
15,200.00	90.00	176.27	7,557.11	-8,578.10	1,165.46	411,723.34	632,673.94	32.1315625	-104.0382668	8,635.74	0.00	0.00	0.00
15,300.00	90.00	176.27	7,557.11	-8,677.89	1,171.96	411,623.55	632,680.44	32.1312881	-104.0382467	8,735.74	0.00	0.00	0.00
15,400.00	90.00	176.27	7,557.11	-8,777.67	1,178.46	411,523.77	632,686.94	32.1310138	-104.0382265	8,835.74	0.00	0.00	0.00
15,500.00	90.00	176.27	7,557.10	-8,877.46	1,184.96	411,423.98	632,693.44	32.1307394	-104.0382064	8,935.74	0.00	0.00	0.00
15,600.00	90.00	176.27	7,557.10	-8,977.25	1,191.46	411,324.19	632,699.94	32.1304651	-104.0381863	9,035.74	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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)
15,700.00	90.00	176.27	7,557.10	-9,077.04	1,197.96	411,224.40	632,706.44	32.1301907	-104.0381662	9,135.74	0.00	0.00	0.00
15,800.00	90.00	176.27	7,557.09	-9,176.83	1,204.46	411,124.61	632,712.94	32.1299163	-104.0381461	9,235.74	0.00	0.00	0.00
15,900.00	90.00	176.27	7,557.09	-9,276.62	1,210.96	411,024.82	632,719.44	32.1296420	-104.0381260	9,335.74	0.00	0.00	0.00
16,000.00	90.00	176.27	7,557.08	-9,376.41	1,217.46	410,925.04	632,725.94	32.1293676	-104.0381058	9,435.74	0.00	0.00	0.00
16,100.00	90.00	176.27	7,557.08	-9,476.19	1,223.96	410,825.25	632,732.44	32.1290933	-104.0380857	9,535.74	0.00	0.00	0.00
16,200.00	90.00	176.27	7,557.08	-9,575.98	1,230.46	410,725.46	632,738.94	32.1288189	-104.0380656	9,635.74	0.00	0.00	0.00
16,300.00	90.00	176.27	7,557.07	-9,675.77	1,236.96	410,625.67	632,745.44	32.1285446	-104.0380455	9,735.74	0.00	0.00	0.00
16,400.00	90.00	176.27	7,557.07	-9,775.56	1,243.46	410,525.88	632,751.94	32.1282702	-104.0380254	9,835.74	0.00	0.00	0.00
16,500.00	90.00	176.27	7,557.07	-9,875.35	1,249.96	410,426.09	632,758.44	32.1279958	-104.0380053	9,935.74	0.00	0.00	0.00
16,600.00	90.00	176.27	7,557.06	-9,975.14	1,256.46	410,326.30	632,764.94	32.1277215	-104.0379851	10,035.74	0.00	0.00	0.00
16,700.00	90.00	176.27	7,557.06	-10,074.92	1,262.96	410,226.52	632,771.44	32.1274471	-104.0379650	10,135.74	0.00	0.00	0.00
16,800.00	90.00	176.27	7,557.06	-10,174.71	1,269.46	410,126.73	632,777.94	32.1271728	-104.0379449	10,235.74	0.00	0.00	0.00
16,900.00	90.00	176.27	7,557.05	-10,274.50	1,275.96	410,026.94	632,784.44	32.1268984	-104.0379248	10,335.74	0.00	0.00	0.00
17,000.00	90.00	176.27	7,557.05	-10,374.29	1,282.46	409,927.15	632,790.94	32.1266240	-104.0379047	10,435.74	0.00	0.00	0.00
17,100.00	90.00	176.27	7,557.04	-10,474.08	1,288.97	409,827.36	632,797.45	32.1263497	-104.0378846	10,535.74	0.00	0.00	0.00
17,200.00	90.00	176.27	7,557.04	-10,573.87	1,295.47	409,727.57	632,803.95	32.1260753	-104.0378645	10,635.74	0.00	0.00	0.00
17,300.00	90.00	176.27	7,557.04	-10,673.66	1,301.97	409,627.78	632,810.45	32.1258010	-104.0378443	10,735.74	0.00	0.00	0.00
17,400.00	90.00	176.27	7,557.03	-10,773.44	1,308.47	409,528.00	632,816.95	32.1255266	-104.0378242	10,835.74	0.00	0.00	0.00
17,500.00	90.00	176.27	7,557.03	-10,873.23	1,314.97	409,428.21	632,823.45	32.1252522	-104.0378041	10,935.74	0.00	0.00	0.00
17,600.00	90.00	176.27	7,557.03	-10,973.02	1,321.47	409,328.42	632,829.95	32.1249779	-104.0377840	11,035.74	0.00	0.00	0.00
17,700.00	90.00	176.27	7,557.02	-11,072.81	1,327.97	409,228.63	632,836.45	32.1247035	-104.0377639	11,135.74	0.00	0.00	0.00
17,800.00	90.00	176.27	7,557.02	-11,172.60	1,334.47	409,128.84	632,842.95	32.1244292	-104.0377438	11,235.74	0.00	0.00	0.00
17,900.00	90.00	176.27	7,557.02	-11,272.39	1,340.97	409,029.05	632,849.45	32.1241548	-104.0377237	11,335.74	0.00	0.00	0.00
18,000.00	90.00	176.27	7,557.01	-11,372.18	1,347.47	408,929.27	632,855.95	32.1238805	-104.0377036	11,435.74	0.00	0.00	0.00
18,100.00	90.00	176.27	7,557.01	-11,471.96	1,353.97	408,829.48	632,862.45	32.1236061	-104.0376834	11,535.74	0.00	0.00	0.00
18,200.00	90.00	176.27	7,557.00	-11,571.75	1,360.47	408,729.69	632,868.95	32.1233317	-104.0376633	11,635.74	0.00	0.00	0.00
18,300.00	90.00	176.27	7,557.00	-11,671.54	1,366.97	408,629.90	632,875.45	32.1230574	-104.0376432	11,735.74	0.00	0.00	0.00
18,318.93	90.00	176.27	7,557.00	-11,690.43	1,368.20	408,611.01	632,876.68	32.1230054	-104.0376394	11,754.67	0.00	0.00	0.00

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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	-11,690.43	1,368.20	408,611.01	632,876.68	32.1230054	-104.0376394
- plan misses target center by 7557.00usft at 18318.93usft MD (7557.00 TVD, -11690.43 N, 1368.20 E)									
- Point									
FTP (Riverbend 12-13 F	0.00	0.00	0.00	-1,258.41	688.98	419,043.03	632,197.46	32.1516872	-104.0397416
- plan misses target center by 1434.67usft 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			
1,952.00	1,952.00	Top Salt			
2,685.46	2,679.00	Base Salt/Lamar			
2,815.74	2,806.00	Top Delaware Sands/Bell Canyon			
3,649.79	3,619.00	Cherry Canyon			
4,878.80	4,817.00	Brushy Canyon			
5,852.37	5,766.00	Lower Brushy Canyon			
6,513.74	6,411.00	Bone Spring Lime			
7,510.33	7,361.00	1st Bone Spring Sand			
8,122.39	7,557.00	1st Bone Spring Sand LZ			

Checked By: _____ Approved By: _____ Date: _____

Coterra Energy

Eddy County, NM (NAD 83)
Riverbend 12-13 Federal Com
Riverbend 12-13 Federal Com 4H

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 4H
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 4H	**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 4H						
Well Position	**+N/-S**	0.00 usft	**Northing:**	420,301.44	usft	**Latitude:**	32.1551516
	+E/-W	0.00 usft	**Easting:**	631,508.48	usft	**Longitude:**	-104.0419568
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	18,318.93	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 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
Riverbend 12-13 Federal Com 8H -	2,934.00	2,957.00	420,300.68	631,548.47	32.1551492	-104.0418276	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 4H
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 4H	**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	2,570.52	2,567.36	114.83	97.13	6.49	CC
Riverbend 12-13 Fed Com 19H - OH - Svy	2,600.00	2,596.51	114.93	97.04	6.42	ES
Riverbend 12-13 Fed Com 19H - OH - Svy	7,150.00	7,146.94	186.51	135.20	3.63	SF
Riverbend 12-13 Fed Com 1H - OH - Svy	769.18	770.40	147.04	141.96	28.94	CC
Riverbend 12-13 Fed Com 1H - OH - Svy	800.00	800.25	147.14	141.85	27.82	ES
Riverbend 12-13 Fed Com 1H - OH - Svy	7,100.00	7,087.63	355.53	304.07	6.91	SF
Riverbend 12-13 Fed Com 20H - OH - Svy	1,677.30	1,678.91	92.82	81.38	8.12	CC
Riverbend 12-13 Fed Com 20H - OH - Svy	7,188.91	7,205.71	109.65	58.29	2.13	ES
Riverbend 12-13 Fed Com 20H - OH - Svy	7,200.00	7,216.25	109.77	58.33	2.13	SF
Riverbend 12-13 Fed Com 29H - OH - Svy	780.57	783.80	950.74	945.70	188.70	CC
Riverbend 12-13 Fed Com 29H - OH - Svy	2,100.10	2,129.57	956.61	942.19	66.34	ES
Riverbend 12-13 Fed Com 29H - OH - Svy	18,300.00	21,947.00	3,599.55	3,398.30	17.89	SF
Riverbend 12-13 Fed Com 2H - OH - Svy	1,912.80	1,914.01	145.13	132.00	11.05	CC, ES
Riverbend 12-13 Fed Com 2H - OH - Svy	7,150.00	7,146.21	282.14	230.87	5.50	SF
Riverbend 12-13 Fed Com 2H - ST01 - ST01 Svy	1,912.80	1,914.01	145.13	132.00	11.05	CC, ES
Riverbend 12-13 Fed Com 2H - ST01 - ST01 Svy	7,150.00	7,146.21	282.14	230.87	5.50	SF
Riverbend 12-13 Fed Com 30H - OH - Svy	0.00	0.00	975.19			
Riverbend 12-13 Fed Com 30H - OH - Svy	1,500.00	1,502.00	976.57	966.42	96.22	ES
Riverbend 12-13 Fed Com 31H - OH - Svy	2,249.52	2,322.62	969.33	953.54	61.39	CC
Riverbend 12-13 Fed Com 31H - OH - Svy	2,300.00	2,384.27	969.40	953.23	59.95	ES
Riverbend 12-13 Fed Com 31H - OH - Svy	18,200.00	21,398.00	2,953.31	2,733.40	13.43	SF
Riverbend 12-13 Federal Com						
Riverbend 12-13 Federal Com 3H - OH - Plan 1	2,160.38	2,161.58	34.61	19.41	2.28	CC
Riverbend 12-13 Federal Com 3H - OH - Plan 1	2,200.00	2,201.12	34.75	19.29	2.25	ES, SF
Riverbend 12-13 Federal Com 5H - OH - Plan 1	1,202.85	1,203.02	18.65	10.24	2.22	CC, ES, SF
Riverbend 12-13 Federal Com 6H - OH - Plan 1	1,400.00	1,400.00	20.00	10.13	2.03	CC, ES, SF
Riverbend 12-13 Federal Com 7H - OH - Plan 1	1,000.00	1,000.00	59.99	52.99	8.56	CC, ES
Riverbend 12-13 Federal Com 7H - OH - Plan 1	18,318.93	18,899.23	1,312.03	1,123.31	6.95	SF
Riverbend 12-13 Federal Com 8H - OH - Plan 1	1,200.00	1,200.00	40.00	31.56	4.74	CC, ES
Riverbend 12-13 Federal Com 8H - OH - Plan 1	1,300.00	1,298.75	41.51	32.38	4.54	SF
Riverbend 12-13 Offsets						
Malaga 13 DM Fed Com 1H - OH - Svy	12,674.44	7,527.49	2,168.15	2,087.55	26.90	CC, ES
Malaga 13 DM Fed Com 1H - OH - Svy	18,300.00	13,305.00	3,405.29	3,222.68	18.65	SF
Whistle Pig 1 SB Fee 5H - OH - Svy	7,999.92	13,295.00	1,599.01	1,506.15	17.22	CC, ES, SF
Whistle Pig 1 WA Fee 4 - OH - Svy	7,972.58	14,593.00	2,616.69	2,549.83	39.14	CC, ES
Whistle Pig 1 WA Fee 4 - OH - Svy	8,100.00	14,593.00	2,626.83	2,559.60	39.07	SF
Whistle Pig 1 WXY Fee 9H - OH - Svy	8,008.97	14,503.00	3,040.43	2,960.16	37.88	CC, ES
Whistle Pig 1 WXY Fee 9H - OH - Svy	8,100.00	14,503.00	3,045.27	2,964.70	37.80	SF

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	0.71	0.71	0.00	0.50	64.53	57.69	121.10	134.14				
100.00	100.00	101.60	101.60	0.28	0.53	64.58	57.43	120.85	133.80	133.00	0.80	166.862	
200.00	200.00	202.46	202.46	0.63	0.60	64.75	56.65	120.09	132.80	131.56	1.23	107.770	
300.00	300.00	302.54	302.52	0.99	0.85	64.91	55.72	119.03	131.44	129.60	1.84	71.372	
400.00	400.00	402.07	402.05	1.35	1.16	65.00	55.04	118.01	130.22	127.71	2.51	51.935	

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 4H
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 4H	**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
500.00	500.00	501.66	501.63	1.71	1.49	65.07	54.56	117.35	129.42	126.22	3.20	40.500	
600.00	600.00	601.91	601.88	2.07	1.83	65.30	53.73	116.83	128.60	124.71	3.90	33.012	
700.00	700.00	702.19	702.14	2.43	2.17	65.91	52.07	116.45	127.57	122.97	4.60	27.733	
800.00	800.00	802.26	802.19	2.79	2.52	66.58	50.22	115.96	126.38	121.07	5.31	23.811	
900.00	900.00	902.66	902.58	3.14	2.88	67.20	48.49	115.34	125.13	119.11	6.02	20.788	
1,000.00	1,000.00	1,003.43	1,003.31	3.50	3.23	68.00	46.19	114.31	123.31	116.58	6.73	18.312	
1,100.00	1,100.00	1,103.65	1,103.46	3.86	3.59	69.47	42.44	113.33	121.05	113.60	7.45	16.252	
1,200.00	1,200.00	1,202.98	1,202.70	4.22	3.94	71.22	38.31	112.66	119.01	110.85	8.16	14.584	
1,292.53	1,292.53	1,293.54	1,293.23	4.55	4.26	72.27	35.98	112.51	118.13	109.32	8.81	13.406	
1,300.00	1,300.00	1,300.83	1,300.51	4.58	4.29	72.34	35.84	112.56	118.13	109.27	8.86	13.328	
1,400.00	1,400.00	1,399.85	1,399.52	4.94	4.63	73.30	34.14	113.80	118.82	109.25	9.57	12.421	
1,500.00	1,500.00	1,500.42	1,500.06	5.29	4.98	74.43	32.11	115.26	119.65	109.37	10.28	11.643	
1,600.00	1,600.00	1,601.03	1,600.64	5.65	5.34	75.52	29.98	116.13	119.94	108.95	10.99	10.913	
1,700.00	1,700.00	1,700.72	1,700.30	6.01	5.69	76.58	27.88	116.82	120.10	108.39	11.70	10.263	
1,800.00	1,800.00	1,799.44	1,799.00	6.37	6.04	77.32	26.55	118.03	120.99	108.59	12.40	9.754	
1,900.00	1,900.00	1,898.72	1,898.26	6.73	6.38	77.69	26.16	119.82	122.67	109.57	13.10	9.363	
2,000.00	2,000.00	1,997.74	1,997.26	7.09	6.71	77.94	26.11	122.25	125.05	111.26	13.80	9.065	
2,100.00	2,099.98	2,098.18	2,097.64	7.43	7.06	-66.30	25.53	125.39	127.29	112.80	14.48	8.788	
2,200.00	2,199.84	2,202.09	2,201.55	7.76	7.42	-68.36	25.22	126.34	126.09	110.92	15.17	8.309	
2,300.00	2,299.45	2,302.62	2,302.05	8.09	7.77	-72.02	24.20	124.65	121.22	105.37	15.85	7.646	
2,400.00	2,398.70	2,399.54	2,398.95	8.42	8.12	-76.45	21.85	125.00	117.39	100.86	16.53	7.102	
2,500.00	2,497.47	2,497.74	2,497.08	8.76	8.46	-82.27	19.15	127.22	115.35	98.14	17.21	6.702	
2,570.52	2,566.76	2,567.36	2,566.68	9.00	8.71	-88.03	18.29	128.43	114.83	97.13	17.69	6.489	CC
2,600.00	2,595.62	2,596.51	2,595.83	9.10	8.81	-90.76	18.02	128.82	114.93	97.04	17.90	6.422	ES
2,644.93	2,639.49	2,641.68	2,640.99	9.25	8.97	-95.39	17.65	129.03	115.39	97.19	18.21	6.338	
2,700.00	2,693.18	2,696.64	2,695.95	9.44	9.16	-101.50	17.32	128.36	116.52	97.94	18.59	6.270	
2,800.00	2,790.65	2,796.50	2,795.76	9.78	9.51	-112.66	16.31	125.40	120.60	101.32	19.27	6.257	
2,900.00	2,888.13	2,898.76	2,897.87	10.13	9.87	-121.84	11.26	123.55	125.73	105.77	19.96	6.299	
3,000.00	2,985.61	3,002.03	3,000.62	10.48	10.24	-128.68	1.15	124.01	129.61	108.98	20.63	6.282	
3,100.00	3,083.08	3,106.49	3,103.91	10.83	10.62	-133.25	-13.87	127.98	131.18	109.90	21.28	6.166	
3,200.00	3,180.56	3,207.89	3,203.42	11.19	10.99	-135.82	-31.85	135.41	130.60	108.65	21.95	5.949	
3,300.00	3,278.04	3,307.61	3,300.72	11.55	11.35	-136.55	-50.50	146.70	129.75	107.08	22.67	5.723	
3,400.00	3,375.51	3,407.89	3,398.08	11.91	11.71	-135.88	-69.66	161.18	128.90	105.51	23.39	5.511	
3,500.00	3,472.99	3,507.50	3,494.56	12.27	12.07	-134.73	-89.09	176.54	127.79	103.67	24.12	5.297	
3,516.99	3,489.56	3,523.69	3,510.27	12.33	12.13	-134.57	-92.12	179.01	127.74	103.48	24.26	5.265	
3,600.00	3,570.47	3,603.38	3,587.94	12.64	12.42	-134.09	-105.53	190.70	128.98	104.07	24.91	5.179	
3,700.00	3,667.94	3,702.48	3,684.83	13.00	12.78	-133.74	-120.65	205.00	132.02	106.37	25.64	5.148	
3,800.00	3,765.42	3,802.67	3,782.81	13.37	13.14	-133.45	-135.88	219.34	135.09	108.72	26.37	5.123	
3,900.00	3,862.90	3,902.39	3,880.60	13.74	13.51	-133.80	-150.66	232.20	138.30	111.20	27.10	5.103	
4,000.00	3,960.37	4,002.63	3,978.93	14.11	13.88	-134.29	-165.54	244.73	141.44	113.61	27.83	5.081	
4,100.00	4,057.85	4,102.84	4,077.21	14.48	14.25	-134.77	-180.61	257.19	144.38	115.81	28.57	5.054	
4,200.00	4,155.33	4,203.15	4,175.61	14.86	14.62	-135.34	-195.83	269.37	147.15	117.85	29.30	5.022	
4,300.00	4,252.80	4,303.28	4,273.80	15.23	14.99	-135.90	-211.26	281.45	149.69	119.65	30.04	4.983	
4,400.00	4,350.28	4,403.53	4,372.09	15.61	15.36	-136.41	-226.79	293.61	152.16	121.39	30.77	4.945	
4,500.00	4,447.76	4,504.16	4,470.69	15.98	15.74	-136.86	-242.72	305.91	154.32	122.81	31.51	4.898	
4,600.00	4,545.23	4,605.10	4,569.40	16.36	16.12	-137.01	-259.32	318.95	155.96	123.71	32.25	4.836	
4,700.00	4,642.71	4,703.57	4,665.66	16.74	16.49	-137.05	-275.49	331.93	157.63	124.63	33.01	4.776	
4,800.00	4,740.19	4,803.03	4,763.06	17.11	16.86	-137.25	-290.99	344.74	160.13	126.37	33.76	4.743	
4,900.00	4,837.66	4,902.00	4,860.16	17.49	17.23	-137.66	-305.76	356.93	163.22	128.71	34.51	4.730	
5,000.00	4,935.14	5,000.89	4,957.40	17.87	17.60	-138.41	-319.80	368.17	166.97	131.71	35.26	4.735	
5,100.00	5,032.62	5,100.54	5,055.48	18.25	17.98	-139.30	-333.72	379.02	170.94	134.93	36.01	4.748	
5,200.00	5,130.09	5,200.42	5,153.82	18.64	18.35	-140.26	-347.66	389.54	174.93	138.18	36.75	4.760	

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 4H
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 4H	**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
5,300.00	5,227.57	5,298.89	5,250.92	19.02	18.72	-141.38	-360.78	399.33	179.58	142.09	37.50	4.789	
5,400.00	5,325.05	5,400.48	5,351.01	19.40	19.10	-142.30	-374.54	409.94	184.10	145.86	38.24	4.814	
5,500.00	5,422.52	5,501.39	5,450.22	19.78	19.48	-142.98	-389.22	421.07	187.66	148.67	38.98	4.814	
5,600.00	5,520.00	5,600.78	5,548.02	20.16	19.85	-143.73	-403.44	431.71	191.47	151.74	39.73	4.819	
5,700.00	5,617.48	5,702.75	5,648.15	20.55	20.24	-144.13	-418.44	443.77	194.91	154.43	40.48	4.815	
5,800.00	5,714.95	5,804.85	5,748.04	20.93	20.63	-144.15	-434.80	457.07	196.99	155.77	41.22	4.779	
5,900.00	5,812.43	5,904.83	5,845.77	21.31	21.01	-144.13	-451.32	470.26	198.58	156.60	41.98	4.731	
6,000.00	5,909.91	6,003.53	5,942.35	21.70	21.38	-144.22	-467.26	482.86	200.54	157.80	42.74	4.692	
6,100.00	6,007.38	6,102.57	6,039.47	22.08	21.76	-144.54	-482.62	494.75	203.17	159.66	43.50	4.670	
6,200.00	6,104.86	6,201.40	6,136.50	22.47	22.13	-144.99	-497.57	506.08	206.20	161.94	44.26	4.658	
6,300.00	6,202.34	6,298.79	6,232.34	22.85	22.50	-145.66	-511.51	516.34	210.10	165.08	45.02	4.666	
6,400.00	6,299.81	6,399.28	6,331.36	23.24	22.88	-146.44	-525.22	526.52	214.74	168.96	45.78	4.691	
6,421.23	6,320.51	6,420.55	6,352.31	23.32	22.96	-146.56	-528.19	528.82	215.64	169.71	45.94	4.694	
6,500.00	6,397.52	6,497.43	6,428.02	23.62	23.25	-146.89	-538.61	537.05	218.46	171.93	46.53	4.695	
6,600.00	6,495.90	6,595.00	6,524.26	24.00	23.61	-146.87	-550.89	547.39	220.40	173.12	47.28	4.662	
6,700.00	6,594.84	6,695.46	6,623.41	24.37	23.99	-146.30	-563.05	558.09	219.92	171.89	48.02	4.580	
6,800.00	6,694.23	6,797.29	6,723.86	24.74	24.37	-145.21	-576.00	568.75	215.96	167.20	48.76	4.429	
6,900.00	6,793.94	6,898.54	6,823.66	25.09	24.76	-143.66	-589.89	578.62	208.26	158.77	49.49	4.208	
7,000.00	6,893.85	6,995.34	6,919.06	25.44	25.12	-141.24	-602.79	588.73	198.38	148.15	50.22	3.950	
7,066.16	6,960.00	7,060.56	6,983.30	25.67	25.37	5.21	-611.18	596.21	190.95	140.25	50.70	3.766	
7,100.00	6,993.82	7,094.95	7,017.15	25.78	25.50	-162.09	-615.65	600.33	187.89	136.95	50.95	3.688	
7,143.76	7,037.37	7,140.45	7,061.82	25.94	25.67	-160.55	-622.03	606.17	186.48	135.21	51.27	3.637	
7,150.00	7,043.55	7,146.94	7,068.17	25.96	25.69	-160.33	-622.98	607.04	186.51	135.20	51.32	3.635	SF
7,200.00	7,092.63	7,196.18	7,116.39	26.14	25.88	-158.84	-630.36	613.77	188.99	137.29	51.70	3.656	
7,250.00	7,140.71	7,243.25	7,162.62	26.34	26.06	-157.88	-636.87	619.81	196.10	144.02	52.08	3.765	
7,300.00	7,187.41	7,290.25	7,208.91	26.53	26.24	-157.39	-642.77	625.38	207.73	155.27	52.46	3.960	
7,350.00	7,232.38	7,336.55	7,254.60	26.73	26.41	-157.26	-648.26	630.52	223.51	170.69	52.82	4.231	
7,400.00	7,275.27	7,387.09	7,304.48	26.93	26.60	-157.46	-654.33	635.92	243.01	189.82	53.19	4.569	
7,450.00	7,315.77	7,442.12	7,358.44	27.13	26.81	-157.74	-662.93	642.40	264.65	211.13	53.52	4.945	
7,500.00	7,353.56	7,490.19	7,405.27	27.34	27.00	-157.84	-671.95	648.51	288.60	234.77	53.83	5.361	
7,550.00	7,388.35	7,535.12	7,448.91	27.54	27.17	-157.90	-680.89	654.28	315.63	261.49	54.14	5.830	
7,600.00	7,419.89	7,573.09	7,485.77	27.74	27.32	-157.72	-688.63	659.11	345.85	291.40	54.46	6.351	
7,650.00	7,447.92	7,606.31	7,518.11	27.94	27.45	-157.33	-695.13	663.04	379.60	324.85	54.75	6.933	
7,700.00	7,472.24	7,640.00	7,551.00	28.14	27.58	-156.84	-701.42	666.72	416.62	361.62	55.01	7.574	
7,750.00	7,492.67	7,662.21	7,572.73	28.33	27.66	-155.48	-705.41	668.97	456.52	401.28	55.25	8.263	
7,800.00	7,509.03	7,684.55	7,594.63	28.52	27.75	-153.64	-709.30	671.05	499.00	443.56	55.44	9.001	
7,816.16	7,513.43	7,690.92	7,600.89	28.58	27.77	-152.83	-710.39	671.62	513.20	457.71	55.50	9.248	
7,900.00	7,532.50	7,720.08	7,629.54	28.88	27.88	-156.12	-715.23	674.01	589.12	533.39	55.74	10.570	
8,000.00	7,548.24	7,750.75	7,659.73	29.24	28.00	-160.30	-720.14	676.27	683.19	627.22	55.97	12.207	
8,100.00	7,556.27	7,776.64	7,685.20	29.58	28.10	-165.63	-724.30	678.23	779.89	723.75	56.15	13.890	
8,153.26	7,557.37	7,787.20	7,695.60	29.76	28.14	-169.68	-726.01	679.06	832.18	775.96	56.22	14.802	
8,200.00	7,557.37	7,795.49	7,703.75	29.92	28.17	-170.02	-727.36	679.73	878.26	821.98	56.28	15.606	
8,300.00	7,557.36	7,813.43	7,721.38	30.26	28.24	-170.65	-730.28	681.19	976.82	920.42	56.40	17.320	
8,400.00	7,557.36	7,831.62	7,739.27	30.63	28.31	-171.14	-733.27	682.72	1,075.37	1,018.84	56.52	19.026	
8,500.00	7,557.36	7,843.20	7,750.65	31.00	28.35	-171.41	-735.15	683.72	1,173.95	1,117.33	56.62	20.734	
8,600.00	7,557.35	7,855.04	7,762.29	31.39	28.39	-171.64	-737.02	684.76	1,272.59	1,215.88	56.72	22.438	
8,700.00	7,557.35	7,866.37	7,773.44	31.79	28.44	-171.83	-738.77	685.77	1,371.30	1,314.49	56.81	24.137	
8,800.00	7,557.35	7,877.22	7,784.12	32.21	28.48	-172.00	-740.41	686.75	1,470.06	1,413.15	56.91	25.833	
8,900.00	7,557.34	7,887.63	7,794.37	32.64	28.52	-172.14	-741.95	687.70	1,568.87	1,511.88	57.00	27.526	
9,000.00	7,557.34	7,897.61	7,804.21	33.08	28.56	-172.26	-743.40	688.64	1,667.73	1,610.65	57.08	29.215	
9,100.00	7,557.34	7,923.00	7,829.23	33.54	28.65	-172.51	-746.92	691.06	1,766.75	1,709.50	57.25	30.858	
9,200.00	7,557.33	7,923.00	7,829.23	34.00	28.65	-172.51	-746.92	691.06	1,865.61	1,808.32	57.29	32.564	

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 4H
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 4H	**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
9,300.00	7,557.33	7,923.00	7,829.23	34.48	28.65	-172.51	-746.92	691.06	1,964.58	1,907.26	57.33	34.271	
9,400.00	7,557.32	7,936.03	7,842.08	34.96	28.70	-172.61	-748.67	692.34	2,063.60	2,006.17	57.43	35.931	
9,500.00	7,557.32	7,946.06	7,851.98	35.46	28.74	-172.68	-749.99	693.34	2,162.65	2,105.12	57.52	37.597	
9,600.00	7,557.32	7,955.85	7,861.63	35.97	28.78	-172.74	-751.26	694.34	2,261.72	2,204.10	57.61	39.258	
9,700.00	7,557.31	11,873.05	9,755.86	36.48	43.94	-166.46	-3,109.52	1,339.49	2,261.30	2,212.96	48.34	46.779	
9,800.00	7,557.31	11,953.18	9,755.24	37.00	44.30	-166.58	-3,189.65	1,339.67	2,259.14	2,209.58	49.56	45.587	
9,900.00	7,557.31	12,019.44	9,755.65	37.54	44.60	-166.68	-3,255.90	1,340.24	2,258.41	2,207.57	50.84	44.421	
9,901.56	7,557.31	12,020.66	9,755.66	37.54	44.61	-166.68	-3,257.12	1,340.25	2,258.41	2,207.55	50.86	44.403	
10,000.00	7,557.30	12,103.00	9,757.10	38.08	44.99	-166.79	-3,339.44	1,341.32	2,258.89	2,206.80	52.09	43.366	
10,100.00	7,557.30	12,239.48	9,758.23	38.63	45.63	-166.98	-3,475.90	1,343.06	2,258.41	2,205.22	53.19	42.460	
10,200.00	7,557.30	12,330.88	9,758.75	39.18	46.07	-167.10	-3,567.29	1,344.23	2,257.79	2,203.34	54.45	41.467	
10,298.15	7,557.29	12,417.82	9,759.42	39.73	46.50	-167.21	-3,654.22	1,345.34	2,257.40	2,201.69	55.71	40.522	
10,300.00	7,557.29	12,419.18	9,759.44	39.74	46.50	-167.22	-3,655.59	1,345.36	2,257.40	2,201.67	55.73	40.504	
10,400.00	7,557.29	12,504.19	9,760.88	40.31	46.93	-167.32	-3,740.56	1,346.82	2,257.96	2,200.92	57.04	39.584	
10,500.00	7,557.28	12,626.35	9,761.96	40.89	47.54	-167.45	-3,862.69	1,349.97	2,257.94	2,199.67	58.27	38.752	
10,600.00	7,557.28	12,728.95	9,763.10	41.47	48.06	-167.62	-3,965.27	1,349.93	2,257.61	2,198.05	59.56	37.907	
10,700.00	7,557.28	12,897.27	9,763.50	42.06	48.90	-168.15	-4,133.23	1,339.84	2,254.86	2,194.16	60.70	37.147	
10,800.00	7,557.27	12,960.21	9,763.65	42.66	49.22	-168.35	-4,196.04	1,335.72	2,252.39	2,190.28	62.11	36.264	
10,900.00	7,557.27	13,056.56	9,764.47	43.26	49.71	-168.64	-4,292.24	1,330.41	2,250.83	2,187.37	63.46	35.468	
11,000.00	7,557.27	13,159.71	9,764.84	43.86	50.24	-168.92	-4,395.30	1,326.18	2,249.11	2,184.30	64.81	34.705	
11,100.00	7,557.26	13,234.00	9,765.26	44.47	50.64	-169.08	-4,469.57	1,324.66	2,248.04	2,181.82	66.22	33.947	
11,157.55	7,557.26	13,281.23	9,765.77	44.83	50.89	-169.16	-4,516.80	1,324.39	2,247.89	2,180.86	67.03	33.535	
11,200.00	7,557.26	13,315.25	9,766.24	45.09	51.08	-169.22	-4,550.82	1,324.51	2,247.97	2,180.34	67.63	33.239	
11,300.00	7,557.26	13,414.20	9,767.65	45.71	51.62	-169.35	-4,649.75	1,325.95	2,248.44	2,179.43	69.01	32.580	
11,400.00	7,557.25	13,511.42	9,768.74	46.33	52.17	-169.44	-4,746.90	1,329.04	2,248.93	2,178.52	70.41	31.942	
11,500.00	7,557.25	13,607.00	9,769.71	46.96	52.71	-169.49	-4,842.38	1,333.38	2,249.58	2,177.77	71.81	31.327	
11,600.00	7,557.24	13,665.98	9,770.80	47.60	53.06	-169.51	-4,901.26	1,336.71	2,251.24	2,177.97	73.27	30.724	
11,700.00	7,557.24	13,835.47	9,773.88	48.24	54.04	-169.59	-5,070.47	1,344.76	2,253.02	2,178.43	74.59	30.207	
11,800.00	7,557.24	13,945.51	9,774.37	48.88	54.67	-169.77	-5,180.51	1,345.04	2,252.34	2,176.35	75.99	29.639	
11,900.00	7,557.23	14,029.75	9,774.60	49.52	55.16	-169.91	-5,264.75	1,345.11	2,251.53	2,174.09	77.44	29.074	
11,916.85	7,557.23	14,041.36	9,774.71	49.63	55.22	-169.92	-5,276.36	1,345.17	2,251.51	2,173.82	77.69	28.981	
12,000.00	7,557.23	14,126.71	9,775.87	50.17	55.72	-170.05	-5,361.70	1,345.78	2,251.80	2,172.92	78.88	28.548	
12,100.00	7,557.23	14,306.02	9,775.07	50.82	56.77	-170.39	-5,540.99	1,343.96	2,250.18	2,169.97	80.22	28.052	
12,200.00	7,557.22	14,411.16	9,771.98	51.48	57.39	-170.60	-5,646.07	1,341.96	2,245.85	2,164.19	81.66	27.503	
12,300.00	7,557.22	14,487.20	9,770.36	52.14	57.85	-170.71	-5,722.08	1,342.07	2,242.68	2,159.54	83.15	26.973	
12,400.00	7,557.22	14,574.74	9,769.04	52.80	58.38	-170.84	-5,809.62	1,342.43	2,240.22	2,155.60	84.62	26.474	
12,500.00	7,557.21	14,676.54	9,768.00	53.46	58.99	-170.99	-5,911.41	1,342.85	2,238.25	2,152.17	86.08	26.001	
12,600.00	7,557.21	14,793.33	9,765.98	54.13	59.70	-171.20	-6,028.17	1,341.90	2,235.37	2,147.84	87.53	25.538	
12,700.00	7,557.20	14,900.65	9,764.18	54.80	60.35	-171.45	-6,135.43	1,338.79	2,232.30	2,143.30	89.00	25.081	
12,800.00	7,557.20	14,994.58	9,762.49	55.48	60.92	-171.68	-6,229.30	1,335.65	2,229.07	2,138.57	90.50	24.631	
12,900.00	7,557.20	15,067.28	9,761.59	56.15	61.37	-171.84	-6,301.97	1,333.85	2,226.58	2,134.57	92.02	24.198	
13,000.00	7,557.19	15,150.03	9,761.29	56.83	61.88	-171.95	-6,384.71	1,334.73	2,225.41	2,131.90	93.52	23.797	
13,100.00	7,557.19	15,267.58	9,760.36	57.51	62.62	-172.06	-6,502.21	1,337.91	2,224.12	2,129.14	94.98	23.416	
13,200.00	7,557.19	15,351.25	9,759.57	58.19	63.15	-172.18	-6,585.87	1,338.77	2,222.48	2,125.99	96.49	23.033	
13,300.00	7,557.18	15,432.64	9,759.73	58.88	63.66	-172.28	-6,667.25	1,340.22	2,222.00	2,124.01	97.99	22.675	
13,400.00	7,557.18	15,535.67	9,760.00	59.57	64.32	-172.37	-6,770.23	1,343.37	2,221.81	2,122.33	99.48	22.333	
13,500.00	7,557.18	15,633.85	9,760.05	60.25	64.95	-172.46	-6,868.36	1,346.31	2,221.41	2,120.43	100.98	21.998	
13,600.00	7,557.17	15,754.13	9,760.11	60.95	65.72	-172.58	-6,988.60	1,349.43	2,221.00	2,118.53	102.47	21.675	
13,700.00	7,557.17	15,835.72	9,759.89	61.64	66.25	-172.68	-7,070.17	1,350.76	2,220.13	2,116.15	103.98	21.351	
13,732.49	7,557.17	15,861.00	9,759.99	61.86	66.41	-172.71	-7,095.45	1,351.35	2,220.09	2,115.61	104.47	21.250	
13,800.00	7,557.16	15,926.96	9,760.37	62.33	66.84	-172.78	-7,161.40	1,352.93	2,220.12	2,114.63	105.49	21.046	
13,900.00	7,557.16	16,027.25	9,761.00	63.03	67.49	-172.89	-7,261.66	1,355.01	2,220.20	2,113.20	107.00	20.749	

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 4H
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 4H	**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
14,000.00	7,557.16	16,121.72	9,761.68	63.73	68.10	-173.01	-7,356.11	1,356.81	2,220.36	2,111.85	108.51	20.462	
14,100.00	7,557.15	16,204.74	9,762.59	64.43	68.65	-173.09	-7,439.09	1,359.14	2,221.01	2,110.99	110.02	20.187	
14,200.00	7,557.15	16,325.53	9,764.25	65.13	69.44	-173.21	-7,559.83	1,362.38	2,221.99	2,110.45	111.54	19.921	
14,300.00	7,557.15	16,419.92	9,764.90	65.84	70.07	-173.31	-7,654.18	1,364.89	2,222.22	2,109.17	113.06	19.656	
14,400.00	7,557.14	16,502.95	9,765.86	66.54	70.62	-173.38	-7,737.16	1,367.61	2,223.01	2,108.44	114.57	19.403	
14,500.00	7,557.14	16,655.65	9,766.35	67.25	71.63	-173.57	-7,889.82	1,370.02	2,222.65	2,106.55	116.09	19.145	
14,600.00	7,557.14	16,786.93	9,764.90	67.96	72.49	-173.85	-8,021.05	1,367.56	2,220.59	2,102.97	117.62	18.880	
14,700.00	7,557.13	16,870.85	9,763.35	68.66	73.04	-174.07	-8,104.89	1,364.36	2,217.77	2,098.60	119.17	18.609	
14,800.00	7,557.13	16,947.70	9,763.17	69.38	73.55	-174.23	-8,181.71	1,362.81	2,216.63	2,095.90	120.72	18.361	
14,900.00	7,557.12	17,046.33	9,763.27	70.09	74.20	-174.42	-8,280.34	1,361.89	2,215.99	2,093.73	122.26	18.125	
15,000.00	7,557.12	17,163.84	9,762.89	70.80	74.98	-174.65	-8,397.85	1,360.81	2,214.98	2,091.17	123.81	17.890	
15,100.00	7,557.12	17,252.22	9,762.47	71.52	75.57	-174.85	-8,486.20	1,358.66	2,213.70	2,088.33	125.36	17.659	
15,200.00	7,557.11	17,356.89	9,762.43	72.23	76.26	-175.13	-8,590.79	1,354.69	2,212.75	2,085.83	126.92	17.434	
15,300.00	7,557.11	17,450.94	9,762.16	72.95	76.89	-175.34	-8,684.82	1,352.65	2,211.76	2,083.28	128.48	17.215	
15,400.00	7,557.11	17,550.00	9,761.85	73.67	77.56	-175.53	-8,783.87	1,351.44	2,210.83	2,080.80	130.03	17.002	
15,500.00	7,557.10	17,633.05	9,761.83	74.39	78.12	-175.67	-8,866.92	1,351.32	2,210.33	2,078.75	131.58	16.799	
15,600.00	7,557.10	17,751.46	9,761.91	75.11	78.92	-175.85	-8,985.33	1,352.28	2,209.98	2,076.85	133.13	16.600	
15,700.00	7,557.10	17,858.90	9,761.28	75.83	79.66	-176.03	-9,092.76	1,352.22	2,208.94	2,074.25	134.69	16.401	
15,800.00	7,557.09	17,962.81	9,760.54	76.55	80.36	-176.22	-9,196.67	1,351.78	2,207.76	2,071.51	136.24	16.205	
15,900.00	7,557.09	18,069.03	9,759.38	77.27	81.09	-176.40	-9,302.88	1,351.42	2,206.22	2,068.42	137.80	16.010	
16,000.00	7,557.08	18,219.38	9,756.47	78.00	82.12	-176.70	-9,453.19	1,349.60	2,203.99	2,064.65	139.34	15.817	
16,100.00	7,557.08	18,288.46	9,754.78	78.72	82.59	-176.85	-9,522.23	1,348.29	2,201.00	2,060.07	140.93	15.618	
16,200.00	7,557.08	18,378.79	9,753.22	79.45	83.21	-177.04	-9,612.54	1,346.78	2,198.83	2,056.33	142.50	15.430	
16,300.00	7,557.07	18,472.05	9,751.89	80.18	83.85	-177.23	-9,705.78	1,345.25	2,196.99	2,052.92	144.07	15.249	
16,400.00	7,557.07	18,568.34	9,750.71	80.90	84.51	-177.42	-9,802.05	1,344.17	2,195.41	2,049.77	145.64	15.074	
16,500.00	7,557.07	18,669.74	9,749.43	81.63	85.21	-177.57	-9,903.44	1,344.99	2,193.90	2,046.70	147.20	14.904	
16,600.00	7,557.06	18,759.40	9,748.35	82.36	85.84	-177.65	-9,993.04	1,347.83	2,192.56	2,043.81	148.75	14.740	
16,700.00	7,557.06	18,867.82	9,747.15	83.09	86.60	-177.73	-10,101.38	1,351.60	2,191.34	2,041.05	150.30	14.580	
16,800.00	7,557.06	18,969.76	9,745.73	83.82	87.31	-177.87	-10,203.30	1,352.76	2,189.75	2,037.89	151.86	14.420	
16,900.00	7,557.05	19,052.00	9,745.10	84.55	87.88	-177.98	-10,285.53	1,354.16	2,188.77	2,035.36	153.41	14.267	
17,000.00	7,557.05	19,146.49	9,744.84	85.29	88.55	-178.07	-10,379.98	1,356.65	2,188.36	2,033.39	154.96	14.122	
17,100.00	7,557.04	19,264.43	9,743.79	86.02	89.38	-178.21	-10,497.89	1,359.11	2,187.30	2,030.77	156.53	13.974	
17,200.00	7,557.04	19,360.58	9,742.83	86.75	90.05	-178.31	-10,594.02	1,361.26	2,186.17	2,028.08	158.09	13.829	
17,300.00	7,557.04	19,460.01	9,741.76	87.49	90.75	-178.43	-10,693.41	1,363.29	2,184.97	2,025.32	159.65	13.686	
17,400.00	7,557.03	19,558.25	9,740.97	88.22	91.45	-178.51	-10,791.60	1,366.41	2,184.08	2,022.87	161.21	13.548	
17,500.00	7,557.03	19,659.47	9,739.89	88.96	92.16	-178.63	-10,892.79	1,368.53	2,182.90	2,020.13	162.77	13.411	
17,600.00	7,557.03	19,757.86	9,739.14	89.70	92.85	-178.80	-10,991.18	1,368.52	2,181.99	2,017.65	164.34	13.277	
17,700.00	7,557.02	19,859.50	9,738.24	90.43	93.57	-179.01	-11,092.80	1,366.90	2,180.96	2,015.03	165.93	13.144	
17,800.00	7,557.02	19,954.97	9,737.46	91.17	94.24	-179.22	-11,188.25	1,365.15	2,180.02	2,012.50	167.51	13.014	
17,900.00	7,557.02	20,071.01	9,736.36	91.91	95.05	-179.47	-11,304.27	1,363.09	2,178.99	2,009.88	169.11	12.885	
18,000.00	7,557.01	20,147.39	9,735.64	92.65	95.59	-179.65	-11,380.62	1,361.48	2,177.99	2,007.31	170.69	12.760	
18,034.93	7,557.01	20,172.31	9,735.60	92.91	95.76	-179.70	-11,405.55	1,361.05	2,177.92	2,006.69	171.23	12.719	
18,100.00	7,557.01	20,225.53	9,735.88	93.39	96.14	-179.81	-11,458.75	1,360.22	2,178.22	2,005.98	172.24	12.646	
18,200.00	7,557.00	20,227.00	9,735.89	94.13	96.15	-179.82	-11,460.22	1,360.20	2,181.04	2,007.53	173.51	12.570	
18,300.00	7,557.00	20,227.00	9,735.89	94.87	96.15	-179.82	-11,460.22	1,360.20	2,188.42	2,013.95	174.47	12.543	
18,318.93	7,557.00	20,227.00	9,735.89	95.01	96.15	-179.82	-11,460.22	1,360.20	2,190.33	2,015.72	174.62	12.544	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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

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	0.61	0.61	0.00	0.50	70.54	56.92	161.08	170.84				
100.00	100.00	101.47	101.47	0.28	0.53	70.64	56.56	160.93	170.58	169.78	0.80	212.794	
200.00	200.00	202.58	202.58	0.63	0.60	70.93	55.48	160.49	169.82	168.59	1.23	137.781	
300.00	300.00	312.72	312.54	0.99	0.89	71.83	51.39	156.57	165.22	163.33	1.89	87.513	
400.00	400.00	408.71	408.32	1.35	1.19	72.69	47.32	151.84	159.23	156.69	2.54	62.730	
500.00	500.00	507.09	506.62	1.71	1.51	73.10	45.05	148.29	155.10	151.88	3.22	48.150	
600.00	600.00	607.07	606.52	2.07	1.85	73.08	43.94	144.44	151.09	147.18	3.92	38.554	
700.00	700.00	704.39	703.77	2.43	2.19	72.83	43.59	141.11	147.73	143.12	4.61	32.044	
769.18	769.18	770.40	769.78	2.67	2.41	72.67	43.79	140.37	147.04	141.96	5.08	28.942	CC
800.00	800.00	800.25	799.63	2.79	2.51	72.65	43.88	140.44	147.14	141.85	5.29	27.820	ES
900.00	900.00	897.67	897.03	3.14	2.83	72.81	43.95	142.08	148.76	142.80	5.97	24.938	
1,000.00	1,000.00	997.58	996.90	3.50	3.16	73.16	43.87	144.93	151.47	144.82	6.65	22.763	
1,100.00	1,100.00	1,098.96	1,098.26	3.86	3.50	73.59	43.34	147.18	153.44	146.09	7.36	20.858	
1,200.00	1,200.00	1,197.91	1,197.19	4.22	3.84	73.73	43.43	148.82	155.07	147.02	8.05	19.262	
1,300.00	1,300.00	1,295.63	1,294.87	4.58	4.17	73.46	44.95	151.34	157.98	149.24	8.74	18.076	
1,400.00	1,400.00	1,394.93	1,394.08	4.94	4.51	73.03	47.23	154.75	161.93	152.49	9.44	17.158	
1,500.00	1,500.00	1,494.71	1,493.78	5.29	4.85	72.69	49.36	158.34	165.99	155.86	10.14	16.370	
1,600.00	1,600.00	1,594.70	1,593.67	5.65	5.20	72.26	51.77	161.88	170.09	159.25	10.85	15.683	
1,700.00	1,700.00	1,694.00	1,692.87	6.01	5.55	71.69	54.72	165.39	174.38	162.84	11.55	15.100	
1,800.00	1,800.00	1,794.15	1,792.89	6.37	5.90	70.98	58.23	168.88	178.81	166.55	12.26	14.588	
1,900.00	1,900.00	1,894.14	1,892.77	6.73	6.25	70.20	61.93	172.02	183.00	170.03	12.97	14.113	
2,000.00	2,000.00	1,990.91	1,989.40	7.09	6.59	69.65	65.30	176.03	188.09	174.43	13.66	13.773	
2,100.00	2,099.98	2,087.37	2,085.62	7.43	6.93	-74.74	67.40	182.40	194.57	180.24	14.32	13.583	
2,200.00	2,199.84	2,186.12	2,184.04	7.76	7.28	-75.56	68.58	190.31	201.14	186.15	15.00	13.413	
2,300.00	2,299.45	2,284.15	2,281.67	8.09	7.63	-76.85	68.71	199.23	207.56	191.89	15.67	13.249	
2,400.00	2,398.70	2,381.94	2,378.84	8.42	7.97	-78.28	66.96	209.97	214.31	197.98	16.34	13.119	
2,500.00	2,497.47	2,483.39	2,479.48	8.76	8.34	-80.03	63.29	222.19	220.77	203.72	17.04	12.953	
2,600.00	2,595.62	2,590.93	2,586.31	9.10	8.72	-82.60	57.58	233.11	224.50	206.71	17.79	12.617	
2,644.93	2,639.49	2,636.44	2,631.57	9.25	8.88	-83.99	54.75	236.85	225.23	207.12	18.11	12.436	
2,700.00	2,693.18	2,692.16	2,687.01	9.44	9.08	-85.83	51.23	241.17	226.03	207.53	18.50	12.217	
2,800.00	2,790.65	2,792.16	2,786.49	9.78	9.43	-89.01	44.38	248.65	227.52	208.31	19.20	11.847	
2,900.00	2,888.13	2,891.57	2,885.11	10.13	9.79	-91.49	35.42	257.51	229.51	209.60	19.91	11.528	
3,000.00	2,985.61	2,991.38	2,983.61	10.48	10.14	-93.09	23.78	268.48	231.84	211.22	20.62	11.244	
3,100.00	3,083.08	3,094.03	3,083.99	10.83	10.51	-93.45	7.58	282.57	233.79	212.45	21.34	10.955	
3,200.00	3,180.56	3,194.58	3,181.66	11.19	10.87	-93.07	-11.10	297.45	234.81	212.75	22.06	10.644	
3,300.00	3,278.04	3,293.33	3,277.51	11.55	11.23	-92.63	-29.55	312.44	236.06	213.28	22.78	10.362	
3,400.00	3,375.51	3,390.52	3,372.04	11.91	11.59	-92.43	-46.49	327.27	238.17	214.67	23.50	10.135	
3,500.00	3,472.99	3,488.92	3,468.05	12.27	11.95	-92.54	-62.05	342.23	241.23	217.01	24.22	9.958	
3,600.00	3,570.47	3,588.50	3,565.58	12.64	12.32	-93.10	-76.12	356.51	244.69	219.73	24.96	9.805	
3,700.00	3,667.94	3,689.10	3,664.34	13.00	12.69	-93.88	-89.58	370.20	248.08	222.38	25.70	9.654	
3,800.00	3,765.42	3,788.62	3,761.68	13.37	13.06	-94.24	-104.25	384.78	251.43	224.99	26.43	9.512	
3,900.00	3,862.90	3,887.16	3,857.67	13.74	13.43	-94.19	-119.87	400.65	255.17	228.00	27.17	9.392	
4,000.00	3,960.37	3,986.95	3,954.69	14.11	13.81	-93.96	-135.97	417.56	259.37	231.46	27.92	9.291	
4,100.00	4,057.85	4,089.51	4,054.32	14.48	14.19	-93.65	-153.27	434.67	262.92	234.24	28.68	9.168	
4,200.00	4,155.33	4,190.17	4,152.25	14.86	14.57	-93.45	-170.37	450.54	265.68	236.25	29.43	9.027	
4,300.00	4,252.80	4,288.87	4,248.33	15.23	14.95	-93.34	-186.70	466.11	268.73	238.55	30.18	8.905	
4,400.00	4,350.28	4,388.14	4,345.02	15.61	15.32	-93.28	-202.70	481.91	272.16	241.23	30.93	8.800	
4,500.00	4,447.76	4,487.25	4,441.08	15.98	15.70	-92.81	-220.04	499.04	275.79	244.11	31.68	8.705	
4,600.00	4,545.23	4,585.87	4,535.98	16.36	16.08	-91.82	-239.04	517.99	279.87	247.44	32.44	8.629	
4,700.00	4,642.71	4,684.89	4,630.99	16.74	16.47	-90.66	-258.60	537.85	284.42	251.23	33.19	8.568	
4,800.00	4,740.19	4,789.60	4,731.53	17.11	16.87	-89.52	-279.47	558.32	288.59	254.60	33.99	8.491	
4,900.00	4,837.66	4,892.30	4,830.54	17.49	17.27	-88.65	-300.03	576.32	291.12	256.35	34.77	8.373	

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 4H
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 4H	**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
5,000.00	4,935.14	4,996.46	4,931.49	17.87	17.67	-88.18	-319.87	592.54	292.63	257.07	35.55	8.231	
5,100.00	5,032.62	5,096.07	5,028.71	18.25	18.05	-88.30	-336.92	605.94	293.47	257.16	36.31	8.082	
5,200.00	5,130.09	5,196.11	5,126.62	18.64	18.43	-88.67	-352.98	618.72	294.36	257.29	37.07	7.940	
5,300.00	5,227.57	5,294.85	5,223.50	19.02	18.81	-89.27	-367.81	630.71	295.33	257.50	37.83	7.807	
5,400.00	5,325.05	5,389.54	5,316.49	19.40	19.17	-89.96	-380.83	642.87	297.64	259.08	38.57	7.718	
5,500.00	5,422.52	5,487.44	5,412.14	19.78	19.54	-90.20	-395.46	657.74	301.19	261.87	39.32	7.660	
5,600.00	5,520.00	5,587.27	5,509.39	20.16	19.93	-90.21	-411.22	673.89	305.05	264.96	40.09	7.610	
5,700.00	5,617.48	5,687.41	5,607.31	20.55	20.31	-90.53	-425.69	689.08	308.86	268.01	40.85	7.560	
5,800.00	5,714.95	5,787.30	5,705.09	20.93	20.70	-90.95	-439.72	703.85	312.64	271.02	41.62	7.512	
5,900.00	5,812.43	5,887.50	5,803.13	21.31	21.08	-91.30	-454.01	718.88	316.48	274.09	42.39	7.466	
6,000.00	5,909.91	5,988.29	5,901.89	21.70	21.47	-91.79	-467.93	733.31	320.04	276.89	43.16	7.416	
6,100.00	6,007.38	6,088.22	6,000.09	22.08	21.85	-92.50	-480.78	746.69	323.51	279.59	43.92	7.366	
6,200.00	6,104.86	6,188.65	6,098.93	22.47	22.23	-93.35	-493.07	759.61	327.01	282.32	44.69	7.318	
6,300.00	6,202.34	6,289.00	6,197.57	22.85	22.61	-94.06	-506.02	772.73	330.31	284.86	45.45	7.268	
6,400.00	6,299.81	6,388.74	6,295.55	23.24	22.99	-94.70	-519.14	785.95	333.63	287.42	46.21	7.220	
6,421.23	6,320.51	6,409.90	6,316.30	23.32	23.07	-94.80	-522.08	788.90	334.35	287.98	46.37	7.210	
6,500.00	6,397.52	6,487.74	6,392.56	23.62	23.37	-94.98	-533.03	800.01	337.03	290.06	46.97	7.175	
6,600.00	6,495.90	6,589.48	6,492.09	24.00	23.76	-94.55	-547.91	814.93	340.12	292.37	47.74	7.124	
6,700.00	6,594.84	6,688.67	6,589.12	24.37	24.14	-93.54	-562.65	829.30	342.70	294.20	48.50	7.066	
6,800.00	6,694.23	6,785.09	6,683.77	24.74	24.51	-92.33	-575.31	842.61	345.79	296.56	49.23	7.024	
6,900.00	6,793.94	6,888.88	6,785.86	25.09	24.91	-90.62	-588.20	856.15	348.83	298.83	50.00	6.977	
7,000.00	6,893.85	6,986.95	6,882.34	25.44	25.28	-88.48	-600.62	868.62	351.84	301.11	50.73	6.936	
7,066.16	6,960.00	7,054.76	6,948.93	25.67	25.54	57.51	-609.92	877.44	354.03	302.81	51.22	6.912	
7,100.00	6,993.82	7,087.63	6,981.13	25.78	25.66	-109.94	-614.85	881.82	355.53	304.07	51.46	6.909	SF
7,150.00	7,043.55	7,133.96	7,026.52	25.96	25.84	-108.83	-621.60	888.21	359.41	307.60	51.81	6.937	
7,200.00	7,092.63	7,181.55	7,073.16	26.14	26.02	-108.19	-628.15	895.03	365.15	312.97	52.17	6.999	
7,250.00	7,140.71	7,231.42	7,122.22	26.34	26.21	-108.22	-634.07	901.66	372.30	319.75	52.55	7.084	
7,300.00	7,187.41	7,277.20	7,167.44	26.53	26.39	-108.75	-638.63	907.23	380.97	328.06	52.91	7.200	
7,350.00	7,232.38	7,318.02	7,207.55	26.73	26.54	-109.21	-643.26	913.25	392.00	338.77	53.23	7.364	
7,400.00	7,275.27	7,358.54	7,247.02	26.93	26.70	-109.61	-648.68	920.57	405.58	352.03	53.55	7.574	
7,450.00	7,315.77	7,404.13	7,290.93	27.13	26.88	-110.15	-656.27	930.22	421.35	367.42	53.93	7.812	
7,500.00	7,353.56	7,449.62	7,334.05	27.34	27.06	-110.56	-665.71	941.18	438.99	384.67	54.32	8.082	
7,550.00	7,388.35	7,494.67	7,376.45	27.54	27.25	-110.97	-675.93	952.46	458.47	403.77	54.70	8.381	
7,600.00	7,419.89	7,537.25	7,416.63	27.74	27.42	-111.37	-685.54	962.78	479.95	424.89	55.06	8.717	
7,650.00	7,447.92	7,575.89	7,453.21	27.94	27.58	-111.54	-694.13	971.78	503.68	448.30	55.38	9.095	
7,700.00	7,472.24	7,610.81	7,486.41	28.14	27.72	-111.37	-701.64	979.57	529.90	474.23	55.66	9.519	
7,750.00	7,492.67	7,641.76	7,515.95	28.33	27.84	-110.70	-708.10	986.18	558.70	502.78	55.91	9.992	
7,800.00	7,509.03	7,667.84	7,540.91	28.52	27.95	-109.31	-713.38	991.55	590.09	533.97	56.12	10.514	
7,816.16	7,513.43	7,675.39	7,548.15	28.58	27.98	-108.70	-714.88	993.08	600.78	544.59	56.19	10.693	
7,900.00	7,532.50	7,710.23	7,581.64	28.88	28.12	-109.78	-721.61	999.94	660.33	603.87	56.46	11.696	
8,000.00	7,548.24	7,743.45	7,613.69	29.24	28.25	-109.34	-727.75	1,006.18	739.17	682.46	56.71	13.034	
8,100.00	7,556.27	7,767.40	7,636.90	29.58	28.34	-106.55	-731.92	1,010.34	824.70	767.81	56.89	14.497	
8,153.26	7,557.37	7,776.59	7,645.83	29.76	28.38	-103.84	-733.46	1,011.85	872.38	815.42	56.96	15.316	
8,200.00	7,557.37	7,783.51	7,652.57	29.92	28.40	-104.81	-734.60	1,012.95	914.96	857.95	57.01	16.050	
8,300.00	7,557.36	7,797.54	7,666.25	30.26	28.46	-106.75	-736.84	1,015.11	1,007.11	950.00	57.11	17.635	
8,400.00	7,557.36	7,810.60	7,679.01	30.63	28.51	-108.51	-738.87	1,017.02	1,100.43	1,043.22	57.21	19.237	
8,500.00	7,557.36	7,826.00	7,694.09	31.00	28.57	-110.53	-741.16	1,019.15	1,194.67	1,137.35	57.31	20.845	
8,600.00	7,557.35	7,835.68	7,703.58	31.39	28.61	-111.76	-742.56	1,020.43	1,289.61	1,232.22	57.39	22.470	
8,700.00	7,557.35	7,848.70	7,716.35	31.79	28.66	-113.38	-744.43	1,022.14	1,385.13	1,327.64	57.49	24.094	
8,800.00	7,557.35	7,861.37	7,728.79	32.21	28.70	-114.91	-746.22	1,023.79	1,481.10	1,423.52	57.58	25.721	
8,900.00	7,557.34	7,873.70	7,740.90	32.64	28.75	-116.35	-747.94	1,025.36	1,577.46	1,519.79	57.68	27.350	
9,000.00	7,557.34	7,885.71	7,752.69	33.08	28.80	-117.72	-749.59	1,026.87	1,674.14	1,616.37	57.77	28.979	

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 4H
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 4H	**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 **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
9,100.00	7,557.34	7,897.39	7,764.18	33.54	28.84	-119.00	-751.18	1,028.32	1,771.09	1,713.23	57.86	30.608	
9,200.00	7,557.33	7,908.78	7,775.38	34.00	28.89	-120.22	-752.71	1,029.72	1,868.28	1,810.32	57.96	32.236	
9,300.00	7,557.33	7,920.00	7,786.41	34.48	28.93	-121.38	-754.19	1,031.08	1,965.67	1,907.62	58.05	33.863	
9,400.00	7,557.32	7,932.03	7,798.25	34.96	28.98	-122.59	-755.77	1,032.56	2,063.23	2,005.08	58.15	35.483	
9,500.00	7,557.32	7,944.23	7,810.23	35.46	29.02	-123.76	-757.37	1,034.13	2,160.93	2,102.68	58.25	37.099	
9,600.00	7,557.32	7,956.45	7,822.24	35.97	29.07	-124.89	-758.98	1,035.79	2,258.76	2,200.41	58.35	38.711	
9,700.00	7,557.31	7,968.71	7,834.27	36.48	29.12	-125.98	-760.58	1,037.52	2,356.70	2,298.25	58.45	40.318	
9,800.00	7,557.31	7,981.00	7,846.32	37.00	29.16	-127.03	-762.18	1,039.33	2,454.73	2,396.18	58.56	41.920	
9,900.00	7,557.31	7,993.31	7,858.38	37.54	29.21	-128.04	-763.78	1,041.22	2,552.85	2,494.19	58.66	43.517	
10,000.00	7,557.30	8,005.65	7,870.45	38.08	29.26	-129.00	-765.39	1,043.19	2,651.05	2,592.28	58.77	45.108	
10,100.00	7,557.30	8,025.76	7,890.10	38.63	29.34	-130.49	-768.01	1,046.54	2,749.31	2,690.38	58.93	46.656	
10,200.00	7,557.30	8,074.66	7,937.82	39.18	29.53	-133.74	-774.79	1,054.85	2,847.50	2,788.24	59.26	48.051	
10,300.00	7,557.29	12,765.99	9,801.69	39.74	50.91	-141.07	-3,658.78	2,661.57	2,885.90	2,821.30	64.59	44.679	
10,400.00	7,557.29	12,879.60	9,801.84	40.31	51.43	-141.16	-3,772.38	2,662.69	2,882.53	2,816.92	65.61	43.931	
10,500.00	7,557.28	12,976.49	9,802.05	40.89	51.87	-141.25	-3,869.26	2,663.35	2,879.05	2,812.34	66.71	43.156	
10,600.00	7,557.28	13,073.37	9,802.81	41.47	52.32	-141.36	-3,966.14	2,663.54	2,875.72	2,807.90	67.82	42.402	
10,700.00	7,557.28	13,175.08	9,803.40	42.06	52.80	-141.46	-4,067.85	2,663.92	2,872.34	2,803.41	68.93	41.669	
10,800.00	7,557.27	13,271.47	9,804.08	42.66	53.26	-141.57	-4,164.24	2,664.24	2,869.06	2,798.98	70.08	40.942	
10,900.00	7,557.27	13,369.62	9,804.84	43.26	53.74	-141.67	-4,262.38	2,664.61	2,865.85	2,794.62	71.23	40.233	
11,000.00	7,557.27	13,475.41	9,805.70	43.86	54.26	-141.78	-4,368.17	2,664.94	2,862.66	2,790.29	72.37	39.555	
11,100.00	7,557.26	13,564.11	9,806.08	44.47	54.70	-141.87	-4,456.86	2,665.40	2,859.33	2,785.74	73.59	38.855	
11,200.00	7,557.26	13,665.74	9,807.76	45.09	55.21	-142.00	-4,558.48	2,665.42	2,856.63	2,781.86	74.77	38.207	
11,300.00	7,557.26	13,777.27	9,808.43	45.71	55.77	-142.11	-4,670.01	2,665.73	2,853.26	2,777.33	75.93	37.578	
11,400.00	7,557.25	13,874.91	9,808.86	46.33	56.27	-142.21	-4,767.64	2,666.13	2,849.87	2,772.72	77.15	36.937	
11,500.00	7,557.25	13,983.53	9,809.10	46.96	56.84	-142.32	-4,876.26	2,666.78	2,846.43	2,768.08	78.35	36.328	
11,600.00	7,557.24	14,072.00	9,808.47	47.60	57.30	-142.40	-4,964.73	2,667.26	2,842.33	2,762.69	79.64	35.691	
11,700.00	7,557.24	14,166.00	9,808.66	48.24	57.80	-142.48	-5,058.72	2,668.20	2,839.13	2,758.22	80.91	35.089	
11,800.00	7,557.24	14,287.93	9,809.48	48.88	58.46	-142.60	-5,180.64	2,669.11	2,836.26	2,754.16	82.10	34.545	
11,900.00	7,557.23	14,401.67	9,808.86	49.52	59.08	-142.70	-5,294.38	2,670.07	2,832.41	2,749.08	83.33	33.989	
12,000.00	7,557.23	14,510.67	9,807.37	50.17	59.67	-142.78	-5,403.37	2,670.82	2,827.79	2,743.20	84.59	33.428	
12,100.00	7,557.23	14,602.16	9,806.30	50.82	60.18	-142.86	-5,494.85	2,671.44	2,823.34	2,737.43	85.92	32.861	
12,200.00	7,557.22	14,703.87	9,805.34	51.48	60.75	-142.94	-5,596.55	2,672.14	2,819.09	2,731.88	87.21	32.324	
12,300.00	7,557.22	14,820.82	9,804.02	52.14	61.40	-143.04	-5,713.49	2,672.54	2,814.48	2,726.01	88.47	31.814	
12,400.00	7,557.22	14,890.95	9,803.40	52.80	61.80	-143.10	-5,783.62	2,672.75	2,810.05	2,720.17	89.88	31.264	
12,500.00	7,557.21	15,024.42	9,802.44	53.46	62.56	-143.23	-5,917.08	2,673.09	2,805.79	2,714.69	91.09	30.801	
12,600.00	7,557.21	15,102.00	9,801.26	54.13	63.00	-143.29	-5,994.65	2,673.35	2,800.93	2,708.43	92.50	30.280	
12,700.00	7,557.20	15,195.00	9,800.53	54.80	63.54	-143.37	-6,087.65	2,673.89	2,796.76	2,702.90	93.86	29.797	
12,800.00	7,557.20	15,263.46	9,800.77	55.48	63.93	-143.44	-6,156.10	2,674.28	2,793.44	2,698.14	95.30	29.312	
12,900.00	7,557.20	15,396.26	9,801.16	56.15	64.71	-143.58	-6,288.90	2,674.92	2,790.14	2,693.60	96.54	28.900	
13,000.00	7,557.19	15,503.25	9,800.56	56.83	65.34	-143.68	-6,395.89	2,675.35	2,786.08	2,688.20	97.88	28.465	
13,100.00	7,557.19	15,606.28	9,799.29	57.51	65.95	-143.77	-6,498.91	2,675.57	2,781.35	2,682.12	99.23	28.030	
13,200.00	7,557.19	15,686.12	9,798.91	58.19	66.42	-143.85	-6,578.74	2,676.07	2,777.46	2,676.80	100.66	27.592	
13,300.00	7,557.18	15,794.91	9,798.24	58.88	67.07	-143.95	-6,687.53	2,676.53	2,773.36	2,671.35	102.00	27.189	
13,400.00	7,557.18	15,883.51	9,798.07	59.57	67.60	-144.04	-6,776.13	2,676.91	2,769.63	2,666.21	103.42	26.781	
13,500.00	7,557.18	15,984.42	9,797.62	60.25	68.21	-144.13	-6,877.04	2,677.82	2,765.97	2,661.18	104.80	26.394	
13,600.00	7,557.17	16,081.86	9,797.88	60.95	68.80	-144.24	-6,974.47	2,677.80	2,762.38	2,656.19	106.19	26.014	
13,700.00	7,557.17	16,193.16	9,798.19	61.64	69.48	-144.37	-7,085.78	2,677.68	2,758.75	2,651.22	107.54	25.654	
13,800.00	7,557.16	16,293.04	9,797.94	62.33	70.09	-144.47	-7,185.66	2,677.55	2,754.69	2,645.76	108.93	25.289	
13,900.00	7,557.16	16,406.02	9,797.72	63.03	70.78	-144.60	-7,298.64	2,677.26	2,750.62	2,640.34	110.28	24.942	
14,000.00	7,557.16	16,506.00	9,797.24	63.73	71.40	-144.72	-7,398.61	2,676.71	2,746.15	2,634.47	111.68	24.589	
14,100.00	7,557.15	16,590.25	9,796.93	64.43	71.92	-144.81	-7,482.86	2,676.55	2,741.99	2,628.86	113.14	24.236	
14,200.00	7,557.15	16,697.08	9,796.64	65.13	72.58	-144.92	-7,589.68	2,676.62	2,738.07	2,623.54	114.52	23.908	

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 4H
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 4H	**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
14,300.00	7,557.15	16,794.87	9,796.43	65.84	73.19	-145.03	-7,687.47	2,676.40	2,734.03	2,618.08	115.94	23.581	
14,400.00	7,557.14	16,895.02	9,796.34	66.54	73.82	-145.15	-7,787.63	2,676.07	2,730.04	2,612.69	117.36	23.263	
14,500.00	7,557.14	17,003.68	9,796.06	67.25	74.50	-145.28	-7,896.29	2,675.65	2,725.90	2,607.15	118.75	22.955	
14,600.00	7,557.14	17,104.38	9,795.31	67.96	75.14	-145.38	-7,996.98	2,675.41	2,721.45	2,601.28	120.17	22.647	
14,700.00	7,557.13	17,204.10	9,795.03	68.66	75.77	-145.50	-8,096.70	2,674.97	2,717.28	2,595.68	121.60	22.347	
14,800.00	7,557.13	17,319.55	9,793.80	69.38	76.51	-145.62	-8,212.15	2,674.74	2,712.60	2,589.62	122.98	22.058	
14,900.00	7,557.12	17,409.45	9,792.77	70.09	77.08	-145.72	-8,302.04	2,674.42	2,707.80	2,583.36	124.44	21.759	
15,000.00	7,557.12	17,508.32	9,791.99	70.80	77.72	-145.82	-8,400.90	2,674.26	2,703.39	2,577.51	125.88	21.475	
15,100.00	7,557.12	17,606.66	9,791.02	71.52	78.35	-145.92	-8,499.24	2,674.22	2,698.91	2,571.57	127.33	21.196	
15,200.00	7,557.11	17,725.57	9,789.49	72.23	79.12	-146.04	-8,618.14	2,674.23	2,694.22	2,565.51	128.71	20.932	
15,300.00	7,557.11	17,814.00	9,788.09	72.95	79.70	-146.13	-8,706.56	2,674.11	2,689.22	2,559.02	130.20	20.655	
15,400.00	7,557.11	17,907.00	9,787.02	73.67	80.30	-146.23	-8,799.55	2,673.98	2,684.56	2,552.89	131.67	20.388	
15,500.00	7,557.10	17,974.23	9,786.84	74.39	80.74	-146.30	-8,866.78	2,674.05	2,680.78	2,547.55	133.22	20.122	
15,600.00	7,557.10	18,077.89	9,787.32	75.11	81.42	-146.42	-8,970.44	2,674.37	2,677.74	2,543.07	134.67	19.884	
15,700.00	7,557.10	18,166.28	9,787.72	75.83	82.00	-146.53	-9,058.83	2,674.36	2,674.53	2,538.37	136.15	19.643	
15,800.00	7,557.09	18,297.31	9,788.40	76.55	82.86	-146.70	-9,189.86	2,673.99	2,671.28	2,533.76	137.52	19.425	
15,900.00	7,557.09	18,405.23	9,787.44	77.27	83.58	-146.81	-9,297.77	2,674.01	2,666.98	2,528.02	138.95	19.193	
16,000.00	7,557.08	18,500.35	9,786.76	78.00	84.21	-146.91	-9,392.89	2,674.04	2,662.84	2,522.40	140.43	18.962	
16,100.00	7,557.08	18,605.18	9,785.67	78.72	84.90	-147.02	-9,497.71	2,674.07	2,658.43	2,516.54	141.88	18.737	
16,200.00	7,557.08	18,687.00	9,785.01	79.45	85.45	-147.11	-9,579.53	2,674.25	2,654.35	2,510.94	143.41	18.509	
16,300.00	7,557.07	18,767.89	9,784.98	80.18	85.99	-147.19	-9,660.42	2,674.87	2,651.17	2,506.24	144.94	18.292	
16,400.00	7,557.07	18,879.74	9,784.47	80.90	86.74	-147.30	-9,772.26	2,675.97	2,647.78	2,501.40	146.38	18.089	
16,500.00	7,557.07	18,974.95	9,784.19	81.63	87.38	-147.39	-9,867.46	2,677.05	2,644.62	2,496.76	147.87	17.885	
16,600.00	7,557.06	19,072.34	9,783.63	82.36	88.04	-147.48	-9,964.85	2,678.18	2,641.27	2,491.92	149.36	17.684	
16,700.00	7,557.06	19,146.58	9,783.77	83.09	88.54	-147.55	-10,039.08	2,679.08	2,638.60	2,487.70	150.90	17.486	
16,800.00	7,557.06	19,217.00	9,784.90	83.82	89.02	-147.63	-10,109.48	2,679.95	2,637.11	2,484.66	152.45	17.299	
16,900.00	7,557.05	19,347.30	9,786.30	84.55	89.91	-147.77	-10,239.76	2,681.78	2,635.22	2,481.36	153.87	17.127	
17,000.00	7,557.05	19,465.68	9,787.25	85.29	90.72	-147.89	-10,358.12	2,683.33	2,633.22	2,477.91	155.30	16.955	
17,100.00	7,557.04	19,531.85	9,787.18	86.02	91.17	-147.96	-10,424.29	2,684.22	2,630.60	2,473.73	156.87	16.769	
17,168.30	7,557.04	19,559.27	9,787.86	86.52	91.36	-147.99	-10,451.69	2,684.52	2,630.07	2,472.11	157.96	16.650	
17,200.00	7,557.04	19,591.00	9,789.30	86.75	91.57	-148.04	-10,483.39	2,684.81	2,630.36	2,471.93	158.43	16.603	
17,300.00	7,557.04	19,890.85	9,788.26	87.49	93.62	-148.41	-10,783.12	2,683.90	2,626.29	2,467.00	159.29	16.487	
17,400.00	7,557.03	19,974.00	9,786.51	88.22	94.18	-148.54	-10,866.21	2,681.18	2,619.32	2,458.47	160.85	16.284	
17,500.00	7,557.03	20,059.64	9,784.62	88.96	94.76	-148.66	-10,951.80	2,679.08	2,612.75	2,450.35	162.40	16.088	
17,600.00	7,557.03	20,161.00	9,782.08	89.70	95.45	-148.79	-11,053.11	2,677.21	2,606.27	2,442.38	163.89	15.903	
17,700.00	7,557.02	20,209.84	9,781.07	90.43	95.78	-148.85	-11,101.94	2,676.82	2,600.76	2,435.18	165.58	15.707	
17,800.00	7,557.02	20,263.27	9,780.63	91.17	96.15	-148.89	-11,155.37	2,677.54	2,597.29	2,430.07	167.22	15.532	
17,900.00	7,557.02	20,416.87	9,779.88	91.91	97.20	-149.09	-11,308.95	2,676.71	2,593.06	2,424.51	168.55	15.385	
18,000.00	7,557.01	20,532.16	9,779.22	92.65	97.99	-149.28	-11,424.20	2,673.99	2,588.04	2,418.05	169.98	15.225	
18,100.00	7,557.01	20,580.00	9,779.07	93.39	98.31	-149.37	-11,472.01	2,672.33	2,583.21	2,411.55	171.66	15.048	
18,185.67	7,557.01	20,580.00	9,779.07	94.02	98.31	-149.37	-11,472.01	2,672.33	2,581.79	2,408.67	173.12	14.913	
18,200.00	7,557.00	20,580.00	9,779.07	94.13	98.31	-149.37	-11,472.01	2,672.33	2,581.83	2,408.48	173.35	14.894	
18,300.00	7,557.00	20,580.00	9,779.07	94.87	98.31	-149.37	-11,472.01	2,672.33	2,584.32	2,409.49	174.83	14.782	
18,318.93	7,557.00	20,580.00	9,779.07	95.01	98.31	-149.37	-11,472.01	2,672.33	2,585.23	2,410.14	175.08	14.766	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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
0.00	0.00	0.99	0.99	0.00	0.50	60.13	58.07	101.11	116.60				
100.00	100.00	100.47	100.47	0.28	0.52	60.21	58.04	101.39	116.83	116.03	0.80	145.852	
200.00	200.00	199.97	199.96	0.63	0.59	60.45	57.95	102.21	117.50	116.27	1.23	95.614	
300.00	300.00	300.48	300.47	0.99	0.84	60.60	58.02	102.94	118.17	116.33	1.84	64.338	
400.00	400.00	400.35	400.35	1.35	1.15	60.55	58.34	103.31	118.65	116.15	2.50	47.435	
500.00	500.00	499.60	499.59	1.71	1.48	60.54	58.75	104.01	119.47	116.28	3.19	37.477	
600.00	600.00	599.22	599.20	2.07	1.82	60.66	59.30	105.50	121.04	117.15	3.89	31.151	
700.00	700.00	701.43	701.40	2.43	2.16	60.47	59.98	105.88	121.69	117.10	4.59	26.507	
800.00	800.00	802.96	802.91	2.79	2.50	59.64	60.89	103.95	120.49	115.20	5.29	22.792	
900.00	900.00	903.84	903.75	3.14	2.84	58.67	61.68	101.32	118.65	112.66	5.98	19.840	
1,000.00	1,000.00	1,004.91	1,004.76	3.50	3.18	57.77	61.74	97.93	115.83	109.15	6.68	17.345	
1,100.00	1,100.00	1,105.24	1,105.02	3.86	3.52	56.95	61.23	94.11	112.34	104.97	7.38	15.229	
1,200.00	1,200.00	1,205.43	1,205.14	4.22	3.86	56.40	60.10	90.44	108.66	100.59	8.08	13.452	
1,300.00	1,300.00	1,305.75	1,305.38	4.58	4.21	55.93	58.60	86.63	104.68	95.90	8.78	11.921	
1,400.00	1,400.00	1,406.13	1,405.65	4.94	4.56	55.38	56.90	82.43	100.27	90.79	9.49	10.570	
1,500.00	1,500.00	1,505.29	1,504.71	5.29	4.91	54.93	55.10	78.50	95.98	85.79	10.19	9.417	
1,600.00	1,600.00	1,602.91	1,602.30	5.65	5.25	54.77	53.85	76.25	93.36	82.46	10.90	8.568	
1,677.30	1,677.30	1,678.91	1,678.30	5.93	5.51	54.72	53.61	75.77	92.82	81.38	11.44	8.115	CC
1,700.00	1,700.00	1,701.34	1,700.72	6.01	5.59	54.70	53.66	75.79	92.86	81.26	11.60	8.008	
1,800.00	1,800.00	1,801.02	1,800.40	6.37	5.94	54.52	54.17	76.00	93.33	81.03	12.30	7.588	
1,900.00	1,900.00	1,900.58	1,899.96	6.73	6.28	54.28	54.95	76.42	94.13	81.12	13.01	7.238	
2,000.00	2,000.00	1,999.19	1,998.55	7.09	6.62	54.51	55.66	78.05	95.90	82.19	13.70	6.999	
2,100.00	2,099.98	2,098.03	2,097.30	7.43	6.97	-89.04	55.51	82.30	99.29	84.91	14.38	6.905	
2,200.00	2,199.84	2,199.02	2,198.19	7.76	7.32	-90.36	55.06	86.56	102.44	87.38	15.06	6.801	
2,300.00	2,299.45	2,299.35	2,298.46	8.09	7.66	-93.48	53.93	90.03	104.78	89.04	15.74	6.656	
2,400.00	2,398.70	2,398.34	2,397.34	8.42	8.01	-97.67	52.18	94.28	108.02	91.60	16.42	6.579	
2,500.00	2,497.47	2,497.63	2,496.49	8.76	8.35	-103.03	50.41	99.23	113.03	95.93	17.10	6.609	
2,600.00	2,595.62	2,598.97	2,597.75	9.10	8.71	-110.35	48.74	102.40	119.20	101.40	17.80	6.697	
2,644.93	2,639.49	2,643.87	2,642.65	9.25	8.86	-114.67	48.35	101.84	122.34	104.24	18.11	6.757	
2,700.00	2,693.18	2,697.45	2,696.19	9.44	9.05	-120.33	48.16	99.86	127.07	108.59	18.48	6.875	
2,800.00	2,790.65	2,794.21	2,792.88	9.78	9.38	-129.51	48.46	96.25	139.18	120.02	19.16	7.264	
2,900.00	2,888.13	2,894.17	2,892.77	10.13	9.73	-137.20	47.63	92.82	153.31	133.46	19.85	7.723	
3,000.00	2,985.61	2,994.41	2,992.95	10.48	10.08	-143.11	44.55	90.57	167.45	146.91	20.54	8.153	
3,100.00	3,083.08	3,097.21	3,095.60	10.83	10.44	-148.10	39.44	88.65	181.14	159.91	21.23	8.532	
3,200.00	3,180.56	3,196.42	3,194.57	11.19	10.78	-152.04	32.66	87.64	193.98	172.06	21.92	8.848	
3,300.00	3,278.04	3,300.52	3,298.33	11.55	11.14	-155.02	24.57	89.09	206.24	183.63	22.61	9.120	
3,400.00	3,375.51	3,405.52	3,402.70	11.91	11.51	-156.99	14.04	93.69	216.06	192.76	23.30	9.274	
3,500.00	3,472.99	3,510.66	3,506.82	12.27	11.88	-158.45	1.05	100.32	223.36	199.38	23.97	9.317	
3,600.00	3,570.47	3,616.06	3,610.83	12.64	12.25	-159.57	-13.94	108.51	228.57	203.93	24.64	9.275	
3,700.00	3,667.94	3,721.77	3,714.54	13.00	12.62	-160.50	-31.91	118.17	230.74	205.44	25.30	9.119	
3,800.00	3,765.42	3,825.86	3,816.33	13.37	12.99	-161.31	-51.06	128.50	231.39	205.42	25.97	8.909	
3,900.00	3,862.90	3,930.57	3,918.16	13.74	13.36	-161.82	-72.13	140.70	229.85	203.22	26.63	8.631	
4,000.00	3,960.37	4,027.29	4,012.06	14.11	13.71	-162.15	-91.99	152.71	227.69	200.29	27.40	8.310	
4,100.00	4,057.85	4,128.76	4,110.87	14.48	14.08	-162.63	-111.84	164.47	226.74	198.63	28.11	8.067	
4,200.00	4,155.33	4,230.57	4,209.75	14.86	14.44	-163.28	-133.12	176.07	224.58	195.77	28.81	7.795	
4,300.00	4,252.80	4,327.29	4,303.76	15.23	14.80	-163.96	-153.14	186.81	222.74	193.15	29.59	7.528	
4,400.00	4,350.28	4,430.45	4,404.06	15.61	15.17	-164.50	-174.05	198.89	221.13	190.86	30.28	7.304	
4,500.00	4,447.76	4,532.51	4,502.90	15.98	15.55	-164.79	-195.68	212.23	218.15	187.17	30.98	7.041	
4,600.00	4,545.23	4,631.23	4,598.47	16.36	15.92	-164.97	-216.56	225.54	215.07	183.33	31.74	6.775	
4,700.00	4,642.71	4,729.68	4,693.88	16.74	16.28	-165.09	-236.83	238.87	212.49	179.98	32.51	6.536	
4,800.00	4,740.19	4,827.08	4,788.58	17.11	16.64	-165.20	-255.67	251.66	211.27	177.98	33.29	6.346	
4,900.00	4,837.66	4,928.73	4,887.40	17.49	17.02	-165.46	-275.68	264.56	209.90	175.88	34.02	6.170	

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 4H
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 4H	**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
5,000.00	4,935.14	5,026.18	4,982.13	17.87	17.38	-165.82	-295.09	276.59	208.44	173.64	34.80	5.990	
5,012.30	4,947.13	5,037.57	4,993.25	17.92	17.43	-165.87	-297.23	277.94	208.41	173.51	34.90	5.971	
5,100.00	5,032.62	5,121.76	5,075.60	18.25	17.74	-166.24	-311.98	287.29	209.54	173.93	35.60	5.886	
5,200.00	5,130.09	5,222.80	5,174.49	18.64	18.12	-166.96	-329.99	297.59	210.92	174.58	36.34	5.804	
5,300.00	5,227.57	5,322.75	5,272.27	19.02	18.49	-167.84	-348.32	307.22	212.09	175.00	37.09	5.718	
5,400.00	5,325.05	5,426.14	5,373.34	19.40	18.88	-168.69	-367.47	317.53	213.00	175.20	37.80	5.635	
5,500.00	5,422.52	5,528.79	5,473.19	19.78	19.27	-169.76	-388.90	327.91	211.69	173.17	38.52	5.496	
5,579.55	5,500.07	5,605.14	5,547.49	20.09	19.56	-170.50	-404.62	335.80	210.84	171.68	39.16	5.384	
5,600.00	5,520.00	5,624.25	5,566.14	20.16	19.63	-170.68	-408.32	337.70	210.91	171.57	39.33	5.362	
5,700.00	5,617.48	5,730.46	5,669.74	20.55	20.03	-171.67	-429.11	348.29	211.06	171.05	40.01	5.276	
5,800.00	5,714.95	5,839.87	5,775.20	20.93	20.45	-172.91	-455.33	360.93	206.44	165.86	40.58	5.087	
5,900.00	5,812.43	5,938.05	5,869.31	21.31	20.83	-174.15	-480.60	372.94	199.97	158.59	41.38	4.832	
6,000.00	5,909.91	6,037.05	5,964.41	21.70	21.21	-175.40	-505.38	384.96	194.28	152.11	42.17	4.607	
6,100.00	6,007.38	6,135.72	6,059.32	22.08	21.59	-176.63	-529.54	396.97	189.16	146.19	42.97	4.403	
6,200.00	6,104.86	6,234.32	6,154.31	22.47	21.97	-177.88	-553.18	408.79	184.67	140.90	43.77	4.219	
6,300.00	6,202.34	6,331.61	6,248.35	22.85	22.35	-179.10	-575.43	419.97	181.50	136.91	44.60	4.070	
6,400.00	6,299.81	6,431.53	6,345.09	23.24	22.73	179.95	-597.30	432.10	178.87	133.50	45.37	3.943	
6,421.23	6,320.51	6,452.37	6,365.28	23.32	22.82	179.80	-601.74	434.73	178.36	132.82	45.54	3.917	
6,500.00	6,397.52	6,528.99	6,439.63	23.62	23.11	179.33	-617.53	444.41	175.85	129.67	46.18	3.808	
6,600.00	6,495.90	6,624.35	6,532.58	24.00	23.48	178.42	-636.22	454.64	171.57	124.55	47.01	3.649	
6,700.00	6,594.84	6,720.78	6,627.05	24.37	23.84	177.12	-653.68	462.80	166.46	118.65	47.80	3.482	
6,800.00	6,694.23	6,820.28	6,724.72	24.74	24.22	175.98	-670.53	471.61	158.65	110.10	48.55	3.268	
6,900.00	6,793.94	6,918.60	6,821.33	25.09	24.59	175.07	-686.15	481.03	147.78	98.49	49.29	2.998	
7,000.00	6,893.85	7,017.89	6,919.06	25.44	24.97	174.15	-700.92	490.61	134.22	84.21	50.01	2.684	
7,066.16	6,960.00	7,084.71	6,984.67	25.67	25.22	-42.56	-711.41	497.65	122.58	72.12	50.46	2.429	
7,100.00	6,993.82	7,118.57	7,017.87	25.78	25.35	149.01	-716.94	501.39	116.82	66.13	50.69	2.305	
7,150.00	7,043.55	7,168.73	7,066.98	25.96	25.54	149.90	-725.35	507.10	111.15	60.11	51.04	2.178	
7,188.91	7,081.82	7,205.71	7,103.25	26.10	25.68	151.21	-731.35	511.14	109.65	58.29	51.36	2.135	ES
7,200.00	7,092.63	7,216.25	7,113.61	26.14	25.72	151.68	-732.98	512.23	109.77	58.33	51.45	2.134	SF
7,250.00	7,140.71	7,263.70	7,160.34	26.34	25.90	154.19	-739.83	516.74	113.46	61.62	51.84	2.189	
7,300.00	7,187.41	7,313.30	7,209.23	26.53	26.09	157.30	-746.81	521.29	121.64	69.44	52.20	2.330	
7,350.00	7,232.38	7,362.34	7,257.52	26.73	26.27	160.54	-753.98	525.98	133.89	81.33	52.56	2.548	
7,400.00	7,275.27	7,412.43	7,306.67	26.93	26.46	163.77	-762.03	531.28	149.72	96.83	52.88	2.831	
7,450.00	7,315.77	7,460.55	7,353.67	27.13	26.65	166.67	-770.66	536.98	168.88	115.68	53.20	3.174	
7,500.00	7,353.56	7,504.42	7,396.45	27.34	26.82	168.97	-778.83	542.27	191.97	138.41	53.55	3.585	
7,550.00	7,388.35	7,543.00	7,434.05	27.54	26.97	170.65	-786.09	546.86	219.02	165.10	53.92	4.062	
7,600.00	7,419.89	7,582.03	7,472.15	27.74	27.12	172.12	-793.29	551.34	249.98	195.76	54.22	4.610	
7,650.00	7,447.92	7,614.85	7,504.27	27.94	27.24	173.08	-799.05	554.89	284.75	230.23	54.52	5.223	
7,700.00	7,472.24	7,644.05	7,532.89	28.14	27.35	173.72	-803.95	557.89	322.89	268.11	54.78	5.894	
7,750.00	7,492.67	7,669.26	7,557.66	28.33	27.45	174.06	-808.00	560.33	364.00	309.00	55.00	6.618	
7,800.00	7,509.03	7,690.61	7,578.67	28.52	27.53	174.11	-811.29	562.27	407.65	352.46	55.19	7.387	
7,816.16	7,513.43	7,696.67	7,584.64	28.58	27.55	174.05	-812.20	562.81	422.22	366.98	55.24	7.644	
7,900.00	7,532.50	7,724.21	7,611.78	28.88	27.66	169.35	-816.21	565.11	499.58	444.13	55.46	9.009	
8,000.00	7,548.24	7,749.52	7,636.77	29.24	27.75	161.35	-819.70	567.08	594.47	538.82	55.65	10.682	
8,100.00	7,556.27	7,767.21	7,654.26	29.58	27.82	148.44	-822.02	568.38	691.42	635.64	55.78	12.395	
8,153.26	7,557.37	7,773.71	7,660.69	29.76	27.84	138.27	-822.85	568.85	743.63	687.80	55.83	13.319	
8,200.00	7,557.37	7,778.49	7,665.42	29.92	27.86	139.65	-823.45	569.19	789.60	733.73	55.87	14.134	
8,300.00	7,557.36	7,788.34	7,675.17	30.26	27.90	142.28	-824.66	569.87	888.11	832.17	55.94	15.877	
8,400.00	7,557.36	7,797.70	7,684.44	30.63	27.93	144.54	-825.79	570.50	986.80	930.79	56.01	17.619	
8,500.00	7,557.36	7,806.61	7,693.27	31.00	27.96	146.51	-826.83	571.09	1,085.62	1,029.55	56.07	19.361	
8,600.00	7,557.35	7,825.00	7,711.51	31.39	28.03	150.05	-828.91	572.26	1,184.62	1,128.41	56.20	21.078	
8,700.00	7,557.35	7,825.00	7,711.51	31.79	28.03	150.05	-828.91	572.26	1,283.59	1,227.37	56.22	22.833	

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 4H
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 4H	**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
8,800.00	7,557.35	7,825.00	7,711.51	32.21	28.03	150.05	-828.91	572.26	1,382.70	1,326.47	56.23	24.590	
8,900.00	7,557.34	7,825.00	7,711.51	32.64	28.03	150.05	-828.91	572.26	1,481.94	1,425.69	56.24	26.349	
9,000.00	7,557.34	7,844.92	7,731.28	33.08	28.11	153.25	-831.03	573.47	1,581.07	1,524.68	56.39	28.038	
9,100.00	7,557.34	7,851.51	7,737.82	33.54	28.13	154.18	-831.70	573.85	1,680.34	1,623.89	56.45	29.768	
9,200.00	7,557.33	7,857.82	7,744.08	34.00	28.15	155.02	-832.33	574.21	1,779.66	1,723.15	56.51	31.494	
9,300.00	7,557.33	7,863.85	7,750.09	34.48	28.18	155.79	-832.92	574.55	1,879.01	1,822.45	56.57	33.219	
9,400.00	7,557.32	7,869.64	7,755.84	34.96	28.20	156.48	-833.47	574.86	1,978.40	1,921.78	56.62	34.940	
9,500.00	7,557.32	7,875.20	7,761.36	35.46	28.22	157.12	-833.99	575.16	2,077.82	2,021.14	56.68	36.659	
9,600.00	7,557.32	7,880.53	7,766.66	35.97	28.24	157.70	-834.47	575.45	2,177.27	2,120.54	56.74	38.376	
9,700.00	7,557.31	7,885.65	7,771.76	36.48	28.26	158.24	-834.93	575.71	2,276.75	2,219.96	56.79	40.090	
9,800.00	7,557.31	7,890.58	7,776.66	37.00	28.27	158.74	-835.37	575.96	2,376.25	2,319.40	56.85	41.800	
9,900.00	7,557.31	12,201.00	9,953.24	37.54	43.72	176.77	-3,248.68	682.98	2,399.25	2,346.87	52.38	45.801	
10,000.00	7,557.30	12,317.96	9,954.56	38.08	44.26	176.60	-3,365.64	683.34	2,400.70	2,347.06	53.64	44.758	
10,100.00	7,557.30	12,506.79	9,955.24	38.63	45.17	176.33	-3,554.43	683.98	2,402.53	2,347.64	54.89	43.773	
10,200.00	7,557.30	12,627.40	9,950.12	39.18	45.76	176.18	-3,674.91	685.92	2,398.37	2,342.18	56.18	42.689	
10,300.00	7,557.29	12,672.00	9,948.92	39.74	45.98	176.11	-3,719.50	686.04	2,396.24	2,338.73	57.51	41.665	
10,400.00	7,557.29	12,766.00	9,947.75	40.31	46.45	175.98	-3,813.49	686.69	2,395.41	2,336.57	58.84	40.708	
10,434.24	7,557.29	12,786.00	9,947.65	40.51	46.56	175.95	-3,833.48	686.99	2,395.34	2,336.03	59.30	40.390	
10,500.00	7,557.28	12,835.15	9,947.63	40.89	46.80	175.89	-3,882.63	687.47	2,395.57	2,335.38	60.19	39.801	
10,600.00	7,557.28	12,970.14	9,947.30	41.47	47.49	175.66	-4,017.61	686.67	2,395.96	2,334.40	61.56	38.923	
10,700.00	7,557.28	13,079.58	9,945.23	42.06	48.06	175.41	-4,126.99	683.50	2,394.78	2,331.83	62.95	38.040	
10,800.00	7,557.27	13,161.44	9,944.24	42.66	48.49	175.27	-4,208.84	683.00	2,394.14	2,329.80	64.33	37.214	
10,900.00	7,557.27	13,257.74	9,943.15	43.26	49.00	175.09	-4,305.12	681.62	2,393.69	2,327.95	65.74	36.414	
10,914.69	7,557.27	13,267.94	9,943.07	43.35	49.05	175.07	-4,315.32	681.47	2,393.67	2,327.73	65.94	36.301	
11,000.00	7,557.27	13,330.00	9,943.07	43.86	49.38	174.97	-4,377.37	681.42	2,394.14	2,327.02	67.12	35.667	
11,100.00	7,557.26	13,436.15	9,943.60	44.47	49.96	174.84	-4,483.51	683.05	2,395.09	2,326.57	68.53	34.951	
11,200.00	7,557.26	13,545.47	9,943.56	45.09	50.56	174.71	-4,592.82	684.67	2,395.51	2,325.57	69.94	34.251	
11,300.00	7,557.26	13,636.80	9,943.64	45.71	51.07	174.61	-4,684.14	686.30	2,396.04	2,324.69	71.35	33.582	
11,400.00	7,557.25	13,726.19	9,944.11	46.33	51.57	174.53	-4,773.48	688.73	2,396.93	2,324.17	72.76	32.945	
11,500.00	7,557.25	13,814.46	9,945.12	46.96	52.07	174.45	-4,861.73	690.83	2,398.45	2,324.28	74.17	32.337	
11,600.00	7,557.24	13,956.41	9,946.14	47.60	52.88	174.43	-5,003.41	699.29	2,399.22	2,323.61	75.60	31.734	
11,663.10	7,557.24	14,017.03	9,946.01	48.00	53.24	174.44	-5,063.87	703.60	2,399.06	2,322.56	76.49	31.364	
11,700.00	7,557.24	14,043.69	9,946.03	48.24	53.39	174.43	-5,090.50	705.00	2,399.13	2,322.13	77.01	31.155	
11,800.00	7,557.24	14,160.44	9,945.41	48.88	54.07	174.27	-5,207.20	705.88	2,399.16	2,320.69	78.48	30.571	
11,854.16	7,557.24	14,208.52	9,944.68	49.23	54.35	174.17	-5,255.25	704.81	2,398.86	2,319.58	79.27	30.261	
11,900.00	7,557.23	14,230.73	9,944.61	49.52	54.48	174.13	-5,277.46	704.44	2,399.08	2,319.16	79.92	30.019	
12,000.00	7,557.23	14,296.44	9,945.56	50.17	54.86	174.03	-5,343.17	704.39	2,401.06	2,319.72	81.34	29.519	
12,100.00	7,557.23	14,407.81	9,947.14	50.82	55.52	173.87	-5,454.52	704.73	2,403.13	2,320.30	82.83	29.014	
12,200.00	7,557.22	14,511.44	9,948.38	51.48	56.14	173.70	-5,558.14	704.38	2,405.06	2,320.75	84.31	28.526	
12,300.00	7,557.22	14,619.69	9,949.38	52.14	56.79	173.54	-5,666.39	704.43	2,406.71	2,320.90	85.81	28.048	
12,400.00	7,557.22	14,762.22	9,948.82	52.80	57.65	173.30	-5,808.91	703.68	2,407.05	2,319.69	87.36	27.552	
12,429.41	7,557.21	14,785.12	9,948.61	52.99	57.79	173.26	-5,831.81	703.61	2,407.01	2,319.22	87.79	27.416	
12,500.00	7,557.21	14,829.00	9,948.35	53.46	58.05	173.19	-5,875.69	703.35	2,407.28	2,318.47	88.81	27.107	
12,600.00	7,557.21	14,924.00	9,948.76	54.13	58.63	173.04	-5,970.68	703.16	2,408.51	2,318.21	90.29	26.674	
12,700.00	7,557.20	15,043.62	9,948.94	54.80	59.37	172.86	-6,090.30	703.12	2,409.47	2,317.64	91.83	26.239	
12,800.00	7,557.20	15,185.80	9,948.49	55.48	60.25	172.65	-6,232.47	703.77	2,410.26	2,316.86	93.40	25.807	
12,900.00	7,557.20	15,265.57	9,946.92	56.15	60.74	172.54	-6,312.22	704.61	2,409.11	2,314.24	94.87	25.394	
12,923.13	7,557.20	15,279.85	9,946.78	56.31	60.83	172.52	-6,326.50	704.65	2,409.06	2,313.86	95.20	25.305	
13,000.00	7,557.19	15,333.30	9,946.61	56.83	61.17	172.44	-6,379.95	704.57	2,409.48	2,313.16	96.32	25.015	
13,100.00	7,557.19	15,524.90	9,943.23	57.51	62.37	172.03	-6,571.38	699.95	2,409.27	2,311.25	98.02	24.580	
13,200.00	7,557.19	15,582.00	9,940.90	58.19	62.73	171.85	-6,628.31	696.32	2,407.16	2,307.66	99.50	24.192	
13,270.36	7,557.18	15,628.97	9,939.69	58.67	63.02	171.71	-6,675.20	693.87	2,406.64	2,306.09	100.55	23.936	

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 4H
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 4H	**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
13,300.00	7,557.18	15,644.76	9,939.52	58.88	63.12	171.68	-6,690.98	693.39	2,406.73	2,305.75	100.97	23.835	
13,400.00	7,557.18	15,751.49	9,939.57	59.57	63.80	171.51	-6,797.71	693.09	2,407.82	2,305.30	102.51	23.488	
13,500.00	7,557.18	15,808.00	9,939.37	60.25	64.16	171.42	-6,854.22	693.32	2,408.66	2,304.72	103.93	23.175	
13,600.00	7,557.17	15,872.70	9,940.54	60.95	64.58	171.34	-6,918.90	693.70	2,411.40	2,306.04	105.36	22.888	
13,700.00	7,557.17	16,051.00	9,945.12	61.64	65.74	171.23	-7,096.97	700.15	2,415.18	2,308.14	107.04	22.563	
13,800.00	7,557.16	16,127.72	9,944.89	62.33	66.23	171.10	-7,173.68	699.51	2,416.01	2,307.49	108.52	22.263	
13,900.00	7,557.16	16,213.28	9,945.38	63.03	66.79	170.96	-7,259.24	699.07	2,417.67	2,307.65	110.02	21.975	
14,000.00	7,557.16	16,346.83	9,946.04	63.73	67.66	170.79	-7,392.77	700.41	2,419.07	2,307.44	111.63	21.670	
14,100.00	7,557.15	16,444.91	9,946.00	64.43	68.30	170.71	-7,490.80	703.27	2,419.62	2,306.48	113.14	21.385	
14,200.00	7,557.15	16,550.65	9,945.58	65.13	68.99	170.53	-7,596.53	702.50	2,420.42	2,305.72	114.70	21.102	
14,300.00	7,557.15	16,705.39	9,941.51	65.84	70.01	170.21	-7,751.17	699.64	2,418.97	2,302.59	116.38	20.785	
14,400.00	7,557.14	16,761.31	9,939.81	66.54	70.38	170.09	-7,807.04	698.05	2,417.78	2,299.93	117.85	20.516	
14,400.18	7,557.14	16,761.39	9,939.81	66.54	70.38	170.09	-7,807.12	698.05	2,417.78	2,299.93	117.85	20.516	
14,500.00	7,557.14	16,846.37	9,939.86	67.25	70.95	169.95	-7,892.09	697.90	2,418.86	2,299.50	119.36	20.266	
14,600.00	7,557.14	16,966.30	9,937.73	67.96	71.74	169.74	-8,012.00	696.87	2,418.28	2,297.32	120.96	19.992	
14,616.71	7,557.13	16,979.22	9,937.53	68.07	71.83	169.71	-8,024.93	696.71	2,418.26	2,297.05	121.21	19.951	
14,700.00	7,557.13	17,054.88	9,936.66	68.66	72.33	169.58	-8,100.57	696.11	2,418.40	2,295.91	122.49	19.744	
14,800.00	7,557.13	17,133.33	9,936.26	69.38	72.86	169.47	-8,179.02	696.40	2,419.05	2,295.07	123.98	19.512	
14,900.00	7,557.12	17,212.78	9,936.76	70.09	73.39	169.36	-8,258.46	696.75	2,420.77	2,295.30	125.46	19.295	
15,000.00	7,557.12	17,313.41	9,937.81	70.80	74.07	169.22	-8,359.09	697.24	2,422.92	2,295.91	127.01	19.076	
15,100.00	7,557.12	17,405.47	9,938.55	71.52	74.69	169.09	-8,451.15	697.60	2,424.88	2,296.35	128.53	18.866	
15,200.00	7,557.11	17,545.64	9,940.16	72.23	75.64	168.91	-8,591.30	698.25	2,427.46	2,297.26	130.21	18.643	
15,300.00	7,557.11	17,614.39	9,940.02	72.95	76.10	168.80	-8,660.05	697.95	2,428.69	2,297.02	131.67	18.445	
15,400.00	7,557.11	17,706.11	9,941.01	73.67	76.72	168.64	-8,751.76	697.02	2,431.19	2,297.99	133.20	18.252	
15,500.00	7,557.10	17,847.15	9,941.62	74.39	77.68	168.45	-8,892.79	698.03	2,432.79	2,297.91	134.88	18.036	
15,600.00	7,557.10	17,891.44	9,942.07	75.11	77.99	168.40	-8,937.08	698.25	2,434.79	2,298.54	136.25	17.870	
15,700.00	7,557.10	17,929.00	9,943.03	75.83	78.24	168.35	-8,974.63	698.50	2,438.82	2,301.29	137.53	17.733	
15,800.00	7,557.09	18,001.58	9,946.46	76.55	78.75	168.29	-9,047.10	700.10	2,444.49	2,305.56	138.93	17.595	
15,900.00	7,557.09	18,248.38	9,955.12	77.27	80.46	168.19	-9,293.50	709.67	2,448.94	2,307.91	141.04	17.364	
16,000.00	7,557.08	18,337.57	9,954.67	78.00	81.08	168.09	-9,382.67	711.36	2,449.44	2,306.89	142.56	17.182	
16,100.00	7,557.08	18,399.00	9,955.28	78.72	81.50	168.02	-9,444.09	712.26	2,451.41	2,307.44	143.98	17.026	
16,200.00	7,557.08	18,551.33	9,954.54	79.45	82.56	167.82	-9,596.40	713.51	2,451.67	2,305.95	145.71	16.825	
16,300.00	7,557.07	18,633.42	9,954.21	80.18	83.12	167.69	-9,678.49	713.13	2,452.73	2,305.50	147.23	16.660	
16,400.00	7,557.07	18,719.55	9,954.06	80.90	83.72	167.54	-9,764.61	712.29	2,454.19	2,305.44	148.75	16.499	
16,500.00	7,557.07	18,810.44	9,954.98	81.63	84.35	167.42	-9,855.50	712.76	2,456.46	2,306.18	150.28	16.346	
16,600.00	7,557.06	18,911.99	9,955.30	82.36	85.06	167.25	-9,957.04	711.84	2,458.39	2,306.53	151.86	16.189	
16,700.00	7,557.06	19,036.32	9,955.95	83.09	85.92	167.05	-10,081.36	710.67	2,460.68	2,307.16	153.52	16.028	
16,800.00	7,557.06	19,166.98	9,954.65	83.82	86.83	166.85	-10,212.01	710.64	2,461.17	2,305.98	155.19	15.859	
16,822.06	7,557.05	19,188.31	9,954.30	83.98	86.98	166.81	-10,233.34	710.53	2,461.16	2,305.63	155.53	15.824	
16,900.00	7,557.05	19,260.37	9,953.09	84.55	87.48	166.68	-10,305.38	709.88	2,461.22	2,304.48	156.75	15.702	
17,000.00	7,557.05	19,343.82	9,952.15	85.29	88.06	166.54	-10,388.83	709.13	2,461.84	2,303.57	158.27	15.555	
17,100.00	7,557.04	19,428.00	9,951.30	86.02	88.65	166.38	-10,472.99	707.61	2,462.86	2,303.06	159.80	15.412	
17,200.00	7,557.04	19,521.00	9,951.38	86.75	89.30	166.22	-10,565.98	706.81	2,464.68	2,303.33	161.35	15.276	
17,300.00	7,557.04	19,647.09	9,951.57	87.49	90.19	166.06	-10,692.07	707.62	2,466.29	2,303.28	163.01	15.130	
17,400.00	7,557.03	19,785.62	9,948.84	88.22	91.17	165.81	-10,830.53	706.46	2,466.10	2,301.39	164.71	14.972	
17,470.60	7,557.03	19,838.76	9,947.02	88.74	91.54	165.69	-10,883.61	704.77	2,465.53	2,299.75	165.79	14.872	
17,500.00	7,557.03	19,851.98	9,946.74	88.96	91.63	165.66	-10,896.82	704.36	2,465.63	2,299.43	166.20	14.835	
17,600.00	7,557.03	19,901.75	9,946.54	89.70	91.98	165.55	-10,946.58	703.14	2,467.39	2,299.81	167.59	14.723	
17,700.00	7,557.02	20,109.63	9,944.35	90.43	93.45	165.16	-11,154.35	699.76	2,468.97	2,299.43	169.55	14.562	
17,800.00	7,557.02	20,172.00	9,942.69	91.17	93.89	165.03	-11,216.69	698.55	2,468.40	2,297.36	171.04	14.432	
17,802.57	7,557.02	20,172.00	9,942.69	91.19	93.89	165.03	-11,216.69	698.55	2,468.40	2,297.33	171.07	14.429	
17,900.00	7,557.02	20,248.26	9,941.65	91.91	94.43	164.89	-11,292.93	697.14	2,469.14	2,296.60	172.55	14.310	

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 4H
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 4H	**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
18,000.00	7,557.01	20,305.00	9,940.88	92.65	94.83	164.77	-11,349.65	696.09	2,470.40	2,296.44	173.95	14.202	
18,100.00	7,557.01	20,305.00	9,940.88	93.39	94.83	164.77	-11,349.65	696.09	2,475.04	2,300.09	174.95	14.147	
18,200.00	7,557.00	20,305.00	9,940.88	94.13	94.83	164.77	-11,349.65	696.09	2,483.71	2,308.00	175.71	14.135	
18,300.00	7,557.00	20,305.00	9,940.88	94.87	94.83	164.77	-11,349.65	696.09	2,496.36	2,320.13	176.23	14.165	
18,318.93	7,557.00	20,305.00	9,940.88	95.01	94.83	164.77	-11,349.65	696.09	2,499.20	2,322.89	176.30	14.175	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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	-75.07	246.20	-923.49	955.74				
100.00	100.00	105.08	105.08	0.28	0.17	-75.06	246.40	-923.33	955.64	955.20	0.45	2,142.420	
200.00	200.00	206.89	206.89	0.63	0.34	-75.02	246.96	-922.87	955.35	954.38	0.97	985.675	
300.00	300.00	310.70	310.69	0.99	0.65	-74.97	247.63	-922.10	954.80	953.16	1.64	582.049	
400.00	400.00	413.12	413.11	1.35	1.01	-74.95	247.65	-921.05	953.82	951.46	2.36	403.610	
500.00	500.00	512.47	512.45	1.71	1.37	-74.94	247.59	-920.04	952.81	949.74	3.08	309.815	
600.00	600.00	612.36	612.34	2.07	1.72	-74.92	247.58	-919.05	951.86	948.07	3.79	251.104	
700.00	700.00	708.97	708.95	2.43	2.06	-74.91	247.62	-918.16	950.98	946.49	4.49	211.805	
780.57	780.57	783.80	783.77	2.72	2.32	-74.89	247.78	-917.88	950.74	945.70	5.04	188.704	CC
800.00	800.00	801.84	801.81	2.79	2.39	-74.89	247.83	-917.88	950.75	945.58	5.17	183.882	
900.00	900.00	898.89	898.86	3.14	2.72	-74.88	248.14	-918.20	951.15	945.29	5.86	162.291	
1,000.00	1,000.00	999.25	999.22	3.50	3.06	-74.89	248.12	-918.66	951.59	945.03	6.56	145.082	
1,100.00	1,100.00	1,098.99	1,098.95	3.86	3.40	-74.91	247.83	-919.17	952.01	944.75	7.26	131.172	
1,200.00	1,200.00	1,198.42	1,198.39	4.22	3.74	-74.92	247.74	-919.69	952.48	944.53	7.96	119.707	
1,300.00	1,300.00	1,297.52	1,297.48	4.58	4.08	-74.93	247.71	-920.26	953.03	944.37	8.66	110.081	
1,400.00	1,400.00	1,394.63	1,394.59	4.94	4.42	-74.96	247.54	-921.04	953.76	944.41	9.35	101.964	
1,500.00	1,500.00	1,491.31	1,491.27	5.29	4.76	-74.98	247.50	-922.13	954.84	944.79	10.05	95.016	
1,600.00	1,600.00	1,597.66	1,597.61	5.65	5.13	-74.99	247.57	-923.18	955.82	945.04	10.78	88.656	
1,700.00	1,700.00	1,694.49	1,694.43	6.01	5.47	-74.97	247.99	-923.83	956.58	945.10	11.48	83.324	
1,800.00	1,800.00	1,794.61	1,794.55	6.37	5.82	-74.94	248.79	-924.56	957.49	945.30	12.19	78.534	
1,900.00	1,900.00	1,897.59	1,897.52	6.73	6.19	-74.87	250.07	-925.15	958.36	945.45	12.91	74.212	
2,000.00	2,000.00	2,020.24	2,020.14	7.09	6.62	-74.74	252.06	-923.91	957.83	944.13	13.70	69.914	
2,100.00	2,099.98	2,129.47	2,129.30	7.43	7.00	141.40	253.96	-920.50	956.61	942.19	14.42	66.340	
2,100.10	2,100.08	2,129.57	2,129.40	7.43	7.00	141.40	253.96	-920.49	956.61	942.19	14.42	66.336	ES
2,200.00	2,199.84	2,238.43	2,238.17	7.76	7.38	141.78	255.88	-916.53	957.70	942.58	15.12	63.326	
2,300.00	2,299.45	2,343.34	2,342.97	8.09	7.75	142.23	257.23	-911.76	960.55	944.74	15.82	60.732	
2,400.00	2,398.70	2,433.23	2,432.78	8.42	8.06	142.67	258.01	-907.98	966.47	950.01	16.47	58.692	
2,500.00	2,497.47	2,521.05	2,520.55	8.76	8.37	143.12	258.67	-905.37	976.40	959.28	17.11	57.061	
2,600.00	2,595.62	2,608.05	2,607.54	9.10	8.68	143.60	259.34	-903.83	990.36	972.60	17.75	55.783	
2,644.93	2,639.49	2,648.78	2,648.26	9.25	8.82	143.84	259.71	-903.42	997.94	979.89	18.05	55.292	
2,700.00	2,693.18	2,703.33	2,702.81	9.44	9.01	144.30	260.29	-902.88	1,007.65	989.22	18.43	54.686	
2,800.00	2,790.65	2,796.08	2,795.55	9.78	9.34	145.04	261.07	-902.13	1,025.54	1,006.46	19.09	53.731	
2,900.00	2,888.13	2,889.00	2,888.47	10.13	9.66	145.69	260.82	-902.31	1,044.15	1,024.40	19.75	52.878	
3,000.00	2,985.61	3,017.15	3,016.60	10.48	10.10	146.50	259.33	-901.81	1,062.16	1,041.63	20.54	51.723	
3,100.00	3,083.08	3,168.06	3,167.27	10.83	10.62	147.33	253.63	-895.97	1,076.10	1,054.72	21.38	50.325	
3,200.00	3,180.56	3,331.89	3,330.10	11.19	11.20	148.12	242.74	-881.75	1,084.59	1,062.37	22.22	48.812	
3,300.00	3,278.04	3,477.44	3,473.74	11.55	11.73	148.79	229.97	-862.21	1,087.86	1,064.88	22.98	47.333	
3,400.00	3,375.51	3,588.71	3,583.15	11.91	12.14	149.40	220.94	-844.02	1,088.83	1,065.12	23.70	45.936	
3,500.00	3,472.99	3,716.59	3,708.35	12.27	12.62	150.19	210.99	-820.01	1,087.70	1,063.26	24.43	44.519	
3,600.00	3,570.47	3,823.25	3,812.46	12.64	13.03	150.89	202.82	-798.29	1,085.34	1,060.19	25.15	43.152	
3,700.00	3,667.94	3,927.27	3,913.87	13.00	13.44	151.58	194.67	-776.60	1,082.62	1,056.74	25.87	41.841	
3,800.00	3,765.42	4,019.13	4,003.41	13.37	13.80	152.19	187.36	-757.46	1,080.00	1,053.40	26.60	40.604	
3,900.00	3,862.90	4,117.00	4,098.99	13.74	14.20	152.81	179.47	-737.92	1,078.27	1,050.94	27.33	39.459	
4,000.00	3,960.37	4,210.82	4,190.61	14.11	14.58	153.40	171.61	-719.32	1,076.66	1,048.60	28.06	38.376	
4,091.86	4,049.92	4,290.73	4,268.80	14.45	14.90	153.88	165.02	-704.19	1,076.09	1,047.36	28.72	37.464	
4,100.00	4,057.85	4,297.69	4,275.61	14.48	14.93	153.92	164.45	-702.92	1,076.09	1,047.31	28.78	37.387	
4,200.00	4,155.33	4,389.86	4,366.02	14.86	15.30	154.46	156.97	-686.58	1,076.72	1,047.21	29.51	36.484	
4,300.00	4,252.80	4,490.00	4,464.28	15.23	15.71	155.05	148.96	-669.01	1,077.70	1,047.45	30.25	35.626	
4,400.00	4,350.28	4,597.62	4,569.79	15.61	16.15	155.69	140.32	-649.67	1,078.39	1,047.40	31.00	34.790	
4,500.00	4,447.76	4,700.68	4,670.69	15.98	16.58	156.30	131.77	-630.50	1,078.51	1,046.77	31.74	33.977	
4,600.00	4,545.23	4,802.41	4,770.24	16.36	17.01	156.92	123.37	-611.30	1,078.53	1,046.04	32.49	33.197	
4,618.32	4,563.09	4,820.51	4,787.95	16.43	17.08	157.02	121.85	-607.88	1,078.53	1,045.90	32.63	33.058	

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 4H
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 4H	**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
4,700.00	4,642.71	4,900.39	4,866.11	16.74	17.42	157.50	115.18	-592.81	1,078.61	1,045.38	33.23	32.455	
4,800.00	4,740.19	4,998.73	4,962.35	17.11	17.84	158.09	106.97	-574.38	1,078.94	1,044.95	33.98	31.750	
4,900.00	4,837.66	5,096.58	5,058.15	17.49	18.25	158.67	98.82	-556.15	1,079.48	1,044.75	34.73	31.081	
5,000.00	4,935.14	5,186.00	5,145.73	17.87	18.63	159.20	91.43	-539.71	1,080.42	1,044.95	35.47	30.458	
5,100.00	5,032.62	5,282.00	5,239.91	18.25	19.04	159.77	83.92	-522.66	1,082.22	1,046.00	36.22	29.878	
5,200.00	5,130.09	5,376.00	5,332.25	18.64	19.43	160.31	76.87	-506.60	1,084.87	1,047.90	36.97	29.347	
5,300.00	5,227.57	5,470.00	5,424.64	19.02	19.83	160.85	69.85	-490.75	1,087.85	1,050.13	37.71	28.846	
5,400.00	5,325.05	5,565.00	5,518.11	19.40	20.23	161.40	63.08	-475.16	1,091.49	1,053.03	38.46	28.380	
5,500.00	5,422.52	5,678.64	5,629.84	19.78	20.71	162.04	54.71	-456.16	1,094.88	1,055.64	39.24	27.903	
5,600.00	5,520.00	5,786.09	5,735.22	20.16	21.17	162.66	46.18	-437.04	1,097.13	1,057.12	40.01	27.422	
5,700.00	5,617.48	5,885.83	5,832.97	20.55	21.60	163.24	38.29	-418.87	1,099.16	1,058.39	40.77	26.960	
5,800.00	5,714.95	5,982.38	5,927.62	20.93	22.02	163.81	30.75	-401.34	1,101.42	1,059.89	41.53	26.521	
5,900.00	5,812.43	6,077.39	6,020.82	21.31	22.43	164.36	23.56	-384.32	1,104.14	1,061.86	42.29	26.111	
6,000.00	5,909.91	6,172.20	6,113.89	21.70	22.83	164.91	16.54	-367.70	1,107.38	1,064.34	43.04	25.727	
6,100.00	6,007.38	6,279.67	6,219.43	22.08	23.30	165.52	8.64	-349.00	1,110.89	1,067.07	43.82	25.349	
6,200.00	6,104.86	6,382.26	6,319.94	22.47	23.74	166.12	0.70	-330.01	1,113.37	1,068.77	44.60	24.965	
6,300.00	6,202.34	6,474.02	6,409.93	22.85	24.14	166.65	-6.21	-313.44	1,116.45	1,071.10	45.35	24.616	
6,400.00	6,299.81	6,571.95	6,506.09	23.24	24.57	167.18	-13.77	-296.58	1,120.16	1,074.04	46.12	24.288	
6,421.23	6,320.51	6,593.57	6,527.33	23.32	24.66	167.29	-15.59	-292.97	1,120.95	1,074.67	46.28	24.219	
6,500.00	6,397.52	6,673.97	6,606.32	23.62	25.01	167.65	-22.90	-279.88	1,122.75	1,075.86	46.89	23.945	
6,600.00	6,495.90	6,760.42	6,691.34	24.00	25.37	167.94	-31.34	-266.67	1,122.38	1,074.76	47.62	23.570	
6,700.00	6,594.84	6,840.88	6,770.70	24.37	25.71	168.14	-38.90	-255.85	1,120.22	1,071.91	48.32	23.184	
6,800.00	6,694.23	6,922.73	6,851.68	24.74	26.04	168.27	-46.23	-246.41	1,116.41	1,067.41	49.00	22.785	
6,900.00	6,793.94	7,009.06	6,937.24	25.09	26.38	168.39	-52.73	-236.98	1,110.60	1,060.93	49.68	22.357	
7,000.00	6,893.85	7,105.55	7,032.87	25.44	26.77	168.66	-57.07	-224.92	1,102.29	1,051.91	50.39	21.877	
7,066.16	6,960.00	7,178.04	7,104.64	25.67	27.06	-47.02	-59.97	-215.09	1,094.64	1,043.76	50.88	21.514	
7,100.00	6,993.82	7,209.27	7,135.54	25.78	27.19	144.82	-61.22	-210.79	1,091.11	1,040.00	51.11	21.347	
7,150.00	7,043.55	7,255.38	7,181.19	25.96	27.38	145.25	-62.89	-204.46	1,089.04	1,037.57	51.47	21.159	
7,152.41	7,045.93	7,257.60	7,183.39	25.97	27.39	145.27	-62.97	-204.16	1,089.03	1,037.55	51.49	21.151	
7,200.00	7,092.63	7,299.89	7,225.25	26.14	27.56	145.57	-64.31	-198.38	1,090.78	1,038.95	51.83	21.045	
7,250.00	7,140.71	7,343.33	7,268.27	26.34	27.73	145.77	-65.45	-192.48	1,096.43	1,044.23	52.20	21.006	
7,300.00	7,187.41	7,398.09	7,322.50	26.53	27.95	146.05	-66.71	-184.90	1,105.82	1,053.21	52.61	21.017	
7,350.00	7,232.38	7,458.31	7,382.01	26.73	28.20	146.39	-68.34	-175.83	1,118.39	1,065.33	53.06	21.079	
7,400.00	7,275.27	7,499.64	7,422.83	26.93	28.37	146.28	-69.61	-169.48	1,134.47	1,081.04	53.43	21.233	
7,450.00	7,315.77	7,540.21	7,462.92	27.13	28.54	145.98	-70.98	-163.45	1,154.27	1,100.48	53.80	21.456	
7,500.00	7,353.56	7,573.92	7,496.26	27.34	28.67	145.32	-72.18	-158.63	1,177.77	1,123.64	54.13	21.758	
7,550.00	7,388.35	7,604.15	7,526.20	27.54	28.80	144.29	-73.26	-154.56	1,204.90	1,150.47	54.44	22.134	
7,600.00	7,419.89	7,631.82	7,553.63	27.74	28.91	142.87	-74.24	-151.04	1,235.47	1,180.75	54.72	22.578	
7,650.00	7,447.92	7,656.91	7,578.52	27.94	29.01	140.94	-75.11	-148.01	1,269.19	1,214.21	54.98	23.085	
7,700.00	7,472.24	7,678.95	7,600.38	28.14	29.09	138.36	-75.80	-145.38	1,305.78	1,250.57	55.21	23.652	
7,750.00	7,492.67	7,697.61	7,618.91	28.33	29.17	134.93	-76.32	-143.17	1,344.92	1,289.52	55.40	24.274	
7,800.00	7,509.03	7,712.82	7,634.00	28.52	29.23	130.36	-76.70	-141.38	1,386.28	1,330.71	55.57	24.947	
7,816.16	7,513.43	7,716.98	7,638.14	28.58	29.24	128.59	-76.80	-140.89	1,400.06	1,344.44	55.62	25.173	
7,900.00	7,532.50	7,737.00	7,658.02	28.88	29.32	122.27	-77.23	-138.55	1,472.74	1,416.92	55.83	26.380	
8,000.00	7,548.24	7,737.00	7,658.02	29.24	29.32	112.53	-77.23	-138.55	1,560.99	1,505.07	55.92	27.914	
8,100.00	7,556.27	7,755.25	7,676.15	29.58	29.39	103.98	-77.59	-136.52	1,650.13	1,594.02	56.11	29.411	
8,153.26	7,557.37	7,756.88	7,677.77	29.76	29.40	98.92	-77.62	-136.35	1,697.81	1,641.66	56.15	30.237	
8,200.00	7,557.37	7,757.65	7,678.54	29.92	29.40	98.98	-77.63	-136.27	1,739.79	1,683.61	56.18	30.967	
8,300.00	7,557.36	7,759.29	7,680.16	30.26	29.41	99.10	-77.66	-136.10	1,830.38	1,774.13	56.25	32.540	
8,400.00	7,557.36	7,760.90	7,681.77	30.63	29.41	99.22	-77.69	-135.93	1,921.90	1,865.58	56.31	34.128	
8,500.00	7,557.36	7,762.49	7,683.35	31.00	29.42	99.34	-77.72	-135.77	2,014.22	1,957.85	56.37	35.729	
8,600.00	7,557.35	7,764.07	7,684.92	31.39	29.42	99.46	-77.75	-135.61	2,107.25	2,050.81	56.43	37.341	

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 4H
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 4H	**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
8,700.00	7,557.35	7,765.63	7,686.47	31.79	29.43	99.58	-77.78	-135.45	2,200.88	2,144.39	56.49	38.961	
8,800.00	7,557.35	7,767.17	7,688.00	32.21	29.44	99.70	-77.81	-135.29	2,295.05	2,238.51	56.54	40.590	
8,900.00	7,557.34	7,768.69	7,689.52	32.64	29.44	99.81	-77.83	-135.14	2,389.69	2,333.10	56.60	42.224	
9,000.00	7,557.34	7,770.20	7,691.02	33.08	29.45	99.93	-77.86	-134.99	2,484.75	2,428.10	56.65	43.864	
9,100.00	7,557.34	7,771.69	7,692.50	33.54	29.45	100.04	-77.89	-134.85	2,580.18	2,523.49	56.70	45.508	
9,200.00	7,557.33	7,773.16	7,693.96	34.00	29.46	100.15	-77.91	-134.71	2,675.95	2,619.20	56.75	47.156	
9,300.00	7,557.33	7,774.62	7,695.41	34.48	29.46	100.26	-77.94	-134.57	2,772.01	2,715.21	56.80	48.807	
9,400.00	7,557.32	7,776.06	7,696.85	34.96	29.47	100.37	-77.97	-134.43	2,868.34	2,811.49	56.84	50.460	
9,500.00	7,557.32	7,777.48	7,698.26	35.46	29.48	100.47	-77.99	-134.29	2,964.91	2,908.02	56.89	52.114	
9,600.00	7,557.32	7,778.89	7,699.66	35.97	29.48	100.58	-78.02	-134.16	3,061.70	3,004.76	56.94	53.770	
9,700.00	7,557.31	7,780.28	7,701.05	36.48	29.49	100.69	-78.04	-134.03	3,158.69	3,101.70	56.99	55.426	
9,800.00	7,557.31	7,781.66	7,702.42	37.00	29.49	100.79	-78.06	-133.91	3,255.86	3,198.82	57.04	57.083	
9,900.00	7,557.31	7,783.02	7,703.78	37.54	29.50	100.89	-78.09	-133.78	3,353.20	3,296.11	57.09	58.740	
10,000.00	7,557.30	13,912.51	10,796.55	38.08	65.46	163.95	-3,413.54	-103.63	3,367.41	3,300.81	66.61	50.557	
10,100.00	7,557.30	13,993.33	10,796.10	38.63	66.40	163.86	-3,494.36	-103.99	3,368.81	3,300.90	67.91	49.610	
10,200.00	7,557.30	14,088.34	10,795.85	39.18	67.50	163.75	-3,589.36	-104.49	3,370.52	3,301.22	69.30	48.636	
10,300.00	7,557.29	14,176.80	10,795.99	39.74	68.54	163.66	-3,677.83	-104.49	3,372.50	3,301.84	70.66	47.726	
10,400.00	7,557.29	14,270.40	10,796.31	40.31	69.65	163.55	-3,771.42	-104.86	3,374.78	3,302.71	72.07	46.826	
10,500.00	7,557.28	14,383.08	10,796.15	40.89	70.99	163.41	-3,884.09	-106.21	3,376.84	3,303.21	73.62	45.868	
10,600.00	7,557.28	14,476.14	10,796.07	41.47	72.11	163.29	-3,977.14	-107.41	3,378.99	3,303.93	75.06	45.018	
10,700.00	7,557.28	14,684.18	10,794.76	42.06	74.65	163.12	-4,185.14	-104.37	3,380.13	3,302.94	77.19	43.789	
10,800.00	7,557.27	14,812.03	10,791.50	42.66	76.24	163.04	-4,312.87	-100.04	3,378.56	3,299.74	78.82	42.862	
10,900.00	7,557.27	14,889.06	10,789.71	43.26	77.21	163.00	-4,389.81	-96.79	3,377.03	3,296.87	80.15	42.132	
11,000.00	7,557.27	14,987.85	10,788.12	43.86	78.46	162.96	-4,488.48	-92.32	3,376.07	3,294.45	81.61	41.366	
11,100.00	7,557.26	15,055.46	10,786.89	44.47	79.31	162.92	-4,556.04	-90.00	3,375.29	3,292.39	82.90	40.713	
11,110.42	7,557.26	15,061.16	10,786.81	44.54	79.38	162.92	-4,561.74	-89.88	3,375.29	3,292.26	83.03	40.651	
11,200.00	7,557.26	15,106.00	10,786.32	45.09	79.95	162.87	-4,606.57	-89.37	3,375.83	3,291.73	84.10	40.142	
11,300.00	7,557.26	15,161.16	10,786.30	45.71	80.64	162.82	-4,661.74	-89.37	3,377.76	3,292.44	85.33	39.587	
11,400.00	7,557.25	15,246.92	10,787.39	46.33	81.72	162.72	-4,747.48	-89.86	3,381.02	3,294.25	86.77	38.965	
11,500.00	7,557.25	15,398.34	10,787.39	46.96	83.63	162.54	-4,898.90	-91.25	3,383.19	3,294.49	88.70	38.142	
11,600.00	7,557.24	15,443.15	10,787.53	47.60	84.19	162.49	-4,943.70	-91.75	3,385.67	3,295.80	89.87	37.673	
11,700.00	7,557.24	15,502.31	10,788.29	48.24	84.94	162.40	-5,002.84	-93.27	3,389.58	3,298.43	91.15	37.187	
11,800.00	7,557.24	15,597.82	10,789.72	48.88	86.15	162.25	-5,098.26	-96.95	3,394.17	3,301.44	92.72	36.605	
11,900.00	7,557.23	15,711.82	10,790.93	49.52	87.60	162.07	-5,212.17	-101.30	3,398.33	3,303.88	94.46	35.977	
12,000.00	7,557.23	15,814.84	10,793.18	50.17	88.92	161.97	-5,315.16	-101.84	3,402.59	3,306.53	96.06	35.421	
12,100.00	7,557.23	15,918.25	10,794.79	50.82	90.25	161.85	-5,418.56	-103.14	3,406.49	3,308.80	97.69	34.871	
12,200.00	7,557.22	16,037.06	10,797.40	51.48	91.80	161.75	-5,537.32	-102.02	3,410.34	3,310.94	99.41	34.307	
12,300.00	7,557.22	16,197.58	10,799.64	52.14	93.92	161.70	-5,697.70	-95.80	3,412.26	3,310.87	101.38	33.657	
12,400.00	7,557.22	16,331.06	10,800.27	52.80	95.69	161.64	-5,831.09	-91.00	3,413.70	3,310.52	103.18	33.085	
12,500.00	7,557.21	16,413.64	10,799.85	53.46	96.78	161.58	-5,913.65	-89.40	3,414.65	3,310.00	104.65	32.631	
12,600.00	7,557.21	16,513.04	10,799.39	54.13	98.09	161.49	-6,013.04	-88.12	3,415.87	3,309.62	106.25	32.150	
12,700.00	7,557.20	16,604.22	10,799.08	54.80	99.30	161.42	-6,104.22	-86.91	3,417.20	3,309.41	107.79	31.702	
12,800.00	7,557.20	16,719.24	10,798.62	55.48	100.83	161.32	-6,219.22	-85.35	3,418.47	3,308.95	109.52	31.213	
12,900.00	7,557.20	16,827.55	10,797.92	56.15	102.27	161.24	-6,327.51	-83.26	3,419.33	3,308.13	111.20	30.750	
13,000.00	7,557.19	16,913.70	10,797.31	56.83	103.42	161.17	-6,413.65	-81.82	3,420.23	3,307.51	112.71	30.344	
13,100.00	7,557.19	16,986.00	10,796.87	57.51	104.38	161.08	-6,485.94	-82.28	3,421.93	3,307.78	114.15	29.977	
13,200.00	7,557.19	17,077.16	10,796.35	58.19	105.59	160.96	-6,577.08	-84.23	3,424.20	3,308.44	115.76	29.580	
13,300.00	7,557.18	17,174.00	10,795.86	58.88	106.88	160.83	-6,673.90	-85.71	3,426.37	3,308.96	117.41	29.182	
13,400.00	7,557.18	17,268.00	10,795.43	59.57	108.13	160.70	-6,767.88	-87.67	3,428.78	3,309.73	119.05	28.801	
13,500.00	7,557.18	17,363.00	10,794.40	60.25	109.39	160.54	-6,862.81	-91.20	3,431.17	3,310.44	120.73	28.420	
13,600.00	7,557.17	17,430.93	10,794.14	60.95	110.29	160.44	-6,930.70	-93.23	3,434.12	3,311.96	122.16	28.112	
13,700.00	7,557.17	17,509.34	10,795.67	61.64	111.35	160.36	-7,009.10	-93.62	3,438.26	3,314.62	123.64	27.809	

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 4H
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 4H	**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
13,800.00	7,557.16	17,632.22	10,798.75	62.33	113.01	160.29	-7,131.90	-91.04	3,442.08	3,316.62	125.46	27.436	
13,900.00	7,557.16	17,739.00	10,800.99	63.03	114.47	160.24	-7,238.63	-88.39	3,445.41	3,318.26	127.15	27.098	
14,000.00	7,557.16	17,816.44	10,803.03	63.73	115.52	160.20	-7,316.02	-86.52	3,449.25	3,320.66	128.59	26.824	
14,100.00	7,557.15	17,958.42	10,806.14	64.43	117.46	160.11	-7,457.95	-84.34	3,453.12	3,322.52	130.60	26.441	
14,200.00	7,557.15	18,110.77	10,806.30	65.13	119.53	159.99	-7,610.27	-81.84	3,454.69	3,322.00	132.69	26.035	
14,300.00	7,557.15	18,159.10	10,806.65	65.84	120.19	159.97	-7,658.59	-80.62	3,456.77	3,322.85	133.92	25.811	
14,400.00	7,557.14	18,207.00	10,807.67	66.54	120.85	159.94	-7,706.47	-79.80	3,460.40	3,325.27	135.13	25.607	
14,500.00	7,557.14	18,301.00	10,809.96	67.25	122.13	159.86	-7,800.44	-79.24	3,464.73	3,327.97	136.76	25.335	
14,600.00	7,557.14	18,488.00	10,814.37	67.96	124.69	159.73	-7,987.34	-77.51	3,469.63	3,330.44	139.19	24.928	
14,700.00	7,557.13	18,582.00	10,814.67	68.66	125.98	159.65	-8,081.32	-76.33	3,471.76	3,330.94	140.82	24.654	
14,800.00	7,557.13	18,675.42	10,815.65	69.38	127.27	159.60	-8,174.71	-74.03	3,474.14	3,331.71	142.43	24.392	
14,900.00	7,557.12	18,742.22	10,816.06	70.09	128.18	159.55	-8,241.50	-73.16	3,476.70	3,332.87	143.83	24.172	
15,000.00	7,557.12	18,899.23	10,816.25	70.80	130.33	159.37	-8,398.49	-74.41	3,479.47	3,333.39	146.07	23.820	
15,100.00	7,557.12	18,987.38	10,815.18	71.52	131.53	159.25	-8,486.61	-76.53	3,481.47	3,333.74	147.73	23.566	
15,200.00	7,557.11	19,090.79	10,813.93	72.23	132.94	159.10	-8,589.99	-78.69	3,483.40	3,333.87	149.53	23.296	
15,300.00	7,557.11	19,197.75	10,812.90	72.95	134.41	158.96	-8,696.93	-80.50	3,485.45	3,334.09	151.36	23.028	
15,400.00	7,557.11	19,288.79	10,811.71	73.67	135.65	158.84	-8,787.95	-81.99	3,487.18	3,334.14	153.04	22.786	
15,500.00	7,557.10	19,359.99	10,811.33	74.39	136.63	158.75	-8,859.14	-83.17	3,489.65	3,335.12	154.54	22.581	
15,600.00	7,557.10	19,427.00	10,811.54	75.11	137.55	158.67	-8,926.14	-84.32	3,492.97	3,336.98	155.98	22.394	
15,700.00	7,557.10	19,474.37	10,812.38	75.83	138.20	158.62	-8,973.50	-84.96	3,497.52	3,340.31	157.21	22.248	
15,800.00	7,557.09	19,520.00	10,814.11	76.55	138.83	158.58	-9,019.09	-85.24	3,503.64	3,345.28	158.37	22.123	
15,900.00	7,557.09	19,609.85	10,817.98	77.27	140.06	158.49	-9,108.84	-86.83	3,510.70	3,350.69	160.00	21.942	
16,000.00	7,557.08	19,812.42	10,826.12	78.00	142.87	158.36	-9,311.20	-85.24	3,516.67	3,353.94	162.73	21.610	
16,100.00	7,557.08	19,933.22	10,829.24	78.72	144.56	158.31	-9,431.92	-81.76	3,520.36	3,355.76	164.60	21.387	
16,200.00	7,557.08	20,011.60	10,831.33	79.45	145.65	158.28	-9,510.24	-79.82	3,524.33	3,358.24	166.09	21.220	
16,300.00	7,557.07	20,234.42	10,833.21	80.18	148.76	158.12	-9,732.97	-76.36	3,527.07	3,358.15	168.91	20.881	
16,400.00	7,557.07	20,269.00	10,832.79	80.90	149.24	158.09	-9,767.54	-76.05	3,528.54	3,358.46	170.08	20.747	
16,500.00	7,557.07	20,319.68	10,833.23	81.63	149.94	158.06	-9,818.21	-75.19	3,531.51	3,360.17	171.34	20.611	
16,600.00	7,557.06	20,363.00	10,835.11	82.36	150.55	158.05	-9,861.47	-73.84	3,536.56	3,364.08	172.48	20.505	
16,700.00	7,557.06	20,507.47	10,841.13	83.09	152.57	158.00	-10,005.75	-70.10	3,542.02	3,367.43	174.59	20.288	
16,800.00	7,557.06	20,587.09	10,842.53	83.82	153.68	157.92	-10,085.36	-70.64	3,546.43	3,370.29	176.14	20.134	
16,900.00	7,557.05	20,700.16	10,846.24	84.55	155.26	157.85	-10,198.34	-69.67	3,551.66	3,373.66	178.00	19.953	
17,000.00	7,557.05	20,874.00	10,848.91	85.29	157.68	157.72	-10,372.14	-67.73	3,555.05	3,374.60	180.45	19.701	
17,100.00	7,557.04	20,991.78	10,849.29	86.02	159.33	157.65	-10,489.88	-65.20	3,556.95	3,374.61	182.34	19.507	
17,200.00	7,557.04	21,066.98	10,850.29	86.75	160.39	157.62	-10,565.04	-62.73	3,559.38	3,375.56	183.82	19.363	
17,300.00	7,557.04	21,172.39	10,851.38	87.49	161.87	157.55	-10,670.43	-60.99	3,562.20	3,376.59	185.61	19.192	
17,400.00	7,557.03	21,271.78	10,852.20	88.22	163.26	157.49	-10,769.79	-59.06	3,564.71	3,377.37	187.34	19.028	
17,500.00	7,557.03	21,333.38	10,852.74	88.96	164.12	157.44	-10,831.39	-58.54	3,567.76	3,379.03	188.73	18.904	
17,600.00	7,557.03	21,387.56	10,853.99	89.70	164.88	157.40	-10,885.56	-58.12	3,572.09	3,382.07	190.02	18.799	
17,700.00	7,557.02	21,526.43	10,855.08	90.43	166.81	157.23	-11,024.36	-61.15	3,576.04	3,383.78	192.26	18.600	
17,800.00	7,557.02	21,634.22	10,854.37	91.17	168.29	157.04	-11,132.00	-66.82	3,580.04	3,385.79	194.25	18.430	
17,900.00	7,557.02	21,775.23	10,853.11	91.91	170.24	156.82	-11,272.91	-71.79	3,583.16	3,386.59	196.57	18.229	
18,000.00	7,557.01	21,905.00	10,851.50	92.65	172.05	156.66	-11,402.66	-73.51	3,585.07	3,386.37	198.70	18.043	
18,100.00	7,557.01	21,947.00	10,850.77	93.39	172.64	156.61	-11,444.64	-74.36	3,587.29	3,387.34	199.95	17.941	
18,200.00	7,557.00	21,947.00	10,850.77	94.13	172.64	156.61	-11,444.64	-74.36	3,592.04	3,391.37	200.67	17.900	
18,300.00	7,557.00	21,947.00	10,850.77	94.87	172.64	156.61	-11,444.64	-74.36	3,599.55	3,398.30	201.25	17.886	SF
18,318.93	7,557.00	21,947.00	10,850.77	95.01	172.64	156.61	-11,444.64	-74.36	3,601.29	3,399.94	201.34	17.886	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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	67.90	57.30	141.09	152.28				
100.00	100.00	99.02	99.02	0.28	0.52	67.90	57.50	141.56	152.80	152.00	0.80	190.700	
200.00	200.00	197.42	197.41	0.63	0.59	67.89	58.08	142.98	154.36	153.13	1.23	125.883	
300.00	300.00	297.69	297.65	0.99	0.83	67.61	59.54	144.53	156.35	154.52	1.83	85.587	
400.00	400.00	397.86	397.79	1.35	1.14	66.93	61.96	145.50	158.17	155.68	2.49	63.507	
500.00	500.00	497.66	497.55	1.71	1.47	66.15	64.67	146.26	159.95	156.77	3.18	50.340	
600.00	600.00	597.80	597.64	2.07	1.81	65.31	67.69	147.26	162.10	158.22	3.88	41.822	
700.00	700.00	700.28	700.07	2.43	2.16	64.19	70.90	146.59	162.83	158.25	4.59	35.510	
800.00	800.00	800.29	800.01	2.79	2.51	62.94	74.27	145.41	163.28	157.99	5.29	30.868	
900.00	900.00	900.76	900.44	3.14	2.86	61.87	77.08	144.16	163.47	157.47	6.00	27.254	
1,000.00	1,000.00	1,002.20	1,001.84	3.50	3.21	61.04	79.06	142.87	163.29	156.58	6.71	24.340	
1,100.00	1,100.00	1,104.30	1,103.92	3.86	3.56	60.52	79.64	140.88	161.87	154.46	7.41	21.830	
1,200.00	1,200.00	1,205.12	1,204.71	4.22	3.90	60.27	79.05	138.43	159.46	151.35	8.11	19.652	
1,300.00	1,300.00	1,305.96	1,305.51	4.58	4.25	59.96	78.36	135.53	156.63	147.82	8.82	17.768	
1,400.00	1,400.00	1,406.08	1,405.57	4.94	4.59	59.65	77.47	132.32	153.41	143.90	9.52	16.119	
1,500.00	1,500.00	1,506.00	1,505.44	5.29	4.94	59.37	76.49	129.15	150.18	139.96	10.22	14.693	
1,600.00	1,600.00	1,603.30	1,602.70	5.65	5.28	59.22	75.67	127.03	147.87	136.95	10.92	13.542	
1,700.00	1,700.00	1,702.43	1,701.83	6.01	5.62	59.21	75.13	126.08	146.78	135.15	11.62	12.629	
1,800.00	1,800.00	1,802.58	1,801.98	6.37	5.97	59.02	75.06	125.04	145.85	133.52	12.33	11.827	
1,900.00	1,900.00	1,901.55	1,900.94	6.73	6.32	58.68	75.46	123.99	145.14	132.10	13.04	11.131	
1,912.80	1,912.80	1,914.01	1,913.40	6.77	6.36	58.65	75.51	123.94	145.13	132.00	13.13	11.054	CC, ES
2,000.00	2,000.00	1,998.62	1,998.01	7.09	6.65	58.76	75.63	124.68	145.85	132.12	13.73	10.622	
2,100.00	2,099.98	2,095.91	2,095.21	7.43	6.98	-84.92	74.86	128.53	148.67	134.28	14.40	10.327	
2,200.00	2,199.84	2,196.63	2,195.81	7.76	7.33	-85.59	73.74	133.19	151.63	136.56	15.07	10.063	
2,300.00	2,299.45	2,297.20	2,296.27	8.09	7.67	-87.35	71.85	137.54	153.74	137.99	15.74	9.765	
2,400.00	2,398.70	2,396.47	2,395.37	8.42	8.01	-89.84	68.90	142.54	155.92	139.50	16.42	9.498	
2,500.00	2,497.47	2,497.25	2,495.91	8.76	8.35	-93.19	65.14	148.30	158.61	141.51	17.10	9.276	
2,600.00	2,595.62	2,599.51	2,598.12	9.10	8.70	-99.06	62.89	150.25	160.63	142.84	17.79	9.029	
2,644.93	2,639.49	2,644.01	2,642.61	9.25	8.86	-102.36	62.39	149.89	161.85	143.75	18.10	8.942	
2,700.00	2,693.18	2,698.34	2,696.93	9.44	9.05	-106.58	61.82	149.10	164.01	145.53	18.48	8.877	
2,800.00	2,790.65	2,803.04	2,801.55	9.78	9.41	-113.98	58.69	147.59	168.60	149.44	19.16	8.799	
2,900.00	2,888.13	2,909.88	2,907.73	10.13	9.78	-118.91	47.11	149.35	169.76	149.95	19.81	8.569	
3,000.00	2,985.61	3,014.48	3,010.74	10.48	10.14	-121.76	29.93	154.67	168.08	147.63	20.45	8.218	
3,100.00	3,083.08	3,113.00	3,106.66	10.83	10.48	-122.09	10.53	165.86	165.92	144.76	21.16	7.840	
3,155.41	3,137.10	3,165.06	3,157.00	11.03	10.66	-121.48	0.18	174.17	165.56	143.97	21.58	7.670	
3,200.00	3,180.56	3,207.95	3,198.44	11.19	10.81	-120.83	-8.06	181.56	165.79	143.88	21.91	7.566	
3,300.00	3,278.04	3,307.32	3,294.50	11.55	11.16	-119.35	-26.57	198.95	167.05	144.41	22.63	7.380	
3,400.00	3,375.51	3,405.93	3,390.13	11.91	11.50	-118.25	-44.01	215.54	168.97	145.61	23.36	7.233	
3,500.00	3,472.99	3,504.68	3,486.17	12.27	11.86	-117.53	-60.47	231.52	171.59	147.51	24.09	7.124	
3,600.00	3,570.47	3,602.35	3,581.85	12.64	12.21	-117.80	-74.46	245.26	175.41	150.60	24.81	7.070	
3,700.00	3,667.94	3,702.37	3,680.08	13.00	12.57	-118.44	-87.80	258.53	179.79	154.26	25.53	7.042	
3,800.00	3,765.42	3,802.70	3,778.60	13.37	12.93	-119.03	-101.45	271.77	183.93	157.67	26.26	7.005	
3,900.00	3,862.90	3,901.89	3,876.01	13.74	13.29	-119.62	-114.83	284.81	188.16	161.17	26.98	6.973	
4,000.00	3,960.37	4,000.56	3,972.93	14.11	13.65	-120.13	-127.69	298.16	192.97	165.26	27.71	6.963	
4,100.00	4,057.85	4,099.50	4,070.21	14.48	14.01	-120.75	-139.92	311.39	198.37	169.93	28.44	6.974	
4,200.00	4,155.33	4,202.21	4,171.38	14.86	14.38	-121.66	-152.28	324.08	203.72	174.54	29.18	6.982	
4,300.00	4,252.80	4,305.17	4,272.69	15.23	14.76	-122.64	-166.60	335.58	206.92	177.01	29.91	6.919	
4,400.00	4,350.28	4,404.48	4,370.43	15.61	15.13	-123.68	-180.65	346.09	209.75	179.11	30.64	6.846	
4,500.00	4,447.76	4,505.19	4,469.52	15.98	15.50	-124.62	-194.81	357.15	212.87	181.49	31.37	6.785	
4,600.00	4,545.23	4,605.87	4,568.08	16.36	15.87	-124.80	-210.36	370.58	215.47	183.35	32.11	6.709	
4,700.00	4,642.71	4,705.51	4,665.41	16.74	16.24	-124.68	-226.17	384.92	217.99	185.13	32.86	6.634	
4,800.00	4,740.19	4,803.63	4,761.20	17.11	16.61	-124.43	-241.46	399.66	221.01	187.40	33.61	6.575	

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 4H
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 4H	**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
4,900.00	4,837.66	4,903.02	4,858.13	17.49	16.98	-123.97	-256.67	415.55	224.61	190.24	34.37	6.536	
5,000.00	4,935.14	5,002.11	4,954.88	17.87	17.35	-123.66	-271.41	431.00	228.49	193.37	35.12	6.506	
5,100.00	5,032.62	5,100.13	5,050.98	18.25	17.72	-123.79	-284.78	444.93	233.08	197.21	35.87	6.499	
5,200.00	5,130.09	5,201.81	5,150.62	18.64	18.10	-123.88	-298.90	459.49	237.46	200.85	36.62	6.485	
5,300.00	5,227.57	5,300.48	5,247.40	19.02	18.47	-124.07	-312.32	473.23	241.99	204.63	37.37	6.476	
5,400.00	5,325.05	5,402.39	5,347.48	19.40	18.85	-124.43	-326.14	486.63	246.30	208.19	38.12	6.462	
5,500.00	5,422.52	5,503.21	5,446.04	19.78	19.23	-124.33	-341.33	501.44	249.70	210.83	38.87	6.424	
5,600.00	5,520.00	5,600.25	5,540.97	20.16	19.59	-124.23	-355.33	515.87	253.75	214.13	39.62	6.404	
5,700.00	5,617.48	5,700.29	5,639.20	20.55	19.97	-124.50	-368.41	529.56	258.72	218.34	40.38	6.407	
5,800.00	5,714.95	5,803.77	5,740.44	20.93	20.36	-124.44	-383.52	544.70	262.53	221.39	41.14	6.382	
5,900.00	5,812.43	5,904.38	5,838.72	21.31	20.74	-124.29	-399.17	559.51	265.46	223.57	41.89	6.336	
6,000.00	5,909.91	6,001.51	5,933.78	21.70	21.11	-124.32	-413.66	573.22	268.82	226.16	42.65	6.303	
6,100.00	6,007.38	6,098.90	6,029.16	22.08	21.48	-124.31	-427.12	587.56	273.40	230.00	43.41	6.299	
6,200.00	6,104.86	6,196.75	6,125.19	22.47	21.85	-124.46	-439.75	601.47	278.69	234.54	44.16	6.312	
6,300.00	6,202.34	6,296.43	6,223.27	22.85	22.22	-124.86	-451.72	614.61	284.50	239.59	44.91	6.335	
6,400.00	6,299.81	6,401.71	6,326.73	23.24	22.62	-125.20	-465.33	628.56	289.48	243.80	45.67	6.338	
6,421.23	6,320.51	6,423.13	6,347.72	23.32	22.70	-125.23	-468.41	631.49	290.27	244.44	45.84	6.333	
6,500.00	6,397.52	6,498.81	6,422.04	23.62	22.98	-125.32	-478.70	641.48	293.04	246.62	46.43	6.312	
6,600.00	6,495.90	6,591.71	6,513.43	24.00	23.33	-125.04	-489.76	653.88	296.44	249.29	47.15	6.287	
6,700.00	6,594.84	6,693.81	6,614.07	24.37	23.72	-124.31	-500.68	667.10	298.88	250.97	47.91	6.239	
6,800.00	6,694.23	6,802.09	6,720.80	24.74	24.12	-123.03	-513.96	679.67	297.51	248.84	48.67	6.112	
6,900.00	6,793.94	6,907.22	6,823.70	25.09	24.52	-120.55	-530.55	693.32	291.70	242.28	49.42	5.902	
7,000.00	6,893.85	7,000.96	6,914.98	25.44	24.88	-117.15	-546.32	707.69	284.85	234.67	50.17	5.677	
7,066.16	6,960.00	7,060.70	6,973.51	25.67	25.11	29.22	-554.76	716.18	281.30	230.66	50.64	5.555	
7,098.89	6,992.71	7,092.98	7,005.28	25.78	25.23	-138.32	-558.68	720.33	280.61	229.73	50.88	5.515	
7,100.00	6,993.82	7,094.14	7,006.42	25.78	25.24	-138.29	-558.82	720.48	280.61	229.72	50.89	5.514	
7,150.00	7,043.55	7,146.21	7,057.54	25.96	25.43	-136.95	-565.74	727.53	282.14	230.87	51.27	5.503	SF
7,200.00	7,092.63	7,199.96	7,110.06	26.14	25.64	-135.83	-573.92	735.47	286.43	234.77	51.66	5.544	
7,250.00	7,140.71	7,254.65	7,163.03	26.34	25.85	-134.83	-584.00	744.60	293.00	240.95	52.05	5.629	
7,300.00	7,187.41	7,302.27	7,208.83	26.53	26.04	-134.07	-593.69	753.29	302.24	249.80	52.44	5.764	
7,350.00	7,232.38	7,348.17	7,252.93	26.73	26.22	-133.55	-602.87	762.11	314.83	262.01	52.82	5.961	
7,400.00	7,275.27	7,392.25	7,295.33	26.93	26.39	-133.25	-611.34	770.71	330.74	277.56	53.18	6.219	
7,450.00	7,315.77	7,434.28	7,335.96	27.13	26.55	-133.16	-618.73	778.54	350.05	296.52	53.53	6.539	
7,500.00	7,353.56	7,474.51	7,374.99	27.34	26.71	-133.15	-625.24	785.78	372.76	318.90	53.86	6.921	
7,550.00	7,388.35	7,512.60	7,411.98	27.54	26.86	-132.99	-631.16	792.70	398.77	344.60	54.17	7.362	
7,600.00	7,419.89	7,548.02	7,446.39	27.74	27.00	-132.56	-636.46	799.23	428.00	373.54	54.46	7.859	
7,650.00	7,447.92	7,581.20	7,478.65	27.94	27.12	-131.78	-641.26	805.31	460.27	405.54	54.72	8.411	
7,700.00	7,472.24	7,610.95	7,507.61	28.14	27.24	-130.47	-645.42	810.67	495.38	440.41	54.96	9.013	
7,750.00	7,492.67	7,639.00	7,534.96	28.33	27.35	-128.60	-649.23	815.63	533.13	477.94	55.18	9.661	
7,800.00	7,509.03	7,659.32	7,554.80	28.52	27.42	-125.38	-651.89	819.11	573.23	517.89	55.35	10.357	
7,816.16	7,513.43	7,665.62	7,560.96	28.58	27.45	-124.14	-652.70	820.15	586.65	531.25	55.40	10.590	
7,900.00	7,532.50	7,694.08	7,588.85	28.88	27.56	-124.78	-656.21	824.64	659.02	603.40	55.62	11.850	
8,000.00	7,548.24	7,720.09	7,614.40	29.24	27.65	-123.48	-659.25	828.43	750.10	694.29	55.81	13.439	
8,100.00	7,556.27	7,738.26	7,632.28	29.58	27.72	-118.82	-661.27	830.91	844.99	789.03	55.95	15.102	
8,153.26	7,557.37	7,745.06	7,638.98	29.76	27.75	-114.03	-662.02	831.83	896.62	840.61	56.01	16.009	
8,200.00	7,557.37	7,750.05	7,643.89	29.92	27.77	-115.23	-662.56	832.51	942.24	886.20	56.04	16.813	
8,300.00	7,557.36	7,760.61	7,654.29	30.26	27.81	-117.67	-663.71	833.96	1,040.09	983.96	56.12	18.532	
8,400.00	7,557.36	7,771.00	7,664.52	30.63	27.85	-119.93	-664.82	835.40	1,138.20	1,082.00	56.20	20.252	
8,500.00	7,557.36	7,781.23	7,674.59	31.00	27.89	-122.03	-665.91	836.82	1,236.52	1,180.24	56.28	21.971	
8,600.00	7,557.35	7,791.29	7,684.49	31.39	27.92	-123.97	-666.97	838.24	1,335.00	1,278.64	56.36	23.687	
8,700.00	7,557.35	7,801.19	7,694.24	31.79	27.96	-125.78	-668.00	839.64	1,433.61	1,377.18	56.44	25.401	
8,800.00	7,557.35	7,810.94	7,703.83	32.21	28.00	-127.45	-669.01	841.03	1,532.33	1,475.82	56.52	27.113	

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 4H
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 4H	**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
8,900.00	7,557.34	7,827.00	7,719.64	32.64	28.06	-130.01	-670.65	843.34	1,631.16	1,574.52	56.64	28.801	
9,000.00	7,557.34	7,832.86	7,725.41	33.08	28.08	-130.88	-671.25	844.18	1,730.03	1,673.33	56.69	30.516	
9,100.00	7,557.34	7,852.24	7,744.49	33.54	28.15	-133.58	-673.28	846.93	1,828.93	1,772.09	56.83	32.180	
9,200.00	7,557.33	7,873.09	7,765.02	34.00	28.23	-136.18	-675.56	849.79	1,927.82	1,870.84	56.98	33.832	
9,300.00	7,557.33	7,895.58	7,787.16	34.48	28.32	-138.67	-678.13	852.77	2,026.70	1,969.55	57.14	35.468	
9,400.00	7,557.32	7,919.90	7,811.10	34.96	28.41	-141.08	-681.04	855.88	2,125.54	2,068.23	57.31	37.087	
9,500.00	7,557.32	7,934.44	7,825.42	35.46	28.46	-142.38	-682.82	857.67	2,224.37	2,166.94	57.43	38.733	
9,600.00	7,557.32	7,948.54	7,839.31	35.97	28.52	-143.56	-684.55	859.37	2,323.22	2,265.68	57.54	40.374	
9,700.00	7,557.31	7,962.69	7,853.26	36.48	28.57	-144.68	-686.30	861.04	2,422.09	2,364.43	57.66	42.008	
9,800.00	7,557.31	7,976.90	7,867.26	37.00	28.62	-145.73	-688.06	862.67	2,520.97	2,463.20	57.77	43.635	
9,900.00	7,557.31	7,991.15	7,881.31	37.54	28.68	-146.72	-689.83	864.27	2,619.87	2,561.98	57.89	45.254	
10,000.00	7,557.30	12,551.91	9,983.54	38.08	47.06	-153.91	-3,304.73	2,012.13	2,700.80	2,644.67	56.13	48.116	
10,100.00	7,557.30	12,762.00	9,982.63	38.63	48.00	-154.11	-3,514.73	2,015.03	2,697.21	2,640.25	56.96	47.354	
10,200.00	7,557.30	12,856.00	9,981.63	39.18	48.43	-154.22	-3,608.72	2,015.12	2,693.46	2,635.36	58.11	46.355	
10,300.00	7,557.29	13,003.16	9,982.06	39.74	49.10	-154.49	-3,755.72	2,010.78	2,689.91	2,630.79	59.12	45.502	
10,400.00	7,557.29	13,118.03	9,981.83	40.31	49.60	-154.80	-3,870.25	2,002.08	2,683.58	2,623.38	60.20	44.576	
10,500.00	7,557.28	13,227.05	9,980.58	40.89	50.11	-155.02	-3,979.14	1,997.21	2,677.89	2,616.55	61.35	43.653	
10,600.00	7,557.28	13,292.64	9,978.87	41.47	50.43	-155.10	-4,044.71	1,996.46	2,672.34	2,609.71	62.63	42.671	
10,700.00	7,557.28	13,402.22	9,975.62	42.06	50.98	-155.17	-4,154.21	1,998.53	2,667.74	2,603.90	63.85	41.785	
10,800.00	7,557.27	13,458.95	9,973.86	42.66	51.26	-155.20	-4,210.91	1,999.56	2,663.12	2,597.94	65.18	40.857	
10,900.00	7,557.27	13,513.00	9,973.34	43.26	51.54	-155.24	-4,264.93	2,001.16	2,660.58	2,594.05	66.53	39.988	
11,000.00	7,557.27	13,619.10	9,973.20	43.86	52.09	-155.31	-4,370.98	2,004.38	2,659.04	2,591.24	67.80	39.220	
11,100.00	7,557.26	13,741.96	9,971.38	44.47	52.74	-155.38	-4,493.78	2,007.85	2,656.08	2,587.03	69.05	38.468	
11,200.00	7,557.26	13,888.00	9,968.48	45.09	53.51	-155.48	-4,639.75	2,010.80	2,652.50	2,582.24	70.26	37.753	
11,300.00	7,557.26	13,951.93	9,966.99	45.71	53.85	-155.54	-4,703.66	2,011.10	2,648.09	2,576.46	71.63	36.969	
11,400.00	7,557.25	14,015.28	9,966.90	46.33	54.19	-155.61	-4,767.01	2,011.78	2,645.61	2,572.61	73.00	36.239	
11,500.00	7,557.25	14,111.66	9,967.28	46.96	54.71	-155.71	-4,863.38	2,013.01	2,643.81	2,569.48	74.33	35.568	
11,600.00	7,557.24	14,195.26	9,967.68	47.60	55.17	-155.81	-4,946.97	2,013.81	2,642.03	2,566.34	75.68	34.908	
11,667.11	7,557.24	14,230.97	9,968.17	48.03	55.36	-155.84	-4,982.67	2,014.52	2,641.62	2,564.99	76.63	34.473	
11,700.00	7,557.24	14,264.00	9,968.89	48.24	55.54	-155.87	-5,015.68	2,015.49	2,641.80	2,564.73	77.07	34.278	
11,700.28	7,557.24	14,264.00	9,968.89	48.24	55.54	-155.87	-5,015.68	2,015.49	2,641.80	2,564.73	77.07	34.276	
11,800.00	7,557.24	14,315.92	9,970.16	48.88	55.84	-155.91	-5,067.53	2,017.86	2,642.99	2,564.50	78.49	33.675	
11,900.00	7,557.23	14,519.04	9,973.60	49.52	56.99	-156.07	-5,270.41	2,024.50	2,643.61	2,563.90	79.71	33.164	
12,000.00	7,557.23	14,614.01	9,973.82	50.17	57.52	-156.21	-5,365.38	2,023.76	2,640.91	2,559.83	81.08	32.573	
12,100.00	7,557.23	14,737.98	9,972.99	50.82	58.24	-156.28	-5,489.22	2,027.92	2,639.14	2,556.72	82.42	32.019	
12,200.00	7,557.22	14,807.05	9,972.09	51.48	58.64	-156.30	-5,558.22	2,030.83	2,637.01	2,553.15	83.85	31.448	
12,300.00	7,557.22	14,991.99	9,972.88	52.14	59.69	-156.65	-5,743.04	2,025.79	2,633.64	2,548.55	85.09	30.952	
12,400.00	7,557.22	15,077.98	9,972.88	52.80	60.17	-156.85	-5,828.90	2,021.16	2,628.95	2,542.47	86.48	30.398	
12,500.00	7,557.21	15,165.23	9,972.97	53.46	60.66	-157.03	-5,916.10	2,017.90	2,625.01	2,537.13	87.89	29.868	
12,600.00	7,557.21	15,269.61	9,972.88	54.13	61.26	-157.23	-6,020.43	2,014.77	2,621.24	2,531.97	89.27	29.362	
12,700.00	7,557.20	15,343.86	9,972.64	54.80	61.70	-157.36	-6,094.66	2,013.17	2,617.65	2,526.94	90.71	28.857	
12,800.00	7,557.20	15,416.92	9,972.92	55.48	62.13	-157.46	-6,167.72	2,013.01	2,615.37	2,523.22	92.16	28.380	
12,900.00	7,557.20	15,535.51	9,973.39	56.15	62.84	-157.61	-6,286.31	2,013.18	2,613.35	2,519.80	93.55	27.935	
13,000.00	7,557.19	15,639.56	9,973.00	56.83	63.46	-157.76	-6,390.35	2,012.85	2,610.40	2,515.43	94.97	27.487	
13,100.00	7,557.19	15,727.87	9,972.80	57.51	63.99	-157.86	-6,478.66	2,013.25	2,607.90	2,511.49	96.41	27.050	
13,200.00	7,557.19	15,825.26	9,972.96	58.19	64.59	-157.99	-6,576.05	2,013.50	2,605.70	2,507.86	97.85	26.630	
13,300.00	7,557.18	15,941.50	9,973.12	58.88	65.29	-158.15	-6,692.29	2,013.12	2,603.29	2,504.02	99.27	26.226	
13,400.00	7,557.18	16,024.55	9,973.14	59.57	65.80	-158.27	-6,775.34	2,012.71	2,600.73	2,500.01	100.72	25.821	
13,500.00	7,557.18	16,116.86	9,973.53	60.25	66.37	-158.39	-6,867.65	2,012.91	2,598.80	2,496.62	102.18	25.434	
13,600.00	7,557.17	16,248.55	9,973.56	60.95	67.19	-158.57	-6,999.34	2,013.01	2,596.50	2,492.91	103.60	25.064	
13,700.00	7,557.17	16,329.00	9,973.17	61.64	67.69	-158.68	-7,079.79	2,012.64	2,593.57	2,488.50	105.07	24.685	
13,800.00	7,557.16	16,424.00	9,973.49	62.33	68.28	-158.82	-7,174.78	2,012.05	2,591.30	2,484.77	106.53	24.325	

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 4H
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 4H	**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
13,900.00	7,557.16	16,545.44	9,974.16	63.03	69.04	-159.04	-7,296.19	2,009.46	2,588.69	2,480.72	107.97	23.976	
14,000.00	7,557.16	16,612.00	9,974.92	63.73	69.45	-159.18	-7,362.71	2,007.45	2,586.38	2,476.92	109.46	23.629	
14,100.00	7,557.15	16,706.00	9,975.98	64.43	70.04	-159.33	-7,456.70	2,006.75	2,584.87	2,473.94	110.93	23.302	
14,200.00	7,557.15	16,770.91	9,976.43	65.13	70.46	-159.38	-7,521.58	2,008.56	2,584.20	2,471.79	112.41	22.988	
14,300.00	7,557.15	16,880.88	9,977.48	65.84	71.18	-159.46	-7,631.47	2,012.18	2,583.97	2,470.08	113.89	22.688	
14,400.00	7,557.14	16,987.00	9,978.12	66.54	71.86	-159.57	-7,737.56	2,014.33	2,582.94	2,467.57	115.37	22.389	
14,466.49	7,557.14	17,037.17	9,978.30	67.01	72.19	-159.59	-7,787.68	2,016.51	2,582.68	2,466.33	116.36	22.196	
14,500.00	7,557.14	17,060.74	9,978.45	67.25	72.35	-159.60	-7,811.22	2,017.78	2,582.75	2,465.89	116.85	22.102	
14,600.00	7,557.14	17,173.60	9,979.08	67.96	73.09	-159.62	-7,923.87	2,024.48	2,583.11	2,464.76	118.34	21.827	
14,700.00	7,557.13	17,289.61	9,979.50	68.66	73.86	-159.68	-8,039.78	2,029.30	2,582.63	2,462.79	119.83	21.552	
14,800.00	7,557.13	17,402.66	9,979.61	69.38	74.60	-159.74	-8,152.75	2,033.61	2,581.81	2,460.49	121.32	21.281	
14,900.00	7,557.12	17,518.73	9,979.80	70.09	75.37	-159.87	-8,268.81	2,034.90	2,580.07	2,457.26	122.80	21.010	
15,000.00	7,557.12	17,584.00	9,979.92	70.80	75.79	-159.95	-8,334.07	2,035.28	2,578.45	2,454.15	124.30	20.743	
15,012.95	7,557.12	17,584.00	9,979.92	70.89	75.79	-159.95	-8,334.07	2,035.28	2,578.42	2,453.92	124.50	20.711	
15,100.00	7,557.12	17,584.00	9,979.92	71.52	75.79	-159.95	-8,334.07	2,035.28	2,579.89	2,454.15	125.73	20.519	
15,200.00	7,557.11	17,584.00	9,979.92	72.23	75.79	-159.95	-8,334.07	2,035.28	2,585.19	2,458.16	127.03	20.351	
15,300.00	7,557.11	17,584.00	9,979.92	72.95	75.79	-159.95	-8,334.07	2,035.28	2,594.35	2,466.16	128.19	20.239	
15,400.00	7,557.11	17,584.00	9,979.92	73.67	75.79	-159.95	-8,334.07	2,035.28	2,607.31	2,478.10	129.20	20.180	
15,500.00	7,557.10	17,584.00	9,979.92	74.39	75.79	-159.95	-8,334.07	2,035.28	2,624.02	2,493.94	130.07	20.174	
15,600.00	7,557.10	17,584.00	9,979.92	75.11	75.79	-159.95	-8,334.07	2,035.28	2,644.40	2,513.60	130.80	20.217	
15,700.00	7,557.10	17,584.00	9,979.92	75.83	75.79	-159.95	-8,334.07	2,035.28	2,668.39	2,537.00	131.39	20.309	
15,800.00	7,557.09	17,584.00	9,979.92	76.55	75.79	-159.95	-8,334.07	2,035.28	2,695.87	2,564.03	131.84	20.448	
15,900.00	7,557.09	17,584.00	9,979.92	77.27	75.79	-159.95	-8,334.07	2,035.28	2,726.74	2,594.58	132.16	20.632	
16,000.00	7,557.08	17,584.00	9,979.92	78.00	75.79	-159.95	-8,334.07	2,035.28	2,760.89	2,628.53	132.36	20.858	
16,100.00	7,557.08	17,584.00	9,979.92	78.72	75.79	-159.95	-8,334.07	2,035.28	2,798.20	2,665.75	132.45	21.126	
16,200.00	7,557.08	17,584.00	9,979.92	79.45	75.79	-159.95	-8,334.07	2,035.28	2,838.54	2,706.11	132.44	21.433	
16,300.00	7,557.07	17,584.00	9,979.92	80.18	75.79	-159.95	-8,334.07	2,035.28	2,881.80	2,749.47	132.32	21.778	
16,400.00	7,557.07	17,584.00	9,979.92	80.90	75.79	-159.95	-8,334.07	2,035.28	2,927.82	2,795.70	132.12	22.160	
16,500.00	7,557.07	17,584.00	9,979.92	81.63	75.79	-159.95	-8,334.07	2,035.28	2,976.50	2,844.65	131.85	22.575	
16,600.00	7,557.06	17,584.00	9,979.92	82.36	75.79	-159.95	-8,334.07	2,035.28	3,027.70	2,896.20	131.50	23.024	
16,700.00	7,557.06	17,584.00	9,979.92	83.09	75.79	-159.95	-8,334.07	2,035.28	3,081.30	2,950.20	131.10	23.504	
16,800.00	7,557.06	17,584.00	9,979.92	83.82	75.79	-159.95	-8,334.07	2,035.28	3,137.16	3,006.52	130.64	24.013	
16,900.00	7,557.05	17,584.00	9,979.92	84.55	75.79	-159.95	-8,334.07	2,035.28	3,195.18	3,065.04	130.14	24.551	
17,000.00	7,557.05	17,584.00	9,979.92	85.29	75.79	-159.95	-8,334.07	2,035.28	3,255.24	3,125.64	129.61	25.116	
17,100.00	7,557.04	17,584.00	9,979.92	86.02	75.79	-159.95	-8,334.07	2,035.28	3,317.23	3,188.19	129.04	25.707	
17,200.00	7,557.04	17,584.00	9,979.92	86.75	75.79	-159.95	-8,334.07	2,035.28	3,381.04	3,252.59	128.45	26.322	
17,300.00	7,557.04	17,584.00	9,979.92	87.49	75.79	-159.95	-8,334.07	2,035.28	3,446.57	3,318.73	127.84	26.960	
17,400.00	7,557.03	17,584.00	9,979.92	88.22	75.79	-159.95	-8,334.07	2,035.28	3,513.72	3,386.51	127.22	27.620	
17,500.00	7,557.03	17,584.00	9,979.92	88.96	75.79	-159.95	-8,334.07	2,035.28	3,582.41	3,455.83	126.58	28.301	
17,600.00	7,557.03	17,584.00	9,979.92	89.70	75.79	-159.95	-8,334.07	2,035.28	3,652.54	3,526.60	125.94	29.002	
17,700.00	7,557.02	17,584.00	9,979.92	90.43	75.79	-159.95	-8,334.07	2,035.28	3,724.04	3,598.75	125.30	29.722	
17,800.00	7,557.02	17,584.00	9,979.92	91.17	75.79	-159.95	-8,334.07	2,035.28	3,796.83	3,672.18	124.65	30.459	
17,900.00	7,557.02	17,584.00	9,979.92	91.91	75.79	-159.95	-8,334.07	2,035.28	3,870.83	3,746.82	124.01	31.214	
18,000.00	7,557.01	17,584.00	9,979.92	92.65	75.79	-159.95	-8,334.07	2,035.28	3,945.98	3,822.60	123.37	31.984	
18,100.00	7,557.01	17,584.00	9,979.92	93.39	75.79	-159.95	-8,334.07	2,035.28	4,022.20	3,899.46	122.74	32.769	
18,200.00	7,557.00	17,584.00	9,979.92	94.13	75.79	-159.95	-8,334.07	2,035.28	4,099.46	3,977.34	122.12	33.569	
18,300.00	7,557.00	17,584.00	9,979.92	94.87	75.79	-159.95	-8,334.07	2,035.28	4,177.67	4,056.17	121.51	34.382	
18,318.93	7,557.00	17,584.00	9,979.92	95.01	75.79	-159.95	-8,334.07	2,035.28	4,192.58	4,071.19	121.39	34.538	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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	67.90	57.30	141.09	152.28				
100.00	100.00	99.02	99.02	0.28	0.52	67.90	57.50	141.56	152.80	152.00	0.80	190.700	
200.00	200.00	197.42	197.41	0.63	0.59	67.89	58.08	142.98	154.36	153.13	1.23	125.883	
300.00	300.00	297.69	297.65	0.99	0.83	67.61	59.54	144.53	156.35	154.52	1.83	85.587	
400.00	400.00	397.86	397.79	1.35	1.14	66.93	61.96	145.50	158.17	155.68	2.49	63.507	
500.00	500.00	497.66	497.55	1.71	1.47	66.15	64.67	146.26	159.95	156.77	3.18	50.340	
600.00	600.00	597.80	597.64	2.07	1.81	65.31	67.69	147.26	162.10	158.22	3.88	41.822	
700.00	700.00	700.28	700.07	2.43	2.16	64.19	70.90	146.59	162.83	158.25	4.59	35.510	
800.00	800.00	800.29	800.01	2.79	2.51	62.94	74.27	145.41	163.28	157.99	5.29	30.868	
900.00	900.00	900.76	900.44	3.14	2.86	61.87	77.08	144.16	163.47	157.47	6.00	27.254	
1,000.00	1,000.00	1,002.20	1,001.84	3.50	3.21	61.04	79.06	142.87	163.29	156.58	6.71	24.340	
1,100.00	1,100.00	1,104.30	1,103.92	3.86	3.56	60.52	79.64	140.88	161.87	154.46	7.41	21.830	
1,200.00	1,200.00	1,205.12	1,204.71	4.22	3.90	60.27	79.05	138.43	159.46	151.35	8.11	19.652	
1,300.00	1,300.00	1,305.96	1,305.51	4.58	4.25	59.96	78.36	135.53	156.63	147.82	8.82	17.768	
1,400.00	1,400.00	1,406.08	1,405.57	4.94	4.59	59.65	77.47	132.32	153.41	143.90	9.52	16.119	
1,500.00	1,500.00	1,506.00	1,505.44	5.29	4.94	59.37	76.49	129.15	150.18	139.96	10.22	14.693	
1,600.00	1,600.00	1,603.30	1,602.70	5.65	5.28	59.22	75.67	127.03	147.87	136.95	10.92	13.542	
1,700.00	1,700.00	1,702.43	1,701.83	6.01	5.62	59.21	75.13	126.08	146.78	135.15	11.62	12.629	
1,800.00	1,800.00	1,802.58	1,801.98	6.37	5.97	59.02	75.06	125.04	145.85	133.52	12.33	11.827	
1,900.00	1,900.00	1,901.55	1,900.94	6.73	6.32	58.68	75.46	123.99	145.14	132.10	13.04	11.131	
1,912.80	1,912.80	1,914.01	1,913.40	6.77	6.36	58.65	75.51	123.94	145.13	132.00	13.13	11.054	CC, ES
2,000.00	2,000.00	1,998.62	1,998.01	7.09	6.65	58.76	75.63	124.68	145.85	132.12	13.73	10.622	
2,100.00	2,099.98	2,095.91	2,095.21	7.43	6.98	-84.92	74.86	128.53	148.67	134.28	14.40	10.327	
2,200.00	2,199.84	2,196.63	2,195.81	7.76	7.33	-85.59	73.74	133.19	151.63	136.56	15.07	10.063	
2,300.00	2,299.45	2,297.20	2,296.27	8.09	7.67	-87.35	71.85	137.54	153.74	137.99	15.74	9.765	
2,400.00	2,398.70	2,396.47	2,395.37	8.42	8.01	-89.84	68.90	142.54	155.92	139.50	16.42	9.498	
2,500.00	2,497.47	2,497.25	2,495.91	8.76	8.35	-93.19	65.14	148.30	158.61	141.51	17.10	9.276	
2,600.00	2,595.62	2,599.51	2,598.12	9.10	8.70	-99.06	62.89	150.25	160.63	142.84	17.79	9.029	
2,644.93	2,639.49	2,644.01	2,642.61	9.25	8.86	-102.36	62.39	149.89	161.85	143.75	18.10	8.942	
2,700.00	2,693.18	2,698.34	2,696.93	9.44	9.05	-106.58	61.82	149.10	164.01	145.53	18.48	8.877	
2,800.00	2,790.65	2,803.04	2,801.55	9.78	9.41	-113.98	58.69	147.59	168.60	149.44	19.16	8.799	
2,900.00	2,888.13	2,909.88	2,907.73	10.13	9.78	-118.91	47.11	149.35	169.76	149.95	19.81	8.569	
3,000.00	2,985.61	3,014.48	3,010.74	10.48	10.14	-121.76	29.93	154.67	168.08	147.63	20.45	8.218	
3,100.00	3,083.08	3,113.00	3,106.66	10.83	10.48	-122.09	10.53	165.86	165.92	144.76	21.16	7.840	
3,155.41	3,137.10	3,165.06	3,157.00	11.03	10.66	-121.48	0.18	174.17	165.56	143.97	21.58	7.670	
3,200.00	3,180.56	3,207.95	3,198.44	11.19	10.81	-120.83	-8.06	181.56	165.79	143.88	21.91	7.566	
3,300.00	3,278.04	3,307.32	3,294.50	11.55	11.16	-119.35	-26.57	198.95	167.05	144.41	22.63	7.380	
3,400.00	3,375.51	3,405.93	3,390.13	11.91	11.50	-118.25	-44.01	215.54	168.97	145.61	23.36	7.233	
3,500.00	3,472.99	3,504.68	3,486.17	12.27	11.86	-117.53	-60.47	231.52	171.59	147.51	24.09	7.124	
3,600.00	3,570.47	3,602.35	3,581.85	12.64	12.21	-117.80	-74.46	245.26	175.41	150.60	24.81	7.070	
3,700.00	3,667.94	3,702.37	3,680.08	13.00	12.57	-118.44	-87.80	258.53	179.79	154.26	25.53	7.042	
3,800.00	3,765.42	3,802.70	3,778.60	13.37	12.93	-119.03	-101.45	271.77	183.93	157.67	26.26	7.005	
3,900.00	3,862.90	3,901.89	3,876.01	13.74	13.29	-119.62	-114.83	284.81	188.16	161.17	26.98	6.973	
4,000.00	3,960.37	4,000.56	3,972.93	14.11	13.65	-120.13	-127.69	298.16	192.97	165.26	27.71	6.963	
4,100.00	4,057.85	4,099.50	4,070.21	14.48	14.01	-120.75	-139.92	311.39	198.37	169.93	28.44	6.974	
4,200.00	4,155.33	4,202.21	4,171.38	14.86	14.38	-121.66	-152.28	324.08	203.72	174.54	29.18	6.982	
4,300.00	4,252.80	4,305.17	4,272.69	15.23	14.76	-122.64	-166.60	335.58	206.92	177.01	29.91	6.919	
4,400.00	4,350.28	4,404.48	4,370.43	15.61	15.13	-123.68	-180.65	346.09	209.75	179.11	30.64	6.846	
4,500.00	4,447.76	4,505.19	4,469.52	15.98	15.50	-124.62	-194.81	357.15	212.87	181.49	31.37	6.785	
4,600.00	4,545.23	4,605.87	4,568.08	16.36	15.87	-124.80	-210.36	370.58	215.47	183.35	32.11	6.709	
4,700.00	4,642.71	4,705.51	4,665.41	16.74	16.24	-124.68	-226.17	384.92	217.99	185.13	32.86	6.634	
4,800.00	4,740.19	4,803.63	4,761.20	17.11	16.61	-124.43	-241.46	399.66	221.01	187.40	33.61	6.575	

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 4H
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 4H	**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	4,837.66	4,903.02	4,858.13	17.49	16.98	-123.97	-256.67	415.55	224.61	190.24	34.37	6.536	
5,000.00	4,935.14	5,002.11	4,954.88	17.87	17.35	-123.66	-271.41	431.00	228.49	193.37	35.12	6.506	
5,100.00	5,032.62	5,100.13	5,050.98	18.25	17.72	-123.79	-284.78	444.93	233.08	197.21	35.87	6.499	
5,200.00	5,130.09	5,201.81	5,150.62	18.64	18.10	-123.88	-298.90	459.49	237.46	200.85	36.62	6.485	
5,300.00	5,227.57	5,300.48	5,247.40	19.02	18.47	-124.07	-312.32	473.23	241.99	204.63	37.37	6.476	
5,400.00	5,325.05	5,402.39	5,347.48	19.40	18.85	-124.43	-326.14	486.63	246.30	208.19	38.12	6.462	
5,500.00	5,422.52	5,503.21	5,446.04	19.78	19.23	-124.33	-341.33	501.44	249.70	210.83	38.87	6.424	
5,600.00	5,520.00	5,600.25	5,540.97	20.16	19.59	-124.23	-355.33	515.87	253.75	214.13	39.62	6.404	
5,700.00	5,617.48	5,700.29	5,639.20	20.55	19.97	-124.50	-368.41	529.56	258.72	218.34	40.38	6.407	
5,800.00	5,714.95	5,803.77	5,740.44	20.93	20.36	-124.44	-383.52	544.70	262.53	221.39	41.14	6.382	
5,900.00	5,812.43	5,904.38	5,838.72	21.31	20.74	-124.29	-399.17	559.51	265.46	223.57	41.89	6.336	
6,000.00	5,909.91	6,001.51	5,933.78	21.70	21.11	-124.32	-413.66	573.22	268.82	226.16	42.65	6.303	
6,100.00	6,007.38	6,098.90	6,029.16	22.08	21.48	-124.31	-427.12	587.56	273.40	230.00	43.40	6.299	
6,200.00	6,104.86	6,196.75	6,125.19	22.47	21.85	-124.46	-439.75	601.47	278.69	234.54	44.15	6.312	
6,300.00	6,202.34	6,296.43	6,223.27	22.85	22.22	-124.86	-451.72	614.61	284.50	239.59	44.91	6.335	
6,400.00	6,299.81	6,401.71	6,326.73	23.24	22.62	-125.20	-465.33	628.56	289.48	243.80	45.67	6.338	
6,421.23	6,320.51	6,423.13	6,347.72	23.32	22.70	-125.23	-468.41	631.49	290.27	244.44	45.84	6.333	
6,500.00	6,397.52	6,498.81	6,422.04	23.62	22.98	-125.32	-478.70	641.48	293.04	246.62	46.43	6.312	
6,600.00	6,495.90	6,591.71	6,513.43	24.00	23.33	-125.04	-489.76	653.88	296.44	249.29	47.15	6.287	
6,700.00	6,594.84	6,693.81	6,614.07	24.37	23.72	-124.31	-500.68	667.10	298.88	250.97	47.91	6.239	
6,800.00	6,694.23	6,802.09	6,720.80	24.74	24.12	-123.03	-513.96	679.67	297.51	248.84	48.67	6.112	
6,900.00	6,793.94	6,907.22	6,823.70	25.09	24.52	-120.55	-530.55	693.32	291.70	242.28	49.42	5.902	
7,000.00	6,893.85	7,000.96	6,914.98	25.44	24.88	-117.15	-546.32	707.69	284.85	234.67	50.17	5.677	
7,066.16	6,960.00	7,060.70	6,973.51	25.67	25.11	29.22	-554.76	716.18	281.30	230.66	50.64	5.555	
7,098.89	6,992.71	7,092.98	7,005.28	25.78	25.23	-138.32	-558.68	720.33	280.61	229.73	50.88	5.515	
7,100.00	6,993.82	7,094.14	7,006.42	25.78	25.24	-138.29	-558.82	720.48	280.61	229.72	50.89	5.514	
7,150.00	7,043.55	7,146.21	7,057.54	25.96	25.43	-136.95	-565.74	727.53	282.14	230.87	51.27	5.503	SF
7,200.00	7,092.63	7,199.96	7,110.06	26.14	25.64	-135.83	-573.92	735.47	286.43	234.77	51.66	5.544	
7,250.00	7,140.71	7,254.65	7,163.03	26.34	25.85	-134.83	-584.00	744.60	293.00	240.95	52.05	5.629	
7,300.00	7,187.41	7,302.27	7,208.83	26.53	26.04	-134.07	-593.69	753.29	302.24	249.80	52.44	5.764	
7,350.00	7,232.38	7,348.17	7,252.93	26.73	26.22	-133.55	-602.87	762.11	314.83	262.01	52.82	5.961	
7,400.00	7,275.27	7,392.25	7,295.33	26.93	26.39	-133.25	-611.34	770.71	330.74	277.56	53.18	6.219	
7,450.00	7,315.77	7,434.28	7,335.96	27.13	26.55	-133.16	-618.73	778.54	350.05	296.52	53.53	6.539	
7,500.00	7,353.56	7,474.51	7,374.99	27.34	26.71	-133.15	-625.24	785.78	372.76	318.90	53.86	6.921	
7,550.00	7,388.35	7,512.60	7,411.98	27.54	26.86	-132.99	-631.16	792.70	398.77	344.60	54.17	7.362	
7,600.00	7,419.89	7,548.02	7,446.39	27.74	27.00	-132.56	-636.46	799.23	428.00	373.54	54.46	7.859	
7,650.00	7,447.92	7,581.20	7,478.65	27.94	27.12	-131.78	-641.26	805.31	460.27	405.54	54.72	8.411	
7,700.00	7,472.24	7,610.95	7,507.61	28.14	27.24	-130.47	-645.42	810.67	495.38	440.41	54.96	9.013	
7,750.00	7,492.67	7,639.00	7,534.96	28.33	27.35	-128.60	-649.23	815.63	533.13	477.94	55.18	9.661	
7,800.00	7,509.03	7,659.32	7,554.80	28.52	27.42	-125.38	-651.89	819.11	573.23	517.89	55.35	10.357	
7,816.16	7,513.43	7,665.62	7,560.96	28.58	27.45	-124.14	-652.70	820.15	586.65	531.25	55.40	10.590	
7,900.00	7,532.50	7,694.08	7,588.85	28.88	27.56	-124.78	-656.21	824.64	659.02	603.40	55.62	11.850	
8,000.00	7,548.24	7,720.09	7,614.40	29.24	27.65	-123.48	-659.25	828.43	750.10	694.29	55.81	13.439	
8,100.00	7,556.27	7,738.26	7,632.28	29.58	27.72	-118.82	-661.27	830.91	844.99	789.03	55.95	15.102	
8,153.26	7,557.37	7,745.06	7,638.98	29.76	27.75	-114.03	-662.02	831.83	896.62	840.61	56.01	16.009	
8,200.00	7,557.37	7,750.05	7,643.89	29.92	27.77	-115.23	-662.56	832.51	942.24	886.20	56.04	16.813	
8,300.00	7,557.36	7,760.61	7,654.29	30.26	27.81	-117.67	-663.71	833.96	1,040.09	983.96	56.12	18.532	
8,400.00	7,557.36	7,771.00	7,664.52	30.63	27.85	-119.93	-664.82	835.40	1,138.20	1,082.00	56.20	20.252	
8,500.00	7,557.36	7,781.23	7,674.59	31.00	27.89	-122.03	-665.91	836.82	1,236.52	1,180.24	56.28	21.971	
8,600.00	7,557.35	7,791.29	7,684.49	31.39	27.92	-123.97	-666.97	838.24	1,335.00	1,278.64	56.36	23.687	
8,700.00	7,557.35	7,801.19	7,694.24	31.79	27.96	-125.78	-668.00	839.64	1,433.61	1,377.18	56.44	25.402	
8,800.00	7,557.35	7,810.94	7,703.83	32.21	28.00	-127.45	-669.01	841.03	1,532.33	1,475.82	56.52	27.113	

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 4H
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 4H	**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
8,900.00	7,557.34	7,827.00	7,719.64	32.64	28.06	-130.01	-670.65	843.34	1,631.16	1,574.52	56.64	28.801	
9,000.00	7,557.34	7,832.86	7,725.41	33.08	28.08	-130.88	-671.25	844.18	1,730.03	1,673.33	56.69	30.516	
9,100.00	7,557.34	7,852.24	7,744.49	33.54	28.15	-133.58	-673.28	846.93	1,828.93	1,772.09	56.83	32.180	
9,200.00	7,557.33	7,873.09	7,765.02	34.00	28.23	-136.18	-675.56	849.79	1,927.82	1,870.84	56.98	33.832	
9,300.00	7,557.33	7,895.58	7,787.16	34.48	28.32	-138.67	-678.13	852.77	2,026.70	1,969.55	57.14	35.468	
9,400.00	7,557.32	7,919.90	7,811.10	34.96	28.41	-141.08	-681.04	855.88	2,125.54	2,068.23	57.31	37.087	
9,500.00	7,557.32	7,934.44	7,825.42	35.46	28.46	-142.38	-682.82	857.67	2,224.37	2,166.94	57.43	38.733	
9,600.00	7,557.32	7,948.54	7,839.31	35.97	28.52	-143.56	-684.55	859.37	2,323.22	2,265.68	57.54	40.374	
9,700.00	7,557.31	7,962.69	7,853.26	36.48	28.57	-144.68	-686.30	861.04	2,422.09	2,364.43	57.66	42.009	
9,800.00	7,557.31	7,976.90	7,867.26	37.00	28.62	-145.73	-688.06	862.67	2,520.97	2,463.20	57.77	43.635	
9,900.00	7,557.31	7,991.15	7,881.31	37.54	28.68	-146.72	-689.83	864.27	2,619.87	2,561.98	57.89	45.254	
10,000.00	7,557.30	12,608.50	10,030.48	38.08	44.49	-156.03	-3,404.71	1,930.07	2,707.34	2,652.81	54.53	49.647	
10,100.00	7,557.30	12,708.35	10,029.87	38.63	44.90	-156.16	-3,504.57	1,929.55	2,703.93	2,648.29	55.64	48.594	
10,200.00	7,557.30	12,800.44	10,029.60	39.18	45.28	-156.28	-3,596.66	1,929.55	2,701.03	2,644.26	56.77	47.576	
10,300.00	7,557.29	12,903.04	10,029.18	39.74	45.72	-156.41	-3,699.25	1,929.29	2,697.93	2,640.01	57.93	46.574	
10,400.00	7,557.29	12,995.85	10,028.86	40.31	46.13	-156.52	-3,792.06	1,929.48	2,695.10	2,636.01	59.09	45.606	
10,500.00	7,557.28	13,104.48	10,028.62	40.89	46.61	-156.65	-3,900.69	1,929.48	2,692.32	2,632.03	60.29	44.654	
10,600.00	7,557.28	13,214.21	10,028.13	41.47	47.10	-156.80	-4,010.42	1,928.67	2,689.04	2,627.54	61.51	43.720	
10,700.00	7,557.28	13,305.02	10,027.83	42.06	47.52	-156.94	-4,101.22	1,927.70	2,685.77	2,623.06	62.71	42.828	
10,800.00	7,557.27	13,399.93	10,027.54	42.66	47.96	-157.06	-4,196.13	1,927.45	2,682.84	2,618.90	63.94	41.959	
10,900.00	7,557.27	13,497.69	10,027.12	43.26	48.42	-157.18	-4,293.89	1,927.72	2,680.03	2,614.84	65.19	41.112	
11,000.00	7,557.27	13,617.45	10,026.28	43.86	49.00	-157.32	-4,413.64	1,927.93	2,676.94	2,610.45	66.48	40.265	
11,100.00	7,557.26	13,724.38	10,025.03	44.47	49.53	-157.46	-4,520.57	1,927.46	2,673.19	2,605.42	67.77	39.445	
11,200.00	7,557.26	13,809.98	10,024.48	45.09	49.95	-157.58	-4,606.16	1,926.62	2,669.72	2,600.69	69.03	38.674	
11,300.00	7,557.26	13,903.60	10,023.97	45.71	50.42	-157.70	-4,699.78	1,926.39	2,666.65	2,596.33	70.32	37.922	
11,400.00	7,557.25	13,982.00	10,023.45	46.33	50.82	-157.79	-4,778.18	1,926.60	2,663.76	2,592.17	71.59	37.208	
11,500.00	7,557.25	14,059.53	10,023.63	46.96	51.21	-157.89	-4,855.70	1,926.80	2,661.71	2,588.84	72.87	36.528	
11,600.00	7,557.24	14,248.78	10,024.02	47.60	52.19	-158.23	-5,044.87	1,922.46	2,658.50	2,584.16	74.34	35.762	
11,700.00	7,557.24	14,316.88	10,023.59	48.24	52.54	-158.37	-5,112.90	1,919.39	2,654.03	2,578.43	75.60	35.105	
11,800.00	7,557.24	14,358.00	10,023.93	48.88	52.75	-158.45	-5,154.00	1,918.44	2,651.65	2,574.83	76.82	34.517	
11,900.00	7,557.23	14,437.09	10,025.19	49.52	53.18	-158.56	-5,233.08	1,918.32	2,650.73	2,572.60	78.13	33.928	
12,000.00	7,557.23	14,534.53	10,026.87	50.17	53.71	-158.68	-5,330.49	1,919.64	2,650.45	2,570.97	79.49	33.345	
12,100.00	7,557.23	14,649.36	10,028.47	50.82	54.34	-158.81	-5,445.30	1,921.04	2,649.84	2,568.95	80.89	32.758	
12,200.00	7,557.22	14,739.21	10,029.90	51.48	54.83	-158.93	-5,535.14	1,921.54	2,649.18	2,566.94	82.24	32.212	
12,300.00	7,557.22	14,850.63	10,031.72	52.14	55.46	-159.08	-5,646.54	1,922.34	2,648.66	2,565.01	83.65	31.662	
12,400.00	7,557.22	14,977.51	10,031.82	52.80	56.17	-159.21	-5,773.41	1,924.24	2,646.86	2,561.75	85.12	31.097	
12,500.00	7,557.21	15,091.30	10,031.56	53.46	56.82	-159.32	-5,887.19	1,925.85	2,644.87	2,558.32	86.55	30.558	
12,600.00	7,557.21	15,181.52	10,031.16	54.13	57.34	-159.42	-5,977.40	1,926.75	2,642.53	2,554.60	87.93	30.052	
12,700.00	7,557.20	15,279.94	10,031.21	54.80	57.91	-159.53	-6,075.81	1,927.54	2,640.58	2,551.24	89.34	29.557	
12,800.00	7,557.20	15,378.87	10,031.10	55.48	58.49	-159.64	-6,174.74	1,928.65	2,638.60	2,547.85	90.75	29.075	
12,900.00	7,557.20	15,474.78	10,030.93	56.15	59.05	-159.74	-6,270.64	1,930.20	2,636.74	2,544.57	92.16	28.609	
13,000.00	7,557.19	15,587.36	10,030.52	56.83	59.72	-159.84	-6,383.20	1,932.09	2,634.73	2,541.10	93.63	28.141	
13,100.00	7,557.19	15,685.73	10,029.95	57.51	60.31	-159.94	-6,481.56	1,933.53	2,632.46	2,537.40	95.05	27.694	
13,200.00	7,557.19	15,770.11	10,029.72	58.19	60.81	-160.02	-6,565.92	1,935.05	2,630.59	2,534.15	96.45	27.275	
13,300.00	7,557.18	15,889.35	10,029.52	58.88	61.53	-160.16	-6,685.16	1,935.97	2,628.45	2,530.52	97.94	26.838	
13,400.00	7,557.18	15,984.79	10,029.33	59.57	62.11	-160.27	-6,780.59	1,936.60	2,626.29	2,526.92	99.37	26.430	
13,500.00	7,557.18	16,086.34	10,029.02	60.25	62.72	-160.39	-6,882.14	1,937.31	2,624.04	2,523.23	100.82	26.028	
13,600.00	7,557.17	16,181.25	10,029.00	60.95	63.31	-160.51	-6,977.05	1,937.67	2,621.97	2,519.72	102.25	25.643	
13,700.00	7,557.17	16,323.26	10,028.73	61.64	64.17	-160.71	-7,119.05	1,937.09	2,619.63	2,515.82	103.81	25.234	
13,800.00	7,557.16	16,414.18	10,028.25	62.33	64.73	-160.88	-7,209.94	1,934.75	2,616.15	2,510.91	105.24	24.860	
13,900.00	7,557.16	16,512.97	10,027.99	63.03	65.34	-161.06	-7,308.70	1,932.30	2,612.97	2,506.28	106.68	24.493	
14,000.00	7,557.16	16,599.85	10,027.75	63.73	65.87	-161.21	-7,395.56	1,930.77	2,610.03	2,501.93	108.10	24.144	

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 4H
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 4H	**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
14,100.00	7,557.15	16,693.53	10,027.62	64.43	66.46	-161.35	-7,489.24	1,929.89	2,607.51	2,497.96	109.55	23.803	
14,200.00	7,557.15	16,805.29	10,027.16	65.13	67.16	-161.51	-7,601.00	1,929.29	2,604.88	2,493.83	111.05	23.457	
14,300.00	7,557.15	16,895.70	10,026.75	65.84	67.73	-161.64	-7,691.41	1,928.78	2,602.21	2,489.72	112.49	23.133	
14,400.00	7,557.14	16,992.73	10,026.47	66.54	68.34	-161.78	-7,788.44	1,928.45	2,599.79	2,485.83	113.95	22.815	
14,500.00	7,557.14	17,089.69	10,026.29	67.25	68.96	-161.92	-7,885.40	1,928.08	2,597.46	2,482.05	115.42	22.505	
14,600.00	7,557.14	17,178.43	10,026.20	67.96	69.53	-162.03	-7,974.13	1,928.35	2,595.45	2,478.59	116.86	22.210	
14,700.00	7,557.13	17,285.70	10,026.27	68.66	70.22	-162.18	-8,081.40	1,928.44	2,593.54	2,475.18	118.36	21.911	
14,800.00	7,557.13	17,407.24	10,025.65	69.38	71.00	-162.34	-8,202.94	1,928.46	2,591.09	2,471.17	119.92	21.608	
14,900.00	7,557.12	17,498.92	10,024.72	70.09	71.59	-162.46	-8,294.62	1,928.19	2,588.09	2,466.71	121.38	21.323	
15,000.00	7,557.12	17,551.00	10,024.59	70.80	71.93	-162.53	-8,346.70	1,928.30	2,586.19	2,463.49	122.70	21.077	
15,100.00	7,557.12	17,645.00	10,025.53	71.52	72.54	-162.65	-8,440.68	1,929.27	2,585.51	2,461.34	124.17	20.822	
15,112.45	7,557.12	17,645.00	10,025.53	71.60	72.54	-162.65	-8,440.68	1,929.27	2,585.48	2,461.18	124.31	20.799	
15,200.00	7,557.11	17,734.14	10,027.04	72.23	73.13	-162.75	-8,529.80	1,930.57	2,585.59	2,459.97	125.62	20.582	
15,300.00	7,557.11	17,867.08	10,027.96	72.95	74.00	-162.90	-8,662.72	1,932.42	2,584.70	2,457.45	127.24	20.313	
15,400.00	7,557.11	17,986.23	10,028.27	73.67	74.79	-163.06	-8,781.87	1,933.06	2,583.24	2,454.44	128.81	20.055	
15,500.00	7,557.10	18,097.45	10,027.63	74.39	75.52	-163.20	-8,893.08	1,933.10	2,580.80	2,450.45	130.34	19.800	
15,600.00	7,557.10	18,193.05	10,027.17	75.11	76.15	-163.34	-8,988.69	1,932.84	2,578.39	2,446.56	131.83	19.559	
15,700.00	7,557.10	18,294.35	10,026.63	75.83	76.82	-163.47	-9,089.98	1,933.05	2,576.08	2,442.74	133.34	19.320	
15,800.00	7,557.09	18,345.81	10,026.42	76.55	77.17	-163.51	-9,141.43	1,934.29	2,574.59	2,439.92	134.66	19.119	
15,822.61	7,557.09	18,356.39	10,026.47	76.71	77.24	-163.52	-9,152.00	1,934.72	2,574.53	2,439.58	134.96	19.077	
15,900.00	7,557.09	18,397.00	10,026.96	77.27	77.51	-163.53	-9,192.54	1,936.95	2,575.16	2,439.20	135.96	18.941	
16,000.00	7,557.08	18,563.72	10,028.00	78.00	78.64	-163.63	-9,359.10	1,943.46	2,574.85	2,437.09	137.76	18.691	
16,100.00	7,557.08	18,695.39	10,027.78	78.72	79.53	-163.80	-9,490.78	1,944.10	2,572.97	2,433.59	139.38	18.460	
16,200.00	7,557.08	18,795.91	10,027.28	79.45	80.20	-163.93	-9,591.30	1,944.58	2,570.82	2,429.93	140.90	18.246	
16,300.00	7,557.07	18,909.87	10,025.74	80.18	80.97	-164.08	-9,705.24	1,944.31	2,567.60	2,425.15	142.45	18.024	
16,400.00	7,557.07	18,986.83	10,025.22	80.90	81.49	-164.18	-9,782.20	1,944.49	2,565.21	2,421.32	143.89	17.828	
16,500.00	7,557.07	19,086.81	10,024.75	81.63	82.17	-164.29	-9,882.17	1,945.63	2,563.30	2,417.89	145.41	17.629	
16,600.00	7,557.06	19,188.63	10,024.01	82.36	82.86	-164.41	-9,983.99	1,946.50	2,561.08	2,414.15	146.93	17.431	
16,700.00	7,557.06	19,287.28	10,023.63	83.09	83.53	-164.53	-10,082.63	1,947.17	2,559.14	2,410.70	148.44	17.240	
16,800.00	7,557.06	19,392.80	10,023.01	83.82	84.25	-164.67	-10,188.15	1,947.58	2,556.95	2,406.97	149.98	17.048	
16,900.00	7,557.05	19,489.34	10,022.38	84.55	84.91	-164.79	-10,284.68	1,948.08	2,554.75	2,403.26	151.49	16.864	
17,000.00	7,557.05	19,590.76	10,021.78	85.29	85.61	-164.92	-10,386.11	1,948.74	2,552.65	2,399.63	153.02	16.682	
17,100.00	7,557.04	19,686.99	10,021.29	86.02	86.27	-165.04	-10,482.33	1,949.05	2,550.55	2,396.02	154.53	16.506	
17,200.00	7,557.04	19,797.61	10,020.57	86.75	87.03	-165.18	-10,592.94	1,949.65	2,548.40	2,392.31	156.09	16.327	
17,300.00	7,557.04	19,912.79	10,019.10	87.49	87.82	-165.35	-10,708.11	1,949.13	2,545.35	2,387.69	157.66	16.144	
17,400.00	7,557.03	19,981.00	10,018.57	88.22	88.29	-165.44	-10,776.32	1,949.13	2,542.97	2,383.89	159.08	15.986	
17,500.00	7,557.03	20,054.30	10,018.70	88.96	88.80	-165.53	-10,849.62	1,949.79	2,541.73	2,381.24	160.50	15.837	
17,600.00	7,557.03	20,157.39	10,019.44	89.70	89.51	-165.65	-10,952.70	1,951.14	2,541.14	2,379.10	162.04	15.682	
17,700.00	7,557.02	20,306.13	10,018.47	90.43	90.54	-165.85	-11,101.43	1,951.68	2,538.82	2,375.06	163.76	15.504	
17,800.00	7,557.02	20,389.80	10,017.81	91.17	91.12	-165.97	-11,185.10	1,951.46	2,536.41	2,371.18	165.23	15.351	
17,900.00	7,557.02	20,467.85	10,017.59	91.91	91.66	-166.07	-11,263.15	1,951.89	2,534.72	2,368.05	166.68	15.208	
18,000.00	7,557.01	20,542.00	10,018.12	92.65	92.18	-166.15	-11,337.28	1,952.94	2,534.15	2,366.05	168.09	15.076	
18,100.00	7,557.01	20,644.70	10,019.33	93.39	92.90	-166.28	-11,439.97	1,954.22	2,534.05	2,364.41	169.64	14.938	
18,134.26	7,557.01	20,672.00	10,019.63	93.64	93.09	-166.31	-11,467.26	1,954.44	2,533.97	2,363.83	170.13	14.894	
18,200.00	7,557.00	20,672.00	10,019.63	94.13	93.09	-166.31	-11,467.26	1,954.44	2,534.82	2,364.04	170.78	14.842	
18,300.00	7,557.00	20,672.00	10,019.63	94.87	93.09	-166.31	-11,467.26	1,954.44	2,539.38	2,367.79	171.59	14.799	
18,318.93	7,557.00	20,672.00	10,019.63	95.01	93.09	-166.31	-11,467.26	1,954.44	2,540.69	2,368.97	171.72	14.795	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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

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	-75.35	246.56	-943.50	975.19				
100.00	100.00	96.39	96.39	0.28	0.15	-75.36	246.62	-943.85	975.57	975.14	0.43	2,263.330	
200.00	200.00	189.42	189.42	0.63	0.30	-75.36	246.78	-944.86	976.66	975.72	0.94	1,040.782	
300.00	300.00	289.09	289.07	0.99	0.61	-75.39	246.77	-946.47	978.22	976.61	1.61	608.812	
400.00	400.00	389.84	389.81	1.35	0.97	-75.41	246.76	-947.94	979.63	977.30	2.33	421.280	
500.00	500.00	487.77	487.73	1.71	1.33	-75.39	247.48	-949.28	981.14	978.11	3.03	323.427	
600.00	600.00	586.80	586.74	2.07	1.68	-75.35	248.52	-950.66	982.76	979.01	3.74	262.420	
700.00	700.00	678.10	678.01	2.43	2.00	-75.42	247.85	-952.90	984.94	980.51	4.43	222.431	
800.00	800.00	772.62	772.46	2.79	2.34	-75.56	246.20	-956.13	987.81	982.69	5.12	192.791	
900.00	900.00	873.72	873.46	3.14	2.71	-75.72	244.39	-960.07	991.15	985.30	5.84	169.618	
1,000.00	1,000.00	996.16	995.83	3.50	3.14	-75.93	241.50	-963.35	993.19	986.55	6.64	149.629	
1,100.00	1,100.00	1,149.61	1,149.15	3.86	3.67	-76.18	236.44	-961.41	991.10	983.59	7.52	131.878	
1,200.00	1,200.00	1,253.00	1,252.40	4.22	4.01	-76.30	233.23	-957.00	986.22	978.00	8.22	119.983	
1,300.00	1,300.00	1,346.52	1,345.80	4.58	4.33	-76.39	230.73	-953.04	981.48	972.58	8.90	110.323	
1,400.00	1,400.00	1,430.02	1,429.24	4.94	4.61	-76.41	229.77	-950.15	977.88	968.33	9.54	102.472	
1,497.98	1,497.98	1,502.00	1,501.21	5.29	4.86	-76.37	230.09	-949.08	976.57	966.43	10.14	96.290	
1,500.00	1,500.00	1,502.00	1,501.21	5.29	4.86	-76.37	230.09	-949.08	976.57	966.42	10.15	96.221	ES
1,600.00	1,600.00	1,587.50	1,586.70	5.65	5.15	-76.29	231.55	-949.45	977.42	966.62	10.80	90.494	
1,700.00	1,700.00	1,680.02	1,679.18	6.01	5.47	-76.18	233.88	-950.95	979.59	968.11	11.48	85.331	
1,800.00	1,800.00	1,772.77	1,771.86	6.37	5.80	-76.06	236.59	-953.00	982.45	970.29	12.16	80.789	
1,900.00	1,900.00	1,894.52	1,893.55	6.73	6.22	-75.91	239.76	-955.19	984.87	971.92	12.95	76.056	
2,000.00	2,000.00	2,033.22	2,032.23	7.09	6.70	-75.85	240.44	-953.49	983.75	969.97	13.78	71.390	
2,100.00	2,099.98	2,132.63	2,131.59	7.43	7.04	140.14	239.74	-950.27	981.78	967.32	14.46	67.884	
2,104.46	2,104.43	2,136.56	2,135.51	7.44	7.06	140.14	239.71	-950.16	981.78	967.29	14.49	67.751	
2,200.00	2,199.84	2,230.20	2,229.12	7.76	7.38	140.30	238.82	-947.93	983.24	968.12	15.13	65.000	
2,300.00	2,299.45	2,345.00	2,343.85	8.09	7.78	140.58	237.15	-944.54	986.77	970.92	15.85	62.270	
2,400.00	2,398.70	2,440.66	2,439.42	8.42	8.11	140.86	234.79	-941.18	992.21	975.70	16.51	60.088	
2,500.00	2,497.47	2,500.01	2,498.75	8.76	8.32	141.01	233.59	-940.31	1,002.55	985.49	17.06	58.761	
2,600.00	2,595.62	2,554.00	2,552.72	9.10	8.51	141.12	233.25	-941.68	1,019.82	1,002.25	17.57	58.058	
2,644.93	2,639.49	2,593.04	2,591.71	9.25	8.64	141.27	233.30	-943.58	1,029.54	1,011.69	17.85	57.679	
2,700.00	2,693.18	2,639.52	2,638.13	9.44	8.81	141.61	233.49	-946.10	1,042.14	1,023.95	18.19	57.294	
2,800.00	2,790.65	2,725.00	2,723.44	9.78	9.11	142.22	234.21	-951.44	1,066.01	1,047.20	18.81	56.672	
2,900.00	2,888.13	2,880.33	2,878.66	10.13	9.65	143.34	235.37	-956.06	1,086.49	1,066.76	19.74	55.045	
3,000.00	2,985.61	2,984.32	2,982.65	10.48	10.02	144.09	235.91	-956.88	1,105.56	1,085.11	20.45	54.065	
3,100.00	3,083.08	3,100.18	3,098.50	10.83	10.42	144.92	236.78	-956.41	1,123.77	1,102.57	21.20	53.001	
3,200.00	3,180.56	3,198.20	3,196.51	11.19	10.76	145.63	237.55	-955.00	1,141.19	1,119.29	21.89	52.128	
3,300.00	3,278.04	3,300.23	3,298.52	11.55	11.12	146.33	238.29	-953.49	1,158.72	1,136.12	22.60	51.274	
3,400.00	3,375.51	3,467.87	3,465.98	11.91	11.70	147.44	237.28	-946.02	1,173.27	1,149.75	23.51	49.896	
3,500.00	3,472.99	3,607.43	3,604.94	12.27	12.19	148.32	233.77	-933.67	1,183.18	1,158.86	24.32	48.659	
3,600.00	3,570.47	3,759.70	3,755.88	12.64	12.73	149.10	224.66	-916.00	1,189.39	1,164.27	25.12	47.356	
3,700.00	3,667.94	3,917.39	3,910.87	13.00	13.29	149.59	206.45	-893.51	1,191.00	1,165.11	25.88	46.012	
3,800.00	3,765.42	4,030.51	4,021.18	13.37	13.71	149.84	189.90	-874.75	1,189.12	1,162.52	26.61	44.693	
3,900.00	3,862.90	4,133.36	4,121.42	13.74	14.10	150.06	174.63	-857.51	1,187.08	1,159.75	27.33	43.437	
4,000.00	3,960.37	4,239.12	4,224.41	14.11	14.51	150.29	158.84	-839.39	1,184.66	1,156.60	28.05	42.227	
4,100.00	4,057.85	4,343.67	4,326.13	14.48	14.92	150.53	143.12	-821.00	1,181.80	1,153.01	28.78	41.057	
4,200.00	4,155.33	4,442.50	4,422.22	14.86	15.31	150.76	128.25	-803.29	1,178.63	1,149.11	29.52	39.933	
4,300.00	4,252.80	4,521.00	4,498.75	15.23	15.63	150.96	117.12	-789.85	1,176.61	1,146.37	30.24	38.908	
4,400.00	4,350.28	4,616.40	4,592.00	15.61	16.01	151.22	104.30	-774.32	1,175.71	1,144.73	30.97	37.957	
4,500.00	4,447.76	4,723.23	4,696.40	15.98	16.44	151.51	90.00	-756.75	1,174.70	1,142.98	31.72	37.037	
4,600.00	4,545.23	4,826.08	4,796.82	16.36	16.86	151.80	76.19	-739.37	1,173.29	1,140.83	32.46	36.146	
4,700.00	4,642.71	4,926.76	4,895.10	16.74	17.28	152.09	62.61	-722.24	1,171.77	1,138.57	33.20	35.292	
4,800.00	4,740.19	5,028.12	4,994.02	17.11	17.70	152.38	48.80	-704.94	1,170.18	1,136.23	33.95	34.470	

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 4H
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 4H	**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
4,900.00	4,837.66	5,127.42	5,090.81	17.49	18.12	152.58	33.85	-688.59	1,168.49	1,133.80	34.70	33.679	
5,000.00	4,935.14	5,219.30	5,180.41	17.87	18.51	152.75	19.68	-673.97	1,167.17	1,131.73	35.44	32.934	
5,090.11	5,022.98	5,299.16	5,258.46	18.22	18.84	152.91	8.01	-661.74	1,166.81	1,130.71	36.11	32.314	
5,100.00	5,032.62	5,308.36	5,267.46	18.25	18.88	152.93	6.71	-660.35	1,166.82	1,130.63	36.18	32.249	
5,200.00	5,130.09	5,403.67	5,360.78	18.64	19.28	153.15	-6.47	-646.12	1,167.15	1,130.22	36.93	31.606	
5,300.00	5,227.57	5,500.18	5,455.31	19.02	19.69	153.37	-19.65	-631.81	1,167.68	1,130.00	37.68	30.993	
5,400.00	5,325.05	5,595.54	5,548.83	19.40	20.09	153.61	-32.09	-617.97	1,168.79	1,130.37	38.42	30.419	
5,500.00	5,422.52	5,697.46	5,648.79	19.78	20.52	153.88	-45.24	-603.01	1,169.85	1,130.68	39.18	29.860	
5,600.00	5,520.00	5,796.42	5,745.84	20.16	20.94	154.14	-57.94	-588.44	1,170.93	1,131.00	39.93	29.325	
5,700.00	5,617.48	5,893.04	5,840.63	20.55	21.35	154.41	-70.14	-574.26	1,172.18	1,131.50	40.68	28.815	
5,800.00	5,714.95	5,985.99	5,931.91	20.93	21.74	154.67	-81.50	-560.86	1,173.88	1,132.46	41.42	28.339	
5,900.00	5,812.43	6,095.44	6,039.46	21.31	22.20	155.01	-94.09	-544.97	1,175.91	1,133.72	42.19	27.872	
6,000.00	5,909.91	6,221.79	6,163.18	21.70	22.75	155.44	-109.20	-524.28	1,176.06	1,133.10	42.97	27.370	
6,100.00	6,007.38	6,324.10	6,263.08	22.08	23.19	155.76	-122.67	-506.77	1,174.99	1,131.27	43.73	26.870	
6,200.00	6,104.86	6,409.00	6,345.99	22.47	23.57	155.97	-134.48	-492.83	1,174.25	1,129.77	44.48	26.402	
6,219.67	6,124.04	6,430.63	6,367.13	22.54	23.66	156.03	-137.50	-489.43	1,174.19	1,129.57	44.63	26.312	
6,300.00	6,202.34	6,504.00	6,439.02	22.85	23.98	156.22	-147.12	-478.33	1,174.79	1,129.56	45.23	25.974	
6,400.00	6,299.81	6,569.18	6,503.10	23.24	24.26	156.39	-155.10	-469.45	1,177.19	1,131.26	45.93	25.630	
6,421.23	6,320.51	6,584.79	6,518.48	23.32	24.32	156.42	-156.97	-467.52	1,178.00	1,131.92	46.08	25.565	
6,500.00	6,397.52	6,650.08	6,582.88	23.62	24.59	156.58	-164.55	-459.97	1,180.70	1,134.06	46.64	25.315	
6,600.00	6,495.90	6,789.51	6,720.33	24.00	25.18	156.79	-180.95	-443.33	1,181.21	1,133.74	47.47	24.883	
6,700.00	6,594.84	6,904.97	6,833.54	24.37	25.68	156.95	-194.47	-425.24	1,174.97	1,126.73	48.24	24.359	
6,800.00	6,694.23	7,005.42	6,931.95	24.74	26.11	157.05	-205.42	-408.31	1,164.93	1,115.96	48.97	23.788	
6,900.00	6,793.94	7,099.95	7,024.55	25.09	26.53	157.03	-216.12	-392.63	1,151.73	1,102.04	49.69	23.178	
7,000.00	6,893.85	7,183.31	7,106.37	25.44	26.89	156.93	-225.00	-379.39	1,136.32	1,085.93	50.39	22.551	
7,066.16	6,960.00	7,235.68	7,157.91	25.67	27.11	-59.05	-230.04	-371.53	1,125.22	1,074.39	50.83	22.137	
7,100.00	6,993.82	7,261.00	7,182.86	25.78	27.22	132.85	-232.30	-367.87	1,120.14	1,069.09	51.05	21.942	
7,150.00	7,043.55	7,299.78	7,221.12	25.96	27.38	133.34	-235.47	-362.46	1,115.54	1,064.15	51.38	21.710	
7,189.43	7,082.33	7,329.11	7,250.11	26.10	27.50	133.63	-237.58	-358.54	1,114.42	1,062.77	51.65	21.578	
7,200.00	7,092.63	7,336.93	7,257.85	26.14	27.53	133.70	-238.10	-357.52	1,114.50	1,062.78	51.72	21.550	
7,250.00	7,140.71	7,379.71	7,300.20	26.34	27.70	133.99	-240.73	-352.07	1,117.02	1,064.95	52.06	21.455	
7,300.00	7,187.41	7,428.15	7,348.16	26.53	27.90	134.26	-243.69	-345.92	1,122.74	1,070.31	52.43	21.414	
7,350.00	7,232.38	7,473.80	7,393.35	26.73	28.08	134.39	-246.50	-340.14	1,131.66	1,078.87	52.79	21.438	
7,400.00	7,275.27	7,516.41	7,435.54	26.93	28.25	134.35	-249.09	-334.79	1,143.90	1,090.77	53.14	21.528	
7,450.00	7,315.77	7,557.83	7,476.58	27.13	28.42	134.14	-251.57	-329.64	1,159.50	1,106.02	53.48	21.683	
7,500.00	7,353.56	7,598.62	7,516.97	27.34	28.58	133.75	-254.01	-324.58	1,178.36	1,124.55	53.81	21.900	
7,550.00	7,388.35	7,636.68	7,554.66	27.54	28.74	133.08	-256.30	-319.83	1,200.44	1,146.31	54.12	22.180	
7,600.00	7,419.89	7,664.74	7,582.46	27.74	28.85	131.84	-257.95	-316.39	1,225.75	1,171.36	54.39	22.535	
7,650.00	7,447.92	7,689.70	7,607.21	27.94	28.95	130.14	-259.35	-313.43	1,254.25	1,199.61	54.64	22.957	
7,700.00	7,472.24	7,711.64	7,628.98	28.14	29.03	127.89	-260.52	-310.91	1,285.72	1,230.87	54.85	23.440	
7,750.00	7,492.67	7,732.00	7,649.18	28.33	29.11	125.06	-261.56	-308.64	1,319.91	1,264.86	55.05	23.978	
7,800.00	7,509.03	7,747.29	7,664.36	28.52	29.17	121.35	-262.31	-306.98	1,356.51	1,301.31	55.20	24.573	
7,816.16	7,513.43	7,752.02	7,669.06	28.58	29.19	119.98	-262.54	-306.47	1,368.80	1,313.55	55.25	24.774	
7,900.00	7,532.50	7,773.12	7,690.01	28.88	29.27	115.56	-263.56	-304.22	1,433.97	1,378.51	55.46	25.857	
8,000.00	7,548.24	7,791.84	7,708.60	29.24	29.35	109.76	-264.44	-302.26	1,513.58	1,457.93	55.65	27.198	
8,100.00	7,556.27	7,803.51	7,720.21	29.58	29.39	103.47	-264.98	-301.06	1,594.69	1,538.91	55.79	28.585	
8,153.26	7,557.37	7,806.87	7,723.55	29.76	29.40	99.99	-265.14	-300.72	1,638.29	1,582.45	55.84	29.341	
8,200.00	7,557.37	7,808.95	7,725.61	29.92	29.41	100.12	-265.23	-300.51	1,676.85	1,620.97	55.87	30.012	
8,300.00	7,557.36	7,813.35	7,729.99	30.26	29.43	100.38	-265.43	-300.06	1,760.65	1,704.70	55.95	31.468	
8,400.00	7,557.36	7,817.71	7,734.32	30.63	29.45	100.65	-265.63	-299.62	1,846.06	1,790.04	56.03	32.949	
8,500.00	7,557.36	7,827.00	7,743.55	31.00	29.48	101.21	-266.05	-298.68	1,932.87	1,876.74	56.13	34.435	
8,600.00	7,557.35	7,827.00	7,743.55	31.39	29.48	101.21	-266.05	-298.68	2,020.87	1,964.69	56.18	35.972	

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 4H
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 4H	**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
8,700.00	7,557.35	7,827.00	7,743.55	31.79	29.48	101.21	-266.05	-298.68	2,109.94	2,053.71	56.23	37.526	
8,800.00	7,557.35	7,827.00	7,743.55	32.21	29.48	101.21	-266.05	-298.68	2,199.95	2,143.68	56.27	39.096	
8,900.00	7,557.34	7,827.00	7,743.55	32.64	29.48	101.21	-266.05	-298.68	2,290.79	2,234.47	56.31	40.679	
9,000.00	7,557.34	11,724.59	9,747.65	33.08	52.95	159.76	-2,433.01	-42.98	2,330.70	2,276.73	53.97	43.185	
9,100.00	7,557.34	11,828.50	9,745.90	33.54	54.04	159.61	-2,536.90	-42.08	2,331.08	2,275.79	55.29	42.163	
9,200.00	7,557.33	11,931.51	9,744.05	34.00	55.14	159.46	-2,639.89	-40.97	2,331.29	2,274.67	56.63	41.170	
9,300.00	7,557.33	12,025.18	9,742.35	34.48	56.16	159.33	-2,733.54	-40.09	2,331.56	2,273.62	57.94	40.239	
9,400.00	7,557.32	12,110.37	9,741.23	34.96	57.10	159.20	-2,818.71	-39.51	2,332.39	2,273.16	59.24	39.375	
9,500.00	7,557.32	12,231.28	9,739.26	35.46	58.45	159.03	-2,939.61	-38.35	2,332.81	2,272.06	60.74	38.403	
9,600.00	7,557.32	12,324.62	9,737.66	35.97	59.51	158.90	-3,032.93	-37.46	2,333.19	2,271.07	62.12	37.558	
9,700.00	7,557.31	12,430.39	9,736.11	36.48	60.72	158.76	-3,138.68	-35.99	2,333.69	2,270.11	63.58	36.704	
9,800.00	7,557.31	12,521.17	9,734.51	37.00	61.77	158.64	-3,229.43	-34.62	2,333.89	2,268.92	64.97	35.922	
9,900.00	7,557.31	12,597.18	9,734.06	37.54	62.66	158.55	-3,305.44	-33.54	2,335.16	2,268.88	66.28	35.231	
10,000.00	7,557.30	12,692.25	9,733.80	38.08	63.77	158.43	-3,400.50	-32.73	2,336.99	2,269.26	67.73	34.507	
10,100.00	7,557.30	12,790.10	9,733.71	38.63	64.93	158.31	-3,498.34	-31.68	2,338.91	2,269.72	69.20	33.801	
10,200.00	7,557.30	12,881.34	9,733.63	39.18	66.02	158.18	-3,589.58	-31.27	2,341.08	2,270.43	70.65	33.136	
10,300.00	7,557.29	12,966.71	9,734.10	39.74	67.04	158.07	-3,674.95	-30.65	2,343.76	2,271.69	72.07	32.521	
10,400.00	7,557.29	13,044.00	9,735.03	40.31	67.98	157.97	-3,752.23	-30.40	2,347.20	2,273.76	73.44	31.960	
10,500.00	7,557.28	13,140.03	9,736.62	40.89	69.14	157.84	-3,848.25	-30.44	2,351.21	2,276.26	74.96	31.368	
10,600.00	7,557.28	13,247.04	9,738.41	41.47	70.46	157.71	-3,955.24	-30.19	2,355.13	2,278.57	76.56	30.763	
10,700.00	7,557.28	13,335.99	9,740.42	42.06	71.56	157.62	-4,044.17	-29.30	2,359.31	2,281.28	78.02	30.239	
10,800.00	7,557.27	13,448.04	9,742.56	42.66	72.95	157.51	-4,156.18	-27.87	2,363.04	2,283.38	79.66	29.664	
10,900.00	7,557.27	13,512.00	9,744.07	43.26	73.75	157.44	-4,220.12	-27.32	2,367.47	2,286.51	80.96	29.242	
11,000.00	7,557.27	13,606.00	9,746.53	43.86	74.92	157.30	-4,314.08	-28.46	2,372.87	2,290.35	82.52	28.755	
11,100.00	7,557.26	13,700.00	9,748.51	44.47	76.09	157.12	-4,408.01	-31.55	2,378.62	2,294.49	84.13	28.274	
11,200.00	7,557.26	13,794.00	9,750.56	45.09	77.26	156.93	-4,501.93	-34.88	2,384.57	2,298.82	85.75	27.810	
11,300.00	7,557.26	13,995.73	9,751.96	45.71	79.80	156.57	-4,703.59	-38.51	2,388.43	2,300.17	88.26	27.061	
11,400.00	7,557.25	14,094.56	9,751.53	46.33	81.07	156.44	-4,802.42	-37.84	2,390.36	2,300.47	89.90	26.590	
11,500.00	7,557.25	14,196.77	9,751.02	46.96	82.39	156.31	-4,904.62	-36.94	2,392.16	2,300.60	91.56	26.127	
11,600.00	7,557.24	14,284.21	9,750.89	47.60	83.52	156.20	-4,992.06	-36.04	2,394.24	2,301.13	93.11	25.714	
11,700.00	7,557.24	14,369.86	9,751.30	48.24	84.63	156.10	-5,077.70	-35.28	2,396.95	2,302.30	94.65	25.325	
11,800.00	7,557.24	14,468.52	9,751.93	48.88	85.91	155.98	-5,176.36	-34.64	2,399.91	2,303.62	96.30	24.921	
11,900.00	7,557.23	14,564.23	9,752.70	49.52	87.16	155.86	-5,272.06	-34.18	2,403.10	2,305.17	97.94	24.538	
12,000.00	7,557.23	14,683.90	9,753.28	50.17	88.73	155.72	-5,391.73	-33.37	2,405.95	2,306.17	99.78	24.113	
12,100.00	7,557.23	14,794.42	9,752.69	50.82	90.18	155.56	-5,502.25	-33.01	2,408.01	2,306.44	101.57	23.707	
12,200.00	7,557.22	14,893.31	9,752.07	51.48	91.48	155.43	-5,601.14	-32.63	2,409.99	2,306.71	103.27	23.336	
12,300.00	7,557.22	14,992.82	9,751.61	52.14	92.79	155.29	-5,700.64	-32.02	2,412.03	2,307.05	104.98	22.977	
12,400.00	7,557.22	15,081.11	9,751.42	52.80	93.96	155.18	-5,788.93	-31.39	2,414.26	2,307.68	106.59	22.651	
12,500.00	7,557.21	15,197.13	9,751.37	53.46	95.50	155.04	-5,904.95	-30.49	2,416.67	2,308.23	108.44	22.286	
12,600.00	7,557.21	15,288.49	9,751.06	54.13	96.72	154.93	-5,996.30	-29.56	2,418.69	2,308.61	110.08	21.972	
12,700.00	7,557.20	15,390.00	9,750.65	54.80	98.07	154.79	-6,097.81	-29.00	2,420.86	2,309.03	111.83	21.648	
12,800.00	7,557.20	15,485.00	9,750.27	55.48	99.34	154.66	-6,192.81	-28.73	2,423.16	2,309.63	113.53	21.344	
12,900.00	7,557.20	15,593.43	9,749.94	56.15	100.79	154.53	-6,301.23	-28.04	2,425.40	2,310.05	115.35	21.027	
13,000.00	7,557.19	15,684.11	9,749.75	56.83	102.01	154.42	-6,391.91	-27.21	2,427.63	2,310.63	117.01	20.748	
13,100.00	7,557.19	15,771.59	9,749.90	57.51	103.19	154.31	-6,479.39	-26.73	2,430.36	2,311.72	118.64	20.485	
13,200.00	7,557.19	15,885.01	9,750.29	58.19	104.72	154.18	-6,592.79	-25.39	2,432.99	2,312.48	120.50	20.190	
13,300.00	7,557.18	15,985.33	9,750.26	58.88	106.07	154.07	-6,693.11	-24.36	2,435.36	2,313.10	122.26	19.920	
13,400.00	7,557.18	16,083.50	9,750.26	59.57	107.40	153.95	-6,791.27	-23.51	2,437.83	2,313.83	124.00	19.660	
13,500.00	7,557.18	16,183.29	9,750.15	60.25	108.75	153.83	-6,891.06	-22.79	2,440.28	2,314.52	125.77	19.403	
13,600.00	7,557.17	16,273.46	9,750.00	60.95	109.98	153.71	-6,981.24	-22.57	2,442.91	2,315.46	127.45	19.167	
13,700.00	7,557.17	16,385.97	9,750.40	61.64	111.50	153.57	-7,093.74	-22.03	2,445.95	2,316.60	129.35	18.909	
13,800.00	7,557.16	16,495.85	9,749.37	62.33	113.00	153.41	-7,203.62	-21.73	2,447.88	2,316.63	131.25	18.650	

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 4H
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 4H	**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

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	7,557.16	16,593.80	9,748.60	63.03	114.33	153.28	-7,301.56	-21.39	2,449.94	2,316.91	133.04	18.416	
14,000.00	7,557.16	16,685.62	9,747.89	63.73	115.58	153.15	-7,393.38	-21.34	2,452.17	2,317.40	134.77	18.195	
14,100.00	7,557.15	16,773.89	9,747.70	64.43	116.79	153.03	-7,481.65	-21.15	2,454.83	2,318.37	136.46	17.989	
14,200.00	7,557.15	16,864.49	9,747.88	65.13	118.02	152.91	-7,572.25	-21.10	2,457.94	2,319.77	138.17	17.789	
14,300.00	7,557.15	16,982.11	9,748.35	65.84	119.63	152.77	-7,689.87	-20.42	2,461.03	2,320.88	140.15	17.559	
14,400.00	7,557.14	17,078.00	9,748.32	66.54	120.95	152.66	-7,785.75	-19.48	2,463.55	2,321.64	141.91	17.359	
14,500.00	7,557.14	17,150.98	9,748.73	67.25	121.95	152.58	-7,858.73	-18.95	2,466.75	2,323.31	143.44	17.197	
14,600.00	7,557.14	17,285.84	9,749.37	67.96	123.80	152.41	-7,993.58	-18.65	2,470.15	2,324.52	145.62	16.963	
14,700.00	7,557.13	17,384.51	9,749.11	68.66	125.16	152.29	-8,092.25	-18.02	2,472.64	2,325.20	147.43	16.771	
14,800.00	7,557.13	17,480.97	9,748.84	69.38	126.49	152.17	-8,188.71	-17.38	2,475.12	2,325.90	149.22	16.587	
14,900.00	7,557.12	17,566.43	9,749.40	70.09	127.67	152.09	-8,274.16	-16.25	2,478.11	2,327.24	150.88	16.425	
15,000.00	7,557.12	17,668.86	9,749.98	70.80	129.08	151.97	-8,376.58	-15.52	2,481.34	2,328.61	152.72	16.247	
15,100.00	7,557.12	17,763.12	9,750.07	71.52	130.39	151.85	-8,470.84	-15.31	2,484.40	2,329.89	154.51	16.080	
15,200.00	7,557.11	17,832.19	9,751.50	72.23	131.34	151.80	-8,539.88	-14.01	2,488.41	2,332.45	155.96	15.956	
15,300.00	7,557.11	17,939.60	9,753.09	72.95	132.83	151.68	-8,647.26	-14.02	2,492.79	2,334.91	157.88	15.789	
15,400.00	7,557.11	18,026.40	9,753.22	73.67	134.02	151.52	-8,734.02	-16.59	2,497.43	2,337.79	159.64	15.644	
15,500.00	7,557.10	18,140.12	9,752.68	74.39	135.57	151.28	-8,847.67	-20.53	2,501.77	2,339.99	161.77	15.465	
15,600.00	7,557.10	18,229.22	9,752.87	75.11	136.79	151.11	-8,936.73	-23.16	2,506.50	2,342.93	163.57	15.323	
15,700.00	7,557.10	18,399.42	9,753.42	75.83	139.15	150.90	-9,106.92	-23.16	2,509.99	2,343.76	166.23	15.100	
15,800.00	7,557.09	18,494.70	9,751.97	76.55	140.47	150.75	-9,202.19	-23.75	2,512.14	2,344.05	168.09	14.945	
15,900.00	7,557.09	18,607.37	9,750.28	77.27	142.03	150.58	-9,314.84	-23.69	2,513.99	2,343.85	170.13	14.777	
16,000.00	7,557.08	18,707.98	9,748.68	78.00	143.43	150.44	-9,415.44	-23.48	2,515.70	2,343.66	172.04	14.623	
16,100.00	7,557.08	18,802.70	9,747.27	78.72	144.75	150.32	-9,510.15	-22.85	2,517.31	2,343.43	173.88	14.477	
16,200.00	7,557.08	18,884.88	9,746.88	79.45	145.90	150.22	-9,592.32	-22.07	2,519.64	2,344.08	175.56	14.352	
16,300.00	7,557.07	18,986.43	9,746.48	80.18	147.31	150.10	-9,693.86	-21.27	2,522.15	2,344.68	177.46	14.212	
16,400.00	7,557.07	19,088.27	9,745.76	80.90	148.73	149.97	-9,795.71	-21.22	2,524.77	2,345.38	179.39	14.074	
16,500.00	7,557.07	19,206.71	9,744.25	81.63	150.38	149.80	-9,914.14	-21.01	2,526.84	2,345.33	181.51	13.921	
16,600.00	7,557.06	19,304.95	9,742.38	82.36	151.75	149.65	-10,012.35	-21.10	2,528.52	2,345.09	183.43	13.785	
16,700.00	7,557.06	19,389.35	9,741.06	83.09	152.93	149.53	-10,096.75	-21.32	2,530.61	2,345.42	185.19	13.665	
16,800.00	7,557.06	19,507.22	9,739.95	83.82	154.58	149.37	-10,214.61	-20.99	2,533.02	2,345.71	187.31	13.523	
16,900.00	7,557.05	19,601.91	9,739.12	84.55	155.91	149.27	-10,309.28	-19.49	2,534.79	2,345.64	189.14	13.401	
17,000.00	7,557.05	19,714.46	9,739.66	85.29	157.50	149.22	-10,421.75	-15.14	2,536.56	2,345.48	191.07	13.275	
17,100.00	7,557.04	19,801.00	9,739.67	86.02	158.71	149.16	-10,508.25	-12.73	2,538.45	2,345.68	192.78	13.168	
17,200.00	7,557.04	19,882.26	9,739.32	86.75	159.85	149.06	-10,589.51	-12.01	2,540.94	2,346.46	194.47	13.066	
17,300.00	7,557.04	19,985.89	9,738.35	87.49	161.30	148.92	-10,693.12	-12.31	2,543.65	2,347.18	196.47	12.947	
17,400.00	7,557.03	20,075.92	9,737.57	88.22	162.56	148.79	-10,783.15	-12.59	2,546.44	2,348.14	198.30	12.841	
17,500.00	7,557.03	20,176.83	9,737.00	88.96	163.97	148.65	-10,884.06	-12.77	2,549.43	2,349.17	200.26	12.731	
17,600.00	7,557.03	20,278.10	9,736.36	89.70	165.39	148.52	-10,985.33	-12.95	2,552.38	2,350.16	202.22	12.621	
17,700.00	7,557.02	20,364.00	9,735.77	90.43	166.60	148.40	-11,071.23	-12.98	2,555.27	2,351.26	204.00	12.526	
17,800.00	7,557.02	20,423.43	9,736.00	91.17	167.43	148.33	-11,130.65	-13.16	2,559.32	2,353.90	205.42	12.459	
17,900.00	7,557.02	20,523.88	9,737.28	91.91	168.83	148.19	-11,231.08	-14.61	2,564.60	2,357.21	207.39	12.366	
18,000.00	7,557.01	20,705.87	9,735.72	92.65	171.38	147.93	-11,413.04	-15.47	2,567.17	2,356.77	210.40	12.201	
18,100.00	7,557.01	20,738.00	9,735.41	93.39	171.84	147.90	-11,445.17	-15.00	2,569.93	2,358.42	211.51	12.150	
18,200.00	7,557.00	20,738.00	9,735.41	94.13	171.84	147.90	-11,445.17	-15.00	2,576.38	2,364.38	212.00	12.153	
18,300.00	7,557.00	20,738.00	9,735.41	94.87	171.84	147.90	-11,445.17	-15.00	2,586.67	2,374.47	212.20	12.190	
18,318.93	7,557.00	20,738.00	9,735.41	95.01	171.84	147.90	-11,445.17	-15.00	2,589.05	2,376.84	212.21	12.200	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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	-72.63	307.31	-982.33	1,029.28				
100.00	100.00	101.32	101.32	0.28	0.16	-72.61	307.71	-982.32	1,029.39	1,028.95	0.44	2,355.516	
200.00	200.00	201.00	200.99	0.63	0.32	-72.54	308.89	-982.28	1,029.70	1,028.75	0.95	1,079.594	
300.00	300.00	308.88	308.86	0.99	0.70	-72.45	310.50	-981.71	1,029.66	1,027.96	1.70	606.668	
400.00	400.00	426.82	426.78	1.35	1.12	-72.34	311.86	-979.84	1,028.53	1,026.06	2.47	415.604	
500.00	500.00	538.74	538.63	1.71	1.52	-72.32	311.19	-976.22	1,025.22	1,021.99	3.23	317.836	
600.00	600.00	641.97	641.80	2.07	1.88	-72.31	310.25	-972.79	1,021.79	1,017.84	3.95	258.908	
700.00	700.00	743.75	743.50	2.43	2.25	-72.29	309.33	-968.91	1,017.88	1,013.21	4.67	218.182	
800.00	800.00	845.39	845.06	2.79	2.61	-72.27	308.53	-964.89	1,013.87	1,008.49	5.39	188.269	
900.00	900.00	946.21	945.79	3.14	2.97	-72.25	307.62	-960.81	1,009.74	1,003.64	6.10	165.449	
1,000.00	1,000.00	1,049.85	1,049.33	3.50	3.35	-72.24	306.29	-956.43	1,005.32	998.49	6.83	147.174	
1,100.00	1,100.00	1,148.13	1,147.51	3.86	3.70	-72.24	304.94	-952.24	1,000.84	993.30	7.54	132.729	
1,200.00	1,200.00	1,245.18	1,244.47	4.22	4.05	-72.25	303.63	-948.27	996.54	988.29	8.25	120.848	
1,300.00	1,300.00	1,339.63	1,338.86	4.58	4.39	-72.25	302.45	-944.90	992.76	983.81	8.94	111.007	
1,400.00	1,400.00	1,438.92	1,438.08	4.94	4.75	-72.26	301.27	-941.60	989.23	979.57	9.66	102.437	
1,500.00	1,500.00	1,537.46	1,536.57	5.29	5.11	-72.27	300.10	-938.40	985.78	975.41	10.37	95.076	
1,600.00	1,600.00	1,632.67	1,631.73	5.65	5.45	-72.27	299.16	-935.53	982.60	971.54	11.07	88.777	
1,700.00	1,700.00	1,725.79	1,724.82	6.01	5.79	-72.26	298.62	-933.28	980.12	968.36	11.76	83.338	
1,800.00	1,800.00	1,822.75	1,821.76	6.37	6.13	-72.24	298.23	-931.39	978.14	965.67	12.47	78.461	
1,900.00	1,900.00	1,927.66	1,926.65	6.73	6.51	-72.21	298.15	-929.27	976.21	963.01	13.20	73.952	
2,000.00	2,000.00	2,043.42	2,042.34	7.09	6.93	-72.19	297.43	-925.67	973.05	959.08	13.97	69.647	
2,100.00	2,099.98	2,146.79	2,145.61	7.43	7.30	143.83	296.55	-921.24	970.12	955.44	14.68	66.072	
2,200.00	2,199.84	2,262.11	2,260.79	7.76	7.72	144.10	295.55	-915.53	969.40	953.98	15.42	62.880	
2,249.52	2,249.20	2,322.62	2,321.17	7.92	7.95	144.29	294.72	-911.67	969.33	953.54	15.79	61.387	CC
2,300.00	2,299.45	2,384.27	2,382.64	8.09	8.17	144.52	293.63	-907.06	969.40	953.23	16.17	59.954	ES
2,400.00	2,398.70	2,498.44	2,496.32	8.42	8.60	145.05	291.34	-896.80	970.18	953.28	16.90	57.417	
2,500.00	2,497.47	2,594.31	2,591.69	8.76	8.95	145.70	291.20	-886.99	973.38	955.80	17.58	55.366	
2,600.00	2,595.62	2,682.73	2,679.71	9.10	9.28	146.37	291.61	-878.59	980.53	962.28	18.25	53.736	
2,644.93	2,639.49	2,723.00	2,719.82	9.25	9.43	146.69	291.89	-875.06	985.09	966.55	18.55	53.109	
2,700.00	2,693.18	2,777.77	2,774.38	9.44	9.64	147.20	292.30	-870.33	991.20	972.27	18.93	52.355	
2,800.00	2,790.65	2,877.59	2,873.81	9.78	10.01	148.12	293.03	-861.53	1,002.31	982.68	19.63	51.051	
2,900.00	2,888.13	2,976.97	2,972.79	10.13	10.38	149.00	293.58	-852.71	1,013.55	993.21	20.34	49.836	
3,000.00	2,985.61	3,076.25	3,071.68	10.48	10.75	149.87	294.10	-843.78	1,024.89	1,003.85	21.05	48.700	
3,100.00	3,083.08	3,180.46	3,175.42	10.83	11.14	150.77	294.77	-834.03	1,036.19	1,014.42	21.77	47.595	
3,200.00	3,180.56	3,306.12	3,300.27	11.19	11.61	151.90	295.73	-819.82	1,046.02	1,023.46	22.56	46.368	
3,300.00	3,278.04	3,403.91	3,397.26	11.55	11.99	152.80	296.48	-807.38	1,054.87	1,031.59	23.28	45.318	
3,400.00	3,375.51	3,496.62	3,489.24	11.91	12.34	153.63	297.27	-795.80	1,064.22	1,040.23	23.98	44.372	
3,500.00	3,472.99	3,583.49	3,575.53	12.27	12.68	154.39	298.13	-785.75	1,074.68	1,050.01	24.67	43.554	
3,600.00	3,570.47	3,679.75	3,671.21	12.64	13.04	155.20	299.28	-775.31	1,086.10	1,060.70	25.39	42.770	
3,700.00	3,667.94	3,801.78	3,792.29	13.00	13.51	156.25	300.79	-760.19	1,096.40	1,070.21	26.19	41.859	
3,800.00	3,765.42	3,904.24	3,893.75	13.37	13.91	157.16	302.05	-745.99	1,105.73	1,078.79	26.94	41.046	
3,900.00	3,862.90	3,999.46	3,988.05	13.74	14.28	157.99	303.28	-732.86	1,115.42	1,087.75	27.67	40.315	
4,000.00	3,960.37	4,097.05	4,084.72	14.11	14.67	158.83	304.60	-719.60	1,125.55	1,097.15	28.40	39.626	
4,100.00	4,057.85	4,196.78	4,183.49	14.48	15.06	159.68	306.07	-705.86	1,135.83	1,106.68	29.15	38.964	
4,200.00	4,155.33	4,295.60	4,281.34	14.86	15.45	160.51	307.61	-692.04	1,146.23	1,116.34	29.90	38.340	
4,300.00	4,252.80	4,392.86	4,377.62	15.23	15.83	161.32	309.13	-678.44	1,156.88	1,126.24	30.64	37.758	
4,400.00	4,350.28	4,490.59	4,474.39	15.61	16.21	162.12	310.73	-664.81	1,167.83	1,136.44	31.39	37.209	
4,500.00	4,447.76	4,589.94	4,572.73	15.98	16.61	162.92	312.42	-650.86	1,178.96	1,146.82	32.14	36.683	
4,600.00	4,545.23	4,689.69	4,671.46	16.36	17.00	163.72	314.14	-636.66	1,190.19	1,157.29	32.90	36.179	
4,700.00	4,642.71	4,787.26	4,768.01	16.74	17.39	164.48	315.78	-622.71	1,201.57	1,167.92	33.65	35.709	
4,800.00	4,740.19	4,884.52	4,864.29	17.11	17.78	165.22	317.28	-609.00	1,213.22	1,178.82	34.40	35.268	
4,900.00	4,837.66	4,984.18	4,962.95	17.49	18.17	165.96	318.69	-595.03	1,225.06	1,189.90	35.16	34.841	

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 4H
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 4H	**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
5,000.00	4,935.14	5,076.73	5,054.62	17.87	18.54	166.61	319.88	-582.32	1,237.23	1,201.33	35.90	34.466	
5,100.00	5,032.62	5,170.12	5,147.19	18.25	18.91	167.25	321.00	-570.08	1,249.99	1,213.35	36.63	34.120	
5,200.00	5,130.09	5,256.64	5,233.05	18.64	19.25	167.80	322.04	-559.47	1,263.53	1,226.19	37.34	33.837	
5,300.00	5,227.57	5,352.64	5,328.42	19.02	19.62	168.37	323.18	-548.51	1,277.83	1,239.74	38.09	33.552	
5,400.00	5,325.05	5,457.08	5,432.19	19.40	20.03	168.97	323.96	-536.72	1,292.06	1,253.20	38.86	33.247	
5,500.00	5,422.52	5,562.91	5,537.37	19.78	20.44	169.51	323.62	-525.03	1,305.86	1,266.22	39.65	32.939	
5,600.00	5,520.00	5,667.72	5,641.52	20.16	20.84	170.02	322.55	-513.30	1,319.18	1,278.76	40.42	32.635	
5,700.00	5,617.48	5,766.95	5,740.11	20.55	21.23	170.48	321.30	-502.12	1,332.36	1,291.19	41.18	32.357	
5,800.00	5,714.95	5,864.47	5,837.00	20.93	21.61	170.93	320.06	-491.16	1,345.65	1,303.72	41.93	32.096	
5,900.00	5,812.43	5,954.62	5,926.60	21.31	21.96	171.33	318.92	-481.25	1,359.21	1,316.56	42.64	31.874	
6,000.00	5,909.91	6,032.58	6,004.22	21.70	22.25	171.63	317.96	-474.09	1,374.08	1,330.78	43.30	31.732	
6,100.00	6,007.38	6,117.00	6,088.37	22.08	22.57	171.92	317.11	-467.36	1,390.05	1,346.07	43.98	31.606	
6,200.00	6,104.86	6,201.41	6,172.57	22.47	22.88	172.19	316.66	-461.43	1,407.05	1,362.40	44.65	31.512	
6,300.00	6,202.34	6,281.47	6,252.49	22.85	23.17	172.43	316.76	-456.78	1,425.34	1,380.05	45.29	31.468	
6,400.00	6,299.81	6,362.50	6,333.43	23.24	23.46	172.66	317.37	-452.97	1,444.88	1,398.94	45.93	31.455	
6,421.23	6,320.51	6,379.77	6,350.68	23.32	23.53	172.70	317.58	-452.25	1,449.17	1,403.10	46.07	31.456	
6,500.00	6,397.52	6,450.49	6,421.35	23.62	23.78	172.92	318.49	-449.68	1,464.38	1,417.77	46.61	31.421	
6,600.00	6,495.90	6,541.94	6,512.77	24.00	24.10	173.12	319.16	-447.36	1,481.01	1,433.72	47.29	31.320	
6,700.00	6,594.84	6,636.38	6,607.20	24.37	24.42	173.25	319.17	-446.43	1,494.72	1,446.75	47.97	31.159	
6,800.00	6,694.23	6,734.55	6,705.37	24.74	24.76	173.33	318.88	-445.91	1,505.09	1,456.42	48.67	30.926	
6,900.00	6,793.94	6,828.09	6,798.91	25.09	25.06	173.37	318.63	-445.69	1,512.22	1,462.90	49.32	30.662	
7,000.00	6,893.85	6,922.46	6,893.28	25.44	25.37	173.40	318.72	-445.78	1,516.39	1,466.43	49.96	30.353	
7,066.16	6,960.00	6,986.84	6,957.66	25.67	25.57	-42.49	318.85	-445.95	1,517.36	1,466.98	50.38	30.118	
7,100.00	6,993.82	7,019.76	6,990.58	25.78	25.67	148.97	318.92	-446.07	1,518.36	1,467.76	50.60	30.008	
7,150.00	7,043.55	7,067.71	7,038.53	25.96	25.82	148.83	319.04	-446.29	1,523.00	1,472.07	50.93	29.906	
7,200.00	7,092.63	7,113.23	7,084.04	26.14	25.96	148.54	319.09	-446.69	1,531.44	1,480.19	51.25	29.882	
7,250.00	7,140.71	7,157.72	7,128.53	26.34	26.10	148.10	319.03	-447.36	1,543.65	1,492.07	51.57	29.930	
7,300.00	7,187.41	7,200.12	7,170.92	26.53	26.23	147.50	318.94	-448.19	1,559.56	1,507.67	51.89	30.054	
7,350.00	7,232.38	7,240.89	7,211.68	26.73	26.36	146.70	318.87	-449.14	1,579.10	1,526.89	52.20	30.249	
7,400.00	7,275.27	7,283.07	7,253.85	26.93	26.49	145.71	318.79	-450.23	1,602.08	1,549.55	52.53	30.500	
7,450.00	7,315.77	7,323.50	7,294.26	27.13	26.61	144.48	318.67	-451.33	1,628.29	1,575.45	52.84	30.815	
7,500.00	7,353.56	7,360.88	7,331.63	27.34	26.73	142.92	318.53	-452.38	1,657.58	1,604.45	53.14	31.195	
7,550.00	7,388.35	7,395.03	7,365.76	27.54	26.83	140.97	318.39	-453.38	1,689.77	1,636.36	53.41	31.638	
7,600.00	7,419.89	7,425.98	7,396.70	27.74	26.93	138.51	318.24	-454.32	1,724.64	1,670.98	53.66	32.140	
7,650.00	7,447.92	7,455.40	7,426.10	27.94	27.02	135.47	318.07	-455.24	1,761.94	1,708.05	53.90	32.692	
7,700.00	7,472.24	7,481.15	7,451.84	28.14	27.10	131.64	317.89	-456.06	1,801.40	1,747.30	54.10	33.296	
7,750.00	7,492.67	7,502.87	7,473.55	28.33	27.16	126.76	317.71	-456.75	1,842.75	1,788.47	54.28	33.949	
7,800.00	7,509.03	7,520.38	7,491.05	28.52	27.22	120.59	317.55	-457.31	1,885.69	1,831.26	54.42	34.648	
7,816.16	7,513.43	7,525.11	7,495.78	28.58	27.23	118.27	317.50	-457.46	1,899.85	1,845.39	54.46	34.882	
7,900.00	7,532.50	7,546.20	7,516.85	28.88	27.30	111.08	317.29	-458.14	1,973.93	1,919.29	54.64	36.128	
8,000.00	7,548.24	7,564.17	7,534.81	29.24	27.35	102.30	317.09	-458.72	2,062.65	2,007.85	54.79	37.645	
8,100.00	7,556.27	7,573.96	7,544.60	29.58	27.38	93.64	316.97	-459.03	2,151.28	2,096.39	54.89	39.192	
8,153.26	7,557.37	7,575.76	7,546.40	29.76	27.39	89.20	316.95	-459.09	2,198.28	2,143.36	54.92	40.028	
8,200.00	7,557.37	7,576.29	7,546.92	29.92	27.39	89.23	316.94	-459.10	2,239.53	2,184.60	54.94	40.766	
8,300.00	7,557.36	7,577.43	7,548.06	30.26	27.39	89.29	316.93	-459.14	2,328.49	2,273.51	54.98	42.354	
8,400.00	7,557.36	7,578.58	7,549.21	30.63	27.40	89.36	316.91	-459.18	2,418.31	2,363.30	55.02	43.956	
8,500.00	7,557.36	7,579.74	7,550.37	31.00	27.40	89.42	316.90	-459.21	2,508.90	2,453.85	55.06	45.570	
8,600.00	7,557.35	7,580.92	7,551.55	31.39	27.40	89.48	316.88	-459.25	2,600.18	2,545.09	55.09	47.195	
8,700.00	7,557.35	12,068.72	9,947.91	31.79	49.77	153.58	-2,112.14	-444.29	2,666.08	2,610.02	56.06	47.556	
8,800.00	7,557.35	12,161.16	9,948.13	32.21	50.73	153.50	-2,204.56	-442.49	2,668.33	2,611.08	57.25	46.605	
8,900.00	7,557.34	12,262.67	9,948.61	32.64	51.79	153.42	-2,306.04	-440.49	2,670.79	2,612.26	58.53	45.634	
9,000.00	7,557.34	12,363.47	9,949.06	33.08	52.87	153.34	-2,406.82	-438.30	2,673.12	2,613.30	59.82	44.686	

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 4H
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 4H	**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	7,557.34	12,447.39	9,949.32	33.54	53.78	153.26	-2,490.73	-437.16	2,675.73	2,614.69	61.04	43.835	
9,200.00	7,557.33	12,529.48	9,949.11	34.00	54.68	153.13	-2,572.81	-438.19	2,679.01	2,616.71	62.30	43.001	
9,300.00	7,557.33	12,613.79	9,949.07	34.48	55.60	152.99	-2,657.10	-440.09	2,682.94	2,619.33	63.61	42.181	
9,400.00	7,557.32	12,709.39	9,949.48	34.96	56.67	152.84	-2,752.68	-442.26	2,687.33	2,622.32	65.01	41.338	
9,500.00	7,557.32	12,812.37	9,949.97	35.46	57.83	152.68	-2,855.63	-444.29	2,691.64	2,625.15	66.48	40.486	
9,600.00	7,557.32	12,913.39	9,950.40	35.97	58.98	152.52	-2,956.64	-446.21	2,695.89	2,627.93	67.96	39.667	
9,700.00	7,557.31	13,008.00	9,950.80	36.48	60.07	152.37	-3,051.23	-448.10	2,700.21	2,630.80	69.42	38.900	
9,800.00	7,557.31	13,106.74	9,951.46	37.00	61.22	152.22	-3,149.94	-449.98	2,704.72	2,633.81	70.91	38.141	
9,900.00	7,557.31	13,207.15	9,952.17	37.54	62.40	152.08	-3,250.34	-451.73	2,709.21	2,636.77	72.44	37.400	
10,000.00	7,557.30	13,361.78	9,952.67	38.08	64.25	151.88	-3,404.96	-452.55	2,712.87	2,638.47	74.40	36.461	
10,100.00	7,557.30	13,481.12	9,952.21	38.63	65.70	151.77	-3,524.28	-450.48	2,714.74	2,638.67	76.07	35.685	
10,200.00	7,557.30	13,584.99	9,951.86	39.18	66.97	151.68	-3,628.12	-448.16	2,716.47	2,638.84	77.63	34.991	
10,300.00	7,557.29	13,684.90	9,951.49	39.74	68.20	151.60	-3,728.01	-445.76	2,718.10	2,638.92	79.17	34.331	
10,400.00	7,557.29	13,781.96	9,951.03	40.31	69.41	151.52	-3,825.04	-443.73	2,719.79	2,639.08	80.71	33.699	
10,500.00	7,557.28	13,883.19	9,950.62	40.89	70.67	151.43	-3,926.25	-441.58	2,721.53	2,639.24	82.29	33.074	
10,600.00	7,557.28	13,980.00	9,950.34	41.47	71.89	151.35	-4,023.03	-439.43	2,723.33	2,639.49	83.84	32.483	
10,700.00	7,557.28	14,078.67	9,950.12	42.06	73.14	151.27	-4,121.68	-437.26	2,725.21	2,639.79	85.42	31.905	
10,800.00	7,557.27	14,172.08	9,949.89	42.66	74.32	151.19	-4,215.07	-435.50	2,727.22	2,640.26	86.96	31.360	
10,900.00	7,557.27	14,283.27	9,949.60	43.26	75.74	151.10	-4,326.23	-433.00	2,729.04	2,640.37	88.67	30.779	
11,000.00	7,557.27	14,370.45	9,949.54	43.86	76.86	151.03	-4,413.39	-431.00	2,731.01	2,640.84	90.17	30.286	
11,100.00	7,557.26	14,463.71	9,949.75	44.47	78.06	150.96	-4,506.63	-428.98	2,733.32	2,641.58	91.74	29.794	
11,200.00	7,557.26	14,555.06	9,950.19	45.09	79.24	150.89	-4,597.96	-427.14	2,735.93	2,642.63	93.30	29.325	
11,300.00	7,557.26	14,641.00	9,950.64	45.71	80.36	150.82	-4,683.88	-425.50	2,738.67	2,643.86	94.81	28.885	
11,400.00	7,557.25	14,736.00	9,951.09	46.33	81.59	150.72	-4,778.87	-425.19	2,742.10	2,645.66	96.44	28.433	
11,500.00	7,557.25	14,806.04	9,951.59	46.96	82.49	150.63	-4,848.91	-426.01	2,746.37	2,648.52	97.85	28.066	
11,600.00	7,557.24	14,885.46	9,952.49	47.60	83.52	150.52	-4,928.31	-427.08	2,751.25	2,651.89	99.36	27.691	
11,700.00	7,557.24	14,966.24	9,953.56	48.24	84.57	150.40	-5,009.06	-429.28	2,756.94	2,656.05	100.89	27.326	
11,800.00	7,557.24	15,090.21	9,956.15	48.88	86.19	150.24	-5,132.97	-431.41	2,762.92	2,660.07	102.85	26.864	
11,900.00	7,557.23	15,194.39	9,958.43	49.52	87.56	150.15	-5,237.13	-430.85	2,767.78	2,663.19	104.58	26.465	
12,000.00	7,557.23	15,286.03	9,960.39	50.17	88.78	150.07	-5,328.75	-430.89	2,772.90	2,666.70	106.20	26.109	
12,100.00	7,557.23	15,441.44	9,962.10	50.82	90.83	149.91	-5,484.14	-430.51	2,776.89	2,668.42	108.46	25.602	
12,200.00	7,557.22	15,531.96	9,962.60	51.48	92.04	149.82	-5,574.67	-429.95	2,780.33	2,670.23	110.10	25.254	
12,300.00	7,557.22	15,625.97	9,963.19	52.14	93.29	149.72	-5,668.67	-429.92	2,784.13	2,672.35	111.78	24.908	
12,400.00	7,557.22	15,723.67	9,963.79	52.80	94.59	149.61	-5,766.37	-429.92	2,787.95	2,674.46	113.50	24.564	
12,500.00	7,557.21	15,844.72	9,964.12	53.46	96.20	149.46	-5,887.41	-430.62	2,791.84	2,676.37	115.47	24.177	
12,600.00	7,557.21	15,963.39	9,963.59	54.13	97.80	149.33	-6,006.08	-430.13	2,794.55	2,677.13	117.42	23.800	
12,700.00	7,557.20	16,067.05	9,963.03	54.80	99.19	149.22	-6,109.74	-429.28	2,796.99	2,677.78	119.22	23.462	
12,800.00	7,557.20	16,162.02	9,962.49	55.48	100.47	149.12	-6,204.70	-428.60	2,799.48	2,678.54	120.94	23.148	
12,900.00	7,557.20	16,256.98	9,961.94	56.15	101.75	149.01	-6,299.66	-428.27	2,802.14	2,679.48	122.67	22.844	
13,000.00	7,557.19	16,359.19	9,961.54	56.83	103.13	148.90	-6,401.87	-427.88	2,804.97	2,680.50	124.47	22.535	
13,100.00	7,557.19	16,484.14	9,960.66	57.51	104.83	148.78	-6,526.80	-425.86	2,806.83	2,680.34	126.49	22.191	
13,200.00	7,557.19	16,567.20	9,960.28	58.19	105.96	148.71	-6,609.84	-424.41	2,808.91	2,680.82	128.09	21.929	
13,300.00	7,557.18	16,650.58	9,960.02	58.88	107.09	148.62	-6,693.22	-423.78	2,811.64	2,681.93	129.71	21.676	
13,400.00	7,557.18	16,740.32	9,959.78	59.57	108.31	148.52	-6,782.96	-423.80	2,814.82	2,683.40	131.41	21.419	
13,500.00	7,557.18	16,827.23	9,959.69	60.25	109.49	148.41	-6,869.87	-424.23	2,818.40	2,685.31	133.09	21.176	
13,600.00	7,557.17	16,910.00	9,959.75	60.95	110.61	148.30	-6,952.63	-425.36	2,822.59	2,687.85	134.74	20.949	
13,700.00	7,557.17	17,018.02	9,959.74	61.64	112.08	148.15	-7,060.63	-427.22	2,826.92	2,690.25	136.67	20.684	
13,800.00	7,557.16	17,120.82	9,959.58	62.33	113.48	148.00	-7,163.42	-428.89	2,831.10	2,692.54	138.56	20.433	
13,900.00	7,557.16	17,236.91	9,959.36	63.03	115.06	147.85	-7,279.51	-429.88	2,834.85	2,694.27	140.58	20.165	
14,000.00	7,557.16	17,370.34	9,959.36	63.73	116.89	147.72	-7,412.93	-428.89	2,837.97	2,695.23	142.75	19.881	
14,100.00	7,557.15	17,500.20	9,958.51	64.43	118.68	147.61	-7,542.75	-426.06	2,839.73	2,694.88	144.85	19.605	
14,200.00	7,557.15	17,627.15	9,956.00	65.13	120.43	147.48	-7,669.65	-423.84	2,840.63	2,693.69	146.94	19.332	

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 4H
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 4H	**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
14,300.00	7,557.15	17,716.81	9,952.78	65.84	121.67	147.36	-7,759.25	-423.53	2,840.95	2,692.23	148.72	19.102	
14,400.00	7,557.14	17,812.65	9,949.70	66.54	122.99	147.21	-7,855.05	-423.90	2,841.96	2,691.38	150.58	18.874	
14,500.00	7,557.14	17,896.97	9,947.03	67.25	124.15	147.09	-7,939.33	-423.97	2,842.92	2,690.61	152.31	18.666	
14,600.00	7,557.14	17,969.49	9,945.84	67.96	125.15	147.00	-8,011.83	-423.76	2,844.89	2,691.01	153.89	18.487	
14,700.00	7,557.13	18,062.38	9,944.66	68.66	126.43	146.88	-8,104.72	-424.09	2,847.56	2,691.87	155.70	18.289	
14,800.00	7,557.13	18,199.09	9,942.62	69.38	128.32	146.72	-8,241.41	-423.32	2,849.57	2,691.61	157.96	18.040	
14,900.00	7,557.12	18,290.15	9,941.97	70.09	129.59	146.66	-8,332.42	-420.64	2,850.95	2,691.26	159.69	17.853	
15,000.00	7,557.12	18,374.53	9,942.03	70.80	130.77	146.61	-8,416.77	-418.13	2,852.95	2,691.60	161.35	17.682	
15,100.00	7,557.12	18,497.24	9,941.95	71.52	132.48	146.53	-8,539.43	-414.90	2,855.09	2,691.69	163.40	17.473	
15,200.00	7,557.11	18,579.44	9,941.85	72.23	133.62	146.48	-8,621.59	-412.15	2,856.75	2,691.71	165.04	17.310	
15,300.00	7,557.11	18,673.62	9,942.19	72.95	134.94	146.43	-8,715.72	-409.39	2,859.03	2,692.23	166.80	17.141	
15,400.00	7,557.11	18,774.99	9,942.44	73.67	136.35	146.37	-8,817.06	-406.55	2,861.28	2,692.64	168.63	16.967	
15,500.00	7,557.10	18,880.52	9,942.36	74.39	137.83	146.30	-8,922.54	-403.87	2,863.42	2,692.90	170.53	16.792	
15,600.00	7,557.10	18,981.00	9,941.90	75.11	139.23	146.23	-9,023.00	-401.33	2,865.25	2,692.87	172.38	16.622	
15,700.00	7,557.10	19,074.00	9,942.31	75.83	140.54	146.18	-9,115.95	-398.38	2,867.47	2,693.35	174.13	16.468	
15,800.00	7,557.09	19,189.45	9,941.73	76.55	142.15	146.09	-9,231.36	-396.21	2,869.66	2,693.50	176.15	16.291	
15,900.00	7,557.09	19,280.15	9,939.94	77.27	143.42	145.97	-9,322.05	-396.00	2,871.54	2,693.56	177.97	16.135	
16,000.00	7,557.08	19,367.72	9,938.62	78.00	144.64	145.87	-9,409.60	-395.85	2,873.84	2,694.08	179.75	15.988	
16,100.00	7,557.08	19,450.00	9,937.64	78.72	145.79	145.77	-9,491.88	-395.65	2,876.42	2,694.95	181.47	15.851	
16,200.00	7,557.08	19,544.00	9,937.33	79.45	147.10	145.67	-9,585.88	-395.24	2,879.58	2,696.28	183.30	15.710	
16,300.00	7,557.07	19,629.35	9,937.75	80.18	148.29	145.59	-9,671.22	-394.81	2,883.34	2,698.32	185.02	15.584	
16,400.00	7,557.07	19,764.69	9,937.91	80.90	150.19	145.49	-9,806.54	-392.35	2,885.93	2,698.64	187.29	15.409	
16,500.00	7,557.07	19,827.00	9,938.20	81.63	151.06	145.44	-9,868.84	-391.63	2,889.29	2,700.55	188.75	15.308	
16,600.00	7,557.06	19,930.54	9,938.61	82.36	152.51	145.34	-9,972.38	-391.55	2,893.28	2,702.58	190.70	15.172	
16,700.00	7,557.06	20,035.60	9,938.64	83.09	153.98	145.22	-10,077.44	-391.67	2,897.09	2,704.41	192.68	15.036	
16,800.00	7,557.06	20,162.59	9,937.62	83.82	155.76	145.08	-10,204.42	-391.62	2,900.09	2,705.15	194.94	14.877	
16,900.00	7,557.05	20,256.04	9,936.73	84.55	157.07	144.98	-10,297.87	-391.24	2,902.81	2,706.02	196.79	14.750	
17,000.00	7,557.05	20,353.65	9,936.28	85.29	158.44	144.88	-10,395.48	-390.77	2,905.90	2,707.21	198.69	14.625	
17,100.00	7,557.04	20,464.73	9,935.41	86.02	160.00	144.76	-10,506.55	-390.22	2,908.73	2,707.97	200.76	14.489	
17,200.00	7,557.04	20,554.42	9,934.55	86.75	161.26	144.66	-10,596.24	-389.85	2,911.48	2,708.90	202.58	14.372	
17,300.00	7,557.04	20,640.23	9,934.15	87.49	162.46	144.57	-10,682.05	-389.64	2,914.73	2,710.38	204.35	14.264	
17,400.00	7,557.03	20,723.37	9,934.20	88.22	163.63	144.49	-10,765.19	-389.53	2,918.48	2,712.41	206.08	14.162	
17,500.00	7,557.03	20,825.04	9,934.56	88.96	165.05	144.38	-10,866.86	-389.82	2,922.73	2,714.69	208.04	14.049	
17,600.00	7,557.03	20,918.04	9,934.77	89.70	166.36	144.29	-10,959.86	-389.72	2,926.67	2,716.78	209.89	13.944	
17,700.00	7,557.02	21,019.00	9,935.10	90.43	167.78	144.18	-11,060.81	-390.39	2,931.13	2,719.27	211.86	13.835	
17,800.00	7,557.02	21,144.41	9,934.46	91.17	169.54	144.04	-11,186.22	-390.72	2,934.63	2,720.49	214.14	13.704	
17,900.00	7,557.02	21,242.00	9,933.58	91.91	170.91	143.92	-11,283.80	-391.04	2,937.93	2,721.84	216.09	13.596	
18,000.00	7,557.01	21,310.01	9,933.98	92.65	171.87	143.86	-11,351.81	-390.89	2,942.05	2,724.42	217.63	13.519	
18,100.00	7,557.01	21,398.00	9,935.23	93.39	173.11	143.79	-11,439.79	-390.34	2,946.68	2,727.29	219.39	13.431	
18,200.00	7,557.00	21,398.00	9,935.23	94.13	173.11	143.79	-11,439.79	-390.34	2,953.31	2,733.40	219.91	13.430	SF
18,300.00	7,557.00	21,398.00	9,935.23	94.87	173.11	143.79	-11,439.79	-390.34	2,963.30	2,743.10	220.20	13.457	
18,318.93	7,557.00	21,398.00	9,935.23	95.01	173.11	143.79	-11,439.79	-390.34	2,965.57	2,745.33	220.23	13.466	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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
0.00	0.00	0.00	0.00	0.00	0.00	-88.91	0.76	-39.98	39.99				
100.00	100.00	100.00	100.00	0.28	0.28	-88.91	0.76	-39.98	39.99	39.44	0.55	72.434	
200.00	200.00	200.00	200.00	0.63	0.63	-88.91	0.76	-39.98	39.99	38.72	1.27	31.511	
300.00	300.00	300.00	300.00	0.99	0.99	-88.91	0.76	-39.98	39.99	38.00	1.99	20.135	
400.00	400.00	400.00	400.00	1.35	1.35	-88.91	0.76	-39.98	39.99	37.28	2.70	14.794	
500.00	500.00	500.00	500.00	1.71	1.71	-88.91	0.76	-39.98	39.99	36.57	3.42	11.693	
600.00	600.00	600.00	600.00	2.07	2.07	-88.91	0.76	-39.98	39.99	35.85	4.14	9.666	
700.00	700.00	700.00	700.00	2.43	2.43	-88.91	0.76	-39.98	39.99	35.13	4.85	8.238	
800.00	800.00	800.00	800.00	2.79	2.79	-88.91	0.76	-39.98	39.99	34.42	5.57	7.178	
900.00	900.00	900.00	900.00	3.14	3.14	-88.91	0.76	-39.98	39.99	33.70	6.29	6.360	
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	-88.91	0.76	-39.98	39.99	32.98	7.00	5.709	
1,100.00	1,100.00	1,100.00	1,100.00	3.86	3.86	-88.91	0.76	-39.98	39.99	32.27	7.72	5.179	
1,200.00	1,200.00	1,200.00	1,200.00	4.22	4.22	-88.91	0.76	-39.98	39.99	31.55	8.44	4.739	
1,300.00	1,300.00	1,300.00	1,300.00	4.58	4.58	-88.91	0.76	-39.98	39.99	30.83	9.16	4.368	
1,400.00	1,400.00	1,400.00	1,400.00	4.94	4.94	-88.91	0.76	-39.98	39.99	30.11	9.87	4.050	
1,500.00	1,500.00	1,500.00	1,500.00	5.29	5.29	-88.91	0.76	-39.98	39.99	29.40	10.59	3.776	
1,600.00	1,600.00	1,600.00	1,600.00	5.65	5.65	-88.91	0.76	-39.98	39.99	28.68	11.31	3.537	
1,700.00	1,700.00	1,700.00	1,700.00	6.01	6.01	-88.91	0.76	-39.98	39.99	27.96	12.02	3.326	
1,800.00	1,800.00	1,800.00	1,800.00	6.37	6.37	-88.91	0.76	-39.98	39.99	27.25	12.74	3.139	
1,900.00	1,900.00	1,900.69	1,900.67	6.73	6.71	-91.12	-0.77	-39.08	39.10	25.66	13.44	2.909	
2,000.00	2,000.00	2,001.14	2,000.97	7.09	7.04	-98.32	-5.33	-36.40	36.80	22.68	14.12	2.606	
2,100.00	2,099.98	2,101.25	2,100.70	7.43	7.38	106.75	-12.88	-31.96	34.93	20.13	14.80	2.361	
2,160.38	2,160.29	2,161.58	2,160.62	7.63	7.58	99.76	-18.89	-28.44	34.61	19.41	15.20	2.278	CC
2,200.00	2,199.84	2,201.12	2,199.81	7.76	7.71	95.14	-23.41	-25.78	34.75	19.29	15.46	2.248	ES, SF
2,300.00	2,299.45	2,300.74	2,298.19	8.09	8.04	83.97	-36.88	-17.87	36.31	20.19	16.12	2.253	
2,400.00	2,398.70	2,400.56	2,396.45	8.42	8.38	76.23	-52.04	-8.96	38.90	22.12	16.77	2.319	
2,500.00	2,497.47	2,500.52	2,494.84	8.76	8.72	74.12	-67.24	-0.03	41.02	23.57	17.45	2.351	
2,600.00	2,595.62	2,600.49	2,593.25	9.10	9.06	76.74	-82.44	8.90	42.25	24.11	18.14	2.330	
2,644.93	2,639.49	2,645.37	2,637.43	9.25	9.22	79.36	-89.26	12.91	42.61	24.16	18.45	2.310	
2,700.00	2,693.18	2,700.37	2,691.56	9.44	9.41	83.09	-97.62	17.83	43.11	24.28	18.83	2.289	
2,800.00	2,790.65	2,800.24	2,789.87	9.78	9.76	89.57	-112.81	26.75	44.48	24.95	19.53	2.278	
2,900.00	2,888.13	2,900.11	2,888.17	10.13	10.11	95.60	-127.99	35.67	46.38	26.15	20.23	2.293	
3,000.00	2,985.61	2,999.97	2,986.47	10.48	10.46	101.10	-143.17	44.59	48.75	27.82	20.93	2.329	
3,100.00	3,083.08	3,099.84	3,084.78	10.83	10.82	106.05	-158.36	53.51	51.53	29.90	21.63	2.382	
3,200.00	3,180.56	3,199.71	3,183.08	11.19	11.18	110.46	-173.54	62.43	54.65	32.31	22.33	2.447	
3,300.00	3,278.04	3,299.58	3,281.38	11.55	11.54	114.38	-188.72	71.35	58.06	35.02	23.04	2.520	
3,400.00	3,375.51	3,399.44	3,379.68	11.91	11.90	117.85	-203.90	80.27	61.71	37.96	23.75	2.598	
3,500.00	3,472.99	3,499.31	3,477.99	12.27	12.26	120.92	-219.09	89.19	65.56	41.09	24.47	2.679	
3,600.00	3,570.47	3,599.18	3,576.29	12.64	12.62	123.65	-234.27	98.11	69.58	44.39	25.19	2.763	
3,700.00	3,667.94	3,699.05	3,674.59	13.00	12.98	126.07	-249.45	107.03	73.74	47.83	25.91	2.846	
3,800.00	3,765.42	3,798.91	3,772.89	13.37	13.35	128.23	-264.64	115.95	78.01	51.38	26.63	2.929	
3,900.00	3,862.90	3,898.78	3,871.20	13.74	13.71	130.16	-279.82	124.87	82.39	55.03	27.36	3.011	
4,000.00	3,960.37	3,998.65	3,969.50	14.11	14.08	131.90	-295.00	133.79	86.85	58.76	28.09	3.091	
4,100.00	4,057.85	4,098.52	4,067.80	14.48	14.45	133.47	-310.18	142.71	91.38	62.55	28.83	3.170	
4,200.00	4,155.33	4,198.38	4,166.11	14.86	14.81	134.89	-325.37	151.63	95.97	66.41	29.56	3.246	
4,300.00	4,252.80	4,298.25	4,264.41	15.23	15.18	136.17	-340.55	160.55	100.62	70.32	30.30	3.321	
4,400.00	4,350.28	4,398.12	4,362.71	15.61	15.55	137.35	-355.73	169.48	105.31	74.27	31.04	3.393	
4,500.00	4,447.76	4,497.99	4,461.01	15.98	15.92	138.42	-370.92	178.40	110.05	78.26	31.78	3.463	
4,600.00	4,545.23	4,597.85	4,559.32	16.36	16.29	139.40	-386.10	187.32	114.82	82.29	32.53	3.530	
4,700.00	4,642.71	4,697.72	4,657.62	16.74	16.66	140.31	-401.28	196.24	119.62	86.34	33.27	3.595	
4,800.00	4,740.19	4,797.59	4,755.92	17.11	17.03	141.14	-416.46	205.16	124.44	90.42	34.02	3.658	
4,900.00	4,837.66	4,897.46	4,854.23	17.49	17.40	141.92	-431.65	214.08	129.29	94.53	34.77	3.719	

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 4H
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 4H	**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
5,000.00	4,935.14	4,997.33	4,952.53	17.87	17.78	142.63	-446.83	223.00	134.17	98.65	35.51	3.778	
5,100.00	5,032.62	5,097.19	5,050.83	18.25	18.15	143.30	-462.01	231.92	139.06	102.80	36.26	3.835	
5,200.00	5,130.09	5,197.06	5,149.13	18.64	18.52	143.92	-477.20	240.84	143.97	106.96	37.02	3.889	
5,300.00	5,227.57	5,296.93	5,247.44	19.02	18.89	144.50	-492.38	249.76	148.90	111.13	37.77	3.942	
5,400.00	5,325.05	5,396.80	5,345.74	19.40	19.27	145.05	-507.56	258.68	153.84	115.32	38.52	3.994	
5,500.00	5,422.52	5,496.66	5,444.04	19.78	19.64	145.55	-522.75	267.60	158.79	119.52	39.28	4.043	
5,600.00	5,520.00	5,596.53	5,542.35	20.16	20.02	146.03	-537.93	276.52	163.76	123.73	40.03	4.091	
5,700.00	5,617.48	5,696.40	5,640.65	20.55	20.39	146.48	-553.11	285.44	168.73	127.95	40.79	4.137	
5,800.00	5,714.95	5,796.27	5,738.95	20.93	20.76	146.91	-568.29	294.36	173.72	132.18	41.54	4.182	
5,900.00	5,812.43	5,896.13	5,837.25	21.31	21.14	147.31	-583.48	303.28	178.71	136.41	42.30	4.225	
6,000.00	5,909.91	5,996.00	5,935.56	21.70	21.51	147.69	-598.66	312.21	183.71	140.66	43.06	4.267	
6,100.00	6,007.38	6,095.87	6,033.86	22.08	21.89	148.05	-613.84	321.13	188.73	144.91	43.82	4.307	
6,200.00	6,104.86	6,195.74	6,132.16	22.47	22.26	148.39	-629.03	330.05	193.74	149.17	44.57	4.347	
6,300.00	6,202.34	6,295.60	6,230.47	22.85	22.64	148.71	-644.21	338.97	198.77	153.43	45.33	4.385	
6,400.00	6,299.81	6,395.47	6,328.77	23.24	23.02	149.02	-659.39	347.89	203.80	157.70	46.09	4.421	
6,421.23	6,320.51	6,416.67	6,349.63	23.32	23.10	149.08	-662.61	349.78	204.87	158.61	46.25	4.429	
6,500.00	6,397.52	6,495.38	6,427.11	23.62	23.39	149.19	-674.58	356.81	207.90	161.05	46.85	4.437	
6,600.00	6,495.90	6,595.36	6,525.53	24.00	23.77	148.86	-689.78	365.74	209.08	161.47	47.61	4.392	
6,700.00	6,594.84	6,695.29	6,623.89	24.37	24.15	147.99	-704.97	374.67	207.30	158.94	48.36	4.286	
6,800.00	6,694.23	6,795.06	6,722.09	24.74	24.52	146.55	-720.14	383.58	202.65	153.53	49.11	4.126	
6,900.00	6,793.94	6,894.53	6,820.00	25.09	24.90	144.43	-735.26	392.47	195.27	145.41	49.86	3.917	
7,000.00	6,893.85	6,993.59	6,917.51	25.44	25.27	141.47	-750.32	401.31	185.42	134.82	50.60	3.665	
7,066.16	6,960.00	7,058.83	6,981.74	25.67	25.52	-76.97	-760.24	407.14	177.73	126.65	51.08	3.480	
7,100.00	6,993.82	7,092.30	7,014.67	25.78	25.64	113.74	-765.33	410.13	174.04	122.72	51.32	3.391	
7,150.00	7,043.55	7,142.09	7,063.69	25.96	25.83	113.50	-772.90	414.58	170.11	118.42	51.69	3.291	
7,200.00	7,092.63	7,191.98	7,112.80	26.14	26.02	114.43	-780.48	419.04	167.95	115.88	52.06	3.226	
7,231.04	7,122.62	7,222.84	7,143.17	26.26	26.14	115.60	-785.18	421.79	167.55	115.26	52.29	3.204	
7,250.00	7,140.71	7,241.59	7,161.62	26.34	26.21	116.53	-788.03	423.47	167.71	115.28	52.43	3.199	
7,300.00	7,187.41	7,290.53	7,209.80	26.53	26.39	119.66	-795.47	427.84	169.83	117.04	52.79	3.217	
7,350.00	7,232.38	7,338.43	7,256.95	26.73	26.57	123.51	-802.75	432.12	174.91	121.77	53.15	3.291	
7,400.00	7,275.27	7,384.93	7,302.73	26.93	26.75	127.74	-809.82	436.27	183.63	130.14	53.49	3.433	
7,450.00	7,315.77	7,427.75	7,344.90	27.13	26.91	131.75	-816.18	440.01	196.72	142.90	53.82	3.655	
7,500.00	7,353.56	7,467.37	7,384.01	27.34	27.06	135.33	-821.60	443.19	214.93	160.80	54.14	3.970	
7,550.00	7,388.35	7,503.98	7,420.24	27.54	27.19	138.29	-826.20	445.89	238.30	183.88	54.42	4.379	
7,600.00	7,419.89	7,537.28	7,453.24	27.74	27.32	140.48	-830.03	448.14	266.57	211.89	54.68	4.875	
7,650.00	7,447.92	7,567.01	7,482.74	27.94	27.43	141.79	-833.17	449.99	299.29	244.39	54.90	5.451	
7,700.00	7,472.24	7,592.97	7,508.54	28.14	27.52	142.13	-835.69	451.47	335.92	280.83	55.09	6.098	
7,750.00	7,492.67	7,615.05	7,530.50	28.33	27.60	141.34	-837.68	452.64	375.89	320.64	55.25	6.804	
7,800.00	7,509.03	7,633.19	7,548.55	28.52	27.67	139.11	-839.21	453.54	418.63	363.26	55.37	7.560	
7,816.16	7,513.43	7,638.20	7,553.54	28.58	27.69	138.00	-839.61	453.78	432.94	377.53	55.41	7.814	
7,900.00	7,532.50	7,660.36	7,575.62	28.88	27.77	133.34	-841.31	454.77	508.96	453.41	55.54	9.163	
8,000.00	7,548.24	7,679.77	7,594.96	29.24	27.84	124.66	-842.68	455.58	602.11	546.45	55.66	10.818	
8,100.00	7,556.27	7,700.00	7,615.13	29.58	27.91	114.44	-843.98	456.34	697.09	641.29	55.81	12.491	
8,153.26	7,557.37	7,700.00	7,615.13	29.76	27.91	105.74	-843.98	456.34	748.04	692.25	55.79	13.408	
8,200.00	7,557.37	7,700.00	7,615.13	29.92	27.91	105.74	-843.98	456.34	792.96	737.18	55.78	14.215	
8,300.00	7,557.36	9,083.07	8,436.28	30.26	33.08	178.19	-1,662.99	687.14	879.92	847.40	32.52	27.055	
8,400.00	7,557.36	9,212.70	8,437.43	30.63	33.51	177.75	-1,792.58	688.87	880.75	847.85	32.90	26.774	
8,500.00	7,557.36	9,312.50	8,437.43	31.00	33.85	177.35	-1,892.39	689.06	881.02	847.18	33.83	26.039	
8,600.00	7,557.35	9,412.30	8,437.42	31.39	34.20	176.94	-1,992.19	689.26	881.33	846.50	34.83	25.304	
8,700.00	7,557.35	9,512.10	8,437.42	31.79	34.56	176.53	-2,091.99	689.45	881.69	845.82	35.88	24.575	
8,800.00	7,557.35	9,611.90	8,437.41	32.21	34.94	176.12	-2,191.79	689.65	882.10	845.13	36.97	23.859	
8,900.00	7,557.34	9,711.70	8,437.41	32.64	35.32	175.71	-2,291.59	689.85	882.55	844.44	38.11	23.159	

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 4H
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 4H	**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
9,000.00	7,557.34	9,811.51	8,437.41	33.08	35.72	175.31	-2,391.39	690.04	883.04	843.75	39.29	22.477	
9,100.00	7,557.34	9,911.31	8,437.40	33.54	36.14	174.90	-2,491.19	690.24	883.58	843.08	40.50	21.817	
9,200.00	7,557.33	10,011.11	8,437.40	34.00	36.56	174.49	-2,590.99	690.43	884.16	842.42	41.75	21.180	
9,300.00	7,557.33	10,110.91	8,437.39	34.48	36.99	174.09	-2,690.79	690.63	884.79	841.77	43.02	20.566	
9,400.00	7,557.32	10,210.71	8,437.39	34.96	37.44	173.68	-2,790.59	690.83	885.46	841.13	44.33	19.976	
9,500.00	7,557.32	10,310.51	8,437.38	35.46	37.89	173.28	-2,890.39	691.02	886.18	840.52	45.66	19.410	
9,600.00	7,557.32	10,410.31	8,437.38	35.97	38.35	172.88	-2,990.20	691.22	886.94	839.93	47.01	18.867	
9,700.00	7,557.31	10,510.11	8,437.38	36.48	38.83	172.47	-3,090.00	691.41	887.74	839.36	48.38	18.348	
9,800.00	7,557.31	10,609.91	8,437.37	37.00	39.31	172.07	-3,189.80	691.61	888.59	838.81	49.78	17.852	
9,900.00	7,557.31	10,709.72	8,437.37	37.54	39.80	171.67	-3,289.60	691.81	889.48	838.30	51.19	17.377	
10,000.00	7,557.30	10,809.52	8,437.36	38.08	40.30	171.27	-3,389.40	692.00	890.42	837.80	52.62	16.923	
10,100.00	7,557.30	10,909.32	8,437.36	38.63	40.80	170.87	-3,489.20	692.20	891.40	837.34	54.06	16.489	
10,200.00	7,557.30	11,009.12	8,437.35	39.18	41.32	170.47	-3,589.00	692.39	892.42	836.91	55.52	16.075	
10,300.00	7,557.29	11,108.92	8,437.35	39.74	41.84	170.07	-3,688.80	692.59	893.49	836.50	56.99	15.679	
10,400.00	7,557.29	11,208.72	8,437.35	40.31	42.37	169.67	-3,788.60	692.79	894.60	836.13	58.47	15.301	
10,500.00	7,557.28	11,308.52	8,437.34	40.89	42.90	169.28	-3,888.40	692.98	895.75	835.79	59.96	14.939	
10,600.00	7,557.28	11,408.32	8,437.34	41.47	43.45	168.88	-3,988.20	693.18	896.95	835.49	61.46	14.593	
10,700.00	7,557.28	11,508.12	8,437.33	42.06	44.00	168.49	-4,088.01	693.37	898.19	835.21	62.97	14.263	
10,800.00	7,557.27	11,607.93	8,437.33	42.66	44.55	168.10	-4,187.81	693.57	899.47	834.97	64.50	13.946	
10,900.00	7,557.27	11,707.73	8,437.32	43.26	45.11	167.71	-4,287.61	693.77	900.79	834.77	66.02	13.643	
11,000.00	7,557.27	11,807.53	8,437.32	43.86	45.68	167.31	-4,387.41	693.96	902.16	834.60	67.56	13.354	
11,100.00	7,557.26	11,907.33	8,437.31	44.47	46.26	166.93	-4,487.21	694.16	903.56	834.46	69.10	13.076	
11,200.00	7,557.26	12,007.13	8,437.31	45.09	46.83	166.54	-4,587.01	694.35	905.01	834.36	70.65	12.810	
11,300.00	7,557.26	12,106.93	8,437.31	45.71	47.42	166.15	-4,686.81	694.55	906.50	834.30	72.21	12.554	
11,400.00	7,557.25	12,206.73	8,437.30	46.33	48.01	165.77	-4,786.61	694.75	908.04	834.27	73.77	12.310	
11,500.00	7,557.25	12,306.53	8,437.30	46.96	48.60	165.38	-4,886.41	694.94	909.61	834.28	75.33	12.075	
11,600.00	7,557.24	12,406.33	8,437.29	47.60	49.20	165.00	-4,986.21	695.14	911.22	834.32	76.90	11.849	
11,700.00	7,557.24	12,506.14	8,437.29	48.24	49.80	164.62	-5,086.01	695.33	912.88	834.40	78.48	11.632	
11,800.00	7,557.24	12,605.94	8,437.28	48.88	50.41	164.24	-5,185.82	695.53	914.57	834.52	80.05	11.424	
11,900.00	7,557.23	12,705.74	8,437.28	49.52	51.02	163.86	-5,285.62	695.73	916.31	834.67	81.64	11.224	
12,000.00	7,557.23	12,805.54	8,437.28	50.17	51.63	163.48	-5,385.42	695.92	918.08	834.86	83.22	11.032	
12,100.00	7,557.23	12,905.34	8,437.27	50.82	52.25	163.10	-5,485.22	696.12	919.90	835.09	84.81	10.846	
12,200.00	7,557.22	13,005.14	8,437.27	51.48	52.87	162.73	-5,585.02	696.31	921.75	835.35	86.40	10.668	
12,300.00	7,557.22	13,104.94	8,437.26	52.14	53.50	162.36	-5,684.82	696.51	923.65	835.65	88.00	10.496	
12,400.00	7,557.22	13,204.74	8,437.26	52.80	54.13	161.99	-5,784.62	696.71	925.58	835.99	89.59	10.331	
12,500.00	7,557.21	13,304.54	8,437.25	53.46	54.76	161.62	-5,884.42	696.90	927.55	836.36	91.19	10.171	
12,600.00	7,557.21	13,404.34	8,437.25	54.13	55.40	161.25	-5,984.22	697.10	929.56	836.77	92.79	10.018	
12,700.00	7,557.20	13,504.15	8,437.24	54.80	56.04	160.88	-6,084.02	697.29	931.61	837.21	94.40	9.869	
12,800.00	7,557.20	13,603.95	8,437.24	55.48	56.68	160.52	-6,183.82	697.49	933.70	837.69	96.00	9.726	
12,900.00	7,557.20	13,703.75	8,437.24	56.15	57.33	160.15	-6,283.62	697.69	935.82	838.21	97.61	9.588	
13,000.00	7,557.19	13,803.55	8,437.23	56.83	57.98	159.79	-6,383.43	697.88	937.98	838.77	99.22	9.454	
13,100.00	7,557.19	13,903.35	8,437.23	57.51	58.63	159.43	-6,483.23	698.08	940.18	839.36	100.82	9.325	
13,200.00	7,557.19	14,003.15	8,437.22	58.19	59.28	159.07	-6,583.03	698.27	942.42	839.98	102.44	9.200	
13,300.00	7,557.18	14,102.95	8,437.22	58.88	59.94	158.72	-6,682.83	698.47	944.69	840.65	104.05	9.080	
13,400.00	7,557.18	14,202.75	8,437.21	59.57	60.60	158.36	-6,782.63	698.67	947.00	841.34	105.66	8.963	
13,500.00	7,557.18	14,302.55	8,437.21	60.25	61.26	158.01	-6,882.43	698.86	949.35	842.08	107.27	8.850	
13,600.00	7,557.17	14,402.36	8,437.21	60.95	61.92	157.66	-6,982.23	699.06	951.73	842.84	108.89	8.741	
13,700.00	7,557.17	14,502.16	8,437.20	61.64	62.59	157.31	-7,082.03	699.25	954.15	843.65	110.50	8.635	
13,800.00	7,557.16	14,601.96	8,437.20	62.33	63.26	156.96	-7,181.83	699.45	956.60	844.49	112.12	8.532	
13,900.00	7,557.16	14,701.76	8,437.19	63.03	63.93	156.61	-7,281.63	699.65	959.09	845.36	113.73	8.433	
14,000.00	7,557.16	14,801.56	8,437.19	63.73	64.60	156.27	-7,381.43	699.84	961.61	846.27	115.35	8.337	
14,100.00	7,557.15	14,901.36	8,437.18	64.43	65.27	155.93	-7,481.24	700.04	964.17	847.21	116.96	8.243	

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 4H
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 4H	**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
14,200.00	7,557.15	15,001.16	8,437.18	65.13	65.95	155.59	-7,581.04	700.23	966.76	848.18	118.58	8.153	
14,300.00	7,557.15	15,100.96	8,437.18	65.84	66.63	155.25	-7,680.84	700.43	969.39	849.19	120.20	8.065	
14,400.00	7,557.14	15,200.76	8,437.17	66.54	67.31	154.91	-7,780.64	700.63	972.05	850.24	121.81	7.980	
14,500.00	7,557.14	15,300.57	8,437.17	67.25	67.99	154.58	-7,880.44	700.82	974.74	851.31	123.43	7.897	
14,600.00	7,557.14	15,400.37	8,437.16	67.96	68.67	154.24	-7,980.24	701.02	977.47	852.42	125.05	7.817	
14,700.00	7,557.13	15,500.17	8,437.16	68.66	69.36	153.91	-8,080.04	701.21	980.23	853.57	126.66	7.739	
14,800.00	7,557.13	15,599.97	8,437.15	69.38	70.04	153.58	-8,179.84	701.41	983.02	854.74	128.28	7.663	
14,900.00	7,557.12	15,699.77	8,437.15	70.09	70.73	153.26	-8,279.64	701.61	985.85	855.95	129.90	7.590	
15,000.00	7,557.12	15,799.57	8,437.14	70.80	71.42	152.93	-8,379.44	701.80	988.70	857.19	131.51	7.518	
15,100.00	7,557.12	15,899.37	8,437.14	71.52	72.11	152.61	-8,479.24	702.00	991.59	858.46	133.13	7.448	
15,200.00	7,557.11	15,999.17	8,437.14	72.23	72.80	152.28	-8,579.05	702.19	994.51	859.77	134.74	7.381	
15,300.00	7,557.11	16,098.97	8,437.13	72.95	73.50	151.96	-8,678.85	702.39	997.46	861.11	136.36	7.315	
15,400.00	7,557.11	16,198.78	8,437.13	73.67	74.19	151.65	-8,778.65	702.59	1,000.45	862.47	137.97	7.251	
15,500.00	7,557.10	16,298.58	8,437.12	74.39	74.89	151.33	-8,878.45	702.78	1,003.46	863.87	139.59	7.189	
15,600.00	7,557.10	16,398.38	8,437.12	75.11	75.59	151.01	-8,978.25	702.98	1,006.50	865.30	141.20	7.128	
15,700.00	7,557.10	16,498.18	8,437.11	75.83	76.29	150.70	-9,078.05	703.17	1,009.58	866.76	142.81	7.069	
15,800.00	7,557.09	16,597.98	8,437.11	76.55	76.99	150.39	-9,177.85	703.37	1,012.68	868.26	144.43	7.012	
15,900.00	7,557.09	16,697.78	8,437.11	77.27	77.69	150.08	-9,277.65	703.57	1,015.82	869.78	146.04	6.956	
16,000.00	7,557.08	16,797.58	8,437.10	78.00	78.39	149.78	-9,377.45	703.76	1,018.98	871.33	147.65	6.901	
16,100.00	7,557.08	16,897.38	8,437.10	78.72	79.10	149.47	-9,477.25	703.96	1,022.17	872.91	149.26	6.848	
16,200.00	7,557.08	16,997.18	8,437.09	79.45	79.80	149.17	-9,577.05	704.15	1,025.39	874.52	150.87	6.796	
16,300.00	7,557.07	17,096.98	8,437.09	80.18	80.51	148.87	-9,676.86	704.35	1,028.64	876.16	152.48	6.746	
16,400.00	7,557.07	17,196.79	8,437.08	80.90	81.21	148.57	-9,776.66	704.55	1,031.92	877.83	154.09	6.697	
16,500.00	7,557.07	17,296.59	8,437.08	81.63	81.92	148.27	-9,876.46	704.74	1,035.22	879.52	155.70	6.649	
16,600.00	7,557.06	17,396.39	8,437.07	82.36	82.63	147.97	-9,976.26	704.94	1,038.56	881.25	157.31	6.602	
16,700.00	7,557.06	17,496.19	8,437.07	83.09	83.34	147.68	-10,076.06	705.13	1,041.92	883.00	158.91	6.556	
16,800.00	7,557.06	17,595.99	8,437.07	83.82	84.05	147.39	-10,175.86	705.33	1,045.31	884.79	160.52	6.512	
16,900.00	7,557.05	17,695.79	8,437.06	84.55	84.76	147.10	-10,275.66	705.53	1,048.72	886.60	162.13	6.469	
17,000.00	7,557.05	17,795.59	8,437.06	85.29	85.48	146.81	-10,375.46	705.72	1,052.16	888.43	163.73	6.426	
17,100.00	7,557.04	17,895.39	8,437.05	86.02	86.19	146.53	-10,475.26	705.92	1,055.63	890.30	165.34	6.385	
17,200.00	7,557.04	17,995.19	8,437.05	86.75	86.90	146.24	-10,575.06	706.11	1,059.13	892.19	166.94	6.344	
17,300.00	7,557.04	18,095.00	8,437.04	87.49	87.62	145.96	-10,674.86	706.31	1,062.65	894.11	168.54	6.305	
17,400.00	7,557.03	18,194.80	8,437.04	88.22	88.34	145.68	-10,774.66	706.51	1,066.19	896.05	170.14	6.266	
17,500.00	7,557.03	18,294.60	8,437.04	88.96	89.05	145.40	-10,874.47	706.70	1,069.76	898.02	171.74	6.229	
17,600.00	7,557.03	18,394.40	8,437.03	89.70	89.77	145.12	-10,974.27	706.90	1,073.36	900.02	173.34	6.192	
17,700.00	7,557.02	18,494.20	8,437.03	90.43	90.49	144.85	-11,074.07	707.09	1,076.98	902.04	174.94	6.156	
17,800.00	7,557.02	18,594.00	8,437.02	91.17	91.21	144.58	-11,173.87	707.29	1,080.63	904.09	176.54	6.121	
17,900.00	7,557.02	18,693.80	8,437.02	91.91	91.93	144.31	-11,273.67	707.49	1,084.30	906.16	178.14	6.087	
18,000.00	7,557.01	18,793.60	8,437.01	92.65	92.65	144.04	-11,373.47	707.68	1,087.99	908.26	179.74	6.053	
18,100.00	7,557.01	18,893.40	8,437.01	93.39	93.37	143.77	-11,473.27	707.88	1,091.71	910.38	181.33	6.020	
18,200.00	7,557.00	18,993.21	8,437.00	94.13	94.09	143.50	-11,573.07	708.07	1,095.45	912.53	182.93	5.988	
18,300.00	7,557.00	19,093.01	8,437.00	94.87	94.81	143.24	-11,672.87	708.27	1,099.22	914.70	184.52	5.957	
18,318.93	7,557.00	19,103.82	8,437.00	95.01	94.91	143.21	-11,683.68	708.29	1,099.97	915.18	184.78	5.953	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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
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	1,100.21	1,100.19	3.86	3.84	-93.74	-1.27	-19.39	19.43	11.73	7.70	2.522	
1,200.00	1,200.00	1,200.18	1,200.01	4.22	4.17	-109.38	-6.19	-17.60	18.66	10.27	8.39	2.223	
1,202.85	1,202.85	1,203.02	1,202.85	4.23	4.18	-109.99	-6.38	-17.53	18.65	10.24	8.41	2.218	CC, ES, SF
1,300.00	1,300.00	1,299.66	1,299.11	4.58	4.51	-134.40	-14.33	-14.63	20.50	11.43	9.07	2.259	
1,400.00	1,400.00	1,398.85	1,397.59	4.94	4.84	-158.01	-25.36	-10.24	27.46	17.71	9.75	2.817	
1,500.00	1,500.00	1,497.82	1,495.54	5.29	5.18	-175.71	-37.38	-2.80	37.74	27.32	10.42	3.621	
1,600.00	1,600.00	1,596.01	1,592.32	5.65	5.52	171.04	-49.95	7.87	51.15	40.06	11.09	4.613	
1,700.00	1,700.00	1,693.45	1,687.90	6.01	5.86	161.09	-63.05	21.60	67.74	55.99	11.74	5.768	
1,800.00	1,800.00	1,791.37	1,783.77	6.37	6.21	154.56	-76.40	36.35	86.15	73.72	12.43	6.931	
1,900.00	1,900.00	1,889.28	1,879.65	6.73	6.57	150.35	-89.74	51.09	105.25	92.13	13.12	8.020	
2,000.00	2,000.00	1,987.20	1,975.52	7.09	6.92	147.44	-103.09	65.84	124.74	110.92	13.82	9.024	
2,100.00	2,099.98	2,085.44	2,071.72	7.43	7.28	1.21	-116.48	80.63	142.75	128.23	14.51	9.837	
2,200.00	2,199.84	2,184.26	2,168.48	7.76	7.65	-0.43	-129.95	95.51	157.45	142.26	15.19	10.364	
2,300.00	2,299.45	2,283.53	2,265.68	8.09	8.01	-1.83	-143.48	110.46	168.80	152.92	15.88	10.630	
2,400.00	2,398.70	2,383.13	2,363.20	8.42	8.38	-3.10	-157.06	125.46	176.77	160.20	16.58	10.665	
2,500.00	2,497.47	2,482.94	2,460.93	8.76	8.76	-4.35	-170.66	140.49	181.35	164.07	17.28	10.496	
2,600.00	2,595.62	2,582.85	2,558.76	9.10	9.13	-5.64	-184.28	155.53	182.54	164.55	17.98	10.150	
2,644.93	2,639.49	2,627.73	2,602.70	9.25	9.30	-6.26	-190.40	162.29	181.97	163.67	18.30	9.942	
2,700.00	2,693.18	2,682.73	2,656.56	9.44	9.51	-7.04	-197.90	170.57	180.88	162.18	18.70	9.675	
2,800.00	2,790.65	2,782.61	2,754.36	9.78	9.88	-8.47	-211.51	185.61	178.98	159.56	19.41	9.220	
2,900.00	2,888.13	2,882.49	2,852.16	10.13	10.26	-9.93	-225.13	200.65	177.19	157.06	20.13	8.801	
3,000.00	2,985.61	2,982.38	2,949.96	10.48	10.64	-11.42	-238.74	215.69	175.52	154.66	20.86	8.415	
3,100.00	3,083.08	3,082.26	3,047.76	10.83	11.01	-12.94	-252.36	230.73	173.98	152.39	21.59	8.058	
3,200.00	3,180.56	3,182.14	3,145.55	11.19	11.39	-14.49	-265.97	245.77	172.55	150.23	22.32	7.730	
3,300.00	3,278.04	3,282.02	3,243.35	11.55	11.77	-16.05	-279.58	260.81	171.26	148.20	23.06	7.426	
3,400.00	3,375.51	3,381.90	3,341.15	11.91	12.15	-17.65	-293.20	275.85	170.10	146.30	23.80	7.146	
3,500.00	3,472.99	3,481.78	3,438.95	12.27	12.53	-19.26	-306.81	290.89	169.07	144.52	24.55	6.888	
3,600.00	3,570.47	3,581.66	3,536.75	12.64	12.91	-20.89	-320.43	305.93	168.17	142.88	25.29	6.649	
3,700.00	3,667.94	3,681.54	3,634.55	13.00	13.29	-22.54	-334.04	320.97	167.42	141.37	26.04	6.428	
3,800.00	3,765.42	3,781.42	3,732.35	13.37	13.68	-24.20	-347.66	336.01	166.80	140.00	26.80	6.224	
3,900.00	3,862.90	3,881.30	3,830.14	13.74	14.06	-25.87	-361.27	351.05	166.33	138.77	27.55	6.037	
4,000.00	3,960.37	3,981.18	3,927.94	14.11	14.44	-27.55	-374.89	366.09	165.99	137.68	28.31	5.863	
4,100.00	4,057.85	4,081.06	4,025.74	14.48	14.82	-29.23	-388.50	381.13	165.81	136.73	29.07	5.703	
4,181.20	4,137.00	4,162.16	4,105.15	14.79	15.13	-30.60	-399.56	393.34	165.76	136.07	29.69	5.583	
4,200.00	4,155.33	4,180.94	4,123.54	14.86	15.20	-30.92	-402.12	396.17	165.76	135.93	29.83	5.556	
4,300.00	4,252.80	4,280.82	4,221.34	15.23	15.59	-32.61	-415.73	411.21	165.86	135.26	30.60	5.420	
4,400.00	4,350.28	4,380.70	4,319.14	15.61	15.97	-34.29	-429.34	426.25	166.10	134.74	31.37	5.296	
4,500.00	4,447.76	4,480.58	4,416.94	15.98	16.35	-35.97	-442.96	441.29	166.49	134.36	32.13	5.181	
4,600.00	4,545.23	4,580.46	4,514.73	16.36	16.74	-37.63	-456.57	456.33	167.02	134.11	32.90	5.076	
4,700.00	4,642.71	4,680.34	4,612.53	16.74	17.12	-39.29	-470.19	471.37	167.69	134.01	33.67	4.980	
4,800.00	4,740.19	4,780.22	4,710.33	17.11	17.51	-40.93	-483.80	486.41	168.49	134.05	34.45	4.892	

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 4H
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 4H	**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
4,900.00	4,837.66	4,880.11	4,808.13	17.49	17.89	-42.55	-497.42	501.45	169.44	134.22	35.22	4.811	
5,000.00	4,935.14	4,979.99	4,905.93	17.87	18.27	-44.16	-511.03	516.49	170.52	134.53	35.99	4.737	
5,100.00	5,032.62	5,079.87	5,003.73	18.25	18.66	-45.74	-524.65	531.53	171.73	134.96	36.77	4.671	
5,200.00	5,130.09	5,179.75	5,101.53	18.64	19.04	-47.30	-538.26	546.57	173.07	135.53	37.54	4.610	
5,300.00	5,227.57	5,279.63	5,199.32	19.02	19.43	-48.84	-551.88	561.61	174.54	136.22	38.32	4.555	
5,400.00	5,325.05	5,379.51	5,297.12	19.40	19.81	-50.35	-565.49	576.65	176.14	137.04	39.10	4.505	
5,500.00	5,422.52	5,479.39	5,394.92	19.78	20.20	-51.83	-579.10	591.69	177.85	137.97	39.88	4.460	
5,600.00	5,520.00	5,579.27	5,492.72	20.16	20.58	-53.28	-592.72	606.73	179.68	139.02	40.65	4.420	
5,700.00	5,617.48	5,679.15	5,590.52	20.55	20.97	-54.70	-606.33	621.77	181.62	140.19	41.43	4.384	
5,800.00	5,714.95	5,779.03	5,688.32	20.93	21.35	-56.09	-619.95	636.81	183.67	141.46	42.21	4.351	
5,900.00	5,812.43	5,878.91	5,786.12	21.31	21.74	-57.45	-633.56	651.85	185.83	142.84	42.99	4.323	
6,000.00	5,909.91	5,978.79	5,883.91	21.70	22.12	-58.78	-647.18	666.89	188.09	144.32	43.77	4.297	
6,100.00	6,007.38	6,078.67	5,981.71	22.08	22.51	-60.07	-660.79	681.93	190.45	145.90	44.55	4.275	
6,200.00	6,104.86	6,178.55	6,079.51	22.47	22.89	-61.33	-674.41	696.97	192.90	147.58	45.32	4.256	
6,300.00	6,202.34	6,278.43	6,177.31	22.85	23.28	-62.56	-688.02	712.01	195.44	149.34	46.10	4.239	
6,400.00	6,299.81	6,378.31	6,275.11	23.24	23.67	-63.76	-701.63	727.05	198.08	151.20	46.88	4.225	
6,421.23	6,320.51	6,399.51	6,295.87	23.32	23.75	-64.01	-704.52	730.24	198.65	151.60	47.05	4.222	
6,500.00	6,397.52	6,478.21	6,372.92	23.62	24.05	-64.70	-715.25	742.09	201.25	153.60	47.66	4.223	
6,600.00	6,495.90	6,578.10	6,470.73	24.00	24.44	-64.78	-728.87	757.13	205.91	157.49	48.42	4.253	
6,700.00	6,594.84	6,677.85	6,568.40	24.37	24.82	-64.03	-742.46	772.15	212.08	162.90	49.18	4.313	
6,800.00	6,694.23	6,777.36	6,665.83	24.74	25.21	-62.55	-756.03	787.14	219.88	169.96	49.92	4.405	
6,900.00	6,793.94	6,876.49	6,762.90	25.09	25.59	-60.46	-769.54	802.06	229.55	178.90	50.65	4.532	
7,000.00	6,893.85	6,975.12	6,859.48	25.44	25.97	-57.89	-782.98	816.92	241.39	190.02	51.37	4.699	
7,066.16	6,960.00	7,040.04	6,923.05	25.67	26.22	88.11	-791.83	826.69	250.57	198.74	51.83	4.834	
7,100.00	6,993.82	7,073.33	6,955.63	25.78	26.35	-79.06	-796.37	831.70	255.42	203.35	52.07	4.905	
7,150.00	7,043.55	7,122.85	7,004.13	25.96	26.54	-78.01	-803.12	839.16	261.94	209.50	52.44	4.995	
7,200.00	7,092.63	7,172.46	7,052.70	26.14	26.73	-77.98	-809.88	846.63	267.58	214.76	52.82	5.066	
7,250.00	7,140.71	7,221.77	7,100.98	26.34	26.93	-78.89	-816.60	854.06	272.41	219.20	53.21	5.120	
7,300.00	7,187.41	7,270.41	7,148.61	26.53	27.11	-80.65	-823.23	861.38	276.69	223.09	53.60	5.162	
7,350.00	7,232.38	7,318.01	7,195.22	26.73	27.30	-83.13	-829.72	868.55	280.86	226.86	54.00	5.201	
7,400.00	7,275.27	7,364.21	7,240.45	26.93	27.48	-86.15	-836.02	875.51	285.50	231.10	54.40	5.248	
7,450.00	7,315.77	7,408.66	7,283.97	27.13	27.65	-89.53	-842.08	882.20	291.31	236.53	54.79	5.317	
7,500.00	7,353.56	7,451.01	7,325.45	27.34	27.81	-93.03	-847.85	888.58	299.03	243.87	55.16	5.421	
7,550.00	7,388.35	7,490.95	7,364.55	27.54	27.97	-96.41	-853.30	894.59	309.39	253.87	55.51	5.573	
7,600.00	7,419.89	7,528.17	7,401.00	27.74	28.11	-99.45	-858.37	900.20	323.00	267.16	55.84	5.784	
7,650.00	7,447.92	7,562.39	7,434.50	27.94	28.24	-101.94	-863.03	905.35	340.32	284.19	56.14	6.062	
7,700.00	7,472.24	7,593.35	7,464.82	28.14	28.36	-103.73	-867.25	910.01	361.58	305.19	56.40	6.411	
7,750.00	7,492.67	7,620.81	7,491.71	28.33	28.47	-104.65	-871.00	914.14	386.80	330.18	56.62	6.831	
7,800.00	7,509.03	7,644.56	7,514.96	28.52	28.56	-104.59	-874.23	917.72	415.79	358.98	56.81	7.319	
7,816.16	7,513.43	7,651.41	7,521.67	28.58	28.59	-104.34	-875.17	918.75	425.91	369.05	56.86	7.491	
7,900.00	7,532.50	7,683.26	7,552.85	28.88	28.71	-106.59	-879.51	923.55	483.99	426.90	57.09	8.478	
8,000.00	7,548.24	7,714.15	7,583.10	29.24	28.83	-107.08	-883.72	928.20	563.09	505.78	57.30	9.827	
8,100.00	7,556.27	7,737.10	7,605.57	29.58	28.92	-104.73	-886.85	931.65	649.74	592.29	57.45	11.309	
8,153.26	7,557.37	7,746.02	7,614.30	29.76	28.95	-101.99	-888.06	933.00	698.11	640.60	57.51	12.139	
8,200.00	7,557.37	7,752.83	7,620.97	29.92	28.98	-103.30	-888.99	934.02	741.30	683.75	57.55	12.881	
8,300.00	7,557.36	7,767.03	7,634.88	30.26	29.03	-105.96	-890.93	936.16	834.80	777.16	57.64	14.483	
8,400.00	7,557.36	7,779.56	7,647.15	30.63	29.08	-108.22	-892.61	938.02	929.45	871.73	57.72	16.103	
8,500.00	7,557.36	7,791.56	7,658.92	31.00	29.13	-110.31	-894.19	939.76	1,024.94	967.14	57.80	17.733	
8,600.00	7,557.35	7,800.00	7,667.21	31.39	29.16	-111.74	-895.28	940.96	1,121.08	1,063.22	57.86	19.376	
8,700.00	7,557.35	7,814.13	7,681.08	31.79	29.21	-114.04	-897.06	942.94	1,217.71	1,159.75	57.96	21.011	
8,800.00	7,557.35	7,824.75	7,691.52	32.21	29.26	-115.71	-898.38	944.39	1,314.73	1,256.70	58.03	22.655	
8,900.00	7,557.34	7,834.97	7,701.57	32.64	29.29	-117.25	-899.61	945.76	1,412.08	1,353.97	58.11	24.300	

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 4H
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 4H	**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
9,000.00	7,557.34	10,246.54	8,862.19	33.08	38.65	-153.97	-2,390.05	1,400.86	1,452.66	1,411.00	41.66	34.866	
9,100.00	7,557.34	10,346.34	8,862.19	33.54	39.04	-154.20	-2,489.85	1,401.05	1,449.90	1,407.43	42.47	34.143	
9,200.00	7,557.33	10,446.14	8,862.18	34.00	39.44	-154.42	-2,589.65	1,401.23	1,447.16	1,403.85	43.31	33.414	
9,300.00	7,557.33	10,545.94	8,862.18	34.48	39.85	-154.65	-2,689.45	1,401.42	1,444.44	1,400.25	44.19	32.684	
9,400.00	7,557.32	10,645.74	8,862.18	34.96	40.26	-154.87	-2,789.25	1,401.60	1,441.74	1,396.63	45.11	31.957	
9,500.00	7,557.32	10,745.54	8,862.18	35.46	40.69	-155.10	-2,889.05	1,401.79	1,439.07	1,393.00	46.07	31.235	
9,600.00	7,557.32	10,845.34	8,862.18	35.97	41.13	-155.33	-2,988.85	1,401.98	1,436.42	1,389.36	47.06	30.522	
9,700.00	7,557.31	10,945.14	8,862.17	36.48	41.57	-155.56	-3,088.65	1,402.16	1,433.79	1,385.71	48.08	29.819	
9,800.00	7,557.31	11,044.94	8,862.17	37.00	42.03	-155.79	-3,188.45	1,402.35	1,431.19	1,382.05	49.13	29.128	
9,900.00	7,557.31	11,144.74	8,862.17	37.54	42.49	-156.02	-3,288.25	1,402.53	1,428.61	1,378.39	50.21	28.450	
10,000.00	7,557.30	11,244.54	8,862.17	38.08	42.96	-156.25	-3,388.05	1,402.72	1,426.05	1,374.73	51.32	27.788	
10,100.00	7,557.30	11,344.34	8,862.17	38.63	43.44	-156.48	-3,487.85	1,402.91	1,423.52	1,371.07	52.45	27.141	
10,200.00	7,557.30	11,444.14	8,862.16	39.18	43.92	-156.72	-3,587.65	1,403.09	1,421.01	1,367.40	53.60	26.510	
10,300.00	7,557.29	11,543.94	8,862.16	39.74	44.42	-156.95	-3,687.45	1,403.28	1,418.52	1,363.74	54.78	25.896	
10,400.00	7,557.29	11,643.74	8,862.16	40.31	44.92	-157.18	-3,787.25	1,403.46	1,416.06	1,360.08	55.97	25.299	
10,500.00	7,557.28	11,743.54	8,862.16	40.89	45.43	-157.42	-3,887.05	1,403.65	1,413.62	1,356.43	57.19	24.719	
10,600.00	7,557.28	11,843.34	8,862.16	41.47	45.94	-157.66	-3,986.85	1,403.84	1,411.20	1,352.78	58.42	24.156	
10,700.00	7,557.28	11,943.14	8,862.15	42.06	46.46	-157.89	-4,086.65	1,404.02	1,408.81	1,349.14	59.67	23.609	
10,800.00	7,557.27	12,042.94	8,862.15	42.66	46.99	-158.13	-4,186.45	1,404.21	1,406.44	1,345.51	60.94	23.080	
10,900.00	7,557.27	12,142.74	8,862.15	43.26	47.52	-158.37	-4,286.25	1,404.39	1,404.10	1,341.88	62.22	22.567	
11,000.00	7,557.27	12,242.55	8,862.15	43.86	48.06	-158.61	-4,386.05	1,404.58	1,401.78	1,338.27	63.52	22.070	
11,100.00	7,557.26	12,342.35	8,862.15	44.47	48.61	-158.85	-4,485.85	1,404.77	1,399.49	1,334.66	64.83	21.588	
11,200.00	7,557.26	12,442.15	8,862.14	45.09	49.16	-159.09	-4,585.65	1,404.95	1,397.22	1,331.07	66.15	21.122	
11,300.00	7,557.26	12,541.95	8,862.14	45.71	49.72	-159.33	-4,685.45	1,405.14	1,394.98	1,327.49	67.49	20.671	
11,400.00	7,557.25	12,641.75	8,862.14	46.33	50.28	-159.58	-4,785.25	1,405.32	1,392.76	1,323.93	68.83	20.234	
11,500.00	7,557.25	12,741.55	8,862.14	46.96	50.85	-159.82	-4,885.05	1,405.51	1,390.57	1,320.38	70.19	19.811	
11,600.00	7,557.24	12,841.35	8,862.14	47.60	51.42	-160.06	-4,984.85	1,405.70	1,388.40	1,316.84	71.56	19.402	
11,700.00	7,557.24	12,941.15	8,862.13	48.24	51.99	-160.31	-5,084.65	1,405.88	1,386.26	1,313.32	72.94	19.006	
11,800.00	7,557.24	13,040.95	8,862.13	48.88	52.58	-160.55	-5,184.45	1,406.07	1,384.14	1,309.82	74.33	18.623	
11,900.00	7,557.23	13,140.75	8,862.13	49.52	53.16	-160.80	-5,284.25	1,406.25	1,382.05	1,306.33	75.72	18.252	
12,000.00	7,557.23	13,240.55	8,862.13	50.17	53.75	-161.05	-5,384.05	1,406.44	1,379.98	1,302.86	77.13	17.892	
12,100.00	7,557.23	13,340.35	8,862.13	50.82	54.35	-161.30	-5,483.85	1,406.63	1,377.94	1,299.40	78.54	17.544	
12,200.00	7,557.22	13,440.15	8,862.12	51.48	54.94	-161.54	-5,583.66	1,406.81	1,375.93	1,295.97	79.96	17.207	
12,300.00	7,557.22	13,539.95	8,862.12	52.14	55.55	-161.79	-5,683.46	1,407.00	1,373.94	1,292.55	81.39	16.881	
12,400.00	7,557.22	13,639.75	8,862.12	52.80	56.15	-162.04	-5,783.26	1,407.18	1,371.98	1,289.15	82.83	16.564	
12,500.00	7,557.21	13,739.55	8,862.12	53.46	56.76	-162.29	-5,883.06	1,407.37	1,370.04	1,285.77	84.27	16.258	
12,600.00	7,557.21	13,839.35	8,862.12	54.13	57.38	-162.55	-5,982.86	1,407.55	1,368.13	1,282.41	85.72	15.960	
12,700.00	7,557.20	13,939.15	8,862.11	54.80	57.99	-162.80	-6,082.66	1,407.74	1,366.25	1,279.08	87.18	15.672	
12,800.00	7,557.20	14,038.95	8,862.11	55.48	58.61	-163.05	-6,182.46	1,407.93	1,364.40	1,275.76	88.64	15.393	
12,900.00	7,557.20	14,138.75	8,862.11	56.15	59.24	-163.30	-6,282.26	1,408.11	1,362.57	1,272.46	90.11	15.122	
13,000.00	7,557.19	14,238.55	8,862.11	56.83	59.86	-163.56	-6,382.06	1,408.30	1,360.76	1,269.18	91.58	14.859	
13,100.00	7,557.19	14,338.35	8,862.11	57.51	60.49	-163.81	-6,481.86	1,408.48	1,358.99	1,265.93	93.06	14.604	
13,200.00	7,557.19	14,438.15	8,862.10	58.19	61.13	-164.07	-6,581.66	1,408.67	1,357.24	1,262.70	94.54	14.356	
13,300.00	7,557.18	14,537.96	8,862.10	58.88	61.76	-164.33	-6,681.46	1,408.86	1,355.52	1,259.49	96.03	14.115	
13,400.00	7,557.18	14,637.76	8,862.10	59.57	62.40	-164.58	-6,781.26	1,409.04	1,353.83	1,256.30	97.52	13.882	
13,500.00	7,557.18	14,737.56	8,862.10	60.25	63.04	-164.84	-6,881.06	1,409.23	1,352.16	1,253.14	99.02	13.655	
13,600.00	7,557.17	14,837.36	8,862.10	60.95	63.69	-165.10	-6,980.86	1,409.41	1,350.52	1,249.99	100.52	13.435	
13,700.00	7,557.17	14,937.16	8,862.09	61.64	64.33	-165.36	-7,080.66	1,409.60	1,348.91	1,246.88	102.03	13.220	
13,800.00	7,557.16	15,036.96	8,862.09	62.33	64.98	-165.62	-7,180.46	1,409.79	1,347.32	1,243.78	103.54	13.012	
13,900.00	7,557.16	15,136.76	8,862.09	63.03	65.63	-165.88	-7,280.26	1,409.97	1,345.77	1,240.71	105.06	12.810	
14,000.00	7,557.16	15,236.56	8,862.09	63.73	66.29	-166.14	-7,380.06	1,410.16	1,344.24	1,237.66	106.58	12.613	
14,100.00	7,557.15	15,336.36	8,862.09	64.43	66.94	-166.40	-7,479.86	1,410.34	1,342.74	1,234.64	108.10	12.421	

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 4H
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 4H	**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
14,200.00	7,557.15	15,436.16	8,862.08	65.13	67.60	-166.66	-7,579.66	1,410.53	1,341.27	1,231.64	109.63	12.235	
14,300.00	7,557.15	15,535.96	8,862.08	65.84	68.26	-166.92	-7,679.46	1,410.72	1,339.82	1,228.67	111.16	12.054	
14,400.00	7,557.14	15,635.76	8,862.08	66.54	68.92	-167.18	-7,779.26	1,410.90	1,338.41	1,225.72	112.69	11.877	
14,500.00	7,557.14	15,735.56	8,862.08	67.25	69.59	-167.45	-7,879.06	1,411.09	1,337.02	1,222.79	114.23	11.705	
14,600.00	7,557.14	15,835.36	8,862.08	67.96	70.25	-167.71	-7,978.86	1,411.27	1,335.66	1,219.90	115.77	11.538	
14,700.00	7,557.13	15,935.16	8,862.07	68.66	70.92	-167.98	-8,078.66	1,411.46	1,334.33	1,217.02	117.31	11.375	
14,800.00	7,557.13	16,034.96	8,862.07	69.38	71.59	-168.24	-8,178.46	1,411.65	1,333.03	1,214.17	118.85	11.216	
14,900.00	7,557.12	16,134.76	8,862.07	70.09	72.27	-168.51	-8,278.26	1,411.83	1,331.75	1,211.35	120.40	11.061	
15,000.00	7,557.12	16,234.56	8,862.07	70.80	72.94	-168.77	-8,378.06	1,412.02	1,330.51	1,208.55	121.96	10.910	
15,100.00	7,557.12	16,334.36	8,862.07	71.52	73.61	-169.04	-8,477.86	1,412.20	1,329.29	1,205.78	123.51	10.763	
15,200.00	7,557.11	16,434.16	8,862.06	72.23	74.29	-169.31	-8,577.66	1,412.39	1,328.11	1,203.04	125.07	10.619	
15,300.00	7,557.11	16,533.96	8,862.06	72.95	74.97	-169.57	-8,677.46	1,412.58	1,326.95	1,200.32	126.63	10.479	
15,400.00	7,557.11	16,633.76	8,862.06	73.67	75.65	-169.84	-8,777.26	1,412.76	1,325.82	1,197.63	128.19	10.343	
15,500.00	7,557.10	16,733.57	8,862.06	74.39	76.33	-170.11	-8,877.06	1,412.95	1,324.72	1,194.97	129.75	10.209	
15,600.00	7,557.10	16,833.37	8,862.06	75.11	77.02	-170.38	-8,976.86	1,413.13	1,323.65	1,192.33	131.32	10.079	
15,700.00	7,557.10	16,933.17	8,862.05	75.83	77.70	-170.65	-9,076.66	1,413.32	1,322.61	1,189.72	132.89	9.952	
15,800.00	7,557.09	17,032.97	8,862.05	76.55	78.39	-170.92	-9,176.46	1,413.51	1,321.60	1,187.13	134.46	9.829	
15,900.00	7,557.09	17,132.77	8,862.05	77.27	79.08	-171.19	-9,276.27	1,413.69	1,320.61	1,184.58	136.04	9.708	
16,000.00	7,557.08	17,232.57	8,862.05	78.00	79.76	-171.46	-9,376.07	1,413.88	1,319.66	1,182.05	137.62	9.589	
16,100.00	7,557.08	17,332.37	8,862.05	78.72	80.46	-171.73	-9,475.87	1,414.06	1,318.74	1,179.54	139.19	9.474	
16,200.00	7,557.08	17,432.17	8,862.04	79.45	81.15	-172.00	-9,575.67	1,414.25	1,317.84	1,177.07	140.78	9.361	
16,300.00	7,557.07	17,531.97	8,862.04	80.18	81.84	-172.27	-9,675.47	1,414.43	1,316.98	1,174.62	142.36	9.251	
16,400.00	7,557.07	17,631.77	8,862.04	80.90	82.53	-172.54	-9,775.27	1,414.62	1,316.15	1,172.20	143.94	9.143	
16,500.00	7,557.07	17,731.57	8,862.04	81.63	83.23	-172.81	-9,875.07	1,414.81	1,315.34	1,169.81	145.53	9.038	
16,600.00	7,557.06	17,831.37	8,862.04	82.36	83.93	-173.09	-9,974.87	1,414.99	1,314.57	1,167.45	147.12	8.935	
16,700.00	7,557.06	17,931.17	8,862.03	83.09	84.62	-173.36	-10,074.67	1,415.18	1,313.82	1,165.11	148.71	8.835	
16,800.00	7,557.06	18,030.97	8,862.03	83.82	85.32	-173.63	-10,174.47	1,415.36	1,313.11	1,162.80	150.30	8.736	
16,900.00	7,557.05	18,130.77	8,862.03	84.55	86.02	-173.91	-10,274.27	1,415.55	1,312.42	1,160.52	151.90	8.640	
17,000.00	7,557.05	18,230.57	8,862.03	85.29	86.72	-174.18	-10,374.07	1,415.74	1,311.77	1,158.27	153.49	8.546	
17,100.00	7,557.04	18,330.37	8,862.02	86.02	87.43	-174.45	-10,473.87	1,415.92	1,311.14	1,156.05	155.09	8.454	
17,200.00	7,557.04	18,430.17	8,862.02	86.75	88.13	-174.73	-10,573.67	1,416.11	1,310.55	1,153.86	156.69	8.364	
17,300.00	7,557.04	18,529.97	8,862.02	87.49	88.83	-175.00	-10,673.47	1,416.29	1,309.98	1,151.69	158.29	8.276	
17,400.00	7,557.03	18,629.77	8,862.02	88.22	89.54	-175.28	-10,773.27	1,416.48	1,309.45	1,149.56	159.89	8.190	
17,500.00	7,557.03	18,729.57	8,862.02	88.96	90.24	-175.55	-10,873.07	1,416.67	1,308.94	1,147.45	161.50	8.105	
17,600.00	7,557.03	18,829.37	8,862.01	89.70	90.95	-175.83	-10,972.87	1,416.85	1,308.47	1,145.37	163.10	8.022	
17,700.00	7,557.02	18,929.17	8,862.01	90.43	91.66	-176.10	-11,072.67	1,417.04	1,308.03	1,143.32	164.71	7.941	
17,800.00	7,557.02	19,028.98	8,862.01	91.17	92.37	-176.38	-11,172.47	1,417.22	1,307.61	1,141.30	166.32	7.862	
17,900.00	7,557.02	19,128.78	8,862.01	91.91	93.08	-176.65	-11,272.27	1,417.41	1,307.23	1,139.30	167.93	7.785	
18,000.00	7,557.01	19,228.58	8,862.01	92.65	93.79	-176.93	-11,372.07	1,417.60	1,306.88	1,137.34	169.54	7.708	
18,100.00	7,557.01	19,328.38	8,862.00	93.39	94.50	-177.21	-11,471.87	1,417.78	1,306.56	1,135.41	171.15	7.634	
18,200.00	7,557.00	19,428.18	8,862.00	94.13	95.21	-177.48	-11,571.67	1,417.97	1,306.26	1,133.50	172.76	7.561	
18,300.00	7,557.00	19,527.98	8,862.00	94.87	95.92	-177.76	-11,671.47	1,418.15	1,306.00	1,131.63	174.38	7.490	
18,318.93	7,557.00	19,546.87	8,862.00	95.01	96.06	-177.81	-11,690.36	1,418.19	1,305.96	1,131.27	174.68	7.476	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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	91.09	-0.38	20.00	20.00				
100.00	100.00	100.00	100.00	0.28	0.28	91.09	-0.38	20.00	20.00	19.45	0.55	36.235	
200.00	200.00	200.00	200.00	0.63	0.63	91.09	-0.38	20.00	20.00	18.73	1.27	15.763	
300.00	300.00	300.00	300.00	0.99	0.99	91.09	-0.38	20.00	20.00	18.02	1.99	10.073	
400.00	400.00	400.00	400.00	1.35	1.35	91.09	-0.38	20.00	20.00	17.30	2.70	7.401	
500.00	500.00	500.00	500.00	1.71	1.71	91.09	-0.38	20.00	20.00	16.58	3.42	5.849	
600.00	600.00	600.00	600.00	2.07	2.07	91.09	-0.38	20.00	20.00	15.87	4.14	4.836	
700.00	700.00	700.00	700.00	2.43	2.43	91.09	-0.38	20.00	20.00	15.15	4.85	4.121	
800.00	800.00	800.00	800.00	2.79	2.79	91.09	-0.38	20.00	20.00	14.43	5.57	3.591	
900.00	900.00	900.00	900.00	3.14	3.14	91.09	-0.38	20.00	20.00	13.72	6.29	3.181	
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	91.09	-0.38	20.00	20.00	13.00	7.00	2.856	
1,100.00	1,100.00	1,100.00	1,100.00	3.86	3.86	91.09	-0.38	20.00	20.00	12.28	7.72	2.591	
1,200.00	1,200.00	1,200.00	1,200.00	4.22	4.22	91.09	-0.38	20.00	20.00	11.57	8.44	2.371	
1,300.00	1,300.00	1,300.00	1,300.00	4.58	4.58	91.09	-0.38	20.00	20.00	10.85	9.16	2.185	
1,400.00	1,400.00	1,400.00	1,400.00	4.94	4.94	91.09	-0.38	20.00	20.00	10.13	9.87	2.026	CC, ES, SF
1,500.00	1,500.00	1,499.40	1,499.38	5.29	5.28	93.86	-1.44	21.36	21.42	10.85	10.57	2.026	
1,600.00	1,600.00	1,598.57	1,598.41	5.65	5.61	100.29	-4.62	25.42	25.89	14.64	11.24	2.302	
1,700.00	1,700.00	1,697.26	1,696.73	6.01	5.94	107.06	-9.87	32.14	33.78	21.88	11.91	2.837	
1,800.00	1,800.00	1,795.25	1,794.00	6.37	6.27	112.46	-17.14	41.45	45.26	32.70	12.55	3.605	
1,900.00	1,900.00	1,892.32	1,889.90	6.73	6.61	116.34	-26.36	53.25	60.27	47.09	13.18	4.571	
2,000.00	2,000.00	1,988.26	1,984.13	7.09	6.94	119.04	-37.43	67.43	78.74	64.94	13.80	5.706	
2,100.00	2,099.98	2,083.24	2,076.78	7.43	7.27	-23.39	-50.30	83.90	98.98	84.60	14.38	6.882	
2,200.00	2,199.84	2,178.72	2,169.20	7.76	7.61	-22.70	-65.05	102.78	119.19	104.22	14.97	7.964	
2,300.00	2,299.45	2,277.10	2,264.24	8.09	7.96	-22.70	-80.73	122.85	137.05	121.41	15.64	8.764	
2,400.00	2,398.70	2,376.00	2,359.76	8.42	8.32	-23.21	-96.49	143.02	151.73	135.41	16.32	9.298	
2,500.00	2,497.47	2,475.29	2,455.67	8.76	8.69	-24.13	-112.31	163.27	163.28	146.26	17.01	9.598	
2,600.00	2,595.62	2,574.85	2,551.83	9.10	9.05	-25.43	-128.18	183.57	171.72	154.01	17.71	9.694	
2,644.93	2,639.49	2,619.63	2,595.09	9.25	9.22	-26.14	-135.31	192.70	174.53	156.49	18.03	9.678	
2,700.00	2,693.18	2,674.54	2,648.13	9.44	9.43	-27.08	-144.06	203.90	177.62	159.19	18.43	9.640	
2,800.00	2,790.65	2,774.25	2,744.44	9.78	9.80	-28.69	-159.95	224.24	183.35	164.20	19.15	9.577	
2,900.00	2,888.13	2,873.96	2,840.75	10.13	10.18	-30.21	-175.84	244.57	189.22	169.35	19.87	9.522	
3,000.00	2,985.61	2,973.66	2,937.06	10.48	10.56	-31.63	-191.72	264.91	195.21	174.61	20.60	9.474	
3,100.00	3,083.08	3,073.37	3,033.37	10.83	10.94	-32.97	-207.61	285.24	201.32	179.97	21.34	9.433	
3,200.00	3,180.56	3,173.07	3,129.68	11.19	11.32	-34.23	-223.50	305.58	207.53	185.44	22.09	9.397	
3,300.00	3,278.04	3,272.78	3,225.98	11.55	11.70	-35.42	-239.39	325.92	213.83	191.00	22.83	9.365	
3,400.00	3,375.51	3,372.49	3,322.29	11.91	12.09	-36.53	-255.27	346.25	220.22	196.64	23.58	9.338	
3,500.00	3,472.99	3,472.19	3,418.60	12.27	12.47	-37.59	-271.16	366.59	226.69	202.35	24.34	9.314	
3,600.00	3,570.47	3,571.90	3,514.91	12.64	12.86	-38.58	-287.05	386.92	233.23	208.14	25.09	9.294	
3,700.00	3,667.94	3,671.60	3,611.22	13.00	13.25	-39.53	-302.94	407.26	239.84	213.98	25.86	9.276	
3,800.00	3,765.42	3,771.31	3,707.53	13.37	13.63	-40.42	-318.83	427.59	246.51	219.89	26.62	9.261	
3,900.00	3,862.90	3,871.02	3,803.84	13.74	14.02	-41.26	-334.71	447.93	253.23	225.85	27.38	9.248	
4,000.00	3,960.37	3,970.72	3,900.14	14.11	14.41	-42.06	-350.60	468.26	260.01	231.86	28.15	9.236	
4,100.00	4,057.85	4,070.43	3,996.45	14.48	14.81	-42.82	-366.49	488.60	266.83	237.91	28.92	9.227	
4,200.00	4,155.33	4,170.13	4,092.76	14.86	15.20	-43.54	-382.38	508.93	273.70	244.01	29.69	9.218	
4,300.00	4,252.80	4,269.84	4,189.07	15.23	15.59	-44.23	-398.26	529.27	280.61	250.15	30.46	9.211	
4,400.00	4,350.28	4,369.55	4,285.38	15.61	15.98	-44.88	-414.15	549.60	287.56	256.32	31.24	9.205	
4,500.00	4,447.76	4,469.25	4,381.69	15.98	16.38	-45.50	-430.04	569.94	294.54	262.53	32.01	9.201	
4,600.00	4,545.23	4,568.96	4,478.00	16.36	16.77	-46.09	-445.93	590.27	301.56	268.77	32.79	9.197	
4,700.00	4,642.71	4,668.66	4,574.30	16.74	17.17	-46.66	-461.81	610.61	308.61	275.04	33.57	9.193	
4,800.00	4,740.19	4,768.37	4,670.61	17.11	17.56	-47.20	-477.70	630.94	315.68	281.33	34.35	9.191	
4,900.00	4,837.66	4,868.08	4,766.92	17.49	17.96	-47.72	-493.59	651.28	322.78	287.66	35.13	9.189	
5,000.00	4,935.14	4,967.78	4,863.23	17.87	18.35	-48.21	-509.48	671.61	329.91	294.00	35.91	9.187	

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 4H
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 4H	**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
5,100.00	5,032.62	5,067.49	4,959.54	18.25	18.75	-48.69	-525.36	691.95	337.06	300.37	36.69	9.186	
5,200.00	5,130.09	5,169.10	5,057.70	18.64	19.15	-49.15	-541.52	712.62	344.19	306.69	37.50	9.179	
5,300.00	5,227.57	5,278.03	5,163.59	19.02	19.58	-49.88	-557.22	732.76	349.30	310.91	38.38	9.101	
5,400.00	5,325.05	5,377.83	5,260.92	19.40	19.97	-50.66	-570.80	750.19	353.37	314.22	39.16	9.024	
5,500.00	5,422.52	5,477.63	5,358.25	19.78	20.35	-51.41	-584.37	767.61	357.52	317.58	39.94	8.952	
5,600.00	5,520.00	5,577.44	5,455.58	20.16	20.74	-52.15	-597.95	785.04	361.72	321.00	40.72	8.884	
5,700.00	5,617.48	5,677.24	5,552.90	20.55	21.13	-52.87	-611.53	802.47	365.98	324.49	41.50	8.819	
5,800.00	5,714.95	5,777.05	5,650.23	20.93	21.52	-53.58	-625.10	819.89	370.30	328.02	42.28	8.759	
5,900.00	5,812.43	5,876.85	5,747.56	21.31	21.91	-54.27	-638.68	837.32	374.68	331.62	43.06	8.701	
6,000.00	5,909.91	5,976.65	5,844.89	21.70	22.30	-54.94	-652.26	854.75	379.10	335.26	43.84	8.647	
6,100.00	6,007.38	6,076.46	5,942.22	22.08	22.69	-55.60	-665.84	872.17	383.58	338.96	44.62	8.596	
6,200.00	6,104.86	6,176.26	6,039.55	22.47	23.08	-56.24	-679.41	889.60	388.11	342.70	45.40	8.548	
6,300.00	6,202.34	6,276.07	6,136.87	22.85	23.47	-56.86	-692.99	907.03	392.68	346.49	46.19	8.502	
6,400.00	6,299.81	6,375.87	6,234.20	23.24	23.86	-57.48	-706.57	924.45	397.30	350.33	46.97	8.459	
6,421.23	6,320.51	6,397.06	6,254.86	23.32	23.94	-57.60	-709.45	928.15	398.29	351.15	47.13	8.450	
6,500.00	6,397.52	6,475.68	6,331.53	23.62	24.25	-58.02	-720.14	941.88	402.54	354.79	47.75	8.430	
6,600.00	6,495.90	6,575.42	6,428.80	24.00	24.64	-58.18	-733.71	959.30	409.59	361.07	48.52	8.442	
6,700.00	6,594.84	6,674.99	6,525.90	24.37	25.03	-57.97	-747.26	976.68	418.49	369.21	49.28	8.492	
6,800.00	6,694.23	6,774.25	6,622.70	24.74	25.42	-57.42	-760.76	994.01	429.27	379.24	50.03	8.581	
6,900.00	6,793.94	6,873.09	6,719.09	25.09	25.80	-56.55	-774.21	1,011.27	442.03	391.27	50.76	8.708	
7,000.00	6,893.85	6,971.38	6,814.94	25.44	26.19	-55.42	-787.58	1,028.44	456.90	405.42	51.49	8.874	
7,066.16	6,960.00	7,036.06	6,878.01	25.67	26.44	89.55	-796.37	1,039.73	467.98	416.03	51.95	9.008	
7,100.00	6,993.82	7,069.21	6,910.34	25.78	26.57	-77.94	-800.88	1,045.52	473.73	421.54	52.19	9.077	
7,150.00	7,043.55	7,118.56	6,958.47	25.96	26.76	-76.97	-807.60	1,054.13	481.49	428.93	52.56	9.161	
7,200.00	7,092.63	7,168.01	7,006.70	26.14	26.95	-76.60	-814.33	1,062.77	488.29	435.35	52.94	9.224	
7,250.00	7,140.71	7,217.19	7,054.66	26.34	27.15	-76.81	-821.02	1,071.36	494.14	440.81	53.33	9.266	
7,300.00	7,187.41	7,265.73	7,101.99	26.53	27.34	-77.54	-827.62	1,079.83	499.16	445.43	53.73	9.291	
7,350.00	7,232.38	7,313.25	7,148.34	26.73	27.52	-78.73	-834.08	1,088.13	503.58	449.46	54.13	9.304	
7,400.00	7,275.27	7,359.40	7,193.34	26.93	27.70	-80.30	-840.36	1,096.19	507.73	453.20	54.53	9.312	
7,450.00	7,315.77	7,403.82	7,236.65	27.13	27.88	-82.14	-846.40	1,103.94	511.99	457.06	54.92	9.322	
7,500.00	7,353.56	7,446.17	7,277.96	27.34	28.04	-84.14	-852.17	1,111.34	516.81	461.50	55.31	9.343	
7,550.00	7,388.35	7,486.14	7,316.93	27.54	28.20	-86.18	-857.60	1,118.32	522.69	467.00	55.69	9.386	
7,600.00	7,419.89	7,523.41	7,353.28	27.74	28.35	-88.13	-862.67	1,124.82	530.12	474.07	56.05	9.457	
7,650.00	7,447.92	7,557.70	7,386.72	27.94	28.48	-89.84	-867.34	1,130.81	539.57	483.17	56.40	9.567	
7,700.00	7,472.24	7,588.76	7,417.01	28.14	28.60	-91.20	-871.56	1,136.24	551.44	494.72	56.71	9.723	
7,750.00	7,492.67	7,616.35	7,443.91	28.33	28.71	-92.09	-875.32	1,141.05	566.04	509.03	57.00	9.930	
7,800.00	7,509.03	7,640.25	7,467.22	28.52	28.80	-92.40	-878.57	1,145.23	583.57	526.31	57.25	10.192	
7,816.16	7,513.43	7,647.16	7,473.95	28.58	28.83	-92.37	-879.51	1,146.43	589.87	532.54	57.33	10.289	
7,900.00	7,532.50	7,679.26	7,505.26	28.88	28.96	-94.02	-883.87	1,152.04	628.59	570.93	57.67	10.901	
8,000.00	7,548.24	7,710.40	7,535.63	29.24	29.08	-94.39	-888.11	1,157.48	687.04	629.07	57.97	11.851	
8,100.00	7,556.27	7,733.55	7,558.20	29.58	29.17	-92.83	-891.26	1,161.52	756.43	698.25	58.18	13.001	
8,153.26	7,557.37	7,742.54	7,566.98	29.76	29.20	-91.10	-892.48	1,163.09	796.98	738.71	58.26	13.679	
8,200.00	7,557.37	7,749.42	7,573.68	29.92	29.23	-91.87	-893.42	1,164.29	833.98	775.67	58.32	14.301	
8,300.00	7,557.36	7,764.12	7,588.02	30.26	29.29	-93.50	-895.42	1,166.86	915.98	857.55	58.43	15.677	
8,400.00	7,557.36	7,778.83	7,602.36	30.63	29.35	-95.11	-897.42	1,169.42	1,001.03	942.50	58.53	17.103	
8,500.00	7,557.36	7,793.54	7,616.70	31.00	29.40	-96.69	-899.42	1,171.99	1,088.43	1,029.80	58.63	18.565	
8,600.00	7,557.35	7,808.24	7,631.05	31.39	29.46	-98.25	-901.42	1,174.56	1,177.65	1,118.93	58.73	20.054	
8,700.00	7,557.35	7,822.95	7,645.39	31.79	29.52	-99.78	-903.42	1,177.13	1,268.32	1,209.49	58.82	21.562	
8,800.00	7,557.35	7,837.66	7,659.73	32.21	29.58	-101.28	-905.42	1,179.70	1,360.13	1,301.21	58.92	23.084	
8,900.00	7,557.34	7,852.36	7,674.07	32.64	29.63	-102.76	-907.42	1,182.26	1,452.87	1,393.85	59.02	24.617	
9,000.00	7,557.34	10,052.82	8,446.56	33.08	39.40	-125.45	-2,391.18	2,014.00	1,535.29	1,479.72	55.57	27.630	
9,100.00	7,557.34	10,152.62	8,446.35	33.54	39.77	-125.58	-2,490.98	2,014.15	1,530.00	1,473.75	56.25	27.201	

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 4H
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 4H	**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
9,200.00	7,557.33	10,252.42	8,446.14	34.00	40.16	-125.71	-2,590.78	2,014.30	1,524.72	1,467.76	56.96	26.769	
9,300.00	7,557.33	10,352.22	8,445.93	34.48	40.56	-125.85	-2,690.58	2,014.45	1,519.44	1,461.74	57.70	26.333	
9,400.00	7,557.32	10,452.01	8,445.72	34.96	40.96	-125.98	-2,790.37	2,014.60	1,514.18	1,455.70	58.47	25.896	
9,500.00	7,557.32	10,551.81	8,445.51	35.46	41.38	-126.12	-2,890.17	2,014.76	1,508.92	1,449.65	59.27	25.458	
9,600.00	7,557.32	10,651.61	8,445.30	35.97	41.80	-126.25	-2,989.97	2,014.91	1,503.67	1,443.57	60.10	25.021	
9,700.00	7,557.31	10,751.41	8,445.09	36.48	42.24	-126.39	-3,089.77	2,015.06	1,498.43	1,437.48	60.95	24.585	
9,800.00	7,557.31	10,851.21	8,444.88	37.00	42.68	-126.53	-3,189.56	2,015.21	1,493.19	1,431.37	61.83	24.151	
9,900.00	7,557.31	10,951.00	8,444.67	37.54	43.13	-126.67	-3,289.36	2,015.36	1,487.97	1,425.24	62.73	23.721	
10,000.00	7,557.30	11,050.80	8,444.46	38.08	43.59	-126.81	-3,389.16	2,015.51	1,482.75	1,419.10	63.65	23.295	
10,100.00	7,557.30	11,150.60	8,444.25	38.63	44.06	-126.95	-3,488.96	2,015.66	1,477.55	1,412.95	64.60	22.874	
10,200.00	7,557.30	11,250.40	8,444.04	39.18	44.53	-127.09	-3,588.75	2,015.81	1,472.35	1,406.79	65.56	22.457	
10,300.00	7,557.29	11,350.20	8,443.83	39.74	45.01	-127.23	-3,688.55	2,015.96	1,467.16	1,400.61	66.55	22.047	
10,400.00	7,557.29	11,449.99	8,443.62	40.31	45.50	-127.38	-3,788.35	2,016.12	1,461.98	1,394.43	67.55	21.642	
10,500.00	7,557.28	11,549.79	8,443.41	40.89	46.00	-127.52	-3,888.15	2,016.27	1,456.81	1,388.24	68.58	21.243	
10,600.00	7,557.28	11,649.59	8,443.20	41.47	46.51	-127.67	-3,987.95	2,016.42	1,451.65	1,382.04	69.62	20.851	
10,700.00	7,557.28	11,749.39	8,442.99	42.06	47.02	-127.82	-4,087.74	2,016.57	1,446.50	1,375.83	70.68	20.466	
10,800.00	7,557.27	11,849.19	8,442.78	42.66	47.53	-127.96	-4,187.54	2,016.72	1,441.36	1,369.61	71.75	20.088	
10,900.00	7,557.27	11,948.98	8,442.57	43.26	48.06	-128.11	-4,287.34	2,016.87	1,436.23	1,363.39	72.84	19.717	
11,000.00	7,557.27	12,048.78	8,442.36	43.86	48.59	-128.26	-4,387.14	2,017.02	1,431.11	1,357.16	73.95	19.353	
11,100.00	7,557.26	12,148.58	8,442.15	44.47	49.12	-128.42	-4,486.93	2,017.17	1,426.00	1,350.93	75.06	18.997	
11,200.00	7,557.26	12,248.38	8,441.94	45.09	49.66	-128.57	-4,586.73	2,017.33	1,420.90	1,344.70	76.20	18.648	
11,300.00	7,557.26	12,348.18	8,441.73	45.71	50.21	-128.72	-4,686.53	2,017.48	1,415.81	1,338.46	77.34	18.306	
11,400.00	7,557.25	12,447.97	8,441.53	46.33	50.76	-128.88	-4,786.33	2,017.63	1,410.72	1,332.23	78.50	17.971	
11,500.00	7,557.25	12,547.77	8,441.32	46.96	51.32	-129.03	-4,886.12	2,017.78	1,405.65	1,325.99	79.67	17.644	
11,600.00	7,557.24	12,647.57	8,441.11	47.60	51.88	-129.19	-4,985.92	2,017.93	1,400.59	1,319.74	80.85	17.324	
11,700.00	7,557.24	12,747.37	8,440.90	48.24	52.45	-129.35	-5,085.72	2,018.08	1,395.54	1,313.50	82.04	17.011	
11,800.00	7,557.24	12,847.17	8,440.69	48.88	53.02	-129.51	-5,185.52	2,018.23	1,390.50	1,307.26	83.24	16.705	
11,900.00	7,557.23	12,946.97	8,440.48	49.52	53.60	-129.67	-5,285.32	2,018.38	1,385.47	1,301.02	84.45	16.405	
12,000.00	7,557.23	13,046.76	8,440.27	50.17	54.18	-129.83	-5,385.11	2,018.54	1,380.46	1,294.78	85.67	16.113	
12,100.00	7,557.23	13,146.56	8,440.06	50.82	54.77	-129.99	-5,484.91	2,018.69	1,375.45	1,288.55	86.90	15.827	
12,200.00	7,557.22	13,246.36	8,439.85	51.48	55.36	-130.15	-5,584.71	2,018.84	1,370.45	1,282.31	88.14	15.548	
12,300.00	7,557.22	13,346.16	8,439.64	52.14	55.95	-130.32	-5,684.51	2,018.99	1,365.47	1,276.08	89.39	15.275	
12,400.00	7,557.22	13,445.96	8,439.43	52.80	56.55	-130.49	-5,784.30	2,019.14	1,360.50	1,269.85	90.65	15.009	
12,500.00	7,557.21	13,545.75	8,439.22	53.46	57.15	-130.65	-5,884.10	2,019.29	1,355.54	1,263.63	91.91	14.748	
12,600.00	7,557.21	13,645.55	8,439.01	54.13	57.76	-130.82	-5,983.90	2,019.44	1,350.59	1,257.41	93.18	14.494	
12,700.00	7,557.20	13,745.35	8,438.80	54.80	58.37	-130.99	-6,083.70	2,019.59	1,345.65	1,251.19	94.46	14.246	
12,800.00	7,557.20	13,845.15	8,438.59	55.48	58.98	-131.16	-6,183.49	2,019.74	1,340.72	1,244.98	95.75	14.003	
12,900.00	7,557.20	13,944.95	8,438.38	56.15	59.60	-131.33	-6,283.29	2,019.90	1,335.81	1,238.77	97.04	13.766	
13,000.00	7,557.19	14,044.74	8,438.17	56.83	60.22	-131.51	-6,383.09	2,020.05	1,330.91	1,232.57	98.34	13.534	
13,100.00	7,557.19	14,144.54	8,437.96	57.51	60.84	-131.68	-6,482.89	2,020.20	1,326.02	1,226.38	99.64	13.308	
13,200.00	7,557.19	14,244.34	8,437.75	58.19	61.47	-131.86	-6,582.69	2,020.35	1,321.14	1,220.19	100.95	13.087	
13,300.00	7,557.18	14,344.14	8,437.54	58.88	62.09	-132.04	-6,682.48	2,020.50	1,316.28	1,214.01	102.27	12.871	
13,400.00	7,557.18	14,443.94	8,437.33	59.57	62.73	-132.22	-6,782.28	2,020.65	1,311.43	1,207.83	103.59	12.660	
13,500.00	7,557.18	14,543.73	8,437.12	60.25	63.36	-132.40	-6,882.08	2,020.80	1,306.59	1,201.67	104.92	12.453	
13,600.00	7,557.17	14,643.53	8,436.91	60.95	64.00	-132.58	-6,981.88	2,020.95	1,301.76	1,195.51	106.25	12.252	
13,700.00	7,557.17	14,743.33	8,436.70	61.64	64.64	-132.76	-7,081.67	2,021.11	1,296.95	1,189.36	107.59	12.054	
13,800.00	7,557.16	14,843.13	8,436.49	62.33	65.28	-132.95	-7,181.47	2,021.26	1,292.15	1,183.22	108.93	11.862	
13,900.00	7,557.16	14,942.93	8,436.28	63.03	65.93	-133.13	-7,281.27	2,021.41	1,287.36	1,177.08	110.28	11.673	
14,000.00	7,557.16	15,042.72	8,436.07	63.73	66.57	-133.32	-7,381.07	2,021.56	1,282.59	1,170.96	111.63	11.489	
14,100.00	7,557.15	15,142.52	8,435.86	64.43	67.22	-133.51	-7,480.86	2,021.71	1,277.83	1,164.84	112.99	11.309	
14,200.00	7,557.15	15,242.32	8,435.65	65.13	67.88	-133.70	-7,580.66	2,021.86	1,273.09	1,158.74	114.35	11.133	
14,300.00	7,557.15	15,342.12	8,435.44	65.84	68.53	-133.89	-7,680.46	2,022.01	1,268.36	1,152.64	115.72	10.961	

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 4H
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 4H	**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
14,400.00	7,557.14	15,441.92	8,435.23	66.54	69.19	-134.08	-7,780.26	2,022.16	1,263.64	1,146.56	117.09	10.792	
14,500.00	7,557.14	15,541.71	8,435.02	67.25	69.85	-134.27	-7,880.06	2,022.32	1,258.94	1,140.48	118.46	10.627	
14,600.00	7,557.14	15,641.51	8,434.81	67.96	70.51	-134.47	-7,979.85	2,022.47	1,254.25	1,134.42	119.84	10.466	
14,700.00	7,557.13	15,741.31	8,434.60	68.66	71.17	-134.67	-8,079.65	2,022.62	1,249.58	1,128.36	121.22	10.308	
14,800.00	7,557.13	15,841.11	8,434.39	69.38	71.84	-134.87	-8,179.45	2,022.77	1,244.92	1,122.32	122.61	10.154	
14,900.00	7,557.12	15,940.91	8,434.18	70.09	72.50	-135.07	-8,279.25	2,022.92	1,240.28	1,116.29	123.99	10.003	
15,000.00	7,557.12	16,040.70	8,433.98	70.80	73.17	-135.27	-8,379.04	2,023.07	1,235.65	1,110.27	125.39	9.855	
15,100.00	7,557.12	16,140.50	8,433.77	71.52	73.84	-135.47	-8,478.84	2,023.22	1,231.04	1,104.26	126.78	9.710	
15,200.00	7,557.11	16,240.30	8,433.56	72.23	74.51	-135.67	-8,578.64	2,023.37	1,226.45	1,098.27	128.18	9.568	
15,300.00	7,557.11	16,340.10	8,433.35	72.95	75.19	-135.88	-8,678.44	2,023.52	1,221.87	1,092.28	129.58	9.429	
15,400.00	7,557.11	16,439.90	8,433.14	73.67	75.86	-136.09	-8,778.23	2,023.68	1,217.30	1,086.31	130.99	9.293	
15,500.00	7,557.10	16,539.69	8,432.93	74.39	76.54	-136.30	-8,878.03	2,023.83	1,212.75	1,080.36	132.39	9.160	
15,600.00	7,557.10	16,639.49	8,432.72	75.11	77.22	-136.51	-8,977.83	2,023.98	1,208.22	1,074.41	133.81	9.030	
15,700.00	7,557.10	16,739.29	8,432.51	75.83	77.90	-136.72	-9,077.63	2,024.13	1,203.70	1,068.48	135.22	8.902	
15,800.00	7,557.09	16,839.09	8,432.30	76.55	78.58	-136.93	-9,177.43	2,024.28	1,199.20	1,062.57	136.64	8.777	
15,900.00	7,557.09	16,938.89	8,432.09	77.27	79.27	-137.15	-9,277.22	2,024.43	1,194.72	1,056.66	138.06	8.654	
16,000.00	7,557.08	17,038.68	8,431.88	78.00	79.95	-137.37	-9,377.02	2,024.58	1,190.26	1,050.78	139.48	8.534	
16,100.00	7,557.08	17,138.48	8,431.67	78.72	80.64	-137.58	-9,476.82	2,024.73	1,185.81	1,044.90	140.91	8.416	
16,200.00	7,557.08	17,238.28	8,431.46	79.45	81.32	-137.81	-9,576.62	2,024.89	1,181.38	1,039.04	142.33	8.300	
16,300.00	7,557.07	17,338.08	8,431.25	80.18	82.01	-138.03	-9,676.41	2,025.04	1,176.96	1,033.20	143.77	8.187	
16,400.00	7,557.07	17,437.88	8,431.04	80.90	82.70	-138.25	-9,776.21	2,025.19	1,172.57	1,027.37	145.20	8.076	
16,500.00	7,557.07	17,537.67	8,430.83	81.63	83.39	-138.48	-9,876.01	2,025.34	1,168.19	1,021.56	146.63	7.967	
16,600.00	7,557.06	17,637.47	8,430.62	82.36	84.09	-138.70	-9,975.81	2,025.49	1,163.83	1,015.76	148.07	7.860	
16,700.00	7,557.06	17,737.27	8,430.41	83.09	84.78	-138.93	-10,075.60	2,025.64	1,159.49	1,009.98	149.51	7.755	
16,800.00	7,557.06	17,837.07	8,430.20	83.82	85.48	-139.16	-10,175.40	2,025.79	1,155.17	1,004.21	150.96	7.652	
16,900.00	7,557.05	17,936.87	8,429.99	84.55	86.17	-139.39	-10,275.20	2,025.94	1,150.87	998.46	152.40	7.551	
17,000.00	7,557.05	18,036.66	8,429.78	85.29	86.87	-139.63	-10,375.00	2,026.10	1,146.58	992.73	153.85	7.452	
17,100.00	7,557.04	18,136.46	8,429.57	86.02	87.57	-139.86	-10,474.80	2,026.25	1,142.32	987.01	155.30	7.355	
17,200.00	7,557.04	18,236.26	8,429.36	86.75	88.27	-140.10	-10,574.59	2,026.40	1,138.07	981.31	156.76	7.260	
17,300.00	7,557.04	18,336.06	8,429.15	87.49	88.97	-140.34	-10,674.39	2,026.55	1,133.84	975.63	158.21	7.167	
17,400.00	7,557.03	18,435.86	8,428.94	88.22	89.67	-140.58	-10,774.19	2,026.70	1,129.64	969.97	159.67	7.075	
17,500.00	7,557.03	18,535.65	8,428.73	88.96	90.37	-140.82	-10,873.99	2,026.85	1,125.45	964.32	161.13	6.985	
17,600.00	7,557.03	18,635.45	8,428.52	89.70	91.07	-141.07	-10,973.78	2,027.00	1,121.29	958.69	162.60	6.896	
17,700.00	7,557.02	18,735.25	8,428.31	90.43	91.78	-141.32	-11,073.58	2,027.15	1,117.14	953.08	164.06	6.809	
17,800.00	7,557.02	18,835.05	8,428.10	91.17	92.48	-141.56	-11,173.38	2,027.30	1,113.02	947.49	165.53	6.724	
17,900.00	7,557.02	18,934.85	8,427.89	91.91	93.19	-141.81	-11,273.18	2,027.46	1,108.92	941.92	167.00	6.640	
18,000.00	7,557.01	19,034.64	8,427.68	92.65	93.90	-142.07	-11,372.97	2,027.61	1,104.83	936.37	168.47	6.558	
18,100.00	7,557.01	19,134.44	8,427.47	93.39	94.61	-142.32	-11,472.77	2,027.76	1,100.77	930.83	169.94	6.477	
18,200.00	7,557.00	19,234.24	8,427.26	94.13	95.31	-142.57	-11,572.57	2,027.91	1,096.74	925.32	171.42	6.398	
18,300.00	7,557.00	19,334.04	8,427.05	94.87	96.02	-142.83	-11,672.37	2,028.06	1,092.72	919.82	172.90	6.320	
18,318.93	7,557.00	19,352.93	8,427.01	95.01	96.16	-142.88	-11,691.26	2,028.09	1,091.96	918.78	173.18	6.305	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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
0.00	0.00	0.00	0.00	0.00	0.00	91.10	-1.15	59.98	59.99				
100.00	100.00	100.00	100.00	0.28	0.28	91.10	-1.15	59.98	59.99	59.44	0.55	108.670	
200.00	200.00	200.00	200.00	0.63	0.63	91.10	-1.15	59.98	59.99	58.72	1.27	47.275	
300.00	300.00	300.00	300.00	0.99	0.99	91.10	-1.15	59.98	59.99	58.01	1.99	30.208	
400.00	400.00	400.00	400.00	1.35	1.35	91.10	-1.15	59.98	59.99	57.29	2.70	22.195	
500.00	500.00	500.00	500.00	1.71	1.71	91.10	-1.15	59.98	59.99	56.57	3.42	17.542	
600.00	600.00	600.00	600.00	2.07	2.07	91.10	-1.15	59.98	59.99	55.85	4.14	14.502	
700.00	700.00	700.00	700.00	2.43	2.43	91.10	-1.15	59.98	59.99	55.14	4.85	12.360	
800.00	800.00	800.00	800.00	2.79	2.79	91.10	-1.15	59.98	59.99	54.42	5.57	10.769	
900.00	900.00	900.00	900.00	3.14	3.14	91.10	-1.15	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	91.10	-1.15	59.98	59.99	52.99	7.00	8.565	CC, ES
1,100.00	1,100.00	1,098.31	1,098.30	3.86	3.84	92.04	-2.19	61.31	61.37	53.67	7.70	7.971	
1,200.00	1,200.00	1,196.40	1,196.24	4.22	4.17	94.64	-5.29	65.28	65.60	57.23	8.38	7.831	
1,300.00	1,300.00	1,294.02	1,293.51	4.58	4.50	98.26	-10.43	71.86	72.90	63.85	9.05	8.056	
1,400.00	1,400.00	1,390.97	1,389.75	4.94	4.83	102.23	-17.55	80.97	83.48	73.77	9.71	8.596	
1,500.00	1,500.00	1,487.02	1,484.68	5.29	5.17	106.03	-26.58	92.52	97.48	87.11	10.36	9.407	
1,600.00	1,600.00	1,581.98	1,577.98	5.65	5.50	109.38	-37.42	106.40	114.92	103.92	11.00	10.449	
1,700.00	1,700.00	1,675.66	1,669.41	6.01	5.83	112.20	-49.98	122.48	135.77	124.15	11.62	11.685	
1,800.00	1,800.00	1,771.58	1,762.50	6.37	6.18	114.53	-64.20	140.68	159.12	146.83	12.29	12.947	
1,900.00	1,900.00	1,868.61	1,856.65	6.73	6.53	116.29	-78.65	159.18	182.77	169.78	12.99	14.074	
2,000.00	2,000.00	1,965.63	1,950.80	7.09	6.89	117.66	-93.10	177.68	206.54	192.85	13.69	15.090	
2,100.00	2,099.98	2,063.05	2,045.32	7.43	7.25	-25.36	-107.61	196.25	228.86	214.49	14.38	15.919	
2,200.00	2,199.84	2,161.16	2,140.52	7.76	7.62	-24.81	-122.23	214.95	248.13	233.08	15.06	16.478	
2,300.00	2,299.45	2,259.84	2,236.27	8.09	7.99	-24.66	-136.92	233.76	264.29	248.54	15.75	16.781	
2,400.00	2,398.70	2,358.97	2,332.45	8.42	8.36	-24.84	-151.69	252.66	277.31	260.86	16.45	16.858	
2,500.00	2,497.47	2,458.44	2,428.97	8.76	8.74	-25.32	-166.50	271.62	287.20	270.05	17.16	16.739	
2,600.00	2,595.62	2,558.12	2,525.68	9.10	9.12	-26.09	-181.35	290.63	294.00	276.12	17.87	16.449	
2,644.93	2,639.49	2,602.94	2,569.17	9.25	9.30	-26.53	-188.03	299.17	296.05	277.86	18.20	16.270	
2,700.00	2,693.18	2,657.88	2,622.48	9.44	9.51	-27.11	-196.21	309.64	298.21	279.62	18.59	16.038	
2,800.00	2,790.65	2,757.65	2,719.29	9.78	9.89	-28.16	-211.07	328.66	302.21	282.89	19.32	15.640	
2,900.00	2,888.13	2,857.42	2,816.09	10.13	10.28	-29.17	-225.93	347.68	306.31	286.26	20.06	15.272	
3,000.00	2,985.61	2,957.19	2,912.90	10.48	10.66	-30.17	-240.79	366.70	310.51	289.71	20.80	14.931	
3,100.00	3,083.08	3,056.96	3,009.71	10.83	11.05	-31.13	-255.65	385.72	314.79	293.25	21.54	14.615	
3,200.00	3,180.56	3,156.73	3,106.51	11.19	11.44	-32.07	-270.51	404.74	319.16	296.88	22.29	14.322	
3,300.00	3,278.04	3,256.50	3,203.32	11.55	11.82	-32.98	-285.37	423.76	323.62	300.58	23.04	14.049	
3,400.00	3,375.51	3,356.27	3,300.12	11.91	12.21	-33.87	-300.23	442.78	328.15	304.36	23.79	13.794	
3,500.00	3,472.99	3,456.04	3,396.93	12.27	12.60	-34.73	-315.09	461.80	332.76	308.22	24.55	13.557	
3,600.00	3,570.47	3,555.81	3,493.74	12.64	12.99	-35.57	-329.95	480.82	337.45	312.14	25.30	13.336	
3,700.00	3,667.94	3,655.58	3,590.54	13.00	13.38	-36.38	-344.81	499.84	342.20	316.14	26.07	13.128	
3,800.00	3,765.42	3,755.35	3,687.35	13.37	13.77	-37.18	-359.67	518.86	347.02	320.19	26.83	12.934	
3,900.00	3,862.90	3,855.12	3,784.15	13.74	14.17	-37.95	-374.53	537.88	351.91	324.32	27.60	12.753	
4,000.00	3,960.37	3,954.88	3,880.96	14.11	14.56	-38.70	-389.39	556.90	356.86	328.50	28.36	12.582	
4,100.00	4,057.85	4,054.65	3,977.77	14.48	14.95	-39.43	-404.25	575.92	361.87	332.74	29.13	12.422	
4,200.00	4,155.33	4,154.42	4,074.57	14.86	15.34	-40.14	-419.11	594.94	366.93	337.03	29.90	12.271	
4,300.00	4,252.80	4,254.19	4,171.38	15.23	15.74	-40.83	-433.97	613.96	372.05	341.38	30.68	12.129	
4,400.00	4,350.28	4,353.96	4,268.18	15.61	16.13	-41.50	-448.83	632.98	377.23	345.78	31.45	11.995	
4,500.00	4,447.76	4,453.73	4,364.99	15.98	16.52	-42.15	-463.69	652.00	382.45	350.23	32.22	11.868	
4,600.00	4,545.23	4,553.50	4,461.80	16.36	16.92	-42.79	-478.55	671.02	387.72	354.72	33.00	11.749	
4,700.00	4,642.71	4,653.27	4,558.60	16.74	17.31	-43.41	-493.41	690.04	393.04	359.26	33.78	11.636	
4,800.00	4,740.19	4,753.04	4,655.41	17.11	17.70	-44.01	-508.27	709.06	398.40	363.85	34.56	11.529	
4,900.00	4,837.66	4,852.81	4,752.21	17.49	18.10	-44.60	-523.13	728.08	403.81	368.47	35.34	11.428	
5,000.00	4,935.14	4,952.58	4,849.02	17.87	18.49	-45.17	-537.99	747.10	409.25	373.14	36.12	11.332	

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 4H
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 4H	**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	5,032.62	5,052.35	4,945.83	18.25	18.89	-45.72	-552.85	766.12	414.74	377.84	36.90	11.241	
5,200.00	5,130.09	5,152.12	5,042.63	18.64	19.28	-46.26	-567.71	785.14	420.26	382.59	37.68	11.154	
5,300.00	5,227.57	5,251.89	5,139.44	19.02	19.68	-46.79	-582.57	804.16	425.82	387.36	38.46	11.072	
5,400.00	5,325.05	5,351.66	5,236.24	19.40	20.07	-47.30	-597.43	823.18	431.42	392.18	39.24	10.994	
5,500.00	5,422.52	5,451.43	5,333.05	19.78	20.47	-47.80	-612.29	842.20	437.05	397.02	40.03	10.919	
5,600.00	5,520.00	5,551.20	5,429.86	20.16	20.86	-48.29	-627.15	861.22	442.71	401.90	40.81	10.848	
5,700.00	5,617.48	5,650.97	5,526.66	20.55	21.26	-48.77	-642.01	880.24	448.40	406.81	41.59	10.780	
5,800.00	5,714.95	5,750.74	5,623.47	20.93	21.65	-49.23	-656.87	899.26	454.12	411.74	42.38	10.716	
5,900.00	5,812.43	5,850.51	5,720.27	21.31	22.05	-49.68	-671.73	918.28	459.87	416.71	43.16	10.654	
6,000.00	5,909.91	5,950.28	5,817.08	21.70	22.44	-50.12	-686.59	937.30	465.65	421.70	43.95	10.595	
6,100.00	6,007.38	6,050.05	5,913.89	22.08	22.84	-50.55	-701.45	956.32	471.46	426.72	44.74	10.539	
6,200.00	6,104.86	6,149.82	6,010.69	22.47	23.24	-50.97	-716.31	975.34	477.29	431.77	45.52	10.485	
6,300.00	6,202.34	6,249.59	6,107.50	22.85	23.63	-51.38	-731.16	994.36	483.15	436.84	46.31	10.433	
6,400.00	6,299.81	6,349.36	6,204.30	23.24	24.03	-51.78	-746.02	1,013.38	489.03	441.93	47.10	10.383	
6,421.23	6,320.51	6,370.53	6,224.85	23.32	24.11	-51.86	-749.18	1,017.41	490.28	443.02	47.26	10.373	
6,500.00	6,397.52	6,449.10	6,301.09	23.62	24.42	-52.15	-760.88	1,032.39	495.60	447.71	47.88	10.350	
6,600.00	6,495.90	6,548.72	6,397.75	24.00	24.82	-52.27	-775.72	1,051.38	504.26	455.60	48.66	10.363	
6,700.00	6,594.84	6,648.09	6,494.17	24.37	25.21	-52.11	-790.52	1,070.33	515.05	465.63	49.42	10.421	
6,800.00	6,694.23	6,747.08	6,590.22	24.74	25.61	-51.69	-805.26	1,089.20	528.01	477.84	50.18	10.523	
6,900.00	6,793.94	6,845.58	6,685.79	25.09	26.00	-51.06	-819.93	1,107.98	543.21	492.29	50.92	10.669	
7,000.00	6,893.85	6,943.47	6,780.77	25.44	26.39	-50.24	-834.51	1,126.64	560.73	509.09	51.64	10.858	
7,066.16	6,960.00	7,007.83	6,843.22	25.67	26.64	94.50	-844.10	1,138.91	573.65	521.54	52.11	11.008	
7,100.00	6,993.82	7,040.84	6,875.25	25.78	26.78	-73.00	-849.02	1,145.20	580.28	527.93	52.35	11.084	
7,150.00	7,043.55	7,090.02	6,922.97	25.96	26.97	-71.99	-856.34	1,154.58	589.03	536.31	52.72	11.172	
7,200.00	7,092.63	7,139.39	6,970.87	26.14	27.17	-71.53	-863.69	1,163.99	596.46	543.35	53.11	11.232	
7,250.00	7,140.71	7,188.55	7,018.57	26.34	27.36	-71.58	-871.02	1,173.36	602.56	549.06	53.50	11.263	
7,300.00	7,187.41	7,237.14	7,065.72	26.53	27.56	-72.11	-878.25	1,182.62	607.42	553.52	53.90	11.270	
7,350.00	7,232.38	7,284.79	7,111.95	26.73	27.75	-73.06	-885.35	1,191.70	611.22	556.92	54.30	11.256	
7,400.00	7,275.27	7,320.98	7,147.04	26.93	27.89	-73.99	-890.81	1,198.70	614.38	559.77	54.61	11.250	
7,450.00	7,315.77	7,350.00	7,174.84	27.13	28.01	-74.76	-895.93	1,205.25	618.37	563.52	54.84	11.275	
7,500.00	7,353.56	7,369.41	7,193.19	27.34	28.09	-75.13	-899.83	1,210.24	623.40	568.45	54.95	11.346	
7,550.00	7,388.35	7,400.00	7,221.63	27.54	28.22	-76.00	-906.75	1,219.10	629.74	574.54	55.20	11.408	
7,600.00	7,419.89	7,415.67	7,235.96	27.74	28.29	-76.09	-910.66	1,224.10	637.23	582.00	55.24	11.536	
7,650.00	7,447.92	7,437.85	7,255.93	27.94	28.39	-76.44	-916.59	1,231.69	646.17	590.78	55.39	11.665	
7,700.00	7,472.24	7,450.00	7,266.71	28.14	28.44	-76.10	-920.04	1,236.11	656.66	601.27	55.39	11.855	
7,750.00	7,492.67	7,480.03	7,292.82	28.33	28.58	-76.75	-929.17	1,247.80	668.40	612.61	55.78	11.982	
7,800.00	7,509.03	7,500.00	7,309.74	28.52	28.67	-76.69	-935.71	1,256.16	681.75	625.72	56.02	12.169	
7,816.16	7,513.43	7,500.00	7,309.74	28.58	28.67	-76.21	-935.71	1,256.16	686.43	630.44	55.99	12.261	
7,900.00	7,532.50	7,538.16	7,341.00	28.88	28.85	-77.73	-949.18	1,273.40	714.92	658.34	56.58	12.636	
8,000.00	7,548.24	7,575.77	7,370.30	29.24	29.03	-78.25	-963.68	1,291.96	758.83	701.65	57.18	13.270	
8,100.00	7,556.27	7,612.48	7,397.36	29.58	29.21	-77.87	-978.95	1,311.50	812.09	754.30	57.79	14.052	
8,153.26	7,557.37	7,631.56	7,410.79	29.76	29.31	-77.29	-987.30	1,322.19	843.74	785.64	58.10	14.522	
8,200.00	7,557.37	7,650.00	7,423.32	29.92	29.40	-78.52	-995.62	1,332.84	872.99	814.61	58.38	14.953	
8,300.00	7,557.36	7,688.44	7,448.02	30.26	29.59	-80.89	-1,013.75	1,356.05	938.82	879.91	58.91	15.937	
8,400.00	7,557.36	7,733.11	7,474.16	30.63	29.81	-83.30	-1,036.04	1,384.58	1,008.08	948.64	59.44	16.960	
8,500.00	7,557.36	7,782.92	7,499.89	31.00	30.07	-85.56	-1,062.29	1,418.18	1,079.74	1,019.77	59.97	18.004	
8,600.00	7,557.35	7,837.94	7,523.88	31.39	30.35	-87.53	-1,092.76	1,457.17	1,152.96	1,092.44	60.52	19.051	
8,700.00	7,557.35	7,897.86	7,544.48	31.79	30.65	-89.10	-1,127.38	1,501.49	1,227.09	1,166.01	61.09	20.088	
8,800.00	7,557.35	7,961.79	7,560.64	32.21	30.97	-90.22	-1,165.45	1,550.22	1,301.66	1,239.98	61.67	21.106	
8,900.00	7,557.34	8,027.65	7,573.45	32.64	31.30	-91.01	-1,205.22	1,601.12	1,376.38	1,314.10	62.28	22.101	
9,000.00	7,557.34	8,094.81	7,582.67	33.08	31.64	-91.50	-1,246.17	1,653.54	1,451.14	1,388.24	62.90	23.071	
9,100.00	7,557.34	8,162.84	7,588.02	33.54	31.98	-91.73	-1,287.92	1,706.97	1,525.86	1,462.33	63.53	24.019	

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 4H
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 4H	**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
9,200.00	7,557.33	8,230.93	7,589.40	34.00	32.32	-91.72	-1,329.83	1,760.61	1,600.50	1,536.34	64.16	24.945	
9,300.00	7,557.33	8,297.49	7,589.40	34.48	32.66	-91.65	-1,370.80	1,813.06	1,675.12	1,610.33	64.79	25.853	
9,400.00	7,557.32	8,364.05	7,589.40	34.96	33.01	-91.58	-1,411.78	1,865.51	1,749.74	1,684.30	65.44	26.736	
9,500.00	7,557.32	8,430.61	7,589.40	35.46	33.37	-91.51	-1,452.76	1,917.95	1,824.36	1,758.25	66.11	27.596	
9,600.00	7,557.32	10,197.64	7,589.36	35.97	43.04	-90.99	-2,986.27	2,662.66	1,861.50	1,787.88	73.61	25.287	
9,700.00	7,557.31	10,297.44	7,589.36	36.48	43.46	-90.99	-3,086.07	2,662.85	1,855.20	1,780.61	74.58	24.874	
9,800.00	7,557.31	10,397.24	7,589.36	37.00	43.89	-91.00	-3,185.87	2,663.05	1,848.89	1,773.32	75.57	24.465	
9,900.00	7,557.31	10,497.05	7,589.35	37.54	44.32	-91.00	-3,285.67	2,663.25	1,842.59	1,766.01	76.58	24.061	
10,000.00	7,557.30	10,596.85	7,589.35	38.08	44.76	-91.00	-3,385.47	2,663.45	1,836.29	1,758.68	77.60	23.662	
10,100.00	7,557.30	10,696.65	7,589.34	38.63	45.22	-91.01	-3,485.27	2,663.64	1,829.99	1,751.34	78.64	23.269	
10,200.00	7,557.30	10,796.45	7,589.34	39.18	45.68	-91.01	-3,585.07	2,663.84	1,823.68	1,743.98	79.70	22.882	
10,300.00	7,557.29	10,896.25	7,589.33	39.74	46.14	-91.01	-3,684.87	2,664.04	1,817.38	1,736.61	80.77	22.500	
10,400.00	7,557.29	10,996.05	7,589.33	40.31	46.62	-91.02	-3,784.68	2,664.23	1,811.08	1,729.22	81.86	22.124	
10,500.00	7,557.28	11,095.85	7,589.33	40.89	47.10	-91.02	-3,884.48	2,664.43	1,804.78	1,721.82	82.96	21.755	
10,600.00	7,557.28	11,195.65	7,589.32	41.47	47.59	-91.02	-3,984.28	2,664.63	1,798.47	1,714.40	84.07	21.392	
10,700.00	7,557.28	11,295.45	7,589.32	42.06	48.09	-91.03	-4,084.08	2,664.82	1,792.17	1,706.97	85.20	21.035	
10,800.00	7,557.27	11,395.26	7,589.31	42.66	48.59	-91.03	-4,183.88	2,665.02	1,785.87	1,699.53	86.34	20.684	
10,900.00	7,557.27	11,495.06	7,589.31	43.26	49.10	-91.03	-4,283.68	2,665.22	1,779.57	1,692.08	87.49	20.340	
11,000.00	7,557.27	11,594.86	7,589.31	43.86	49.61	-91.04	-4,383.48	2,665.42	1,773.27	1,684.61	88.66	20.002	
11,100.00	7,557.26	11,694.66	7,589.30	44.47	50.13	-91.04	-4,483.28	2,665.61	1,766.96	1,677.13	89.83	19.670	
11,200.00	7,557.26	11,794.46	7,589.30	45.09	50.66	-91.04	-4,583.08	2,665.81	1,760.66	1,669.65	91.01	19.345	
11,300.00	7,557.26	11,894.26	7,589.29	45.71	51.20	-91.05	-4,682.88	2,666.01	1,754.36	1,662.15	92.21	19.026	
11,400.00	7,557.25	11,994.06	7,589.29	46.33	51.74	-91.05	-4,782.69	2,666.20	1,748.06	1,654.64	93.41	18.713	
11,500.00	7,557.25	12,093.86	7,589.28	46.96	52.28	-91.06	-4,882.49	2,666.40	1,741.75	1,647.12	94.63	18.406	
11,600.00	7,557.24	12,193.67	7,589.28	47.60	52.83	-91.06	-4,982.29	2,666.60	1,735.45	1,639.60	95.85	18.105	
11,700.00	7,557.24	12,293.47	7,589.28	48.24	53.38	-91.06	-5,082.09	2,666.79	1,729.15	1,632.06	97.09	17.811	
11,800.00	7,557.24	12,393.27	7,589.27	48.88	53.94	-91.07	-5,181.89	2,666.99	1,722.85	1,624.52	98.33	17.522	
11,900.00	7,557.23	12,493.07	7,589.27	49.52	54.51	-91.07	-5,281.69	2,667.19	1,716.54	1,616.97	99.58	17.239	
12,000.00	7,557.23	12,592.87	7,589.26	50.17	55.08	-91.08	-5,381.49	2,667.39	1,710.24	1,609.41	100.83	16.961	
12,100.00	7,557.23	12,692.67	7,589.26	50.82	55.65	-91.08	-5,481.29	2,667.58	1,703.94	1,601.84	102.10	16.689	
12,200.00	7,557.22	12,792.47	7,589.26	51.48	56.23	-91.08	-5,581.09	2,667.78	1,697.64	1,594.27	103.37	16.423	
12,300.00	7,557.22	12,892.27	7,589.25	52.14	56.81	-91.09	-5,680.89	2,667.98	1,691.34	1,586.69	104.65	16.162	
12,400.00	7,557.22	12,992.07	7,589.25	52.80	57.40	-91.09	-5,780.69	2,668.17	1,685.03	1,579.10	105.93	15.907	
12,500.00	7,557.21	13,091.88	7,589.24	53.46	57.99	-91.10	-5,880.50	2,668.37	1,678.73	1,571.51	107.22	15.656	
12,600.00	7,557.21	13,191.68	7,589.24	54.13	58.59	-91.10	-5,980.30	2,668.57	1,672.43	1,563.91	108.52	15.411	
12,700.00	7,557.20	13,291.48	7,589.23	54.80	59.19	-91.10	-6,080.10	2,668.77	1,666.13	1,556.30	109.83	15.170	
12,800.00	7,557.20	13,391.28	7,589.23	55.48	59.79	-91.11	-6,179.90	2,668.96	1,659.82	1,548.69	111.14	14.935	
12,900.00	7,557.20	13,491.08	7,589.23	56.15	60.40	-91.11	-6,279.70	2,669.16	1,653.52	1,541.07	112.45	14.704	
13,000.00	7,557.19	13,590.88	7,589.22	56.83	61.01	-91.12	-6,379.50	2,669.36	1,647.22	1,533.45	113.77	14.478	
13,100.00	7,557.19	13,690.68	7,589.22	57.51	61.62	-91.12	-6,479.30	2,669.55	1,640.92	1,525.82	115.10	14.256	
13,200.00	7,557.19	13,790.48	7,589.21	58.19	62.24	-91.13	-6,579.10	2,669.75	1,634.62	1,518.18	116.43	14.039	
13,300.00	7,557.18	13,890.28	7,589.21	58.88	62.86	-91.13	-6,678.90	2,669.95	1,628.31	1,510.55	117.77	13.826	
13,400.00	7,557.18	13,990.09	7,589.21	59.57	63.48	-91.13	-6,778.70	2,670.14	1,622.01	1,502.90	119.11	13.618	
13,500.00	7,557.18	14,089.89	7,589.20	60.25	64.11	-91.14	-6,878.50	2,670.34	1,615.71	1,495.25	120.45	13.413	
13,600.00	7,557.17	14,189.69	7,589.20	60.95	64.73	-91.14	-6,978.31	2,670.54	1,609.41	1,487.60	121.81	13.213	
13,700.00	7,557.17	14,289.49	7,589.19	61.64	65.37	-91.15	-7,078.11	2,670.74	1,603.10	1,479.95	123.16	13.016	
13,800.00	7,557.16	14,389.29	7,589.19	62.33	66.00	-91.15	-7,177.91	2,670.93	1,596.80	1,472.28	124.52	12.824	
13,900.00	7,557.16	14,489.09	7,589.18	63.03	66.64	-91.16	-7,277.71	2,671.13	1,590.50	1,464.62	125.88	12.635	
14,000.00	7,557.16	14,588.89	7,589.18	63.73	67.28	-91.16	-7,377.51	2,671.33	1,584.20	1,456.95	127.25	12.450	
14,100.00	7,557.15	14,688.69	7,589.18	64.43	67.92	-91.17	-7,477.31	2,671.52	1,577.90	1,449.28	128.62	12.268	
14,200.00	7,557.15	14,788.49	7,589.17	65.13	68.56	-91.17	-7,577.11	2,671.72	1,571.59	1,441.60	129.99	12.090	
14,300.00	7,557.15	14,888.30	7,589.17	65.84	69.21	-91.17	-7,676.91	2,671.92	1,565.29	1,433.92	131.37	11.915	

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 4H
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 4H	**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
14,400.00	7,557.14	14,988.10	7,589.16	66.54	69.86	-91.18	-7,776.71	2,672.11	1,558.99	1,426.24	132.75	11.744	
14,500.00	7,557.14	15,087.90	7,589.16	67.25	70.51	-91.18	-7,876.51	2,672.31	1,552.69	1,418.56	134.13	11.576	
14,600.00	7,557.14	15,187.70	7,589.16	67.96	71.17	-91.19	-7,976.32	2,672.51	1,546.39	1,410.87	135.52	11.411	
14,700.00	7,557.13	15,287.50	7,589.15	68.66	71.82	-91.19	-8,076.12	2,672.71	1,540.08	1,403.17	136.91	11.249	
14,800.00	7,557.13	15,387.30	7,589.15	69.38	72.48	-91.20	-8,175.92	2,672.90	1,533.78	1,395.48	138.30	11.090	
14,900.00	7,557.12	15,487.10	7,589.14	70.09	73.14	-91.20	-8,275.72	2,673.10	1,527.48	1,387.78	139.70	10.934	
15,000.00	7,557.12	15,586.90	7,589.14	70.80	73.81	-91.21	-8,375.52	2,673.30	1,521.18	1,380.08	141.10	10.781	
15,100.00	7,557.12	15,686.71	7,589.13	71.52	74.47	-91.21	-8,475.32	2,673.49	1,514.88	1,372.37	142.50	10.631	
15,200.00	7,557.11	15,786.51	7,589.13	72.23	75.14	-91.22	-8,575.12	2,673.69	1,508.57	1,364.67	143.91	10.483	
15,300.00	7,557.11	15,886.31	7,589.13	72.95	75.80	-91.22	-8,674.92	2,673.89	1,502.27	1,356.96	145.31	10.338	
15,400.00	7,557.11	15,986.11	7,589.12	73.67	76.47	-91.23	-8,774.72	2,674.08	1,495.97	1,349.25	146.72	10.196	
15,500.00	7,557.10	16,085.91	7,589.12	74.39	77.15	-91.23	-8,874.52	2,674.28	1,489.67	1,341.53	148.13	10.056	
15,600.00	7,557.10	16,185.71	7,589.11	75.11	77.82	-91.24	-8,974.32	2,674.48	1,483.37	1,333.82	149.55	9.919	
15,700.00	7,557.10	16,285.51	7,589.11	75.83	78.49	-91.24	-9,074.13	2,674.68	1,477.06	1,326.10	150.97	9.784	
15,800.00	7,557.09	16,385.31	7,589.11	76.55	79.17	-91.25	-9,173.93	2,674.87	1,470.76	1,318.38	152.39	9.652	
15,900.00	7,557.09	16,485.11	7,589.10	77.27	79.85	-91.26	-9,273.73	2,675.07	1,464.46	1,310.65	153.81	9.521	
16,000.00	7,557.08	16,584.92	7,589.10	78.00	80.53	-91.26	-9,373.53	2,675.27	1,458.16	1,302.93	155.23	9.394	
16,100.00	7,557.08	16,684.72	7,589.09	78.72	81.21	-91.27	-9,473.33	2,675.46	1,451.86	1,295.20	156.66	9.268	
16,200.00	7,557.08	16,784.52	7,589.09	79.45	81.89	-91.27	-9,573.13	2,675.66	1,445.56	1,287.47	158.08	9.144	
16,300.00	7,557.07	16,884.32	7,589.08	80.18	82.58	-91.28	-9,672.93	2,675.86	1,439.25	1,279.74	159.51	9.023	
16,400.00	7,557.07	16,984.12	7,589.08	80.90	83.26	-91.28	-9,772.73	2,676.05	1,432.95	1,272.01	160.94	8.903	
16,500.00	7,557.07	17,083.92	7,589.08	81.63	83.95	-91.29	-9,872.53	2,676.25	1,426.65	1,264.27	162.38	8.786	
16,600.00	7,557.06	17,183.72	7,589.07	82.36	84.64	-91.29	-9,972.33	2,676.45	1,420.35	1,256.54	163.81	8.671	
16,700.00	7,557.06	17,283.52	7,589.07	83.09	85.33	-91.30	-10,072.14	2,676.65	1,414.05	1,248.80	165.25	8.557	
16,800.00	7,557.06	17,383.32	7,589.06	83.82	86.02	-91.31	-10,171.94	2,676.84	1,407.74	1,241.06	166.69	8.445	
16,900.00	7,557.05	17,483.13	7,589.06	84.55	86.71	-91.31	-10,271.74	2,677.04	1,401.44	1,233.32	168.13	8.336	
17,000.00	7,557.05	17,582.93	7,589.06	85.29	87.40	-91.32	-10,371.54	2,677.24	1,395.14	1,225.57	169.57	8.228	
17,100.00	7,557.04	17,682.73	7,589.05	86.02	88.10	-91.32	-10,471.34	2,677.43	1,388.84	1,217.83	171.01	8.121	
17,200.00	7,557.04	17,782.53	7,589.05	86.75	88.79	-91.33	-10,571.14	2,677.63	1,382.54	1,210.08	172.46	8.017	
17,300.00	7,557.04	17,882.33	7,589.04	87.49	89.49	-91.34	-10,670.94	2,677.83	1,376.24	1,202.33	173.90	7.914	
17,400.00	7,557.03	17,982.13	7,589.04	88.22	90.19	-91.34	-10,770.74	2,678.02	1,369.93	1,194.59	175.35	7.813	
17,500.00	7,557.03	18,081.93	7,589.03	88.96	90.89	-91.35	-10,870.54	2,678.22	1,363.63	1,186.83	176.80	7.713	
17,600.00	7,557.03	18,181.73	7,589.03	89.70	91.59	-91.35	-10,970.34	2,678.42	1,357.33	1,179.08	178.25	7.615	
17,700.00	7,557.02	18,281.53	7,589.03	90.43	92.29	-91.36	-11,070.14	2,678.62	1,351.03	1,171.33	179.70	7.518	
17,800.00	7,557.02	18,381.34	7,589.02	91.17	92.99	-91.37	-11,169.95	2,678.81	1,344.73	1,163.57	181.15	7.423	
17,900.00	7,557.02	18,481.14	7,589.02	91.91	93.69	-91.37	-11,269.75	2,679.01	1,338.43	1,155.82	182.61	7.329	
18,000.00	7,557.01	18,580.94	7,589.01	92.65	94.39	-91.38	-11,369.55	2,679.21	1,332.12	1,148.06	184.06	7.237	
18,100.00	7,557.01	18,680.74	7,589.01	93.39	95.10	-91.39	-11,469.35	2,679.40	1,325.82	1,140.30	185.52	7.146	
18,200.00	7,557.00	18,780.54	7,589.01	94.13	95.80	-91.39	-11,569.15	2,679.60	1,319.52	1,132.54	186.98	7.057	
18,300.00	7,557.00	18,880.34	7,589.00	94.87	96.51	-91.40	-11,668.95	2,679.80	1,313.22	1,124.78	188.44	6.969	
18,318.93	7,557.00	18,899.23	7,589.00	95.01	96.64	-91.40	-11,687.84	2,679.83	1,312.03	1,123.31	188.71	6.952	SF

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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 8H - 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	91.09	-0.76	39.99	40.00				
100.00	100.00	100.00	100.00	0.28	0.28	91.09	-0.76	39.99	40.00	39.45	0.55	72.453	
200.00	200.00	200.00	200.00	0.63	0.63	91.09	-0.76	39.99	40.00	38.73	1.27	31.519	
300.00	300.00	300.00	300.00	0.99	0.99	91.09	-0.76	39.99	40.00	38.01	1.99	20.140	
400.00	400.00	400.00	400.00	1.35	1.35	91.09	-0.76	39.99	40.00	37.29	2.70	14.798	
500.00	500.00	500.00	500.00	1.71	1.71	91.09	-0.76	39.99	40.00	36.58	3.42	11.696	
600.00	600.00	600.00	600.00	2.07	2.07	91.09	-0.76	39.99	40.00	35.86	4.14	9.669	
700.00	700.00	700.00	700.00	2.43	2.43	91.09	-0.76	39.99	40.00	35.14	4.85	8.241	
800.00	800.00	800.00	800.00	2.79	2.79	91.09	-0.76	39.99	40.00	34.43	5.57	7.180	
900.00	900.00	900.00	900.00	3.14	3.14	91.09	-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	91.09	-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	91.09	-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	91.09	-0.76	39.99	40.00	31.56	8.44	4.740	CC, ES
1,300.00	1,300.00	1,298.75	1,298.73	4.58	4.56	92.22	-1.61	41.46	41.51	32.38	9.13	4.545	SF
1,400.00	1,400.00	1,397.27	1,397.12	4.94	4.89	95.18	-4.15	45.87	46.15	36.34	9.81	4.703	
1,500.00	1,500.00	1,495.33	1,494.80	5.29	5.22	98.94	-8.36	53.16	54.07	43.59	10.48	5.159	
1,600.00	1,600.00	1,592.69	1,591.46	5.65	5.56	102.65	-14.20	63.26	65.39	54.26	11.13	5.873	
1,700.00	1,700.00	1,689.15	1,686.78	6.01	5.89	105.85	-21.59	76.07	80.17	68.39	11.78	6.808	
1,800.00	1,800.00	1,784.51	1,780.46	6.37	6.23	108.43	-30.47	91.45	98.35	85.95	12.40	7.931	
1,900.00	1,900.00	1,881.39	1,875.18	6.73	6.57	110.46	-40.69	109.07	119.03	105.96	13.07	9.105	
2,000.00	2,000.00	1,979.13	1,970.71	7.09	6.92	111.91	-51.06	126.94	139.92	126.16	13.77	10.163	
2,100.00	2,099.98	2,077.19	2,066.55	7.43	7.27	-31.24	-61.47	144.87	159.42	144.97	14.45	11.031	
2,200.00	2,199.84	2,175.80	2,162.94	7.76	7.63	-31.07	-71.93	162.89	175.99	160.86	15.13	11.634	
2,300.00	2,299.45	2,274.85	2,259.75	8.09	7.99	-31.48	-82.44	181.00	189.62	173.80	15.81	11.992	
2,400.00	2,398.70	2,374.21	2,356.86	8.42	8.36	-32.38	-92.99	199.17	200.33	183.82	16.50	12.138	
2,500.00	2,497.47	2,473.76	2,454.17	8.76	8.73	-33.73	-103.56	217.37	208.20	190.99	17.20	12.102	
2,600.00	2,595.62	2,573.39	2,551.54	9.10	9.10	-35.54	-114.13	235.58	213.35	195.43	17.91	11.912	
2,644.93	2,639.49	2,618.14	2,595.28	9.25	9.26	-36.51	-118.88	243.76	214.82	196.59	18.23	11.783	
2,700.00	2,693.18	2,672.98	2,648.88	9.44	9.47	-37.77	-124.70	253.79	216.37	197.74	18.62	11.617	
2,800.00	2,790.65	2,772.57	2,746.22	9.78	9.84	-40.02	-135.27	271.99	219.44	200.10	19.35	11.343	
2,900.00	2,888.13	2,872.15	2,843.55	10.13	10.21	-42.20	-145.84	290.20	222.85	202.78	20.07	11.102	
3,000.00	2,985.61	2,971.74	2,940.89	10.48	10.59	-44.31	-156.40	308.41	226.57	205.77	20.80	10.890	
3,100.00	3,083.08	3,071.33	3,038.22	10.83	10.96	-46.34	-166.97	326.61	230.59	209.05	21.54	10.704	
3,200.00	3,180.56	3,170.91	3,135.56	11.19	11.34	-48.31	-177.54	344.82	234.89	212.61	22.28	10.541	
3,300.00	3,278.04	3,270.50	3,232.89	11.55	11.72	-50.21	-188.11	363.02	239.46	216.43	23.03	10.399	
3,400.00	3,375.51	3,370.08	3,330.23	11.91	12.10	-52.03	-198.68	381.23	244.28	220.51	23.78	10.274	
3,500.00	3,472.99	3,469.67	3,427.57	12.27	12.47	-53.78	-209.25	399.44	249.35	224.82	24.53	10.166	
3,600.00	3,570.47	3,569.26	3,524.90	12.64	12.85	-55.46	-219.82	417.64	254.63	229.35	25.28	10.072	
3,700.00	3,667.94	3,668.84	3,622.24	13.00	13.23	-57.07	-230.39	435.85	260.13	234.09	26.04	9.991	
3,800.00	3,765.42	3,768.43	3,719.57	13.37	13.61	-58.62	-240.95	454.05	265.82	239.03	26.80	9.920	
3,900.00	3,862.90	3,868.01	3,816.91	13.74	13.99	-60.09	-251.52	472.26	271.70	244.15	27.56	9.860	
4,000.00	3,960.37	3,967.60	3,914.24	14.11	14.38	-61.51	-262.09	490.47	277.75	249.44	28.32	9.809	
4,100.00	4,057.85	4,067.18	4,011.58	14.48	14.76	-62.86	-272.66	508.67	283.97	254.89	29.08	9.765	
4,200.00	4,155.33	4,166.77	4,108.91	14.86	15.14	-64.16	-283.23	526.88	290.34	260.49	29.84	9.729	
4,300.00	4,252.80	4,266.36	4,206.25	15.23	15.52	-65.40	-293.80	545.08	296.84	266.24	30.61	9.698	
4,400.00	4,350.28	4,365.94	4,303.58	15.61	15.90	-66.58	-304.37	563.29	303.49	272.11	31.37	9.673	
4,500.00	4,447.76	4,465.53	4,400.92	15.98	16.29	-67.72	-314.94	581.50	310.25	278.11	32.14	9.653	
4,600.00	4,545.23	4,565.11	4,498.25	16.36	16.67	-68.80	-325.51	599.70	317.13	284.23	32.91	9.637	
4,700.00	4,642.71	4,664.70	4,595.59	16.74	17.05	-69.84	-336.07	617.91	324.12	290.45	33.68	9.625	
4,800.00	4,740.19	4,764.28	4,692.92	17.11	17.43	-70.84	-346.64	636.11	331.22	296.77	34.44	9.616	
4,900.00	4,837.66	4,863.87	4,790.26	17.49	17.82	-71.79	-357.21	654.32	338.41	303.19	35.21	9.610	
5,000.00	4,935.14	4,963.46	4,887.59	17.87	18.20	-72.71	-367.78	672.52	345.69	309.70	35.98	9.607	

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 4H
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 4H	**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 8H - 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	5,032.62	5,063.04	4,984.93	18.25	18.59	-73.58	-378.35	690.73	353.05	316.30	36.75	9.606	
5,200.00	5,130.09	5,162.63	5,082.27	18.64	18.97	-74.43	-388.92	708.94	360.49	322.97	37.52	9.607	
5,300.00	5,227.57	5,262.21	5,179.60	19.02	19.35	-75.23	-399.49	727.14	368.01	329.71	38.29	9.610	
5,400.00	5,325.05	5,361.80	5,276.94	19.40	19.74	-76.01	-410.06	745.35	375.59	336.53	39.06	9.615	
5,500.00	5,422.52	5,461.38	5,374.27	19.78	20.12	-76.75	-420.62	763.55	383.24	343.41	39.84	9.621	
5,600.00	5,520.00	5,560.97	5,471.61	20.16	20.51	-77.46	-431.19	781.76	390.96	350.35	40.61	9.628	
5,700.00	5,617.48	5,660.56	5,568.94	20.55	20.89	-78.15	-441.76	799.97	398.73	357.35	41.38	9.636	
5,800.00	5,714.95	5,760.14	5,666.28	20.93	21.28	-78.81	-452.33	818.17	406.55	364.40	42.15	9.645	
5,900.00	5,812.43	5,859.73	5,763.61	21.31	21.66	-79.44	-462.90	836.38	414.43	371.51	42.92	9.655	
6,000.00	5,909.91	5,959.31	5,860.95	21.70	22.05	-80.06	-473.47	854.58	422.36	378.66	43.70	9.666	
6,100.00	6,007.38	6,058.90	5,958.28	22.08	22.43	-80.65	-484.04	872.79	430.33	385.86	44.47	9.677	
6,200.00	6,104.86	6,158.48	6,055.62	22.47	22.82	-81.21	-494.61	891.00	438.35	393.11	45.24	9.689	
6,300.00	6,202.34	6,258.07	6,152.95	22.85	23.20	-81.76	-505.17	909.20	446.40	400.39	46.01	9.702	
6,400.00	6,299.81	6,357.66	6,250.29	23.24	23.59	-82.29	-515.74	927.41	454.50	407.71	46.79	9.714	
6,421.23	6,320.51	6,378.79	6,270.95	23.32	23.67	-82.40	-517.99	931.27	456.22	409.27	46.95	9.717	
6,500.00	6,397.52	6,457.26	6,347.65	23.62	23.98	-82.79	-526.31	945.62	462.77	415.21	47.56	9.731	
6,600.00	6,495.90	6,556.88	6,445.01	24.00	24.36	-82.92	-536.89	963.83	471.48	423.15	48.32	9.757	
6,700.00	6,594.84	6,656.38	6,542.26	24.37	24.75	-82.64	-547.45	982.02	480.63	431.55	49.08	9.793	
6,800.00	6,694.23	6,755.65	6,639.29	24.74	25.13	-81.98	-557.98	1,000.17	490.29	440.46	49.83	9.839	
6,900.00	6,793.94	6,854.56	6,735.97	25.09	25.52	-80.98	-568.48	1,018.25	500.60	450.03	50.57	9.900	
7,000.00	6,893.85	6,953.00	6,832.18	25.44	25.90	-79.67	-578.93	1,036.25	511.75	460.45	51.30	9.976	
7,066.16	6,960.00	7,017.80	6,895.52	25.67	26.15	65.46	-585.80	1,048.09	519.70	467.93	51.77	10.039	
7,100.00	6,993.82	7,051.00	6,927.97	25.78	26.28	-102.08	-589.33	1,054.16	524.14	472.13	52.01	10.078	
7,150.00	7,043.55	7,100.32	6,976.17	25.96	26.47	-100.97	-594.56	1,063.18	531.50	479.13	52.38	10.148	
7,200.00	7,092.63	7,149.62	7,024.36	26.14	26.66	-100.24	-599.79	1,072.19	539.70	486.94	52.75	10.230	
7,250.00	7,140.71	7,198.53	7,072.16	26.34	26.85	-99.88	-604.98	1,081.13	548.68	495.54	53.14	10.326	
7,300.00	7,187.41	7,246.68	7,119.22	26.53	27.04	-99.84	-610.09	1,089.94	558.49	504.97	53.52	10.435	
7,350.00	7,232.38	7,293.70	7,165.18	26.73	27.22	-100.07	-615.08	1,098.53	569.27	515.36	53.90	10.561	
7,400.00	7,275.27	7,341.12	7,211.54	26.93	27.40	-100.56	-620.09	1,107.16	581.16	526.86	54.30	10.703	
7,450.00	7,315.77	7,389.84	7,259.31	27.13	27.59	-101.36	-624.91	1,115.46	594.12	539.41	54.70	10.861	
7,500.00	7,353.56	7,435.61	7,304.31	27.34	27.76	-102.24	-629.07	1,122.62	608.43	553.34	55.09	11.045	
7,550.00	7,388.35	7,477.95	7,346.07	27.54	27.92	-103.03	-632.59	1,128.69	624.47	569.03	55.45	11.263	
7,600.00	7,419.89	7,516.48	7,384.15	27.74	28.07	-103.59	-635.53	1,133.75	642.59	586.81	55.78	11.521	
7,650.00	7,447.92	7,550.88	7,418.22	27.94	28.20	-103.80	-637.93	1,137.89	663.07	606.99	56.08	11.824	
7,700.00	7,472.24	7,580.92	7,448.01	28.14	28.31	-103.52	-639.86	1,141.22	686.08	629.73	56.35	12.176	
7,750.00	7,492.67	7,606.42	7,473.34	28.33	28.40	-102.63	-641.38	1,143.83	711.71	655.13	56.58	12.579	
7,800.00	7,509.03	7,627.28	7,494.07	28.52	28.48	-101.04	-642.54	1,145.82	739.92	683.14	56.78	13.032	
7,816.16	7,513.43	7,633.02	7,499.78	28.58	28.50	-100.35	-642.84	1,146.35	749.56	692.73	56.83	13.189	
7,900.00	7,532.50	7,658.25	7,524.87	28.88	28.59	-100.24	-644.11	1,148.54	804.02	746.94	57.07	14.087	
8,000.00	7,548.24	7,679.97	7,546.50	29.24	28.67	-98.30	-645.12	1,150.27	877.59	820.31	57.29	15.319	
8,100.00	7,556.27	7,693.00	7,559.48	29.58	28.71	-94.03	-645.68	1,151.24	958.55	901.13	57.42	16.694	
8,153.26	7,557.37	7,696.54	7,563.01	29.76	28.73	-90.64	-645.83	1,151.50	1,004.01	946.54	57.46	17.472	
8,200.00	7,557.37	7,700.00	7,566.46	29.92	28.74	-91.03	-645.97	1,151.74	1,044.75	987.25	57.50	18.170	
8,300.00	7,557.36	7,702.96	7,569.41	30.26	28.75	-91.37	-646.09	1,151.95	1,133.47	1,075.92	57.54	19.698	
8,400.00	7,557.36	7,707.15	7,573.58	30.63	28.76	-91.84	-646.26	1,152.24	1,223.91	1,166.32	57.59	21.252	
8,500.00	7,557.36	7,711.18	7,577.60	31.00	28.78	-92.30	-646.42	1,152.51	1,315.72	1,258.09	57.63	22.829	
8,600.00	7,557.35	7,715.07	7,581.48	31.39	28.79	-92.74	-646.57	1,152.77	1,408.63	1,350.96	57.67	24.424	
8,700.00	7,557.35	7,718.83	7,585.23	31.79	28.80	-93.17	-646.71	1,153.02	1,502.45	1,444.73	57.71	26.032	
8,800.00	7,557.35	7,722.46	7,588.85	32.21	28.82	-93.58	-646.85	1,153.25	1,597.00	1,539.25	57.75	27.652	
8,900.00	7,557.34	7,725.97	7,592.36	32.64	28.83	-93.97	-646.98	1,153.47	1,692.18	1,634.38	57.79	29.281	
9,000.00	7,557.34	7,729.37	7,595.74	33.08	28.84	-94.35	-647.10	1,153.68	1,787.87	1,730.04	57.83	30.917	
9,100.00	7,557.34	7,732.66	7,599.02	33.54	28.85	-94.72	-647.22	1,153.89	1,884.00	1,826.13	57.87	32.558	

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 4H
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 4H	**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 8H - 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
9,200.00	7,557.33	7,735.84	7,602.20	34.00	28.86	-95.08	-647.33	1,154.08	1,980.51	1,922.61	57.90	34.204	
9,300.00	7,557.33	10,104.87	8,887.48	34.48	38.27	-135.92	-1,697.82	2,007.88	2,063.45	2,003.87	59.58	34.635	
9,400.00	7,557.32	10,256.54	8,887.48	34.96	39.06	-134.08	-1,817.32	2,101.27	2,107.05	2,046.03	61.02	34.529	
9,500.00	7,557.32	10,460.86	8,887.48	35.46	40.16	-131.99	-1,985.66	2,216.98	2,147.00	2,084.48	62.52	34.341	
9,600.00	7,557.32	10,682.47	8,887.48	35.97	41.37	-130.15	-2,177.07	2,328.57	2,182.25	2,118.28	63.97	34.115	
9,700.00	7,557.31	10,920.68	8,887.47	36.48	42.68	-128.61	-2,391.76	2,431.63	2,211.98	2,146.67	65.31	33.867	
9,800.00	7,557.31	11,173.80	8,887.47	37.00	44.04	-127.40	-2,628.40	2,521.20	2,235.44	2,168.95	66.49	33.621	
9,900.00	7,557.31	11,438.98	8,887.46	37.54	45.42	-126.56	-2,883.79	2,592.26	2,251.96	2,184.54	67.42	33.401	
10,000.00	7,557.30	11,712.30	8,887.45	38.08	46.79	-126.09	-3,152.71	2,640.47	2,261.02	2,192.97	68.05	33.224	
10,100.00	7,557.30	11,989.02	8,887.43	38.63	48.08	-126.03	-3,428.42	2,662.95	2,262.34	2,193.99	68.35	33.098	
10,200.00	7,557.30	12,145.94	8,887.42	39.18	48.77	-126.15	-3,585.32	2,664.64	2,257.65	2,188.60	69.05	32.697	
10,300.00	7,557.29	12,245.74	8,887.42	39.74	49.22	-126.25	-3,685.12	2,664.83	2,252.55	2,182.50	70.05	32.155	
10,400.00	7,557.29	12,345.54	8,887.41	40.31	49.67	-126.34	-3,784.92	2,665.02	2,247.46	2,176.38	71.08	31.620	
10,500.00	7,557.28	12,445.34	8,887.41	40.89	50.13	-126.44	-3,884.72	2,665.21	2,242.37	2,170.25	72.12	31.093	
10,600.00	7,557.28	12,545.14	8,887.40	41.47	50.60	-126.53	-3,984.52	2,665.39	2,237.29	2,164.11	73.18	30.573	
10,700.00	7,557.28	12,644.94	8,887.40	42.06	51.07	-126.63	-4,084.32	2,665.58	2,232.21	2,157.96	74.25	30.062	
10,800.00	7,557.27	12,744.75	8,887.39	42.66	51.55	-126.73	-4,184.12	2,665.77	2,227.15	2,151.80	75.34	29.560	
10,900.00	7,557.27	12,844.55	8,887.39	43.26	52.04	-126.82	-4,283.92	2,665.95	2,222.08	2,145.64	76.45	29.067	
11,000.00	7,557.27	12,944.35	8,887.38	43.86	52.53	-126.92	-4,383.72	2,666.14	2,217.03	2,139.46	77.57	28.582	
11,100.00	7,557.26	13,044.15	8,887.38	44.47	53.03	-127.02	-4,483.52	2,666.33	2,211.98	2,133.28	78.70	28.106	
11,200.00	7,557.26	13,143.95	8,887.37	45.09	53.54	-127.12	-4,583.32	2,666.52	2,206.94	2,127.09	79.85	27.640	
11,300.00	7,557.26	13,243.75	8,887.37	45.71	54.05	-127.22	-4,683.12	2,666.70	2,201.90	2,120.90	81.00	27.182	
11,400.00	7,557.25	13,343.55	8,887.36	46.33	54.56	-127.32	-4,782.92	2,666.89	2,196.88	2,114.70	82.18	26.734	
11,500.00	7,557.25	13,443.35	8,887.36	46.96	55.08	-127.42	-4,882.73	2,667.08	2,191.85	2,108.50	83.36	26.295	
11,600.00	7,557.24	13,543.15	8,887.35	47.60	55.61	-127.52	-4,982.53	2,667.26	2,186.84	2,102.29	84.55	25.864	
11,700.00	7,557.24	13,642.95	8,887.35	48.24	56.14	-127.62	-5,082.33	2,667.45	2,181.83	2,096.08	85.75	25.443	
11,800.00	7,557.24	13,742.75	8,887.34	48.88	56.68	-127.72	-5,182.13	2,667.64	2,176.83	2,089.86	86.97	25.030	
11,900.00	7,557.23	13,842.55	8,887.34	49.52	57.22	-127.82	-5,281.93	2,667.82	2,171.83	2,083.64	88.19	24.627	
12,000.00	7,557.23	13,942.35	8,887.33	50.17	57.77	-127.92	-5,381.73	2,668.01	2,166.84	2,077.42	89.42	24.231	
12,100.00	7,557.23	14,042.15	8,887.33	50.82	58.32	-128.03	-5,481.53	2,668.20	2,161.86	2,071.20	90.66	23.845	
12,200.00	7,557.22	14,141.95	8,887.32	51.48	58.88	-128.13	-5,581.33	2,668.39	2,156.89	2,064.97	91.92	23.466	
12,300.00	7,557.22	14,241.75	8,887.32	52.14	59.44	-128.23	-5,681.13	2,668.57	2,151.92	2,058.75	93.17	23.096	
12,400.00	7,557.22	14,341.55	8,887.31	52.80	60.00	-128.34	-5,780.93	2,668.76	2,146.96	2,052.52	94.44	22.734	
12,500.00	7,557.21	14,441.35	8,887.30	53.46	60.57	-128.44	-5,880.73	2,668.95	2,142.01	2,046.29	95.71	22.379	
12,600.00	7,557.21	14,541.15	8,887.30	54.13	61.15	-128.55	-5,980.53	2,669.13	2,137.06	2,040.06	97.00	22.032	
12,700.00	7,557.20	14,640.96	8,887.29	54.80	61.72	-128.65	-6,080.33	2,669.32	2,132.12	2,033.84	98.28	21.693	
12,800.00	7,557.20	14,740.76	8,887.29	55.48	62.31	-128.76	-6,180.13	2,669.51	2,127.19	2,027.61	99.58	21.362	
12,900.00	7,557.20	14,840.56	8,887.28	56.15	62.89	-128.87	-6,279.93	2,669.70	2,122.27	2,021.38	100.88	21.037	
13,000.00	7,557.19	14,940.36	8,887.28	56.83	63.48	-128.97	-6,379.73	2,669.88	2,117.35	2,015.16	102.19	20.720	
13,100.00	7,557.19	15,040.16	8,887.27	57.51	64.07	-129.08	-6,479.53	2,670.07	2,112.44	2,008.94	103.50	20.409	
13,200.00	7,557.19	15,139.96	8,887.27	58.19	64.67	-129.19	-6,579.33	2,670.26	2,107.54	2,002.71	104.83	20.105	
13,300.00	7,557.18	15,239.76	8,887.26	58.88	65.27	-129.30	-6,679.13	2,670.44	2,102.64	1,996.49	106.15	19.808	
13,400.00	7,557.18	15,339.56	8,887.26	59.57	65.87	-129.41	-6,778.93	2,670.63	2,097.76	1,990.27	107.48	19.517	
13,500.00	7,557.18	15,439.36	8,887.25	60.25	66.48	-129.52	-6,878.73	2,670.82	2,092.88	1,984.06	108.82	19.233	
13,600.00	7,557.17	15,539.16	8,887.25	60.95	67.09	-129.63	-6,978.53	2,671.01	2,088.01	1,977.84	110.16	18.954	
13,700.00	7,557.17	15,638.96	8,887.24	61.64	67.70	-129.74	-7,078.33	2,671.19	2,083.14	1,971.63	111.51	18.682	
13,800.00	7,557.16	15,738.76	8,887.24	62.33	68.31	-129.85	-7,178.13	2,671.38	2,078.29	1,965.43	112.86	18.415	
13,900.00	7,557.16	15,838.56	8,887.23	63.03	68.93	-129.96	-7,277.93	2,671.57	2,073.44	1,959.22	114.22	18.154	
14,000.00	7,557.16	15,938.36	8,887.23	63.73	69.55	-130.07	-7,377.73	2,671.75	2,068.60	1,953.02	115.58	17.898	
14,100.00	7,557.15	16,038.16	8,887.22	64.43	70.18	-130.18	-7,477.53	2,671.94	2,063.77	1,946.82	116.94	17.648	
14,200.00	7,557.15	16,137.96	8,887.22	65.13	70.80	-130.30	-7,577.33	2,672.13	2,058.94	1,940.63	118.31	17.403	
14,300.00	7,557.15	16,237.76	8,887.21	65.84	71.43	-130.41	-7,677.13	2,672.32	2,054.13	1,934.44	119.68	17.163	

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 4H
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 4H	**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 8H - 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
14,400.00	7,557.14	16,337.56	8,887.21	66.54	72.06	-130.52	-7,776.94	2,672.50	2,049.32	1,928.26	121.06	16.928	
14,500.00	7,557.14	16,437.36	8,887.20	67.25	72.70	-130.64	-7,876.74	2,672.69	2,044.52	1,922.08	122.44	16.698	
14,600.00	7,557.14	16,537.16	8,887.20	67.96	73.33	-130.76	-7,976.54	2,672.88	2,039.73	1,915.90	123.83	16.473	
14,700.00	7,557.13	16,636.97	8,887.19	68.66	73.97	-130.87	-8,076.34	2,673.06	2,034.94	1,909.73	125.21	16.252	
14,800.00	7,557.13	16,736.77	8,887.18	69.38	74.62	-130.99	-8,176.14	2,673.25	2,030.17	1,903.56	126.61	16.035	
14,900.00	7,557.12	16,836.57	8,887.18	70.09	75.26	-131.10	-8,275.94	2,673.44	2,025.40	1,897.40	128.00	15.823	
15,000.00	7,557.12	16,936.37	8,887.17	70.80	75.90	-131.22	-8,375.74	2,673.63	2,020.64	1,891.25	129.40	15.616	
15,100.00	7,557.12	17,036.17	8,887.17	71.52	76.55	-131.34	-8,475.54	2,673.81	2,015.89	1,885.09	130.80	15.412	
15,200.00	7,557.11	17,135.97	8,887.16	72.23	77.20	-131.46	-8,575.34	2,674.00	2,011.15	1,878.95	132.20	15.212	
15,300.00	7,557.11	17,235.77	8,887.16	72.95	77.85	-131.58	-8,675.14	2,674.19	2,006.42	1,872.81	133.61	15.017	
15,400.00	7,557.11	17,335.57	8,887.15	73.67	78.51	-131.70	-8,774.94	2,674.37	2,001.70	1,866.68	135.02	14.825	
15,500.00	7,557.10	17,435.37	8,887.15	74.39	79.17	-131.82	-8,874.74	2,674.56	1,996.98	1,860.55	136.43	14.637	
15,600.00	7,557.10	17,535.17	8,887.14	75.11	79.82	-131.94	-8,974.54	2,674.75	1,992.28	1,854.43	137.85	14.452	
15,700.00	7,557.10	17,634.97	8,887.14	75.83	80.48	-132.06	-9,074.34	2,674.94	1,987.58	1,848.31	139.27	14.272	
15,800.00	7,557.09	17,734.77	8,887.13	76.55	81.14	-132.18	-9,174.14	2,675.12	1,982.89	1,842.20	140.69	14.094	
15,900.00	7,557.09	17,834.57	8,887.13	77.27	81.81	-132.31	-9,273.94	2,675.31	1,978.21	1,836.10	142.11	13.920	
16,000.00	7,557.08	17,934.37	8,887.12	78.00	82.47	-132.43	-9,373.74	2,675.50	1,973.54	1,830.00	143.54	13.749	
16,100.00	7,557.08	18,034.17	8,887.12	78.72	83.14	-132.55	-9,473.54	2,675.68	1,968.88	1,823.92	144.97	13.582	
16,200.00	7,557.08	18,133.97	8,887.11	79.45	83.81	-132.68	-9,573.34	2,675.87	1,964.23	1,817.83	146.40	13.417	
16,300.00	7,557.07	18,233.77	8,887.11	80.18	84.48	-132.80	-9,673.14	2,676.06	1,959.59	1,811.76	147.83	13.256	
16,400.00	7,557.07	18,333.57	8,887.10	80.90	85.15	-132.93	-9,772.94	2,676.25	1,954.96	1,805.69	149.27	13.097	
16,500.00	7,557.07	18,433.37	8,887.10	81.63	85.82	-133.05	-9,872.74	2,676.43	1,950.33	1,799.63	150.70	12.941	
16,600.00	7,557.06	18,533.18	8,887.09	82.36	86.50	-133.18	-9,972.54	2,676.62	1,945.72	1,793.58	152.14	12.789	
16,700.00	7,557.06	18,632.98	8,887.09	83.09	87.17	-133.31	-10,072.34	2,676.81	1,941.12	1,787.53	153.59	12.639	
16,800.00	7,557.06	18,732.78	8,887.08	83.82	87.85	-133.44	-10,172.14	2,676.99	1,936.52	1,781.49	155.03	12.491	
16,900.00	7,557.05	18,832.58	8,887.08	84.55	88.53	-133.56	-10,271.94	2,677.18	1,931.94	1,775.46	156.47	12.347	
17,000.00	7,557.05	18,932.38	8,887.07	85.29	89.21	-133.69	-10,371.74	2,677.37	1,927.36	1,769.44	157.92	12.204	
17,100.00	7,557.04	19,032.18	8,887.06	86.02	89.89	-133.82	-10,471.54	2,677.56	1,922.80	1,763.42	159.37	12.065	
17,200.00	7,557.04	19,131.98	8,887.06	86.75	90.58	-133.95	-10,571.34	2,677.74	1,918.24	1,757.42	160.82	11.928	
17,300.00	7,557.04	19,231.78	8,887.05	87.49	91.26	-134.08	-10,671.15	2,677.93	1,913.70	1,751.42	162.28	11.793	
17,400.00	7,557.03	19,331.58	8,887.05	88.22	91.95	-134.22	-10,770.95	2,678.12	1,909.16	1,745.43	163.73	11.660	
17,500.00	7,557.03	19,431.38	8,887.04	88.96	92.63	-134.35	-10,870.75	2,678.30	1,904.63	1,739.45	165.19	11.530	
17,600.00	7,557.03	19,531.18	8,887.04	89.70	93.32	-134.48	-10,970.55	2,678.49	1,900.12	1,733.47	166.65	11.402	
17,700.00	7,557.02	19,630.98	8,887.03	90.43	94.01	-134.61	-11,070.35	2,678.68	1,895.61	1,727.51	168.11	11.276	
17,800.00	7,557.02	19,730.78	8,887.03	91.17	94.70	-134.75	-11,170.15	2,678.87	1,891.12	1,721.55	169.57	11.153	
17,900.00	7,557.02	19,830.58	8,887.02	91.91	95.39	-134.88	-11,269.95	2,679.05	1,886.64	1,715.60	171.03	11.031	
18,000.00	7,557.01	19,930.38	8,887.02	92.65	96.08	-135.02	-11,369.75	2,679.24	1,882.16	1,709.67	172.50	10.911	
18,100.00	7,557.01	20,030.18	8,887.01	93.39	96.78	-135.16	-11,469.55	2,679.43	1,877.70	1,703.74	173.96	10.794	
18,200.00	7,557.00	20,129.98	8,887.01	94.13	97.47	-135.29	-11,569.35	2,679.61	1,873.25	1,697.82	175.43	10.678	
18,300.00	7,557.00	20,229.78	8,887.00	94.87	98.17	-135.43	-11,669.15	2,679.80	1,868.81	1,691.91	176.90	10.564	
18,318.93	7,557.00	20,248.68	8,887.00	95.01	98.30	-135.46	-11,688.04	2,679.84	1,867.97	1,690.79	177.18	10.543	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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	-169.64	-6,151.12	-1,124.91	6,253.33				
100.00	100.00	45.00	45.00	0.28	0.71	-169.64	-6,151.14	-1,124.93	6,253.16	6,252.18	0.99	6,342.291	
200.00	200.00	139.77	139.77	0.63	0.76	-169.63	-6,151.27	-1,125.14	6,253.33	6,251.94	1.40	4,482.477	
300.00	300.00	251.13	251.12	0.99	0.98	-169.62	-6,151.14	-1,126.51	6,253.45	6,251.48	1.97	3,174.860	
400.00	400.00	365.18	365.14	1.35	1.29	-169.60	-6,150.58	-1,128.76	6,253.32	6,250.68	2.64	2,367.625	
500.00	500.00	452.41	452.35	1.71	1.56	-169.58	-6,150.09	-1,130.53	6,253.13	6,249.87	3.27	1,914.453	
600.00	600.00	575.88	575.81	2.07	1.95	-169.56	-6,149.45	-1,132.61	6,252.93	6,248.91	4.02	1,555.693	
700.00	700.00	770.33	770.23	2.43	2.59	-169.55	-6,146.57	-1,133.59	6,251.37	6,246.35	5.02	1,245.609	
800.00	800.00	875.92	875.79	2.79	2.95	-169.54	-6,144.36	-1,133.93	6,249.36	6,243.63	5.73	1,090.150	
900.00	900.00	1,022.44	1,022.27	3.14	3.45	-169.53	-6,140.60	-1,135.03	6,246.97	6,240.38	6.59	947.949	
1,000.00	1,000.00	1,100.00	1,099.78	3.50	3.72	-169.51	-6,138.30	-1,136.19	6,244.35	6,237.13	7.22	865.397	
1,100.00	1,100.00	1,159.57	1,159.31	3.86	3.93	-169.50	-6,136.79	-1,137.38	6,242.24	6,234.46	7.78	802.299	
1,200.00	1,200.00	1,200.00	1,199.73	4.22	4.07	-169.49	-6,136.02	-1,138.31	6,240.90	6,232.62	8.28	753.779	
1,300.00	1,300.00	1,262.00	1,261.70	4.58	4.28	-169.48	-6,135.30	-1,139.85	6,240.30	6,231.44	8.85	704.913	
1,321.15	1,321.15	1,272.47	1,272.18	4.65	4.32	-169.47	-6,135.24	-1,140.12	6,240.28	6,231.31	8.96	696.099	
1,400.00	1,400.00	1,315.97	1,315.66	4.94	4.47	-169.46	-6,135.17	-1,141.27	6,240.52	6,231.12	9.40	664.052	
1,500.00	1,500.00	1,400.00	1,399.65	5.29	4.76	-169.44	-6,135.49	-1,143.60	6,241.37	6,231.32	10.05	621.229	
1,600.00	1,600.00	1,456.73	1,456.36	5.65	4.95	-169.43	-6,135.96	-1,145.28	6,242.64	6,232.04	10.60	588.876	
1,700.00	1,700.00	1,534.40	1,533.98	6.01	5.22	-169.41	-6,136.85	-1,147.76	6,244.36	6,233.13	11.23	556.123	
1,800.00	1,800.00	1,619.14	1,618.67	6.37	5.52	-169.38	-6,138.05	-1,150.56	6,246.36	6,234.48	11.88	525.757	
1,900.00	1,900.00	1,707.14	1,706.61	6.73	5.83	-169.36	-6,139.46	-1,153.65	6,248.57	6,236.03	12.54	498.101	
2,000.00	2,000.00	1,800.00	1,799.40	7.09	6.15	-169.33	-6,141.15	-1,156.65	6,250.96	6,237.74	13.23	472.641	
2,100.00	2,099.98	1,909.19	1,908.54	7.43	6.53	46.57	-6,143.36	-1,158.98	6,252.15	6,238.21	13.95	448.318	
2,200.00	2,199.84	2,039.95	2,039.27	7.76	6.98	46.64	-6,145.93	-1,159.67	6,250.58	6,235.85	14.73	424.424	
2,300.00	2,299.45	2,157.33	2,156.63	8.09	7.39	46.77	-6,147.99	-1,158.95	6,246.20	6,230.73	15.47	403.877	
2,400.00	2,398.70	2,287.81	2,287.05	8.42	7.84	46.94	-6,150.35	-1,155.70	6,239.16	6,222.90	16.25	383.839	
2,500.00	2,497.47	2,363.98	2,363.14	8.76	8.10	47.13	-6,151.82	-1,152.56	6,229.57	6,212.71	16.86	369.542	
2,600.00	2,595.62	2,454.18	2,453.21	9.10	8.42	47.38	-6,154.06	-1,148.25	6,218.01	6,200.50	17.51	355.043	
2,644.93	2,639.49	2,504.68	2,503.65	9.25	8.60	47.52	-6,155.20	-1,146.21	6,212.03	6,194.19	17.84	348.123	
2,700.00	2,693.18	2,571.65	2,570.58	9.44	8.83	47.60	-6,156.50	-1,144.09	6,204.33	6,186.07	18.27	339.675	
2,800.00	2,790.65	2,685.01	2,683.89	9.78	9.23	47.76	-6,158.17	-1,141.76	6,190.14	6,171.14	19.00	325.761	
2,900.00	2,888.13	2,804.51	2,803.37	10.13	9.64	47.92	-6,159.48	-1,139.81	6,175.72	6,155.96	19.76	312.500	
3,000.00	2,985.61	2,900.00	2,898.85	10.48	9.97	48.05	-6,160.40	-1,138.23	6,161.18	6,140.74	20.44	301.394	
3,100.00	3,083.08	2,998.41	2,997.24	10.83	10.32	48.19	-6,161.31	-1,136.77	6,146.68	6,125.55	21.14	290.829	
3,200.00	3,180.56	3,104.93	3,103.75	11.19	10.69	48.35	-6,162.12	-1,135.64	6,132.14	6,110.28	21.86	280.545	
3,300.00	3,278.04	3,200.00	3,198.82	11.55	11.02	48.49	-6,162.69	-1,134.80	6,117.53	6,094.98	22.54	271.363	
3,400.00	3,375.51	3,288.01	3,286.82	11.91	11.32	48.62	-6,163.32	-1,133.98	6,103.06	6,079.85	23.21	262.977	
3,500.00	3,472.99	3,365.15	3,363.95	12.27	11.59	48.73	-6,164.11	-1,133.30	6,088.92	6,065.08	23.84	255.447	
3,600.00	3,570.47	3,457.61	3,456.40	12.64	11.91	48.88	-6,165.26	-1,132.75	6,075.10	6,050.58	24.52	247.766	
3,700.00	3,667.94	3,563.06	3,561.85	13.00	12.28	49.04	-6,166.39	-1,132.56	6,061.24	6,035.99	25.25	240.060	
3,800.00	3,765.42	3,664.22	3,663.00	13.37	12.63	49.20	-6,167.34	-1,132.47	6,047.32	6,021.36	25.97	232.903	
3,900.00	3,862.90	3,756.67	3,755.45	13.74	12.95	49.35	-6,168.21	-1,132.41	6,033.45	6,006.80	26.65	226.371	
4,000.00	3,960.37	3,851.49	3,850.26	14.11	13.28	49.50	-6,169.18	-1,132.51	6,019.74	5,992.39	27.35	220.097	
4,100.00	4,057.85	3,952.44	3,951.21	14.48	13.64	49.67	-6,170.17	-1,132.68	6,006.05	5,977.98	28.07	213.967	
4,200.00	4,155.33	4,050.13	4,048.90	14.86	13.98	49.83	-6,171.04	-1,133.01	5,992.36	5,963.58	28.78	208.216	
4,300.00	4,252.80	4,145.59	4,144.36	15.23	14.31	49.99	-6,171.89	-1,133.45	5,978.75	5,949.27	29.48	202.788	
4,400.00	4,350.28	4,241.26	4,240.01	15.61	14.64	50.15	-6,172.74	-1,134.04	5,965.22	5,935.04	30.19	197.605	
4,500.00	4,447.76	4,331.16	4,329.91	15.98	14.96	50.30	-6,173.55	-1,134.76	5,951.80	5,920.93	30.87	192.777	
4,600.00	4,545.23	4,413.99	4,412.73	16.36	15.25	50.45	-6,174.49	-1,135.42	5,938.64	5,907.11	31.54	188.304	
4,700.00	4,642.71	4,500.00	4,498.73	16.74	15.55	50.59	-6,175.65	-1,136.10	5,925.75	5,893.53	32.21	183.957	
4,800.00	4,740.19	4,591.82	4,590.54	17.11	15.87	50.75	-6,177.02	-1,136.85	5,913.05	5,880.14	32.91	179.682	
4,900.00	4,837.66	4,686.82	4,685.52	17.49	16.20	50.92	-6,178.53	-1,137.60	5,900.47	5,866.86	33.62	175.528	

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 4H
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 4H	**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
5,000.00	4,935.14	4,767.86	4,766.54	17.87	16.48	51.06	-6,179.95	-1,138.14	5,888.09	5,853.81	34.28	171.783	
5,100.00	5,032.62	4,848.50	4,847.17	18.25	16.76	51.19	-6,181.67	-1,138.53	5,876.06	5,841.12	34.94	168.193	
5,200.00	5,130.09	4,935.69	4,934.33	18.64	17.07	51.34	-6,183.76	-1,138.96	5,864.33	5,828.71	35.62	164.640	
5,300.00	5,227.57	5,029.75	5,028.37	19.02	17.40	51.50	-6,186.10	-1,139.40	5,852.74	5,816.41	36.33	161.117	
5,400.00	5,325.05	5,133.58	5,132.16	19.40	17.76	51.68	-6,188.78	-1,139.84	5,841.27	5,804.21	37.07	157.589	
5,500.00	5,422.52	5,252.17	5,250.72	19.78	18.17	51.88	-6,191.37	-1,140.16	5,829.42	5,791.56	37.86	153.984	
5,600.00	5,520.00	5,348.48	5,347.00	20.16	18.51	52.04	-6,193.44	-1,140.41	5,817.60	5,779.03	38.57	150.819	
5,700.00	5,617.48	5,442.86	5,441.37	20.55	18.84	52.21	-6,195.45	-1,140.69	5,805.83	5,766.55	39.28	147.794	
5,800.00	5,714.95	5,533.16	5,531.64	20.93	19.16	52.36	-6,197.45	-1,141.14	5,794.24	5,754.26	39.98	144.928	
5,900.00	5,812.43	5,628.40	5,626.86	21.31	19.49	52.53	-6,199.67	-1,141.51	5,782.78	5,742.08	40.69	142.103	
6,000.00	5,909.91	5,725.54	5,723.97	21.70	19.83	52.70	-6,201.96	-1,141.91	5,771.40	5,729.99	41.41	139.356	
6,100.00	6,007.38	5,849.90	5,848.29	22.08	20.26	52.92	-6,204.75	-1,142.33	5,759.98	5,717.75	42.23	136.406	
6,200.00	6,104.86	5,964.58	5,962.96	22.47	20.67	53.12	-6,206.73	-1,142.21	5,747.96	5,704.95	43.01	133.655	
6,300.00	6,202.34	6,067.55	6,065.91	22.85	21.03	53.29	-6,208.52	-1,142.05	5,736.00	5,692.25	43.75	131.118	
6,400.00	6,299.81	6,169.08	6,167.43	23.24	21.38	53.47	-6,210.12	-1,141.90	5,723.94	5,679.46	44.48	128.677	
6,421.23	6,320.51	6,189.76	6,188.10	23.32	21.45	53.51	-6,210.44	-1,141.86	5,721.39	5,676.75	44.64	128.178	
6,500.00	6,397.52	6,267.54	6,265.88	23.62	21.72	53.49	-6,211.67	-1,141.73	5,712.57	5,667.36	45.21	126.363	
6,600.00	6,495.90	6,364.75	6,363.07	24.00	22.07	53.48	-6,213.20	-1,141.55	5,703.25	5,657.33	45.92	124.192	
6,700.00	6,594.84	6,519.72	6,518.03	24.37	22.61	53.53	-6,214.85	-1,141.98	5,695.75	5,648.93	46.82	121.655	
6,800.00	6,694.23	6,616.41	6,614.71	24.74	22.94	53.54	-6,214.97	-1,143.46	5,689.75	5,642.23	47.52	119.735	
6,900.00	6,793.94	6,715.34	6,713.56	25.09	23.29	53.57	-6,214.39	-1,147.26	5,685.87	5,637.64	48.22	117.912	
7,000.00	6,893.85	6,864.85	6,862.86	25.44	23.81	53.66	-6,212.04	-1,154.79	5,683.45	5,634.38	49.08	115.807	
7,066.16	6,960.00	6,961.72	6,959.66	25.67	24.15	-162.20	-6,210.44	-1,158.03	5,682.65	5,633.03	49.63	114.511	
7,100.00	6,993.82	7,017.18	7,015.09	25.78	24.35	29.39	-6,209.29	-1,159.71	5,681.43	5,631.50	49.92	113.801	
7,150.00	7,043.55	7,065.63	7,063.51	25.96	24.51	29.68	-6,208.30	-1,160.97	5,676.38	5,626.11	50.27	112.913	
7,200.00	7,092.63	7,126.54	7,124.39	26.14	24.73	30.20	-6,207.07	-1,162.21	5,667.53	5,616.87	50.66	111.864	
7,250.00	7,140.71	7,199.32	7,197.16	26.34	24.98	30.99	-6,205.56	-1,162.99	5,654.83	5,603.74	51.10	110.671	
7,300.00	7,187.41	7,249.72	7,247.54	26.53	25.15	32.00	-6,204.51	-1,163.13	5,638.45	5,586.99	51.46	109.568	
7,350.00	7,232.38	7,298.02	7,295.83	26.73	25.32	33.30	-6,203.53	-1,163.06	5,618.60	5,566.78	51.82	108.430	
7,400.00	7,275.27	7,341.81	7,339.61	26.93	25.47	34.91	-6,202.65	-1,162.92	5,595.47	5,543.32	52.16	107.279	
7,450.00	7,315.77	7,382.92	7,380.72	27.13	25.62	36.89	-6,201.80	-1,162.82	5,569.26	5,516.78	52.48	106.112	
7,500.00	7,353.56	7,422.31	7,420.10	27.34	25.75	39.30	-6,200.97	-1,162.73	5,540.18	5,487.38	52.80	104.931	
7,550.00	7,388.35	7,459.33	7,457.11	27.54	25.88	42.21	-6,200.19	-1,162.60	5,508.46	5,455.36	53.10	103.747	
7,600.00	7,419.89	7,492.76	7,490.53	27.74	26.00	45.71	-6,199.49	-1,162.43	5,474.35	5,420.98	53.37	102.572	
7,650.00	7,447.92	7,500.00	7,497.77	27.94	26.02	49.65	-6,199.33	-1,162.38	5,438.19	5,384.63	53.56	101.537	
7,700.00	7,472.24	7,525.11	7,522.87	28.14	26.11	54.51	-6,198.85	-1,162.22	5,400.24	5,346.45	53.78	100.404	
7,750.00	7,492.67	7,536.40	7,534.16	28.33	26.15	60.05	-6,198.67	-1,162.14	5,360.84	5,306.88	53.96	99.352	
7,800.00	7,509.03	7,545.44	7,543.20	28.52	26.18	66.38	-6,198.54	-1,162.08	5,320.27	5,266.16	54.11	98.321	
7,816.16	7,513.43	7,547.86	7,545.62	28.58	26.19	68.59	-6,198.50	-1,162.06	5,306.96	5,252.80	54.16	97.992	
7,900.00	7,532.50	7,558.35	7,556.11	28.88	26.22	72.75	-6,198.37	-1,161.99	5,236.61	5,182.24	54.37	96.314	
8,000.00	7,548.24	7,566.94	7,564.70	29.24	26.25	79.00	-6,198.27	-1,161.92	5,150.22	5,095.63	54.59	94.344	
8,100.00	7,556.27	7,571.11	7,568.87	29.58	26.27	86.81	-6,198.23	-1,161.89	5,061.68	5,006.91	54.77	92.415	
8,153.26	7,557.37	7,571.47	7,569.23	29.76	26.27	91.61	-6,198.22	-1,161.88	5,013.85	4,959.00	54.85	91.406	
8,200.00	7,557.37	7,571.21	7,568.96	29.92	26.27	91.61	-6,198.23	-1,161.89	4,971.75	4,916.83	54.92	90.529	
8,300.00	7,557.36	7,570.64	7,568.39	30.26	26.27	91.59	-6,198.23	-1,161.89	4,881.96	4,826.89	55.07	88.655	
8,400.00	7,557.36	7,570.05	7,567.81	30.63	26.26	91.58	-6,198.24	-1,161.90	4,792.57	4,737.34	55.23	86.780	
8,500.00	7,557.36	7,569.46	7,567.22	31.00	26.26	91.56	-6,198.24	-1,161.90	4,703.61	4,648.21	55.40	84.905	
8,600.00	7,557.35	7,568.86	7,566.61	31.39	26.26	91.54	-6,198.25	-1,161.91	4,615.10	4,559.52	55.58	83.031	
8,700.00	7,557.35	7,568.24	7,566.00	31.79	26.26	91.53	-6,198.26	-1,161.91	4,527.07	4,471.29	55.78	81.159	
8,800.00	7,557.35	7,567.61	7,565.37	32.21	26.26	91.51	-6,198.26	-1,161.91	4,439.55	4,383.56	55.99	79.288	
8,900.00	7,557.34	7,566.97	7,564.73	32.64	26.25	91.49	-6,198.27	-1,161.92	4,352.57	4,296.35	56.22	77.420	
9,000.00	7,557.34	7,566.31	7,564.07	33.08	26.25	91.48	-6,198.28	-1,161.92	4,266.15	4,209.69	56.46	75.555	

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 4H
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 4H	**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
9,100.00	7,557.34	7,565.65	7,563.40	33.54	26.25	91.46	-6,198.29	-1,161.93	4,180.34	4,123.62	56.73	73.695	
9,200.00	7,557.33	7,564.96	7,562.72	34.00	26.25	91.44	-6,198.29	-1,161.94	4,095.18	4,038.17	57.00	71.839	
9,300.00	7,557.33	7,564.27	7,562.03	34.48	26.24	91.42	-6,198.30	-1,161.94	4,010.70	3,953.39	57.30	69.990	
9,400.00	7,557.32	7,563.56	7,561.31	34.96	26.24	91.40	-6,198.31	-1,161.95	3,926.94	3,869.32	57.62	68.148	
9,500.00	7,557.32	7,562.83	7,560.59	35.46	26.24	91.38	-6,198.32	-1,161.95	3,843.97	3,786.00	57.97	66.315	
9,600.00	7,557.32	7,562.09	7,559.85	35.97	26.24	91.36	-6,198.32	-1,161.96	3,761.82	3,703.49	58.33	64.492	
9,700.00	7,557.31	7,561.33	7,559.09	36.48	26.23	91.34	-6,198.33	-1,161.96	3,680.56	3,621.84	58.72	62.680	
9,800.00	7,557.31	7,560.55	7,558.31	37.00	26.23	91.32	-6,198.34	-1,161.97	3,600.24	3,541.10	59.13	60.882	
9,900.00	7,557.31	7,559.76	7,557.52	37.54	26.23	91.30	-6,198.35	-1,161.97	3,520.93	3,461.35	59.58	59.099	
10,000.00	7,557.30	7,558.95	7,556.71	38.08	26.23	91.28	-6,198.36	-1,161.98	3,442.69	3,382.64	60.05	57.333	
10,100.00	7,557.30	7,558.12	7,555.88	38.63	26.22	91.26	-6,198.37	-1,161.99	3,365.61	3,305.06	60.55	55.586	
10,200.00	7,557.30	7,557.27	7,555.03	39.18	26.22	91.24	-6,198.38	-1,161.99	3,289.76	3,228.68	61.08	53.861	
10,300.00	7,557.29	7,556.40	7,554.16	39.74	26.22	91.21	-6,198.39	-1,162.00	3,215.23	3,153.59	61.64	52.160	
10,400.00	7,557.29	7,555.52	7,553.27	40.31	26.21	91.19	-6,198.40	-1,162.01	3,142.12	3,079.88	62.24	50.486	
10,500.00	7,557.28	7,554.61	7,552.36	40.89	26.21	91.17	-6,198.41	-1,162.01	3,070.52	3,007.65	62.87	48.841	
10,600.00	7,557.28	7,553.67	7,551.43	41.47	26.21	91.14	-6,198.43	-1,162.02	3,000.55	2,937.01	63.53	47.229	
10,700.00	7,557.28	7,552.72	7,550.48	42.06	26.20	91.12	-6,198.44	-1,162.03	2,932.31	2,868.08	64.23	45.653	
10,800.00	7,557.27	7,551.74	7,549.50	42.66	26.20	91.09	-6,198.45	-1,162.03	2,865.95	2,800.98	64.96	44.115	
10,900.00	7,557.27	7,550.73	7,548.49	43.26	26.20	91.06	-6,198.46	-1,162.04	2,801.58	2,735.84	65.73	42.621	
11,000.00	7,557.27	7,549.70	7,547.46	43.86	26.19	91.04	-6,198.48	-1,162.05	2,739.34	2,672.81	66.53	41.172	
11,100.00	7,557.26	7,548.65	7,546.41	44.47	26.19	91.01	-6,198.49	-1,162.06	2,679.40	2,612.03	67.37	39.774	
11,200.00	7,557.26	7,547.56	7,545.32	45.09	26.19	90.98	-6,198.51	-1,162.07	2,621.90	2,553.67	68.23	38.428	
11,300.00	7,557.26	7,546.45	7,544.21	45.71	26.18	90.95	-6,198.52	-1,162.07	2,567.01	2,497.89	69.12	37.140	
11,400.00	7,557.25	7,545.31	7,543.07	46.33	26.18	90.92	-6,198.54	-1,162.08	2,514.89	2,444.87	70.03	35.913	
11,500.00	7,557.25	7,544.14	7,541.90	46.96	26.17	90.89	-6,198.55	-1,162.09	2,465.74	2,394.78	70.96	34.750	
11,600.00	7,557.24	7,542.93	7,540.69	47.60	26.17	90.86	-6,198.57	-1,162.10	2,419.71	2,347.82	71.90	33.655	
11,700.00	7,557.24	7,541.69	7,539.45	48.24	26.17	90.83	-6,198.59	-1,162.11	2,377.01	2,304.16	72.85	32.631	
11,800.00	7,557.24	7,540.41	7,538.17	48.88	26.16	90.79	-6,198.61	-1,162.12	2,337.80	2,264.01	73.79	31.682	
11,900.00	7,557.23	7,539.10	7,536.86	49.52	26.16	90.76	-6,198.63	-1,162.13	2,302.28	2,227.55	74.72	30.810	
12,000.00	7,557.23	7,537.75	7,535.51	50.17	26.15	90.72	-6,198.65	-1,162.14	2,270.60	2,194.96	75.64	30.018	
12,100.00	7,557.23	7,536.36	7,534.12	50.82	26.15	90.68	-6,198.67	-1,162.15	2,242.94	2,166.41	76.53	29.309	
12,200.00	7,557.22	7,534.93	7,532.69	51.48	26.14	90.65	-6,198.69	-1,162.16	2,219.44	2,142.06	77.38	28.684	
12,300.00	7,557.22	7,533.45	7,531.21	52.14	26.14	90.61	-6,198.72	-1,162.17	2,200.23	2,122.06	78.18	28.145	
12,400.00	7,557.22	7,531.93	7,529.69	52.80	26.13	90.57	-6,198.74	-1,162.18	2,185.44	2,106.52	78.92	27.693	
12,500.00	7,557.21	7,530.35	7,528.12	53.46	26.13	90.53	-6,198.77	-1,162.19	2,175.15	2,095.56	79.60	27.328	
12,600.00	7,557.21	7,528.73	7,526.49	54.13	26.12	90.48	-6,198.79	-1,162.20	2,169.42	2,089.22	80.20	27.050	
12,674.44	7,557.21	7,527.49	7,525.25	54.63	26.12	90.45	-6,198.81	-1,162.21	2,168.15	2,087.55	80.60	26.900	CC, ES
12,700.00	7,557.20	7,527.06	7,524.82	54.80	26.11	90.44	-6,198.82	-1,162.21	2,168.30	2,087.57	80.73	26.860	
12,800.00	7,557.20	7,525.33	7,523.09	55.48	26.11	90.39	-6,198.85	-1,162.22	2,171.78	2,090.61	81.17	26.757	
12,900.00	7,557.20	7,523.54	7,521.30	56.15	26.10	90.35	-6,198.88	-1,162.23	2,179.84	2,098.32	81.52	26.739	
13,000.00	7,557.19	7,521.69	7,519.45	56.83	26.10	90.30	-6,198.91	-1,162.25	2,192.45	2,110.65	81.79	26.804	
13,100.00	7,557.19	7,519.77	7,517.54	57.51	26.09	90.25	-6,198.95	-1,162.26	2,209.50	2,127.52	81.98	26.952	
13,200.00	7,557.19	7,517.79	7,515.56	58.19	26.08	90.19	-6,198.98	-1,162.27	2,230.92	2,148.84	82.08	27.179	
13,300.00	7,557.18	7,515.74	7,513.50	58.88	26.08	90.14	-6,199.02	-1,162.28	2,256.56	2,174.46	82.11	27.484	
13,400.00	7,557.18	7,513.61	7,511.37	59.57	26.07	90.08	-6,199.06	-1,162.30	2,286.29	2,204.24	82.06	27.863	
13,500.00	7,557.18	7,511.40	7,509.16	60.25	26.06	90.03	-6,199.10	-1,162.31	2,319.96	2,238.02	81.94	28.313	
13,600.00	7,557.17	7,509.10	7,506.87	60.95	26.05	89.96	-6,199.15	-1,162.33	2,357.38	2,275.62	81.76	28.832	
13,700.00	7,557.17	7,506.72	7,504.48	61.64	26.04	89.90	-6,199.20	-1,162.34	2,398.39	2,316.86	81.53	29.417	
13,800.00	7,557.16	7,504.24	7,502.00	62.33	26.04	89.84	-6,199.25	-1,162.36	2,442.81	2,361.55	81.25	30.064	
13,900.00	7,557.16	7,501.66	7,499.42	63.03	26.03	89.77	-6,199.30	-1,162.37	2,490.45	2,409.51	80.94	30.770	
14,000.00	7,557.16	7,499.14	7,496.90	63.73	26.02	89.70	-6,199.35	-1,162.39	2,541.13	2,460.54	80.59	31.531	
14,100.00	7,557.15	7,496.85	7,494.62	64.43	26.01	89.64	-6,199.40	-1,162.40	2,594.68	2,514.46	80.22	32.345	

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 4H
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 4H	**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
14,200.00	7,557.15	7,494.56	7,492.33	65.13	26.00	89.58	-6,199.45	-1,162.42	2,650.91	2,571.09	79.83	33.208	
14,300.00	7,557.15	7,492.27	7,490.04	65.84	25.99	89.52	-6,199.50	-1,162.43	2,709.67	2,630.25	79.42	34.118	
14,400.00	7,557.14	7,489.98	7,487.75	66.54	25.99	89.46	-6,199.55	-1,162.44	2,770.79	2,691.79	79.00	35.072	
14,500.00	7,557.14	9,443.14	8,289.02	67.25	35.83	106.50	-7,578.71	-1,541.86	2,790.26	2,689.19	101.07	27.606	
14,600.00	7,557.14	9,552.90	8,291.29	67.96	37.02	106.44	-7,687.91	-1,552.66	2,806.41	2,703.45	102.97	27.256	
14,700.00	7,557.13	9,604.89	8,292.59	68.66	37.60	106.41	-7,739.57	-1,558.32	2,823.76	2,719.67	104.09	27.127	
14,800.00	7,557.13	9,662.71	8,294.47	69.38	38.25	106.38	-7,796.91	-1,565.56	2,842.79	2,737.49	105.30	26.997	
14,900.00	7,557.12	9,796.82	8,298.28	70.09	39.83	106.31	-7,929.86	-1,582.69	2,862.09	2,754.43	107.66	26.584	
15,000.00	7,557.12	9,922.85	8,300.74	70.80	41.35	106.23	-8,055.02	-1,597.24	2,879.88	2,769.93	109.95	26.193	
15,100.00	7,557.12	10,052.35	8,301.38	71.52	42.97	106.12	-8,183.72	-1,611.56	2,896.86	2,784.53	112.33	25.789	
15,200.00	7,557.11	10,151.00	8,300.74	72.23	44.22	106.01	-8,281.83	-1,621.90	2,912.97	2,798.70	114.27	25.491	
15,300.00	7,557.11	10,215.00	8,300.19	72.95	45.05	105.94	-8,345.40	-1,629.26	2,929.97	2,814.28	115.70	25.325	
15,400.00	7,557.11	10,254.32	8,300.06	73.67	45.56	105.89	-8,384.38	-1,634.44	2,948.61	2,831.90	116.71	25.264	
15,500.00	7,557.10	10,320.39	8,300.33	74.39	46.44	105.82	-8,449.74	-1,644.05	2,968.81	2,850.66	118.15	25.127	
15,600.00	7,557.10	10,412.38	8,300.33	75.11	47.67	105.72	-8,540.68	-1,657.92	2,989.52	2,869.47	120.05	24.902	
15,700.00	7,557.10	10,813.90	8,302.66	75.83	53.16	105.43	-8,940.03	-1,694.85	3,003.07	2,876.12	126.95	23.656	
15,800.00	7,557.09	10,852.00	8,302.00	76.55	53.69	105.40	-8,978.05	-1,697.16	3,014.83	2,886.72	128.11	23.533	
15,900.00	7,557.09	10,894.22	8,301.85	77.27	54.28	105.37	-9,020.15	-1,700.42	3,028.53	2,899.22	129.30	23.422	
16,000.00	7,557.08	10,971.86	8,302.66	78.00	55.38	105.32	-9,097.45	-1,707.67	3,043.94	2,912.90	131.05	23.228	
16,100.00	7,557.08	11,098.18	8,302.47	78.72	57.18	105.22	-9,223.28	-1,718.72	3,058.49	2,924.88	133.61	22.891	
16,200.00	7,557.08	11,150.52	8,302.01	79.45	57.93	105.17	-9,275.38	-1,723.67	3,073.70	2,938.74	134.95	22.776	
16,300.00	7,557.07	11,204.17	8,301.80	80.18	58.71	105.12	-9,328.70	-1,729.60	3,090.46	2,954.16	136.30	22.675	
16,400.00	7,557.07	11,289.33	8,302.05	80.90	59.94	105.05	-9,413.24	-1,739.85	3,108.35	2,970.16	138.19	22.493	
16,500.00	7,557.07	11,390.17	8,301.30	81.63	61.42	104.94	-9,513.38	-1,751.67	3,125.71	2,985.33	140.37	22.267	
16,600.00	7,557.06	11,482.20	8,301.03	82.36	62.77	104.86	-9,604.66	-1,763.39	3,144.13	3,001.73	142.41	22.078	
16,700.00	7,557.06	11,528.68	8,300.83	83.09	63.46	104.81	-9,650.75	-1,769.41	3,162.86	3,019.26	143.60	22.025	
16,800.00	7,557.06	11,578.84	8,300.71	83.82	64.21	104.76	-9,700.35	-1,776.86	3,183.30	3,038.46	144.84	21.979	
16,900.00	7,557.05	11,642.61	8,300.57	84.55	65.16	104.69	-9,763.30	-1,787.06	3,204.92	3,058.60	146.32	21.904	
17,000.00	7,557.05	12,088.60	8,307.06	85.29	71.83	104.48	-10,206.78	-1,829.24	3,217.02	3,062.29	154.72	20.792	
17,100.00	7,557.04	12,162.33	8,304.96	86.02	72.93	104.40	-10,280.31	-1,834.08	3,228.94	3,072.41	156.53	20.629	
17,200.00	7,557.04	12,228.21	8,302.44	86.75	73.93	104.31	-10,345.96	-1,839.08	3,241.67	3,083.47	158.19	20.492	
17,300.00	7,557.04	12,281.52	8,300.11	87.49	74.74	104.24	-10,399.00	-1,843.88	3,255.63	3,096.00	159.63	20.395	
17,400.00	7,557.03	12,314.00	8,299.00	88.22	75.23	104.20	-10,431.30	-1,847.14	3,271.17	3,110.51	160.66	20.361	
17,500.00	7,557.03	12,377.00	8,298.83	88.96	76.19	104.15	-10,493.90	-1,854.11	3,288.21	3,126.00	162.21	20.272	
17,600.00	7,557.03	12,494.68	8,302.10	89.70	77.99	104.11	-10,610.82	-1,867.09	3,305.85	3,141.08	164.77	20.063	
17,700.00	7,557.02	12,595.07	8,303.28	90.43	79.53	104.06	-10,710.60	-1,878.06	3,322.98	3,155.96	167.03	19.895	
17,800.00	7,557.02	12,705.59	8,304.02	91.17	81.23	103.99	-10,820.45	-1,890.16	3,340.04	3,170.56	169.48	19.708	
17,900.00	7,557.02	12,937.45	8,305.33	91.91	84.81	103.87	-11,051.45	-1,909.62	3,354.23	3,180.14	174.09	19.268	
18,000.00	7,557.01	13,028.08	8,305.22	92.65	86.21	103.82	-11,141.86	-1,915.92	3,367.24	3,191.05	176.19	19.111	
18,100.00	7,557.01	13,120.96	8,306.49	93.39	87.64	103.79	-11,234.53	-1,922.12	3,380.34	3,202.01	178.33	18.956	
18,200.00	7,557.00	13,272.47	8,305.16	94.13	89.99	103.69	-11,385.69	-1,932.15	3,392.85	3,211.37	181.48	18.695	
18,300.00	7,557.00	13,305.00	8,304.53	94.87	90.49	103.66	-11,418.15	-1,934.14	3,405.29	3,222.68	182.60	18.649	SF
18,318.93	7,557.00	13,305.00	8,304.53	95.01	90.49	103.66	-11,418.15	-1,934.14	3,407.94	3,225.24	182.70	18.653	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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	30.17	3,824.22	2,222.72	4,423.30				
100.00	100.00	54.41	54.41	0.28	0.51	30.17	3,824.39	2,222.73	4,423.48	4,422.70	0.78	5,662.037	
200.00	200.00	142.94	142.94	0.63	0.59	30.16	3,825.20	2,222.83	4,424.31	4,423.09	1.22	3,619.653	
300.00	300.00	246.65	246.65	0.99	0.84	30.16	3,825.95	2,223.09	4,425.06	4,423.22	1.84	2,409.319	
400.00	400.00	384.46	384.45	1.35	1.27	30.16	3,826.49	2,223.71	4,425.71	4,423.10	2.62	1,691.223	
498.90	498.90	478.90	478.89	1.71	1.57	30.17	3,825.99	2,224.06	4,425.45	4,422.18	3.28	1,350.504	
500.00	500.00	479.71	479.69	1.71	1.57	30.17	3,825.99	2,224.06	4,425.45	4,422.17	3.28	1,347.790	
600.00	600.00	562.13	562.11	2.07	1.85	30.17	3,826.08	2,224.32	4,425.69	4,421.77	3.92	1,128.981	
700.00	700.00	657.60	657.58	2.43	2.18	30.17	3,826.52	2,224.49	4,426.19	4,421.58	4.61	960.621	
800.00	800.00	750.13	750.12	2.79	2.50	30.17	3,827.07	2,224.58	4,426.75	4,421.46	5.29	837.188	
900.00	900.00	846.34	846.32	3.14	2.84	30.16	3,827.89	2,224.58	4,427.49	4,421.51	5.98	740.115	
1,000.00	1,000.00	935.36	935.34	3.50	3.15	30.16	3,828.80	2,224.55	4,428.35	4,421.70	6.65	665.635	
1,100.00	1,100.00	1,040.78	1,040.75	3.86	3.52	30.14	3,830.21	2,224.23	4,429.36	4,421.98	7.38	600.067	
1,200.00	1,200.00	1,146.52	1,146.48	4.22	3.89	30.13	3,831.44	2,223.87	4,430.20	4,422.09	8.11	546.121	
1,300.00	1,300.00	1,290.02	1,289.97	4.58	4.39	30.12	3,832.31	2,223.05	4,430.42	4,421.45	8.97	493.933	
1,400.00	1,400.00	1,398.12	1,398.07	4.94	4.76	30.11	3,832.35	2,222.18	4,430.05	4,420.35	9.70	456.797	
1,500.00	1,500.00	1,490.32	1,490.26	5.29	5.08	30.10	3,832.43	2,221.43	4,429.72	4,419.34	10.37	426.986	
1,600.00	1,600.00	1,620.43	1,620.33	5.65	5.53	30.06	3,833.23	2,218.36	4,429.04	4,417.86	11.19	395.927	
1,700.00	1,700.00	1,713.68	1,713.48	6.01	5.86	30.00	3,834.66	2,214.28	4,428.18	4,416.30	11.87	372.965	
1,800.00	1,800.00	1,808.05	1,807.77	6.37	6.20	29.95	3,836.11	2,210.55	4,427.53	4,414.97	12.56	352.380	
1,900.00	1,900.00	1,896.37	1,896.03	6.73	6.51	29.91	3,837.23	2,207.57	4,426.96	4,413.72	13.24	334.466	
1,962.63	1,962.63	1,943.00	1,942.63	6.95	6.67	29.89	3,838.02	2,206.01	4,426.84	4,413.21	13.63	324.885	
2,000.00	2,000.00	1,968.17	1,967.78	7.09	6.76	29.88	3,838.52	2,205.21	4,426.89	4,413.04	13.85	319.641	
2,100.00	2,099.98	2,032.00	2,031.57	7.43	6.99	-114.24	3,840.00	2,203.47	4,428.27	4,413.86	14.42	307.120	
2,200.00	2,199.84	2,121.00	2,120.53	7.76	7.31	-114.27	3,842.15	2,201.83	4,431.60	4,416.54	15.06	294.178	
2,300.00	2,299.45	2,211.00	2,210.43	8.09	7.63	-114.32	3,845.17	2,199.13	4,436.65	4,420.93	15.72	282.281	
2,400.00	2,398.70	2,323.19	2,322.33	8.42	8.04	-114.46	3,850.38	2,192.97	4,443.06	4,426.60	16.45	270.019	
2,500.00	2,497.47	2,410.64	2,409.65	8.76	8.35	-114.54	3,853.63	2,189.72	4,451.05	4,433.94	17.10	260.231	
2,600.00	2,595.62	2,505.38	2,504.34	9.10	8.69	-114.61	3,856.36	2,187.80	4,460.67	4,442.88	17.78	250.850	
2,644.93	2,639.49	2,544.84	2,543.74	9.25	8.83	-114.65	3,857.89	2,186.36	4,465.53	4,447.46	18.08	247.029	
2,700.00	2,693.18	2,594.55	2,593.30	9.44	9.01	-114.82	3,860.40	2,183.59	4,471.77	4,453.32	18.44	242.452	
2,800.00	2,790.65	2,695.14	2,693.49	9.78	9.38	-115.20	3,866.20	2,176.58	4,483.21	4,464.05	19.15	234.065	
2,900.00	2,888.13	2,797.19	2,795.07	10.13	9.75	-115.58	3,872.13	2,168.95	4,494.64	4,474.77	19.87	226.161	
3,000.00	2,985.61	2,864.46	2,862.01	10.48	10.00	-115.83	3,876.25	2,163.63	4,506.39	4,485.92	20.47	220.174	
3,100.00	3,083.08	2,929.00	2,926.09	10.83	10.24	-116.09	3,881.40	2,158.03	4,519.38	4,498.33	21.05	214.666	
3,200.00	3,180.56	2,968.75	2,965.48	11.19	10.39	-116.26	3,885.18	2,154.21	4,533.34	4,511.80	21.55	210.411	
3,300.00	3,278.04	3,050.76	3,046.52	11.55	10.69	-116.61	3,893.85	2,145.11	4,548.07	4,525.87	22.21	204.822	
3,400.00	3,375.51	3,159.33	3,153.71	11.91	11.11	-117.09	3,905.56	2,132.44	4,563.02	4,540.04	22.98	198.597	
3,500.00	3,472.99	3,234.94	3,228.37	12.27	11.40	-117.42	3,913.53	2,123.55	4,578.01	4,554.40	23.62	193.833	
3,600.00	3,570.47	3,287.00	3,279.64	12.64	11.60	-117.66	3,919.69	2,116.99	4,594.00	4,569.83	24.16	190.110	
3,700.00	3,667.94	3,335.32	3,327.12	13.00	11.79	-117.88	3,926.04	2,110.59	4,611.09	4,586.40	24.70	186.707	
3,800.00	3,765.42	3,392.59	3,383.23	13.37	12.01	-118.15	3,934.31	2,102.74	4,629.34	4,604.07	25.27	183.224	
3,900.00	3,862.90	3,512.71	3,500.91	13.74	12.49	-118.72	3,951.64	2,085.94	4,647.82	4,621.71	26.11	177.997	
4,000.00	3,960.37	3,657.62	3,643.11	14.11	13.07	-119.39	3,971.15	2,066.06	4,665.92	4,638.85	27.07	172.369	
4,100.00	4,057.85	3,768.44	3,752.06	14.48	13.52	-119.89	3,984.88	2,051.06	4,683.39	4,655.51	27.88	167.981	
4,200.00	4,155.33	12,483.00	8,406.46	14.86	67.42	-88.99	-310.63	1,998.72	4,616.90	4,566.79	50.12	92.119	
4,300.00	4,252.80	12,499.41	8,406.72	15.23	67.63	-88.47	-327.03	1,998.39	4,521.95	4,471.32	50.62	89.323	
4,400.00	4,350.28	12,516.97	8,406.99	15.61	67.86	-87.91	-344.59	1,998.05	4,427.14	4,375.98	51.15	86.545	
4,500.00	4,447.76	12,534.56	8,407.27	15.98	68.09	-87.34	-362.18	1,997.72	4,332.48	4,280.78	51.70	83.801	
4,600.00	4,545.23	12,552.18	8,407.55	16.36	68.32	-86.76	-379.79	1,997.42	4,237.99	4,185.73	52.26	81.091	
4,700.00	4,642.71	12,572.00	8,407.86	16.74	68.57	-86.10	-399.60	1,997.09	4,143.67	4,090.81	52.86	78.389	
4,800.00	4,740.19	12,592.04	8,408.16	17.11	68.83	-85.42	-419.64	1,996.79	4,049.54	3,996.06	53.48	75.722	

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 4H
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 4H	**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	4,837.66	12,614.65	8,408.48	17.49	69.13	-84.64	-442.24	1,996.46	3,955.58	3,901.44	54.14	73.062	
5,000.00	4,935.14	12,636.98	8,408.76	17.87	69.42	-83.85	-464.57	1,996.16	3,861.81	3,806.99	54.82	70.446	
5,100.00	5,032.62	12,659.04	8,409.00	18.25	69.70	-83.06	-486.63	1,995.87	3,768.25	3,712.73	55.52	67.872	
5,200.00	5,130.09	12,681.52	8,409.23	18.64	70.00	-82.24	-509.11	1,995.60	3,674.91	3,618.66	56.25	65.333	
5,300.00	5,227.57	12,703.85	8,409.44	19.02	70.29	-81.41	-531.43	1,995.31	3,581.82	3,524.82	57.00	62.835	
5,400.00	5,325.05	12,725.96	8,409.62	19.40	70.58	-80.58	-553.54	1,995.02	3,488.99	3,431.20	57.78	60.380	
5,500.00	5,422.52	12,747.87	8,409.79	19.78	70.86	-79.74	-575.44	1,994.72	3,396.44	3,337.85	58.59	57.967	
5,600.00	5,520.00	12,769.32	8,409.92	20.16	71.14	-78.91	-596.90	1,994.43	3,304.21	3,244.78	59.43	55.597	
5,700.00	5,617.48	12,790.35	8,410.01	20.55	71.42	-78.08	-617.92	1,994.20	3,212.32	3,152.02	60.30	53.270	
5,800.00	5,714.95	12,810.99	8,410.05	20.93	71.69	-77.25	-638.56	1,994.01	3,120.81	3,059.60	61.21	50.985	
5,900.00	5,812.43	12,831.24	8,410.05	21.31	71.95	-76.43	-658.81	1,993.87	3,029.71	2,967.55	62.16	48.743	
6,000.00	5,909.91	12,849.29	8,410.03	21.70	72.19	-75.68	-676.86	1,993.77	2,939.07	2,875.94	63.13	46.557	
6,100.00	6,007.38	12,865.88	8,410.00	22.08	72.41	-74.99	-693.45	1,993.69	2,848.95	2,784.81	64.14	44.420	
6,200.00	6,104.86	12,882.53	8,409.99	22.47	72.62	-74.29	-710.10	1,993.61	2,759.41	2,694.21	65.20	42.323	
6,300.00	6,202.34	12,899.25	8,409.97	22.85	72.84	-73.59	-726.82	1,993.54	2,670.49	2,604.17	66.32	40.268	
6,400.00	6,299.81	12,916.05	8,409.97	23.24	73.06	-72.87	-743.62	1,993.48	2,582.27	2,514.77	67.50	38.256	
6,421.23	6,320.51	12,919.62	8,409.97	23.32	73.11	-72.71	-747.19	1,993.46	2,563.64	2,495.88	67.76	37.835	
6,500.00	6,397.52	12,932.43	8,409.96	23.62	73.28	-69.51	-760.00	1,993.42	2,494.99	2,426.23	68.76	36.288	
6,600.00	6,495.90	12,947.33	8,409.95	24.00	73.48	-65.77	-774.90	1,993.37	2,409.21	2,339.10	70.11	34.364	
6,700.00	6,594.84	12,959.21	8,409.94	24.37	73.63	-62.47	-786.78	1,993.35	2,325.28	2,253.73	71.55	32.497	
6,800.00	6,694.23	12,968.11	8,409.92	24.74	73.75	-59.61	-795.68	1,993.34	2,243.56	2,170.46	73.10	30.693	
6,900.00	6,793.94	12,974.06	8,409.90	25.09	73.83	-57.15	-801.63	1,993.33	2,164.43	2,089.69	74.74	28.959	
7,000.00	6,893.85	12,977.10	8,409.90	25.44	73.87	-55.08	-804.67	1,993.33	2,088.31	2,011.83	76.49	27.303	
7,066.16	6,960.00	12,977.53	8,409.90	25.67	73.87	90.21	-805.10	1,993.33	2,039.84	1,962.15	77.69	26.255	
7,100.00	6,993.82	12,978.42	8,409.89	25.78	73.89	-81.72	-805.99	1,993.33	2,015.46	1,937.13	78.33	25.729	
7,150.00	7,043.55	12,983.28	8,409.88	25.96	73.95	-86.64	-810.85	1,993.33	1,979.60	1,900.26	79.33	24.953	
7,200.00	7,092.63	12,992.34	8,409.85	26.14	74.07	-91.30	-819.91	1,993.33	1,944.15	1,863.77	80.38	24.187	
7,250.00	7,140.71	13,005.47	8,409.79	26.34	74.24	-95.63	-833.04	1,993.33	1,909.36	1,827.89	81.47	23.437	
7,300.00	7,187.41	13,018.00	8,409.73	26.53	74.41	-99.75	-845.57	1,993.35	1,875.45	1,792.92	82.53	22.724	
7,350.00	7,232.38	13,039.23	8,409.62	26.73	74.69	-103.28	-866.80	1,993.42	1,842.64	1,758.97	83.68	22.021	
7,400.00	7,275.27	13,059.83	8,409.53	26.93	74.96	-106.56	-887.39	1,993.54	1,811.16	1,726.38	84.78	21.363	
7,450.00	7,315.77	13,083.43	8,409.43	27.13	75.27	-109.47	-911.00	1,993.76	1,781.19	1,695.30	85.89	20.739	
7,500.00	7,353.56	13,108.00	8,409.34	27.34	75.60	-112.07	-935.57	1,994.06	1,752.90	1,665.94	86.95	20.159	
7,550.00	7,388.35	13,137.45	8,409.27	27.54	75.99	-114.29	-965.01	1,994.53	1,726.45	1,638.43	88.03	19.613	
7,600.00	7,419.89	13,167.51	8,409.27	27.74	76.39	-116.27	-995.07	1,995.13	1,702.01	1,612.96	89.04	19.114	
7,650.00	7,447.92	13,197.00	8,409.34	27.94	76.78	-118.03	-1,024.55	1,995.84	1,679.70	1,589.71	89.98	18.667	
7,700.00	7,472.24	13,235.00	8,409.50	28.14	77.29	-119.47	-1,062.53	1,996.97	1,659.64	1,568.68	90.95	18.247	
7,750.00	7,492.67	13,277.53	8,409.73	28.33	77.86	-120.71	-1,105.03	1,998.38	1,641.82	1,549.92	91.90	17.865	
7,800.00	7,509.03	13,295.00	8,409.82	28.52	78.09	-121.96	-1,122.50	1,998.96	1,626.43	1,534.00	92.44	17.595	
7,816.16	7,513.43	13,295.00	8,409.82	28.58	78.09	-122.33	-1,122.50	1,998.96	1,622.20	1,529.69	92.51	17.535	
7,900.00	7,532.50	13,295.00	8,409.82	28.88	78.09	-123.20	-1,122.50	1,998.96	1,605.91	1,513.13	92.78	17.308	
7,999.92	7,548.23	13,295.00	8,409.82	29.24	78.09	-123.73	-1,122.50	1,998.96	1,599.01	1,506.15	92.86	17.220	CC, ES, SF
8,000.00	7,548.24	13,295.00	8,409.82	29.24	78.09	-123.73	-1,122.50	1,998.96	1,599.01	1,506.15	92.86	17.220	
8,100.00	7,556.27	13,295.00	8,409.82	29.58	78.09	-123.74	-1,122.50	1,998.96	1,605.93	1,513.29	92.65	17.334	
8,153.26	7,557.37	13,295.00	8,409.82	29.76	78.09	-123.53	-1,122.50	1,998.96	1,615.20	1,522.78	92.42	17.477	
8,200.00	7,557.37	13,295.00	8,409.82	29.92	78.09	-123.53	-1,122.50	1,998.96	1,625.65	1,533.48	92.17	17.638	
8,300.00	7,557.36	13,295.00	8,409.82	30.26	78.09	-123.53	-1,122.50	1,998.96	1,652.24	1,560.69	91.54	18.048	
8,400.00	7,557.36	13,295.00	8,409.82	30.63	78.09	-123.53	-1,122.50	1,998.96	1,684.35	1,593.54	90.80	18.550	
8,500.00	7,557.36	13,295.00	8,409.82	31.00	78.09	-123.53	-1,122.50	1,998.96	1,721.67	1,631.71	89.96	19.138	
8,600.00	7,557.35	13,295.00	8,409.82	31.39	78.09	-123.53	-1,122.50	1,998.96	1,763.89	1,674.84	89.04	19.809	
8,700.00	7,557.35	13,295.00	8,409.82	31.79	78.09	-123.53	-1,122.50	1,998.96	1,810.64	1,722.58	88.07	20.560	
8,800.00	7,557.35	13,295.00	8,409.82	32.21	78.09	-123.53	-1,122.50	1,998.96	1,861.60	1,774.56	87.05	21.386	

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 4H
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 4H	**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
8,900.00	7,557.34	13,295.00	8,409.82	32.64	78.09	-123.53	-1,122.50	1,998.96	1,916.43	1,830.42	86.01	22.282	
9,000.00	7,557.34	13,295.00	8,409.82	33.08	78.09	-123.53	-1,122.50	1,998.96	1,974.80	1,889.84	84.97	23.242	
9,100.00	7,557.34	13,295.00	8,409.82	33.54	78.09	-123.53	-1,122.50	1,998.96	2,036.41	1,952.49	83.93	24.264	
9,200.00	7,557.33	13,295.00	8,409.82	34.00	78.09	-123.53	-1,122.50	1,998.96	2,100.98	2,018.07	82.91	25.341	
9,300.00	7,557.33	13,295.00	8,409.82	34.48	78.09	-123.53	-1,122.50	1,998.96	2,168.24	2,086.32	81.91	26.469	
9,400.00	7,557.32	13,295.00	8,409.82	34.96	78.09	-123.53	-1,122.50	1,998.96	2,237.94	2,156.99	80.95	27.644	
9,500.00	7,557.32	13,295.00	8,409.82	35.46	78.09	-123.53	-1,122.50	1,998.96	2,309.88	2,229.84	80.03	28.862	
9,600.00	7,557.32	13,295.00	8,409.82	35.97	78.09	-123.53	-1,122.50	1,998.96	2,383.83	2,304.68	79.15	30.118	
9,700.00	7,557.31	13,295.00	8,409.82	36.48	78.09	-123.53	-1,122.50	1,998.96	2,459.63	2,381.32	78.31	31.408	
9,800.00	7,557.31	13,295.00	8,409.82	37.00	78.09	-123.53	-1,122.50	1,998.96	2,537.11	2,459.60	77.52	32.730	
9,900.00	7,557.31	13,295.00	8,409.82	37.54	78.09	-123.53	-1,122.50	1,998.96	2,616.12	2,539.35	76.77	34.080	
10,000.00	7,557.30	13,295.00	8,409.82	38.08	78.09	-123.53	-1,122.50	1,998.96	2,696.52	2,620.46	76.06	35.454	
10,100.00	7,557.30	13,295.00	8,409.82	38.63	78.09	-123.53	-1,122.50	1,998.96	2,778.19	2,702.80	75.39	36.850	
10,200.00	7,557.30	13,295.00	8,409.82	39.18	78.09	-123.53	-1,122.50	1,998.96	2,861.03	2,786.26	74.77	38.266	
10,300.00	7,557.29	13,295.00	8,409.82	39.74	78.09	-123.53	-1,122.50	1,998.96	2,944.93	2,870.75	74.18	39.700	
10,400.00	7,557.29	13,295.00	8,409.82	40.31	78.09	-123.53	-1,122.50	1,998.96	3,029.81	2,956.18	73.63	41.148	
10,500.00	7,557.28	13,295.00	8,409.82	40.89	78.09	-123.53	-1,122.50	1,998.96	3,115.59	3,042.47	73.12	42.609	
10,600.00	7,557.28	13,295.00	8,409.82	41.47	78.09	-123.53	-1,122.50	1,998.96	3,202.19	3,129.55	72.64	44.082	
10,700.00	7,557.28	13,295.00	8,409.82	42.06	78.09	-123.53	-1,122.50	1,998.96	3,289.55	3,217.36	72.20	45.564	
10,800.00	7,557.27	13,295.00	8,409.82	42.66	78.09	-123.53	-1,122.50	1,998.96	3,377.62	3,305.84	71.78	47.055	
10,900.00	7,557.27	13,295.00	8,409.82	43.26	78.09	-123.53	-1,122.50	1,998.96	3,466.33	3,394.94	71.39	48.552	
11,000.00	7,557.27	13,295.00	8,409.82	43.86	78.09	-123.53	-1,122.50	1,998.96	3,555.64	3,484.61	71.03	50.056	
11,100.00	7,557.26	13,295.00	8,409.82	44.47	78.09	-123.53	-1,122.50	1,998.96	3,645.51	3,574.81	70.70	51.564	
11,200.00	7,557.26	13,295.00	8,409.82	45.09	78.09	-123.53	-1,122.50	1,998.96	3,735.89	3,665.50	70.39	53.076	
11,300.00	7,557.26	13,295.00	8,409.82	45.71	78.09	-123.53	-1,122.50	1,998.96	3,826.75	3,756.65	70.10	54.592	
11,400.00	7,557.25	13,295.00	8,409.82	46.33	78.09	-123.53	-1,122.50	1,998.96	3,918.05	3,848.22	69.83	56.109	
11,500.00	7,557.25	13,295.00	8,409.82	46.96	78.09	-123.53	-1,122.50	1,998.96	4,009.77	3,940.19	69.58	57.628	
11,600.00	7,557.24	13,295.00	8,409.82	47.60	78.09	-123.53	-1,122.50	1,998.96	4,101.88	4,032.53	69.35	59.148	
11,700.00	7,557.24	13,295.00	8,409.82	48.24	78.09	-123.53	-1,122.50	1,998.96	4,194.35	4,125.21	69.14	60.669	
11,800.00	7,557.24	13,295.00	8,409.82	48.88	78.09	-123.53	-1,122.50	1,998.96	4,287.15	4,218.21	68.94	62.189	
11,900.00	7,557.23	13,295.00	8,409.82	49.52	78.09	-123.53	-1,122.50	1,998.96	4,380.27	4,311.52	68.75	63.709	
12,000.00	7,557.23	13,295.00	8,409.82	50.17	78.09	-123.53	-1,122.50	1,998.96	4,473.69	4,405.11	68.59	65.228	
12,100.00	7,557.23	13,295.00	8,409.82	50.82	78.09	-123.53	-1,122.50	1,998.96	4,567.39	4,498.96	68.43	66.746	
12,200.00	7,557.22	13,295.00	8,409.82	51.48	78.09	-123.53	-1,122.50	1,998.96	4,661.35	4,593.07	68.29	68.262	
12,300.00	7,557.22	13,295.00	8,409.82	52.14	78.09	-123.53	-1,122.50	1,998.96	4,755.56	4,687.41	68.15	69.777	
12,400.00	7,557.22	13,295.00	8,409.82	52.80	78.09	-123.53	-1,122.50	1,998.96	4,850.00	4,781.97	68.03	71.289	
12,500.00	7,557.21	13,295.00	8,409.82	53.46	78.09	-123.53	-1,122.50	1,998.96	4,944.66	4,876.73	67.92	72.799	
12,600.00	7,557.21	13,295.00	8,409.82	54.13	78.09	-123.53	-1,122.50	1,998.96	5,039.52	4,971.70	67.82	74.307	
12,700.00	7,557.20	13,295.00	8,409.82	54.80	78.09	-123.53	-1,122.50	1,998.96	5,134.58	5,066.85	67.73	75.812	
12,800.00	7,557.20	13,295.00	8,409.82	55.48	78.09	-123.53	-1,122.50	1,998.96	5,229.82	5,162.18	67.64	77.314	
12,900.00	7,557.20	13,295.00	8,409.82	56.15	78.09	-123.53	-1,122.50	1,998.96	5,325.24	5,257.67	67.57	78.813	
13,000.00	7,557.19	13,295.00	8,409.82	56.83	78.09	-123.53	-1,122.50	1,998.96	5,420.82	5,353.32	67.50	80.310	
13,100.00	7,557.19	13,295.00	8,409.82	57.51	78.09	-123.53	-1,122.50	1,998.96	5,516.56	5,449.12	67.44	81.803	
13,200.00	7,557.19	13,295.00	8,409.82	58.19	78.09	-123.53	-1,122.50	1,998.96	5,612.45	5,545.07	67.38	83.293	
13,300.00	7,557.18	13,295.00	8,409.82	58.88	78.09	-123.53	-1,122.50	1,998.96	5,708.48	5,641.14	67.33	84.779	
13,400.00	7,557.18	13,295.00	8,409.82	59.57	78.09	-123.53	-1,122.50	1,998.96	5,804.64	5,737.35	67.29	86.262	
13,500.00	7,557.18	13,295.00	8,409.82	60.25	78.09	-123.53	-1,122.50	1,998.96	5,900.93	5,833.68	67.25	87.741	
13,600.00	7,557.17	13,295.00	8,409.82	60.95	78.09	-123.53	-1,122.50	1,998.96	5,997.34	5,930.12	67.22	89.217	
13,700.00	7,557.17	13,295.00	8,409.82	61.64	78.09	-123.53	-1,122.50	1,998.96	6,093.87	6,026.68	67.20	90.689	
13,800.00	7,557.16	13,295.00	8,409.82	62.33	78.09	-123.53	-1,122.50	1,998.96	6,190.51	6,123.34	67.17	92.157	
13,900.00	7,557.16	13,295.00	8,409.82	63.03	78.09	-123.53	-1,122.50	1,998.96	6,287.25	6,220.10	67.16	93.622	
14,000.00	7,557.16	13,295.00	8,409.82	63.73	78.09	-123.53	-1,122.50	1,998.96	6,384.10	6,316.95	67.14	95.083	

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 4H
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 4H	**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
14,100.00	7,557.15	13,295.00	8,409.82	64.43	78.09	-123.53	-1,122.50	1,998.96	6,481.04	6,413.90	67.13	96.539	
14,200.00	7,557.15	13,295.00	8,409.82	65.13	78.09	-123.53	-1,122.50	1,998.96	6,578.07	6,510.94	67.13	97.992	
14,300.00	7,557.15	13,295.00	8,409.82	65.84	78.09	-123.53	-1,122.50	1,998.96	6,675.18	6,608.06	67.13	99.441	
14,400.00	7,557.14	13,295.00	8,409.82	66.54	78.09	-123.53	-1,122.50	1,998.96	6,772.39	6,705.26	67.13	100.887	
14,500.00	7,557.14	13,295.00	8,409.82	67.25	78.09	-123.53	-1,122.50	1,998.96	6,869.67	6,802.54	67.13	102.328	
14,600.00	7,557.14	13,295.00	8,409.82	67.96	78.09	-123.53	-1,122.50	1,998.96	6,967.03	6,899.89	67.14	103.765	
14,700.00	7,557.13	13,295.00	8,409.82	68.66	78.09	-123.53	-1,122.50	1,998.96	7,064.46	6,997.31	67.15	105.198	
14,800.00	7,557.13	13,295.00	8,409.82	69.38	78.09	-123.53	-1,122.50	1,998.96	7,161.97	7,094.80	67.17	106.626	
14,900.00	7,557.12	13,295.00	8,409.82	70.09	78.09	-123.53	-1,122.50	1,998.96	7,259.54	7,192.35	67.19	108.051	
15,000.00	7,557.12	13,295.00	8,409.82	70.80	78.09	-123.53	-1,122.50	1,998.96	7,357.18	7,289.97	67.21	109.472	
15,100.00	7,557.12	13,295.00	8,409.82	71.52	78.09	-123.53	-1,122.50	1,998.96	7,454.88	7,387.65	67.23	110.889	
15,200.00	7,557.11	13,295.00	8,409.82	72.23	78.09	-123.53	-1,122.50	1,998.96	7,552.64	7,485.38	67.25	112.301	
15,300.00	7,557.11	13,295.00	8,409.82	72.95	78.09	-123.53	-1,122.50	1,998.96	7,650.45	7,583.17	67.28	113.709	
15,400.00	7,557.11	13,295.00	8,409.82	73.67	78.09	-123.53	-1,122.50	1,998.96	7,748.33	7,681.02	67.31	115.113	
15,500.00	7,557.10	13,295.00	8,409.82	74.39	78.09	-123.53	-1,122.50	1,998.96	7,846.26	7,778.91	67.34	116.513	
15,600.00	7,557.10	13,295.00	8,409.82	75.11	78.09	-123.53	-1,122.50	1,998.96	7,944.24	7,876.86	67.38	117.909	
15,700.00	7,557.10	13,295.00	8,409.82	75.83	78.09	-123.53	-1,122.50	1,998.96	8,042.26	7,974.85	67.41	119.300	
15,800.00	7,557.09	13,295.00	8,409.82	76.55	78.09	-123.53	-1,122.50	1,998.96	8,140.34	8,072.89	67.45	120.687	
15,900.00	7,557.09	13,295.00	8,409.82	77.27	78.09	-123.53	-1,122.50	1,998.96	8,238.46	8,170.97	67.49	122.070	
16,000.00	7,557.08	13,295.00	8,409.82	78.00	78.09	-123.53	-1,122.50	1,998.96	8,336.63	8,269.10	67.53	123.449	
16,100.00	7,557.08	13,295.00	8,409.82	78.72	78.09	-123.53	-1,122.50	1,998.96	8,434.84	8,367.27	67.57	124.824	
16,200.00	7,557.08	13,295.00	8,409.82	79.45	78.09	-123.53	-1,122.50	1,998.96	8,533.09	8,465.47	67.62	126.194	
16,300.00	7,557.07	13,295.00	8,409.82	80.18	78.09	-123.53	-1,122.50	1,998.96	8,631.39	8,563.72	67.67	127.560	
16,400.00	7,557.07	13,295.00	8,409.82	80.90	78.09	-123.53	-1,122.50	1,998.96	8,729.72	8,662.00	67.71	128.921	
16,500.00	7,557.07	13,295.00	8,409.82	81.63	78.09	-123.53	-1,122.50	1,998.96	8,828.09	8,760.32	67.76	130.279	
16,600.00	7,557.06	13,295.00	8,409.82	82.36	78.09	-123.53	-1,122.50	1,998.96	8,926.49	8,858.68	67.81	131.632	
16,700.00	7,557.06	13,295.00	8,409.82	83.09	78.09	-123.53	-1,122.50	1,998.96	9,024.93	8,957.06	67.87	132.981	
16,800.00	7,557.06	13,295.00	8,409.82	83.82	78.09	-123.53	-1,122.50	1,998.96	9,123.40	9,055.48	67.92	134.325	
16,900.00	7,557.05	13,295.00	8,409.82	84.55	78.09	-123.53	-1,122.50	1,998.96	9,221.91	9,153.94	67.98	135.665	
17,000.00	7,557.05	13,295.00	8,409.82	85.29	78.09	-123.53	-1,122.50	1,998.96	9,320.45	9,252.42	68.03	137.001	
17,100.00	7,557.04	13,295.00	8,409.82	86.02	78.09	-123.53	-1,122.50	1,998.96	9,419.02	9,350.93	68.09	138.333	
17,200.00	7,557.04	13,295.00	8,409.82	86.75	78.09	-123.53	-1,122.50	1,998.96	9,517.62	9,449.47	68.15	139.660	
17,300.00	7,557.04	13,295.00	8,409.82	87.49	78.09	-123.53	-1,122.50	1,998.96	9,616.25	9,548.04	68.21	140.983	
17,400.00	7,557.03	13,295.00	8,409.82	88.22	78.09	-123.53	-1,122.50	1,998.96	9,714.90	9,646.63	68.27	142.301	
17,500.00	7,557.03	13,295.00	8,409.82	88.96	78.09	-123.53	-1,122.50	1,998.96	9,813.59	9,745.25	68.33	143.615	
17,600.00	7,557.03	13,295.00	8,409.82	89.70	78.09	-123.53	-1,122.50	1,998.96	9,912.30	9,843.90	68.40	144.925	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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	Warning
0.00	0.00	0.00	0.00	0.00	0.50	29.83	3,824.22	2,192.71	4,408.29				
100.00	100.00	54.82	54.82	0.28	0.51	29.83	3,824.36	2,192.79	4,408.49	4,407.70	0.78	5,630.295	
200.00	200.00	145.00	144.99	0.63	0.55	29.83	3,825.22	2,193.26	4,409.53	4,408.35	1.18	3,738.948	
300.00	300.00	261.89	261.88	0.99	0.80	29.83	3,825.88	2,193.87	4,410.30	4,408.51	1.80	2,453.638	
400.00	400.00	334.00	333.99	1.35	1.02	29.83	3,826.39	2,194.31	4,411.17	4,408.80	2.37	1,861.729	
500.00	500.00	437.29	437.27	1.71	1.35	29.84	3,827.30	2,195.23	4,412.39	4,409.32	3.06	1,440.897	
600.00	600.00	540.51	540.48	2.07	1.70	29.84	3,827.86	2,195.91	4,413.18	4,409.41	3.77	1,170.773	
700.00	700.00	620.84	620.81	2.43	1.98	29.84	3,828.78	2,196.26	4,414.38	4,409.97	4.40	1,002.494	
800.00	800.00	721.60	721.56	2.79	2.32	29.83	3,830.29	2,196.38	4,415.74	4,410.63	5.11	864.172	
900.00	900.00	814.30	814.24	3.14	2.65	29.82	3,831.65	2,196.55	4,417.11	4,411.31	5.79	762.735	
1,000.00	1,000.00	909.43	909.35	3.50	2.98	29.81	3,833.52	2,196.50	4,418.78	4,412.30	6.48	681.686	
1,100.00	1,100.00	1,040.10	1,039.98	3.86	3.43	29.78	3,836.38	2,194.91	4,420.08	4,412.79	7.30	605.872	
1,200.00	1,200.00	1,166.13	1,165.89	4.22	3.87	29.70	3,839.62	2,190.48	4,420.53	4,412.44	8.09	546.379	
1,300.00	1,300.00	1,256.41	1,256.06	4.58	4.19	29.65	3,842.31	2,186.83	4,421.11	4,412.34	8.76	504.451	
1,400.00	1,400.00	1,408.73	1,408.22	4.94	4.72	29.56	3,845.66	2,180.88	4,421.09	4,411.44	9.66	457.878	
1,500.00	1,500.00	1,496.00	1,495.42	5.29	5.03	29.51	3,847.09	2,177.70	4,420.71	4,410.39	10.32	428.339	
1,600.00	1,600.00	1,647.70	1,646.97	5.65	5.56	29.42	3,849.42	2,171.15	4,419.99	4,408.77	11.21	394.208	
1,700.00	1,700.00	1,738.49	1,737.61	6.01	5.88	29.36	3,850.62	2,166.15	4,418.45	4,406.55	11.89	371.534	
1,800.00	1,800.00	1,814.29	1,813.30	6.37	6.15	29.31	3,851.94	2,162.26	4,417.44	4,404.92	12.52	352.799	
1,900.00	1,900.00	1,914.67	1,913.57	6.73	6.51	29.25	3,853.68	2,157.94	4,416.85	4,403.62	13.24	333.676	
2,000.00	2,000.00	2,070.68	2,069.50	7.09	7.05	29.20	3,853.69	2,153.57	4,415.50	4,401.37	14.14	312.341	
2,100.00	2,099.98	2,185.39	2,184.17	7.43	7.45	-114.97	3,852.05	2,151.19	4,413.96	4,399.08	14.87	296.791	
2,191.09	2,190.95	2,297.94	2,296.66	7.73	7.84	-115.08	3,850.84	2,147.52	4,413.63	4,398.07	15.56	283.627	
2,200.00	2,199.84	2,310.02	2,308.73	7.76	7.88	-115.09	3,850.65	2,147.14	4,413.63	4,398.00	15.63	282.341	
2,300.00	2,299.45	2,421.72	2,420.35	8.09	8.27	-115.22	3,848.52	2,143.67	4,414.14	4,397.79	16.35	269.994	
2,400.00	2,398.70	2,498.78	2,497.38	8.42	8.54	-115.30	3,846.73	2,142.26	4,416.44	4,399.49	16.95	260.558	
2,500.00	2,497.47	2,578.34	2,576.91	8.76	8.81	-115.38	3,845.55	2,140.42	4,420.77	4,403.21	17.56	251.704	
2,600.00	2,595.62	2,671.64	2,670.15	9.10	9.15	-115.51	3,844.98	2,137.19	4,426.87	4,408.64	18.23	242.796	
2,644.93	2,639.49	2,712.25	2,710.74	9.25	9.29	-115.57	3,844.82	2,135.70	4,430.18	4,411.65	18.53	239.078	
2,700.00	2,693.18	2,762.18	2,760.63	9.44	9.47	-115.72	3,844.72	2,133.78	4,434.50	4,415.60	18.90	234.675	
2,800.00	2,790.65	2,840.00	2,838.34	9.78	9.75	-115.97	3,845.22	2,129.70	4,442.55	4,423.03	19.52	227.583	
2,900.00	2,888.13	2,921.59	2,919.65	10.13	10.05	-116.26	3,847.19	2,123.31	4,451.10	4,430.93	20.17	220.686	
3,000.00	2,985.61	2,990.91	2,988.50	10.48	10.31	-116.54	3,850.33	2,115.97	4,460.40	4,439.62	20.78	214.693	
3,100.00	3,083.08	3,058.66	3,055.53	10.83	10.56	-116.84	3,854.70	2,107.10	4,470.48	4,449.10	21.38	209.115	
3,200.00	3,180.56	3,131.46	3,127.18	11.19	10.83	-117.18	3,860.77	2,095.77	4,481.36	4,459.35	22.00	203.665	
3,300.00	3,278.04	3,224.31	3,218.32	11.55	11.19	-117.64	3,869.24	2,080.13	4,492.69	4,469.97	22.72	197.770	
3,400.00	3,375.51	3,326.67	3,318.68	11.91	11.58	-118.15	3,878.72	2,062.45	4,504.29	4,480.82	23.47	191.877	
3,500.00	3,472.99	3,437.17	3,426.95	12.27	12.02	-118.70	3,888.73	2,042.71	4,515.81	4,491.53	24.27	186.034	
3,600.00	3,570.47	3,539.81	3,527.51	12.64	12.43	-119.20	3,897.74	2,024.27	4,527.40	4,502.35	25.05	180.760	
3,700.00	3,667.94	3,650.65	3,636.23	13.00	12.88	-119.74	3,906.91	2,004.74	4,539.02	4,513.16	25.86	175.545	
3,800.00	3,765.42	3,748.45	3,732.24	13.37	13.27	-120.21	3,914.55	1,987.78	4,550.66	4,524.04	26.62	170.970	
3,900.00	3,862.90	3,831.23	3,813.44	13.74	13.61	-120.61	3,921.25	1,973.08	4,562.69	4,535.37	27.32	167.021	
4,000.00	3,960.37	3,947.74	3,927.50	14.11	14.09	-121.18	3,930.82	1,951.36	4,574.83	4,546.66	28.17	162.403	
4,100.00	4,057.85	4,056.10	4,033.44	14.48	14.55	-121.71	3,939.56	1,930.30	4,586.91	4,557.91	28.99	158.208	
4,200.00	4,155.33	4,162.99	4,137.83	14.86	15.00	-122.24	3,948.00	1,908.95	4,598.98	4,569.17	29.82	154.236	
4,300.00	4,252.80	4,269.24	4,241.56	15.23	15.46	-122.77	3,956.12	1,887.44	4,611.10	4,580.45	30.64	150.470	
4,400.00	4,350.28	4,375.44	4,345.20	15.61	15.91	-123.30	3,963.97	1,865.66	4,623.25	4,591.78	31.47	146.900	
4,500.00	4,447.76	4,496.48	4,463.32	15.98	16.44	-123.90	3,972.47	1,840.62	4,635.40	4,603.03	32.37	143.216	
4,600.00	4,545.23	4,656.14	4,619.59	16.36	17.12	-124.65	3,981.24	1,809.12	4,646.81	4,613.39	33.43	139.009	
4,700.00	4,642.71	4,852.53	4,813.24	16.74	17.93	-125.48	3,984.88	1,776.91	4,655.81	4,621.20	34.60	134.546	
4,800.00	4,740.19	4,945.53	4,905.26	17.11	18.30	-125.84	3,984.95	1,763.56	4,664.58	4,629.24	35.35	131.966	
4,900.00	4,837.66	4,985.00	4,944.44	17.49	18.45	-125.98	3,985.15	1,758.78	4,674.57	4,638.69	35.88	130.296	

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 4H
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 4H	**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
5,000.00	4,935.14	4,985.00	4,944.44	17.87	18.45	-125.98	3,985.15	1,758.78	4,686.24	4,650.00	36.24	129.303	
5,100.00	5,032.62	5,056.76	5,015.76	18.25	18.72	-126.24	3,986.61	1,751.01	4,698.61	4,661.72	36.89	127.381	
5,200.00	5,130.09	5,093.76	5,052.57	18.64	18.87	-126.36	3,987.94	1,747.45	4,712.65	4,675.26	37.39	126.052	
5,300.00	5,227.57	5,164.00	5,122.46	19.02	19.13	-126.60	3,991.50	1,741.52	4,728.32	4,690.29	38.02	124.363	
5,400.00	5,325.05	5,178.01	5,136.41	19.40	19.19	-126.64	3,992.34	1,740.45	4,744.69	4,706.28	38.41	123.518	
5,500.00	5,422.52	14,208.00	9,899.30	19.78	72.46	-107.82	-506.50	1,671.73	4,668.34	4,615.32	53.02	88.056	
5,600.00	5,520.00	14,208.00	9,899.30	20.16	72.46	-107.82	-506.50	1,671.73	4,571.27	4,517.97	53.30	85.758	
5,700.00	5,617.48	14,208.00	9,899.30	20.55	72.46	-107.82	-506.50	1,671.73	4,474.33	4,420.73	53.60	83.472	
5,800.00	5,714.95	14,241.91	9,899.80	20.93	72.89	-106.76	-540.40	1,672.67	4,377.46	4,323.29	54.17	80.810	
5,900.00	5,812.43	14,276.56	9,900.01	21.31	73.33	-105.60	-575.01	1,674.25	4,280.57	4,225.81	54.76	78.172	
6,000.00	5,909.91	14,308.97	9,899.93	21.70	73.74	-104.43	-607.35	1,676.28	4,183.67	4,128.33	55.34	75.594	
6,100.00	6,007.38	14,338.52	9,899.68	22.08	74.12	-103.31	-636.82	1,678.39	4,086.79	4,030.87	55.92	73.080	
6,200.00	6,104.86	14,367.08	9,899.32	22.47	74.48	-102.17	-665.30	1,680.57	3,989.92	3,933.42	56.51	70.611	
6,300.00	6,202.34	14,394.52	9,898.86	22.85	74.83	-101.03	-692.65	1,682.79	3,893.09	3,836.00	57.09	68.187	
6,400.00	6,299.81	14,396.41	9,898.82	23.24	74.85	-100.95	-694.53	1,682.95	3,796.35	3,738.87	57.48	66.042	
6,421.23	6,320.51	14,397.00	9,898.81	23.32	74.86	-100.92	-695.12	1,683.00	3,775.84	3,718.27	57.57	65.588	
6,500.00	6,397.52	14,397.00	9,898.81	23.62	74.86	-95.09	-695.12	1,683.00	3,699.74	3,641.86	57.88	63.919	
6,600.00	6,495.90	14,397.00	9,898.81	24.00	74.86	-87.73	-695.12	1,683.00	3,603.24	3,544.92	58.31	61.793	
6,700.00	6,594.84	14,593.00	9,893.67	24.37	77.38	-69.27	-890.53	1,695.57	3,506.78	3,446.33	60.44	58.016	
6,800.00	6,694.23	14,593.00	9,893.67	24.74	77.38	-62.75	-890.53	1,695.57	3,410.49	3,349.52	60.97	55.939	
6,900.00	6,793.94	14,593.00	9,893.67	25.09	77.38	-57.10	-890.53	1,695.57	3,314.88	3,253.34	61.54	53.865	
7,000.00	6,893.85	14,593.00	9,893.67	25.44	77.38	-52.27	-890.53	1,695.57	3,220.14	3,157.97	62.17	51.797	
7,066.16	6,960.00	14,593.00	9,893.67	25.67	77.38	94.64	-890.53	1,695.57	3,158.03	3,095.42	62.62	50.436	
7,100.00	6,993.82	14,593.00	9,893.67	25.78	77.38	-82.72	-890.53	1,695.57	3,126.33	3,063.48	62.85	49.741	
7,150.00	7,043.55	14,593.00	9,893.67	25.96	77.38	-96.17	-890.53	1,695.57	3,079.45	3,016.25	63.20	48.723	
7,200.00	7,092.63	14,593.00	9,893.67	26.14	77.38	-108.74	-890.53	1,695.57	3,032.84	2,969.29	63.55	47.724	
7,250.00	7,140.71	14,593.00	9,893.67	26.34	77.38	-119.41	-890.53	1,695.57	2,986.86	2,922.98	63.89	46.754	
7,300.00	7,187.41	14,593.00	9,893.67	26.53	77.38	-127.95	-890.53	1,695.57	2,941.92	2,877.71	64.21	45.818	
7,350.00	7,232.38	14,593.00	9,893.67	26.73	77.38	-134.59	-890.53	1,695.57	2,898.40	2,833.89	64.52	44.925	
7,400.00	7,275.27	14,593.00	9,893.67	26.93	77.38	-139.73	-890.53	1,695.57	2,856.72	2,791.91	64.81	44.080	
7,450.00	7,315.77	14,593.00	9,893.67	27.13	77.38	-143.71	-890.53	1,695.57	2,817.27	2,752.19	65.08	43.289	
7,500.00	7,353.56	14,593.00	9,893.67	27.34	77.38	-146.81	-890.53	1,695.57	2,780.47	2,715.13	65.33	42.559	
7,550.00	7,388.35	14,593.00	9,893.67	27.54	77.38	-149.24	-890.53	1,695.57	2,746.69	2,681.13	65.56	41.893	
7,600.00	7,419.89	14,593.00	9,893.67	27.74	77.38	-151.15	-890.53	1,695.57	2,716.32	2,650.54	65.78	41.297	
7,650.00	7,447.92	14,593.00	9,893.67	27.94	77.38	-152.63	-890.53	1,695.57	2,689.70	2,623.73	65.97	40.774	
7,700.00	7,472.24	14,593.00	9,893.67	28.14	77.38	-153.77	-890.53	1,695.57	2,667.15	2,601.02	66.14	40.329	
7,750.00	7,492.67	14,593.00	9,893.67	28.33	77.38	-154.62	-890.53	1,695.57	2,648.96	2,582.67	66.28	39.963	
7,800.00	7,509.03	14,593.00	9,893.67	28.52	77.38	-155.22	-890.53	1,695.57	2,635.34	2,568.93	66.41	39.682	
7,816.16	7,513.43	14,593.00	9,893.67	28.58	77.38	-155.37	-890.53	1,695.57	2,631.95	2,565.51	66.45	39.610	
7,900.00	7,532.50	14,593.00	9,893.67	28.88	77.38	-155.79	-890.53	1,695.57	2,619.98	2,553.33	66.65	39.308	
7,972.58	7,544.69	14,593.00	9,893.67	29.14	77.38	-156.06	-890.53	1,695.57	2,616.69	2,549.83	66.85	39.141	CC, ES
8,000.00	7,548.24	14,593.00	9,893.67	29.24	77.38	-156.14	-890.53	1,695.57	2,617.16	2,550.22	66.93	39.102	
8,100.00	7,556.27	14,593.00	9,893.67	29.58	77.38	-156.35	-890.53	1,695.57	2,626.83	2,559.60	67.23	39.071	SF
8,153.26	7,557.37	14,593.00	9,893.67	29.76	77.38	-156.41	-890.53	1,695.57	2,637.02	2,569.63	67.40	39.128	
8,200.00	7,557.37	14,593.00	9,893.67	29.92	77.38	-156.41	-890.53	1,695.57	2,647.88	2,580.34	67.54	39.206	
8,300.00	7,557.36	14,593.00	9,893.67	30.26	77.38	-156.41	-890.53	1,695.57	2,673.70	2,605.85	67.85	39.408	
8,400.00	7,557.36	14,593.00	9,893.67	30.63	77.38	-156.41	-890.53	1,695.57	2,702.97	2,634.81	68.16	39.659	
8,500.00	7,557.36	14,593.00	9,893.67	31.00	77.38	-156.41	-890.53	1,695.57	2,735.58	2,667.12	68.46	39.957	
8,600.00	7,557.35	14,593.00	9,893.67	31.39	77.38	-156.41	-890.53	1,695.57	2,771.43	2,702.67	68.76	40.305	
8,700.00	7,557.35	14,593.00	9,893.67	31.79	77.38	-156.41	-890.53	1,695.57	2,810.37	2,741.33	69.05	40.702	
8,800.00	7,557.35	14,593.00	9,893.67	32.21	77.38	-156.41	-890.53	1,695.57	2,852.29	2,782.97	69.32	41.147	
8,900.00	7,557.34	14,593.00	9,893.67	32.64	77.38	-156.41	-890.53	1,695.57	2,897.06	2,827.48	69.58	41.637	

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 4H
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 4H	**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
9,000.00	7,557.34	14,593.00	9,893.67	33.08	77.38	-156.41	-890.53	1,695.57	2,944.55	2,874.73	69.82	42.173	
9,100.00	7,557.34	14,593.00	9,893.67	33.54	77.38	-156.41	-890.53	1,695.57	2,994.62	2,924.57	70.05	42.751	
9,200.00	7,557.33	14,593.00	9,893.67	34.00	77.38	-156.41	-890.53	1,695.57	3,047.15	2,976.89	70.26	43.370	
9,300.00	7,557.33	14,593.00	9,893.67	34.48	77.38	-156.41	-890.53	1,695.57	3,102.02	3,031.56	70.46	44.028	
9,400.00	7,557.32	14,593.00	9,893.67	34.96	77.38	-156.41	-890.53	1,695.57	3,159.10	3,088.46	70.64	44.721	
9,500.00	7,557.32	14,593.00	9,893.67	35.46	77.38	-156.41	-890.53	1,695.57	3,218.28	3,147.46	70.81	45.449	
9,600.00	7,557.32	14,593.00	9,893.67	35.97	77.38	-156.41	-890.53	1,695.57	3,279.43	3,208.46	70.97	46.208	
9,700.00	7,557.31	14,593.00	9,893.67	36.48	77.38	-156.41	-890.53	1,695.57	3,342.47	3,271.35	71.12	46.998	
9,800.00	7,557.31	14,593.00	9,893.67	37.00	77.38	-156.41	-890.53	1,695.57	3,407.27	3,336.01	71.26	47.815	
9,900.00	7,557.31	14,593.00	9,893.67	37.54	77.38	-156.41	-890.53	1,695.57	3,473.74	3,402.35	71.39	48.659	
10,000.00	7,557.30	14,593.00	9,893.67	38.08	77.38	-156.41	-890.53	1,695.57	3,541.78	3,470.27	71.51	49.526	
10,100.00	7,557.30	14,593.00	9,893.67	38.63	77.38	-156.41	-890.53	1,695.57	3,611.32	3,539.69	71.63	50.416	
10,200.00	7,557.30	14,593.00	9,893.67	39.18	77.38	-156.41	-890.53	1,695.57	3,682.26	3,610.51	71.74	51.327	
10,300.00	7,557.29	14,593.00	9,893.67	39.74	77.38	-156.41	-890.53	1,695.57	3,754.52	3,682.67	71.85	52.257	
10,400.00	7,557.29	14,593.00	9,893.67	40.31	77.38	-156.41	-890.53	1,695.57	3,828.03	3,756.08	71.95	53.205	
10,500.00	7,557.28	14,593.00	9,893.67	40.89	77.38	-156.41	-890.53	1,695.57	3,902.71	3,830.67	72.05	54.169	
10,600.00	7,557.28	14,593.00	9,893.67	41.47	77.38	-156.41	-890.53	1,695.57	3,978.51	3,906.37	72.14	55.150	
10,700.00	7,557.28	14,593.00	9,893.67	42.06	77.38	-156.41	-890.53	1,695.57	4,055.36	3,983.13	72.23	56.144	
10,800.00	7,557.27	14,593.00	9,893.67	42.66	77.38	-156.41	-890.53	1,695.57	4,133.20	4,060.88	72.32	57.152	
10,900.00	7,557.27	14,593.00	9,893.67	43.26	77.38	-156.41	-890.53	1,695.57	4,211.97	4,139.57	72.41	58.172	
11,000.00	7,557.27	14,593.00	9,893.67	43.86	77.38	-156.41	-890.53	1,695.57	4,291.63	4,219.14	72.49	59.203	
11,100.00	7,557.26	14,593.00	9,893.67	44.47	77.38	-156.41	-890.53	1,695.57	4,372.13	4,299.55	72.57	60.245	
11,200.00	7,557.26	14,593.00	9,893.67	45.09	77.38	-156.41	-890.53	1,695.57	4,453.41	4,380.76	72.65	61.296	
11,300.00	7,557.26	14,593.00	9,893.67	45.71	77.38	-156.41	-890.53	1,695.57	4,535.45	4,462.71	72.73	62.357	
11,400.00	7,557.25	14,593.00	9,893.67	46.33	77.38	-156.41	-890.53	1,695.57	4,618.19	4,545.37	72.81	63.425	
11,500.00	7,557.25	14,593.00	9,893.67	46.96	77.38	-156.41	-890.53	1,695.57	4,701.60	4,628.71	72.89	64.502	
11,600.00	7,557.24	14,593.00	9,893.67	47.60	77.38	-156.41	-890.53	1,695.57	4,785.65	4,712.68	72.97	65.585	
11,700.00	7,557.24	14,593.00	9,893.67	48.24	77.38	-156.41	-890.53	1,695.57	4,870.30	4,797.26	73.04	66.675	
11,800.00	7,557.24	14,593.00	9,893.67	48.88	77.38	-156.41	-890.53	1,695.57	4,955.52	4,882.40	73.12	67.772	
11,900.00	7,557.23	14,593.00	9,893.67	49.52	77.38	-156.41	-890.53	1,695.57	5,041.29	4,968.09	73.20	68.873	
12,000.00	7,557.23	14,593.00	9,893.67	50.17	77.38	-156.41	-890.53	1,695.57	5,127.57	5,054.30	73.27	69.980	
12,100.00	7,557.23	14,593.00	9,893.67	50.82	77.38	-156.41	-890.53	1,695.57	5,214.34	5,141.00	73.35	71.092	
12,200.00	7,557.22	14,593.00	9,893.67	51.48	77.38	-156.41	-890.53	1,695.57	5,301.58	5,228.16	73.42	72.208	
12,300.00	7,557.22	14,593.00	9,893.67	52.14	77.38	-156.41	-890.53	1,695.57	5,389.26	5,315.77	73.50	73.328	
12,400.00	7,557.22	14,593.00	9,893.67	52.80	77.38	-156.41	-890.53	1,695.57	5,477.37	5,403.80	73.57	74.451	
12,500.00	7,557.21	14,593.00	9,893.67	53.46	77.38	-156.41	-890.53	1,695.57	5,565.87	5,492.23	73.64	75.578	
12,600.00	7,557.21	14,593.00	9,893.67	54.13	77.38	-156.41	-890.53	1,695.57	5,654.76	5,581.04	73.72	76.708	
12,700.00	7,557.20	14,593.00	9,893.67	54.80	77.38	-156.41	-890.53	1,695.57	5,744.01	5,670.22	73.79	77.841	
12,800.00	7,557.20	14,593.00	9,893.67	55.48	77.38	-156.41	-890.53	1,695.57	5,833.62	5,759.75	73.87	78.977	
12,900.00	7,557.20	14,593.00	9,893.67	56.15	77.38	-156.41	-890.53	1,695.57	5,923.55	5,849.61	73.94	80.114	
13,000.00	7,557.19	14,593.00	9,893.67	56.83	77.38	-156.41	-890.53	1,695.57	6,013.81	5,939.79	74.01	81.254	
13,100.00	7,557.19	14,593.00	9,893.67	57.51	77.38	-156.41	-890.53	1,695.57	6,104.36	6,030.28	74.09	82.395	
13,200.00	7,557.19	14,593.00	9,893.67	58.19	77.38	-156.41	-890.53	1,695.57	6,195.21	6,121.05	74.16	83.538	
13,300.00	7,557.18	14,593.00	9,893.67	58.88	77.38	-156.41	-890.53	1,695.57	6,286.34	6,212.10	74.23	84.683	
13,400.00	7,557.18	14,593.00	9,893.67	59.57	77.38	-156.41	-890.53	1,695.57	6,377.73	6,303.42	74.31	85.828	
13,500.00	7,557.18	14,593.00	9,893.67	60.25	77.38	-156.41	-890.53	1,695.57	6,469.37	6,394.99	74.38	86.975	
13,600.00	7,557.17	14,593.00	9,893.67	60.95	77.38	-156.41	-890.53	1,695.57	6,561.26	6,486.81	74.46	88.123	
13,700.00	7,557.17	14,593.00	9,893.67	61.64	77.38	-156.41	-890.53	1,695.57	6,653.39	6,578.86	74.53	89.271	
13,800.00	7,557.16	14,593.00	9,893.67	62.33	77.38	-156.41	-890.53	1,695.57	6,745.74	6,671.13	74.60	90.421	
13,900.00	7,557.16	14,593.00	9,893.67	63.03	77.38	-156.41	-890.53	1,695.57	6,838.30	6,763.62	74.68	91.570	
14,000.00	7,557.16	14,593.00	9,893.67	63.73	77.38	-156.41	-890.53	1,695.57	6,931.07	6,856.32	74.75	92.720	
14,100.00	7,557.15	14,593.00	9,893.67	64.43	77.38	-156.41	-890.53	1,695.57	7,024.04	6,949.21	74.83	93.870	

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 4H
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 4H	**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
14,200.00	7,557.15	14,593.00	9,893.67	65.13	77.38	-156.41	-890.53	1,695.57	7,117.20	7,042.30	74.90	95.020	
14,300.00	7,557.15	14,593.00	9,893.67	65.84	77.38	-156.41	-890.53	1,695.57	7,210.54	7,135.56	74.98	96.170	
14,400.00	7,557.14	14,593.00	9,893.67	66.54	77.38	-156.41	-890.53	1,695.57	7,304.06	7,229.01	75.05	97.320	
14,500.00	7,557.14	14,593.00	9,893.67	67.25	77.38	-156.41	-890.53	1,695.57	7,397.75	7,322.62	75.13	98.470	
14,600.00	7,557.14	14,593.00	9,893.67	67.96	77.38	-156.41	-890.53	1,695.57	7,491.60	7,416.40	75.20	99.620	
14,700.00	7,557.13	14,593.00	9,893.67	68.66	77.38	-156.41	-890.53	1,695.57	7,585.61	7,510.33	75.28	100.769	
14,800.00	7,557.13	14,593.00	9,893.67	69.38	77.38	-156.41	-890.53	1,695.57	7,679.77	7,604.41	75.35	101.917	
14,900.00	7,557.12	14,593.00	9,893.67	70.09	77.38	-156.41	-890.53	1,695.57	7,774.07	7,698.64	75.43	103.065	
15,000.00	7,557.12	14,593.00	9,893.67	70.80	77.38	-156.41	-890.53	1,695.57	7,868.52	7,793.02	75.50	104.212	
15,100.00	7,557.12	14,593.00	9,893.67	71.52	77.38	-156.41	-890.53	1,695.57	7,963.10	7,887.52	75.58	105.359	
15,200.00	7,557.11	14,593.00	9,893.67	72.23	77.38	-156.41	-890.53	1,695.57	8,057.82	7,982.16	75.66	106.504	
15,300.00	7,557.11	14,593.00	9,893.67	72.95	77.38	-156.41	-890.53	1,695.57	8,152.65	8,076.92	75.73	107.649	
15,400.00	7,557.11	14,593.00	9,893.67	73.67	77.38	-156.41	-890.53	1,695.57	8,247.62	8,171.80	75.81	108.793	
15,500.00	7,557.10	14,593.00	9,893.67	74.39	77.38	-156.41	-890.53	1,695.57	8,342.69	8,266.81	75.89	109.935	
15,600.00	7,557.10	14,593.00	9,893.67	75.11	77.38	-156.41	-890.53	1,695.57	8,437.89	8,361.92	75.96	111.077	
15,700.00	7,557.10	14,593.00	9,893.67	75.83	77.38	-156.41	-890.53	1,695.57	8,533.19	8,457.15	76.04	112.217	
15,800.00	7,557.09	14,593.00	9,893.67	76.55	77.38	-156.41	-890.53	1,695.57	8,628.60	8,552.48	76.12	113.356	
15,900.00	7,557.09	14,593.00	9,893.67	77.27	77.38	-156.41	-890.53	1,695.57	8,724.11	8,647.91	76.20	114.493	
16,000.00	7,557.08	14,593.00	9,893.67	78.00	77.38	-156.41	-890.53	1,695.57	8,819.72	8,743.45	76.28	115.630	
16,100.00	7,557.08	14,593.00	9,893.67	78.72	77.38	-156.41	-890.53	1,695.57	8,915.43	8,839.08	76.35	116.765	
16,200.00	7,557.08	14,593.00	9,893.67	79.45	77.38	-156.41	-890.53	1,695.57	9,011.23	8,934.80	76.43	117.898	
16,300.00	7,557.07	14,593.00	9,893.67	80.18	77.38	-156.41	-890.53	1,695.57	9,107.12	9,030.61	76.51	119.030	
16,400.00	7,557.07	14,593.00	9,893.67	80.90	77.38	-156.41	-890.53	1,695.57	9,203.10	9,126.51	76.59	120.160	
16,500.00	7,557.07	14,593.00	9,893.67	81.63	77.38	-156.41	-890.53	1,695.57	9,299.16	9,222.49	76.67	121.289	
16,600.00	7,557.06	14,593.00	9,893.67	82.36	77.38	-156.41	-890.53	1,695.57	9,395.31	9,318.56	76.75	122.416	
16,700.00	7,557.06	14,593.00	9,893.67	83.09	77.38	-156.41	-890.53	1,695.57	9,491.53	9,414.70	76.83	123.541	
16,800.00	7,557.06	14,593.00	9,893.67	83.82	77.38	-156.41	-890.53	1,695.57	9,587.84	9,510.93	76.91	124.664	
16,900.00	7,557.05	14,593.00	9,893.67	84.55	77.38	-156.41	-890.53	1,695.57	9,684.21	9,607.22	76.99	125.786	
17,000.00	7,557.05	14,593.00	9,893.67	85.29	77.38	-156.41	-890.53	1,695.57	9,780.66	9,703.59	77.07	126.906	
17,100.00	7,557.04	14,593.00	9,893.67	86.02	77.38	-156.41	-890.53	1,695.57	9,877.18	9,800.03	77.15	128.024	
17,200.00	7,557.04	14,593.00	9,893.67	86.75	77.38	-156.41	-890.53	1,695.57	9,973.77	9,896.54	77.23	129.140	

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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	30.50	3,824.22	2,252.71	4,438.44				
100.00	100.00	55.00	54.99	0.28	0.51	30.51	3,823.99	2,253.40	4,438.61	4,437.84	0.78	5,696.111	
200.00	200.00	119.90	119.88	0.63	0.58	30.52	3,824.27	2,254.13	4,439.56	4,438.35	1.21	3,669.202	
300.00	300.00	262.21	262.15	0.99	0.93	30.48	3,826.94	2,252.13	4,440.48	4,438.56	1.92	2,310.870	
400.00	400.00	334.00	333.94	1.35	1.15	30.47	3,827.79	2,251.80	4,441.25	4,438.74	2.50	1,773.693	
500.00	500.00	565.56	565.47	1.71	1.92	30.43	3,828.03	2,249.00	4,440.62	4,436.99	3.63	1,222.509	
600.00	600.00	661.91	661.78	2.07	2.25	30.41	3,827.19	2,246.72	4,438.67	4,434.35	4.32	1,027.729	
700.00	700.00	729.51	729.37	2.43	2.49	30.40	3,826.70	2,245.44	4,437.12	4,432.21	4.91	903.652	
800.00	800.00	781.00	780.86	2.79	2.66	30.40	3,826.52	2,245.03	4,436.48	4,431.04	5.45	814.520	
821.50	821.50	800.68	800.54	2.86	2.73	30.40	3,826.51	2,244.99	4,436.46	4,430.87	5.59	793.514	
900.00	900.00	846.05	845.91	3.14	2.89	30.40	3,826.65	2,245.10	4,436.77	4,430.74	6.03	736.134	
1,000.00	1,000.00	938.34	938.19	3.50	3.20	30.40	3,827.45	2,245.63	4,437.79	4,431.09	6.70	662.182	
1,100.00	1,100.00	1,059.76	1,059.60	3.86	3.62	30.40	3,828.33	2,245.82	4,438.50	4,431.02	7.48	593.461	
1,200.00	1,200.00	1,125.14	1,124.98	4.22	3.84	30.40	3,828.56	2,246.59	4,439.38	4,431.32	8.06	550.790	
1,300.00	1,300.00	1,189.37	1,189.20	4.58	4.06	30.42	3,828.88	2,248.09	4,441.00	4,432.36	8.64	514.145	
1,400.00	1,400.00	1,246.00	1,245.80	4.94	4.26	30.43	3,829.51	2,249.75	4,443.49	4,434.30	9.19	483.576	
1,500.00	1,500.00	1,316.61	1,316.35	5.29	4.50	30.45	3,830.69	2,252.30	4,446.78	4,436.99	9.79	454.210	
1,600.00	1,600.00	1,389.98	1,389.63	5.65	4.76	30.48	3,832.17	2,255.59	4,450.78	4,440.38	10.40	427.891	
1,700.00	1,700.00	1,499.12	1,498.60	6.01	5.14	30.53	3,834.31	2,261.25	4,455.12	4,443.98	11.14	399.862	
1,800.00	1,800.00	1,625.34	1,624.67	6.37	5.58	30.58	3,836.44	2,266.99	4,458.88	4,446.94	11.95	373.272	
1,900.00	1,900.00	1,745.89	1,745.13	6.73	6.01	30.61	3,838.45	2,271.25	4,462.11	4,449.38	12.73	350.523	
2,000.00	2,000.00	1,834.52	1,833.71	7.09	6.32	30.63	3,839.97	2,273.97	4,465.17	4,451.77	13.40	333.190	
2,100.00	2,099.98	1,910.94	1,910.05	7.43	6.60	-113.39	3,841.36	2,276.93	4,469.40	4,455.39	14.01	318.958	
2,200.00	2,199.84	2,001.44	2,000.44	7.76	6.92	-113.29	3,843.00	2,281.30	4,475.48	4,460.82	14.66	305.267	
2,300.00	2,299.45	2,113.11	2,111.90	8.09	7.32	-113.21	3,844.11	2,287.86	4,482.80	4,467.41	15.39	291.289	
2,400.00	2,398.70	2,248.02	2,246.56	8.42	7.80	-113.16	3,844.30	2,296.22	4,490.89	4,474.69	16.21	277.119	
2,500.00	2,497.47	2,318.00	2,316.40	8.76	8.05	-113.07	3,844.36	2,300.55	4,500.35	4,483.56	16.79	268.062	
2,600.00	2,595.62	2,407.00	2,405.17	9.10	8.37	-112.99	3,844.52	2,306.91	4,511.73	4,494.28	17.44	258.635	
2,644.93	2,639.49	2,433.49	2,431.58	9.25	8.47	-112.93	3,844.56	2,309.00	4,517.43	4,499.74	17.69	255.358	
2,700.00	2,693.18	2,479.38	2,477.33	9.44	8.63	-113.01	3,844.67	2,312.69	4,524.71	4,506.67	18.04	250.783	
2,800.00	2,790.65	2,560.88	2,558.58	9.78	8.93	-113.16	3,845.27	2,318.97	4,538.22	4,519.54	18.68	242.987	
2,900.00	2,888.13	2,664.00	2,661.48	10.13	9.30	-113.37	3,846.93	2,325.42	4,551.80	4,532.41	19.40	234.687	
3,000.00	2,985.61	2,754.00	2,751.28	10.48	9.63	-113.55	3,848.41	2,331.19	4,565.56	4,545.49	20.07	227.508	
3,100.00	3,083.08	2,754.00	2,751.28	10.83	9.63	-113.55	3,848.41	2,331.19	4,580.50	4,560.11	20.40	224.554	
3,200.00	3,180.56	2,807.52	2,804.60	11.19	9.83	-113.65	3,849.98	2,335.56	4,596.61	4,575.68	20.93	219.584	
3,300.00	3,278.04	2,843.00	2,839.87	11.55	9.96	-113.71	3,851.52	2,339.02	4,614.34	4,592.94	21.40	215.666	
3,400.00	3,375.51	2,843.00	2,839.87	11.91	9.96	-113.71	3,851.52	2,339.02	4,633.73	4,612.02	21.71	213.427	
3,500.00	3,472.99	2,899.43	2,895.84	12.27	10.17	-113.81	3,854.90	2,345.36	4,654.09	4,631.83	22.25	209.133	
3,600.00	3,570.47	2,932.00	2,928.06	12.64	10.29	-113.87	3,857.40	2,349.46	4,676.12	4,653.42	22.70	206.037	
3,700.00	3,667.94	2,969.74	2,965.30	13.00	10.43	-113.93	3,860.65	2,354.57	4,699.45	4,676.29	23.16	202.943	
3,800.00	3,765.42	3,022.00	3,016.77	13.37	10.63	-114.01	3,865.59	2,362.22	4,723.98	4,700.30	23.68	199.512	
3,900.00	3,862.90	3,069.04	3,062.99	13.74	10.81	-114.07	3,870.33	2,369.55	4,749.47	4,725.29	24.18	196.456	
4,000.00	3,960.37	3,144.11	3,136.66	14.11	11.10	-114.18	3,878.07	2,381.75	4,775.63	4,750.83	24.80	192.577	
4,100.00	4,057.85	3,247.12	3,237.74	14.48	11.51	-114.32	3,888.87	2,398.37	4,801.93	4,776.38	25.55	187.945	
4,200.00	4,155.33	3,363.15	3,351.70	14.86	11.96	-114.49	3,900.88	2,416.59	4,827.94	4,801.58	26.36	183.137	
4,300.00	4,252.80	3,458.21	3,445.14	15.23	12.34	-114.62	3,910.72	2,431.06	4,853.76	4,826.67	27.08	179.223	
4,400.00	4,350.28	3,636.91	3,621.16	15.61	13.05	-114.89	3,928.26	2,456.34	4,878.52	4,850.33	28.18	173.110	
4,500.00	4,447.76	3,709.14	3,692.41	15.98	13.34	-115.01	3,935.02	2,466.08	4,902.82	4,874.02	28.80	170.226	
4,600.00	4,545.23	3,760.43	3,742.88	16.36	13.54	-115.08	3,940.01	2,473.72	4,928.04	4,898.71	29.33	168.038	
4,700.00	4,642.71	3,826.00	3,807.26	16.74	13.81	-115.16	3,946.81	2,484.13	4,954.19	4,924.27	29.92	165.595	
4,800.00	4,740.19	3,886.28	3,866.36	17.11	14.06	-115.24	3,953.31	2,494.07	4,980.99	4,950.51	30.48	163.398	
4,900.00	4,837.66	3,971.01	3,949.39	17.49	14.41	-115.35	3,962.57	2,508.18	5,008.10	4,976.93	31.17	160.690	

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 4H
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 4H	**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
5,000.00	4,935.14	4,071.01	4,047.41	17.87	14.82	-115.47	3,973.81	2,524.50	5,035.34	5,003.42	31.92	157.738	
5,100.00	5,032.62	4,504.11	4,474.42	18.25	16.58	-116.04	4,009.69	2,586.62	5,058.76	5,024.55	34.21	147.877	
5,200.00	5,130.09	4,592.47	4,561.91	18.64	16.93	-116.16	4,014.68	2,597.84	5,079.60	5,044.68	34.91	145.486	
5,300.00	5,227.57	13,941.16	9,756.66	19.02	70.24	-86.12	-342.49	2,670.49	5,092.53	5,037.00	55.53	91.711	
5,400.00	5,325.05	13,965.99	9,757.19	19.40	70.55	-85.51	-367.29	2,671.53	5,000.39	4,944.18	56.21	88.964	
5,500.00	5,422.52	13,990.61	9,757.70	19.78	70.86	-84.89	-391.88	2,672.56	4,908.45	4,851.55	56.90	86.262	
5,600.00	5,520.00	14,015.01	9,758.19	20.16	71.17	-84.27	-416.26	2,673.58	4,816.73	4,759.12	57.61	83.606	
5,700.00	5,617.48	14,033.37	9,758.54	20.55	71.41	-83.80	-434.60	2,674.36	4,725.25	4,666.96	58.29	81.058	
5,800.00	5,714.95	14,050.17	9,758.85	20.93	71.62	-83.37	-451.37	2,675.12	4,634.05	4,575.06	58.98	78.564	
5,900.00	5,812.43	14,066.92	9,759.14	21.31	71.84	-82.93	-468.10	2,675.93	4,543.14	4,483.44	59.69	76.106	
6,000.00	5,909.91	14,153.23	9,760.11	21.70	72.94	-80.62	-554.30	2,680.14	4,452.51	4,391.51	61.00	72.991	
6,100.00	6,007.38	14,172.28	9,760.19	22.08	73.18	-80.10	-573.34	2,680.96	4,361.93	4,300.15	61.78	70.607	
6,200.00	6,104.86	14,253.58	9,760.07	22.47	74.22	-77.82	-654.58	2,683.81	4,271.41	4,208.32	63.09	67.701	
6,300.00	6,202.34	14,267.91	9,760.00	22.85	74.41	-77.42	-668.90	2,684.26	4,181.26	4,117.38	63.88	65.453	
6,400.00	6,299.81	14,282.33	9,759.93	23.24	74.59	-77.00	-683.32	2,684.71	4,091.51	4,026.81	64.70	63.239	
6,421.23	6,320.51	14,285.41	9,759.92	23.32	74.63	-76.91	-686.39	2,684.81	4,072.51	4,007.63	64.88	62.773	
6,500.00	6,397.52	14,302.00	9,759.86	23.62	74.84	-73.44	-702.97	2,685.35	4,002.30	3,936.70	65.60	61.014	
6,600.00	6,495.90	14,302.00	9,759.86	24.00	74.84	-69.87	-702.97	2,685.35	3,914.01	3,847.63	66.38	58.962	
6,700.00	6,594.84	14,302.00	9,759.86	24.37	74.84	-66.57	-702.97	2,685.35	3,826.89	3,759.66	67.22	56.930	
6,800.00	6,694.23	14,302.00	9,759.86	24.74	74.84	-63.54	-702.97	2,685.35	3,741.12	3,673.00	68.12	54.923	
6,900.00	6,793.94	14,302.00	9,759.86	25.09	74.84	-60.78	-702.97	2,685.35	3,656.91	3,587.84	69.07	52.946	
7,000.00	6,893.85	14,302.00	9,759.86	25.44	74.84	-58.27	-702.97	2,685.35	3,574.48	3,504.40	70.08	51.004	
7,066.16	6,960.00	14,302.00	9,759.86	25.67	74.84	87.36	-702.97	2,685.35	3,521.04	3,450.26	70.78	49.745	
7,100.00	6,993.82	14,302.00	9,759.86	25.78	74.84	-85.64	-702.97	2,685.35	3,493.92	3,422.77	71.15	49.106	
7,150.00	7,043.55	14,302.00	9,759.86	25.96	74.84	-92.30	-702.97	2,685.35	3,453.92	3,382.22	71.70	48.169	
7,200.00	7,092.63	14,328.89	9,759.83	26.14	75.19	-98.09	-729.84	2,686.32	3,414.10	3,341.60	72.50	47.090	
7,250.00	7,140.71	14,335.96	9,759.84	26.34	75.28	-104.05	-736.91	2,686.60	3,375.04	3,301.92	73.12	46.157	
7,300.00	7,187.41	14,345.24	9,759.88	26.53	75.40	-109.49	-746.18	2,686.98	3,336.92	3,263.16	73.76	45.243	
7,350.00	7,232.38	14,356.68	9,759.94	26.73	75.55	-114.34	-757.61	2,687.47	3,300.02	3,225.62	74.40	44.355	
7,400.00	7,275.27	14,370.22	9,760.05	26.93	75.72	-118.59	-771.13	2,688.09	3,264.63	3,189.58	75.05	43.501	
7,450.00	7,315.77	14,396.00	9,760.35	27.13	76.06	-122.15	-796.88	2,689.37	3,231.05	3,155.27	75.79	42.634	
7,500.00	7,353.56	14,396.00	9,760.35	27.34	76.06	-125.53	-796.88	2,689.37	3,199.49	3,123.22	76.27	41.951	
7,550.00	7,388.35	14,422.92	9,760.77	27.54	76.41	-128.14	-823.76	2,690.87	3,170.21	3,093.25	76.97	41.189	
7,600.00	7,419.89	14,446.00	9,761.22	27.74	76.71	-130.40	-846.79	2,692.29	3,143.49	3,065.88	77.60	40.508	
7,650.00	7,447.92	14,484.14	9,762.02	27.94	77.20	-132.22	-884.84	2,694.75	3,119.40	3,041.05	78.34	39.818	
7,700.00	7,472.24	14,503.00	9,762.41	28.14	77.45	-133.84	-903.66	2,695.97	3,098.06	3,019.20	78.86	39.284	
7,750.00	7,492.67	14,503.00	9,762.41	28.33	77.45	-135.21	-903.66	2,695.97	3,080.13	3,000.97	79.17	38.907	
7,800.00	7,509.03	14,503.00	9,762.41	28.52	77.45	-136.25	-903.66	2,695.97	3,065.86	2,986.43	79.42	38.601	
7,816.16	7,513.43	14,503.00	9,762.41	28.58	77.45	-136.52	-903.66	2,695.97	3,062.05	2,982.56	79.49	38.519	
7,900.00	7,532.50	14,503.00	9,762.41	28.88	77.45	-137.18	-903.66	2,695.97	3,047.36	2,967.51	79.85	38.164	
8,000.00	7,548.24	14,503.00	9,762.41	29.24	77.45	-137.63	-903.66	2,695.97	3,040.48	2,960.24	80.24	37.894	
8,008.97	7,549.28	14,503.00	9,762.41	29.27	77.45	-137.66	-903.66	2,695.97	3,040.43	2,960.16	80.27	37.878	CC, ES
8,100.00	7,556.27	14,503.00	9,762.41	29.58	77.45	-137.75	-903.66	2,695.97	3,045.27	2,964.70	80.57	37.796	SF
8,153.26	7,557.37	14,503.00	9,762.41	29.76	77.45	-137.68	-903.66	2,695.97	3,052.57	2,971.84	80.73	37.814	
8,200.00	7,557.37	14,503.00	9,762.41	29.92	77.45	-137.68	-903.66	2,695.97	3,060.76	2,979.91	80.85	37.856	
8,300.00	7,557.36	14,503.00	9,762.41	30.26	77.45	-137.68	-903.66	2,695.97	3,080.58	2,999.46	81.12	37.976	
8,400.00	7,557.36	14,503.00	9,762.41	30.63	77.45	-137.68	-903.66	2,695.97	3,103.51	3,022.13	81.38	38.136	
8,500.00	7,557.36	14,503.00	9,762.41	31.00	77.45	-137.68	-903.66	2,695.97	3,129.46	3,047.83	81.63	38.338	
8,600.00	7,557.35	14,503.00	9,762.41	31.39	77.45	-137.68	-903.66	2,695.97	3,158.37	3,076.51	81.86	38.582	
8,700.00	7,557.35	14,503.00	9,762.41	31.79	77.45	-137.68	-903.66	2,695.97	3,190.15	3,108.07	82.08	38.867	
8,800.00	7,557.35	14,503.00	9,762.41	32.21	77.45	-137.68	-903.66	2,695.97	3,224.72	3,142.44	82.28	39.194	
8,900.00	7,557.34	14,503.00	9,762.41	32.64	77.45	-137.68	-903.66	2,695.97	3,261.99	3,179.53	82.45	39.561	

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 4H
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 4H	**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
9,000.00	7,557.34	14,503.00	9,762.41	33.08	77.45	-137.68	-903.66	2,695.97	3,301.87	3,219.25	82.61	39.969	
9,100.00	7,557.34	14,503.00	9,762.41	33.54	77.45	-137.68	-903.66	2,695.97	3,344.26	3,261.51	82.75	40.415	
9,200.00	7,557.33	14,503.00	9,762.41	34.00	77.45	-137.68	-903.66	2,695.97	3,389.08	3,306.21	82.86	40.899	
9,300.00	7,557.33	14,503.00	9,762.41	34.48	77.45	-137.68	-903.66	2,695.97	3,436.22	3,353.26	82.96	41.420	
9,400.00	7,557.32	14,503.00	9,762.41	34.96	77.45	-137.68	-903.66	2,695.97	3,485.59	3,402.56	83.04	41.976	
9,500.00	7,557.32	14,503.00	9,762.41	35.46	77.45	-137.68	-903.66	2,695.97	3,537.11	3,454.01	83.10	42.567	
9,600.00	7,557.32	14,503.00	9,762.41	35.97	77.45	-137.68	-903.66	2,695.97	3,590.67	3,507.53	83.14	43.190	
9,700.00	7,557.31	14,503.00	9,762.41	36.48	77.45	-137.68	-903.66	2,695.97	3,646.18	3,563.02	83.16	43.844	
9,800.00	7,557.31	14,503.00	9,762.41	37.00	77.45	-137.68	-903.66	2,695.97	3,703.57	3,620.39	83.17	44.528	
9,900.00	7,557.31	14,503.00	9,762.41	37.54	77.45	-137.68	-903.66	2,695.97	3,762.73	3,679.56	83.17	45.241	
10,000.00	7,557.30	14,503.00	9,762.41	38.08	77.45	-137.68	-903.66	2,695.97	3,823.60	3,740.44	83.16	45.980	
10,100.00	7,557.30	14,503.00	9,762.41	38.63	77.45	-137.68	-903.66	2,695.97	3,886.09	3,802.96	83.13	46.746	
10,200.00	7,557.30	14,503.00	9,762.41	39.18	77.45	-137.68	-903.66	2,695.97	3,950.12	3,867.02	83.10	47.536	
10,300.00	7,557.29	14,503.00	9,762.41	39.74	77.45	-137.68	-903.66	2,695.97	4,015.62	3,932.56	83.06	48.349	
10,400.00	7,557.29	14,503.00	9,762.41	40.31	77.45	-137.68	-903.66	2,695.97	4,082.52	3,999.51	83.01	49.183	
10,500.00	7,557.28	14,503.00	9,762.41	40.89	77.45	-137.68	-903.66	2,695.97	4,150.75	4,067.80	82.95	50.039	
10,600.00	7,557.28	14,503.00	9,762.41	41.47	77.45	-137.68	-903.66	2,695.97	4,220.25	4,137.36	82.89	50.914	
10,700.00	7,557.28	14,503.00	9,762.41	42.06	77.45	-137.68	-903.66	2,695.97	4,290.95	4,208.12	82.83	51.807	
10,800.00	7,557.27	14,503.00	9,762.41	42.66	77.45	-137.68	-903.66	2,695.97	4,362.80	4,280.04	82.76	52.718	
10,900.00	7,557.27	14,503.00	9,762.41	43.26	77.45	-137.68	-903.66	2,695.97	4,435.74	4,353.05	82.69	53.646	
11,000.00	7,557.27	14,503.00	9,762.41	43.86	77.45	-137.68	-903.66	2,695.97	4,509.71	4,427.10	82.61	54.588	
11,100.00	7,557.26	14,503.00	9,762.41	44.47	77.45	-137.68	-903.66	2,695.97	4,584.68	4,502.14	82.54	55.546	
11,200.00	7,557.26	14,503.00	9,762.41	45.09	77.45	-137.68	-903.66	2,695.97	4,660.58	4,578.12	82.46	56.517	
11,300.00	7,557.26	14,503.00	9,762.41	45.71	77.45	-137.68	-903.66	2,695.97	4,737.38	4,655.00	82.39	57.500	
11,400.00	7,557.25	14,503.00	9,762.41	46.33	77.45	-137.68	-903.66	2,695.97	4,815.04	4,732.72	82.31	58.496	
11,500.00	7,557.25	14,503.00	9,762.41	46.96	77.45	-137.68	-903.66	2,695.97	4,893.50	4,811.26	82.24	59.504	
11,600.00	7,557.24	14,503.00	9,762.41	47.60	77.45	-137.68	-903.66	2,695.97	4,972.73	4,890.57	82.16	60.521	
11,700.00	7,557.24	14,503.00	9,762.41	48.24	77.45	-137.68	-903.66	2,695.97	5,052.71	4,970.61	82.09	61.549	
11,800.00	7,557.24	14,503.00	9,762.41	48.88	77.45	-137.68	-903.66	2,695.97	5,133.38	5,051.36	82.02	62.587	
11,900.00	7,557.23	14,503.00	9,762.41	49.52	77.45	-137.68	-903.66	2,695.97	5,214.73	5,132.78	81.95	63.633	
12,000.00	7,557.23	14,503.00	9,762.41	50.17	77.45	-137.68	-903.66	2,695.97	5,296.71	5,214.83	81.88	64.687	
12,100.00	7,557.23	14,503.00	9,762.41	50.82	77.45	-137.68	-903.66	2,695.97	5,379.30	5,297.49	81.82	65.749	
12,200.00	7,557.22	14,503.00	9,762.41	51.48	77.45	-137.68	-903.66	2,695.97	5,462.48	5,380.72	81.75	66.818	
12,300.00	7,557.22	14,503.00	9,762.41	52.14	77.45	-137.68	-903.66	2,695.97	5,546.21	5,464.52	81.69	67.893	
12,400.00	7,557.22	14,503.00	9,762.41	52.80	77.45	-137.68	-903.66	2,695.97	5,630.47	5,548.84	81.63	68.975	
12,500.00	7,557.21	14,503.00	9,762.41	53.46	77.45	-137.68	-903.66	2,695.97	5,715.24	5,633.66	81.57	70.063	
12,600.00	7,557.21	14,503.00	9,762.41	54.13	77.45	-137.68	-903.66	2,695.97	5,800.49	5,718.97	81.52	71.156	
12,700.00	7,557.20	14,503.00	9,762.41	54.80	77.45	-137.68	-903.66	2,695.97	5,886.21	5,804.74	81.47	72.254	
12,800.00	7,557.20	14,503.00	9,762.41	55.48	77.45	-137.68	-903.66	2,695.97	5,972.37	5,890.96	81.42	73.357	
12,900.00	7,557.20	14,503.00	9,762.41	56.15	77.45	-137.68	-903.66	2,695.97	6,058.96	5,977.59	81.37	74.464	
13,000.00	7,557.19	14,503.00	9,762.41	56.83	77.45	-137.68	-903.66	2,695.97	6,145.95	6,064.63	81.32	75.575	
13,100.00	7,557.19	14,503.00	9,762.41	57.51	77.45	-137.68	-903.66	2,695.97	6,233.34	6,152.06	81.28	76.690	
13,200.00	7,557.19	14,503.00	9,762.41	58.19	77.45	-137.68	-903.66	2,695.97	6,321.10	6,239.86	81.24	77.808	
13,300.00	7,557.18	14,503.00	9,762.41	58.88	77.45	-137.68	-903.66	2,695.97	6,409.21	6,328.01	81.20	78.930	
13,400.00	7,557.18	14,503.00	9,762.41	59.57	77.45	-137.68	-903.66	2,695.97	6,497.67	6,416.51	81.17	80.054	
13,500.00	7,557.18	14,503.00	9,762.41	60.25	77.45	-137.68	-903.66	2,695.97	6,586.47	6,505.33	81.13	81.181	
13,600.00	7,557.17	14,503.00	9,762.41	60.95	77.45	-137.68	-903.66	2,695.97	6,675.57	6,594.47	81.10	82.310	
13,700.00	7,557.17	14,503.00	9,762.41	61.64	77.45	-137.68	-903.66	2,695.97	6,764.99	6,683.91	81.08	83.441	
13,800.00	7,557.16	14,503.00	9,762.41	62.33	77.45	-137.68	-903.66	2,695.97	6,854.69	6,773.64	81.05	84.574	
13,900.00	7,557.16	14,503.00	9,762.41	63.03	77.45	-137.68	-903.66	2,695.97	6,944.68	6,863.65	81.03	85.709	
14,000.00	7,557.16	14,503.00	9,762.41	63.73	77.45	-137.68	-903.66	2,695.97	7,034.94	6,953.93	81.00	86.846	
14,100.00	7,557.15	14,503.00	9,762.41	64.43	77.45	-137.68	-903.66	2,695.97	7,125.45	7,044.47	80.99	87.984	

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 4H
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 4H	**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
14,200.00	7,557.15	14,503.00	9,762.41	65.13	77.45	-137.68	-903.66	2,695.97	7,216.22	7,135.25	80.97	89.123	
14,300.00	7,557.15	14,503.00	9,762.41	65.84	77.45	-137.68	-903.66	2,695.97	7,307.23	7,226.28	80.95	90.263	
14,400.00	7,557.14	14,503.00	9,762.41	66.54	77.45	-137.68	-903.66	2,695.97	7,398.47	7,317.53	80.94	91.404	
14,500.00	7,557.14	14,503.00	9,762.41	67.25	77.45	-137.68	-903.66	2,695.97	7,489.94	7,409.00	80.93	92.546	
14,600.00	7,557.14	14,503.00	9,762.41	67.96	77.45	-137.68	-903.66	2,695.97	7,581.62	7,500.69	80.92	93.688	
14,700.00	7,557.13	14,503.00	9,762.41	68.66	77.45	-137.68	-903.66	2,695.97	7,673.50	7,592.59	80.92	94.831	
14,800.00	7,557.13	14,503.00	9,762.41	69.38	77.45	-137.68	-903.66	2,695.97	7,765.59	7,684.68	80.91	95.974	
14,900.00	7,557.12	14,503.00	9,762.41	70.09	77.45	-137.68	-903.66	2,695.97	7,857.87	7,776.96	80.91	97.117	
15,000.00	7,557.12	14,503.00	9,762.41	70.80	77.45	-137.68	-903.66	2,695.97	7,950.34	7,869.43	80.91	98.260	
15,100.00	7,557.12	14,503.00	9,762.41	71.52	77.45	-137.68	-903.66	2,695.97	8,042.99	7,962.08	80.91	99.404	
15,200.00	7,557.11	14,503.00	9,762.41	72.23	77.45	-137.68	-903.66	2,695.97	8,135.81	8,054.90	80.92	100.547	
15,300.00	7,557.11	14,503.00	9,762.41	72.95	77.45	-137.68	-903.66	2,695.97	8,228.80	8,147.88	80.92	101.690	
15,400.00	7,557.11	14,503.00	9,762.41	73.67	77.45	-137.68	-903.66	2,695.97	8,321.96	8,241.03	80.93	102.832	
15,500.00	7,557.10	14,503.00	9,762.41	74.39	77.45	-137.68	-903.66	2,695.97	8,415.27	8,334.33	80.94	103.974	
15,600.00	7,557.10	14,503.00	9,762.41	75.11	77.45	-137.68	-903.66	2,695.97	8,508.73	8,427.78	80.95	105.116	
15,700.00	7,557.10	14,503.00	9,762.41	75.83	77.45	-137.68	-903.66	2,695.97	8,602.34	8,521.38	80.96	106.257	
15,800.00	7,557.09	14,503.00	9,762.41	76.55	77.45	-137.68	-903.66	2,695.97	8,696.09	8,615.12	80.97	107.397	
15,900.00	7,557.09	14,503.00	9,762.41	77.27	77.45	-137.68	-903.66	2,695.97	8,789.98	8,709.00	80.99	108.536	
16,000.00	7,557.08	14,503.00	9,762.41	78.00	77.45	-137.68	-903.66	2,695.97	8,884.00	8,803.00	81.00	109.675	
16,100.00	7,557.08	14,503.00	9,762.41	78.72	77.45	-137.68	-903.66	2,695.97	8,978.16	8,897.14	81.02	110.813	
16,200.00	7,557.08	14,503.00	9,762.41	79.45	77.45	-137.68	-903.66	2,695.97	9,072.43	8,991.39	81.04	111.949	
16,300.00	7,557.07	14,503.00	9,762.41	80.18	77.45	-137.68	-903.66	2,695.97	9,166.83	9,085.77	81.06	113.085	
16,400.00	7,557.07	14,503.00	9,762.41	80.90	77.45	-137.68	-903.66	2,695.97	9,261.35	9,180.26	81.08	114.219	
16,500.00	7,557.07	14,503.00	9,762.41	81.63	77.45	-137.68	-903.66	2,695.97	9,355.98	9,274.87	81.11	115.353	
16,600.00	7,557.06	14,503.00	9,762.41	82.36	77.45	-137.68	-903.66	2,695.97	9,450.72	9,369.59	81.13	116.485	
16,700.00	7,557.06	14,503.00	9,762.41	83.09	77.45	-137.68	-903.66	2,695.97	9,545.57	9,464.41	81.16	117.615	
16,800.00	7,557.06	14,503.00	9,762.41	83.82	77.45	-137.68	-903.66	2,695.97	9,640.52	9,559.33	81.19	118.745	
16,900.00	7,557.05	14,503.00	9,762.41	84.55	77.45	-137.68	-903.66	2,695.97	9,735.57	9,654.36	81.22	119.872	
17,000.00	7,557.05	14,503.00	9,762.41	85.29	77.45	-137.68	-903.66	2,695.97	9,830.72	9,749.48	81.25	120.999	
17,100.00	7,557.04	14,503.00	9,762.41	86.02	77.45	-137.68	-903.66	2,695.97	9,925.97	9,844.69	81.28	122.124	

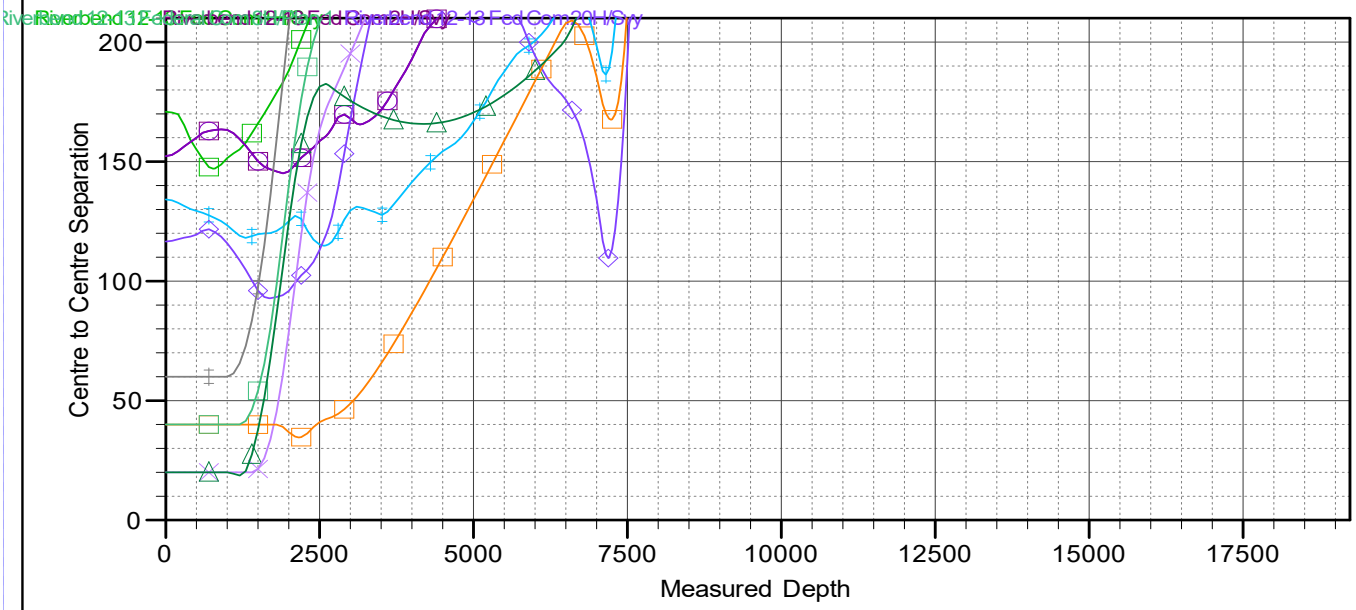
Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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 4H
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 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
- Riverbend 12-13 Federal Com 8H, OH, Plan 1 V0

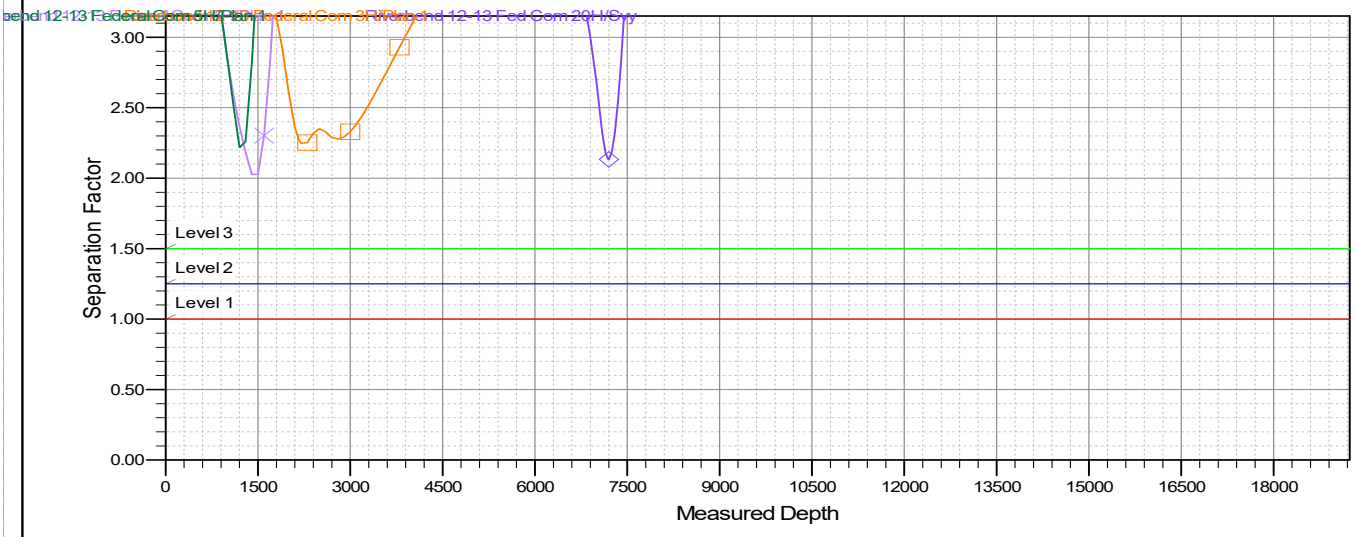
Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Riverbend 12-13 Federal Com 4H
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 4H	**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 4H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.16°

Separation Factor 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 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
- Riverbend 12-13 Federal Com 8H, OH, Plan 1 V0

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

1. Geological Formations

TVD of target 7,557
MD at TD 18,319

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	
1st Bone Spirng Sand - Target	7557	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	2497	9-5/8"	36.00	J-55	LT&C	1.56	2.71	5.04
8 3/4	0	7066								
8 3/4	7066	8153	7557	7"	26.00	P-110	BT&C	1.67	2.67	65.02
6	7066	18319	7557	4-1/2"	11.60	HCP-110	BT&C	1.95	2.37	64.44
					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	297	10.30	3.64	22.18	12	Lead: Tuned Light + LCM
	181	14.80	1.36	6.57	9.5	Tail: Class C + Retarder
Completion System	816	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	7200	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 8153'	Cut Brine or OBM	9.00 - 9.50	27-70	N/C
8153' to 18319'	OBM	11.00 - 11.50	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	4519 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

Site: Riverbend 12-13 Federal Com
Well: Riverbend 12-13 Federal Com 4H
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

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	Latitude	Longitude	Slot
0.00	0.00	420301.44	631508.48	32.1551516	-104.0419568	

SECTION DETAILS

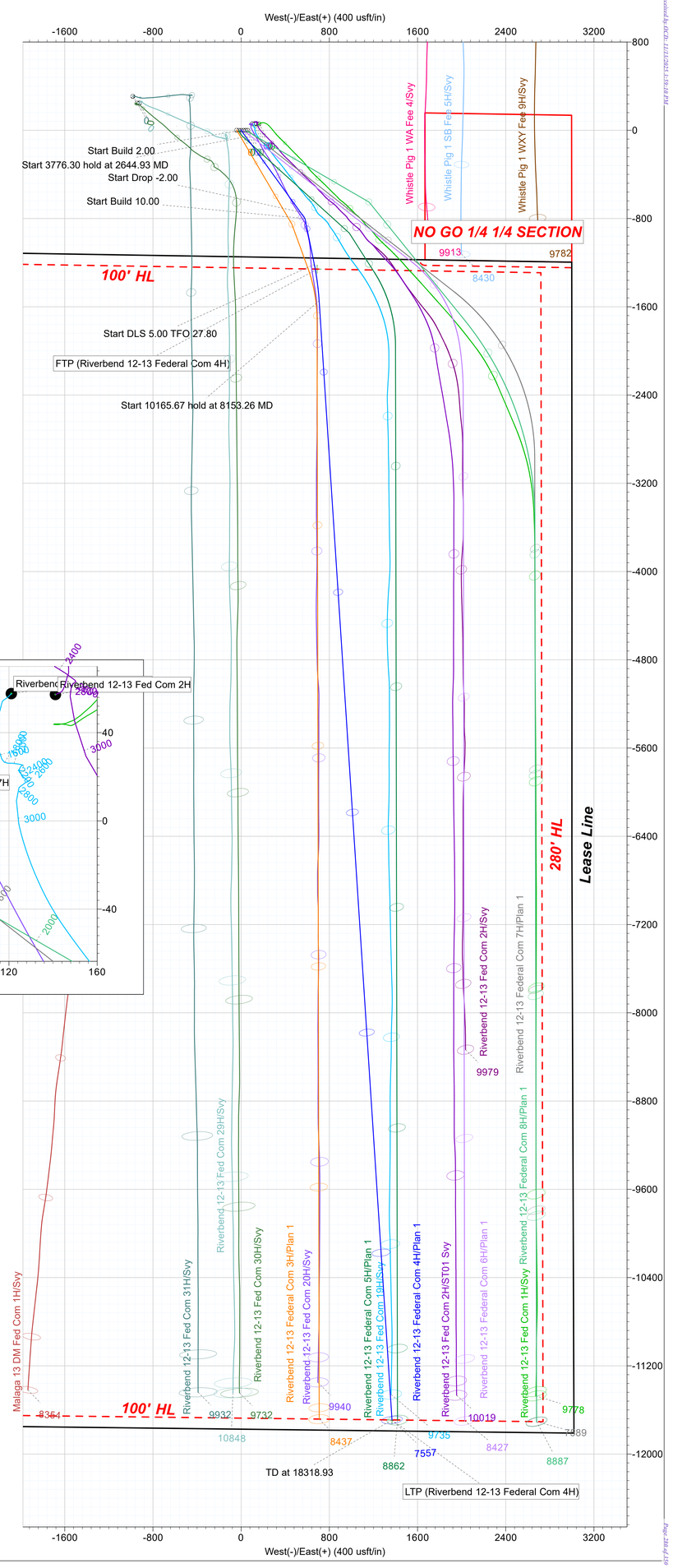
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00	
2644.93	12.90	144.10	2639.49	-58.56	42.38	2.00	144.10	61.19	
6421.23	12.90	144.10	6320.51	-741.44	536.62	0.00	0.00	774.78	
7066.16	0.00	0.00	6960.00	-800.00	579.00	2.00	180.00	835.97	
7816.16	75.00	168.50	7513.43	-1216.14	663.66	10.00	168.50	1256.74	
8153.26	90.00	176.27	7557.37	-1546.26	707.40	5.00	27.80	1589.00	
18318.93	90.00	176.27	7557.00	-11690.43	1368.20	0.00	0.00	11754.67	

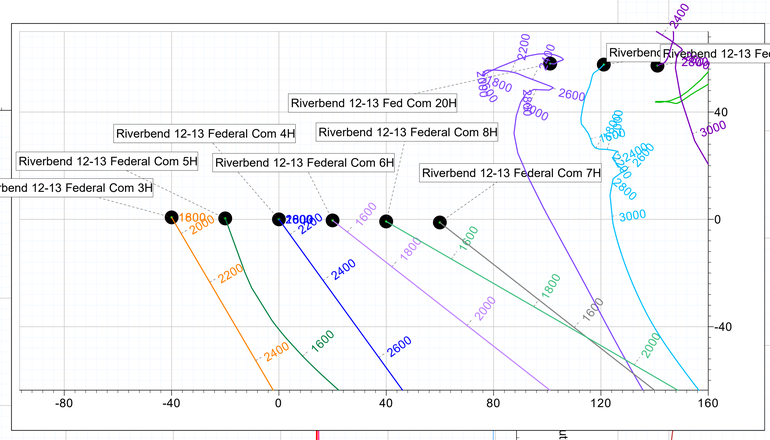
Formations

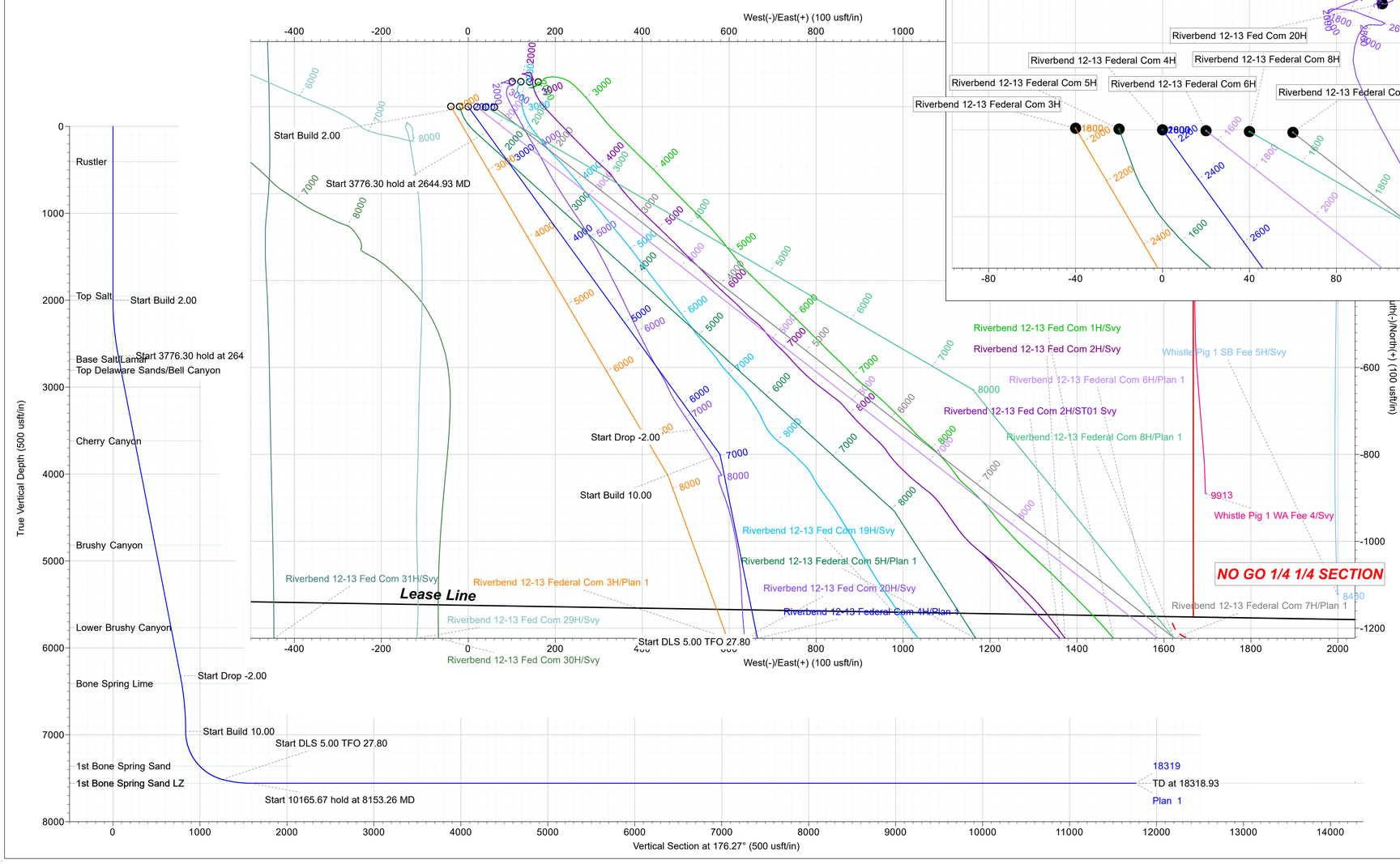
TVDPath	MDPath	Formation
407.00	407.00	Rustler
1952.00	1952.00	Top Salt
2679.00	2685.46	Base Salt/Lamar
2806.00	2815.78	Top Delaware Sands/Bell Canyon
3619.00	3649.79	Cherry Canyon
4817.00	4878.80	Brushy Canyon
5766.00	5852.37	Lower Brushy Canyon
6411.00	6513.74	Bone Spring Lime
7361.00	7510.33	1st Bone Spring Sand
7557.00	8122.39	1st Bone Spring Sand LZ

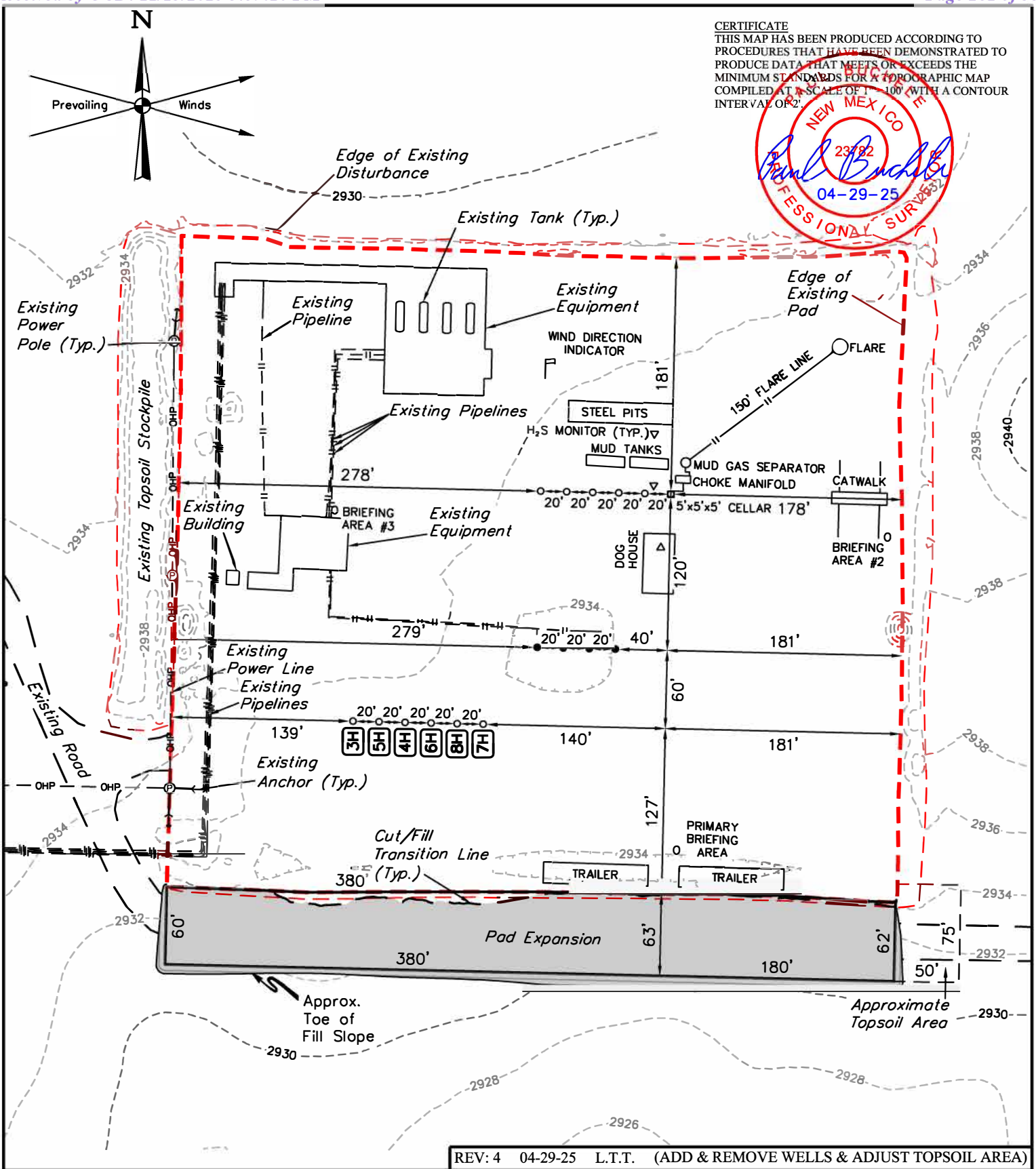
WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FTP (Riverbend 12-13 Federal Com 4H)	0.00	-1258.41	688.98	419043.03	632197.46	32.1516872	-104.0397416
LTP (Riverbend 12-13 Federal Com 4H)	0.00	-11690.43	1368.20	408611.01	632876.68	32.1230054	-104.0376394









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

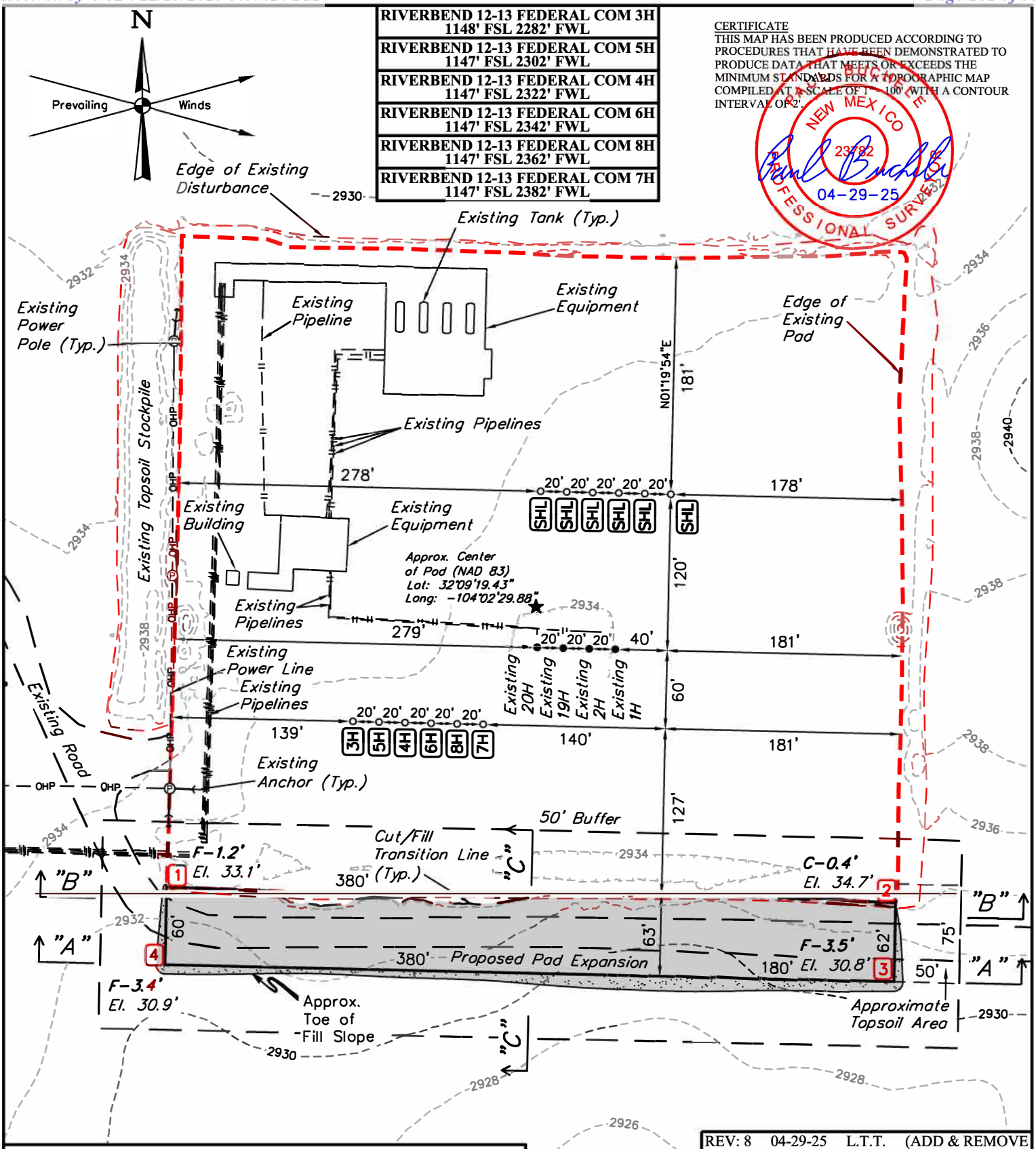
SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	C.D.	03-22-17	1" = 100'
TYPICAL RIG LAYOUT			EXHIBIT K

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 — 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:
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- 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)

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SURVEYED BY	A.H.	08-12-24	SCALE
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LOCATION LAYOUT			EXHIBIT J

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 4H		Sec 1 T25S, R28E	1147 FSL/2322 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 4H		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:	

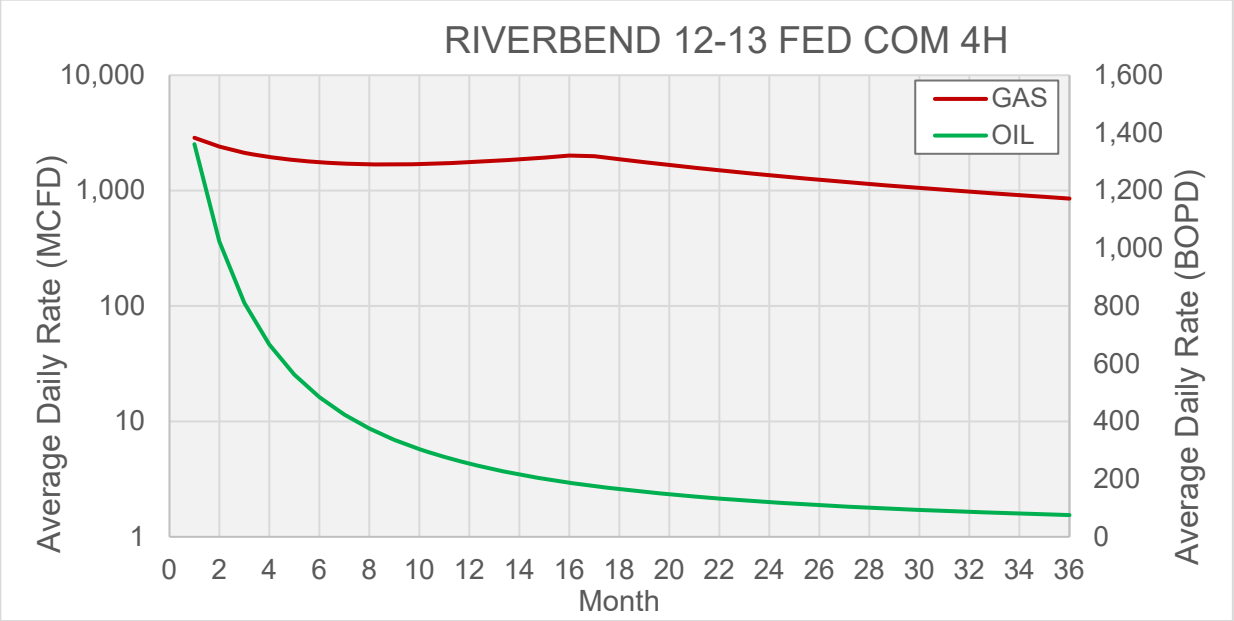
From State of New Mexico, Natural Gas Management Plan

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 4H	RIVERBEND 12-13 FED COM 4H
GAS MCFD	OIL BOPD
2,875	1,361
2,408	1,023
2,126	811
1,947	666
1,831	562
1,757	484
1,713	424
1,691	375
1,688	336
1,699	304
1,723	276
1,760	253
1,807	233
1,864	216
1,932	201
2,011	188
1,988	176
1,869	165
1,762	156
1,666	147
1,578	140
1,499	133
1,426	126
1,359	120
1,298	115
1,242	110
1,190	105
1,141	101
1,096	97
1,054	93
1,015	90
979	87
944	84
912	81
882	78
853	76


RIVERBEND 12-13 FED COM 4H
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.

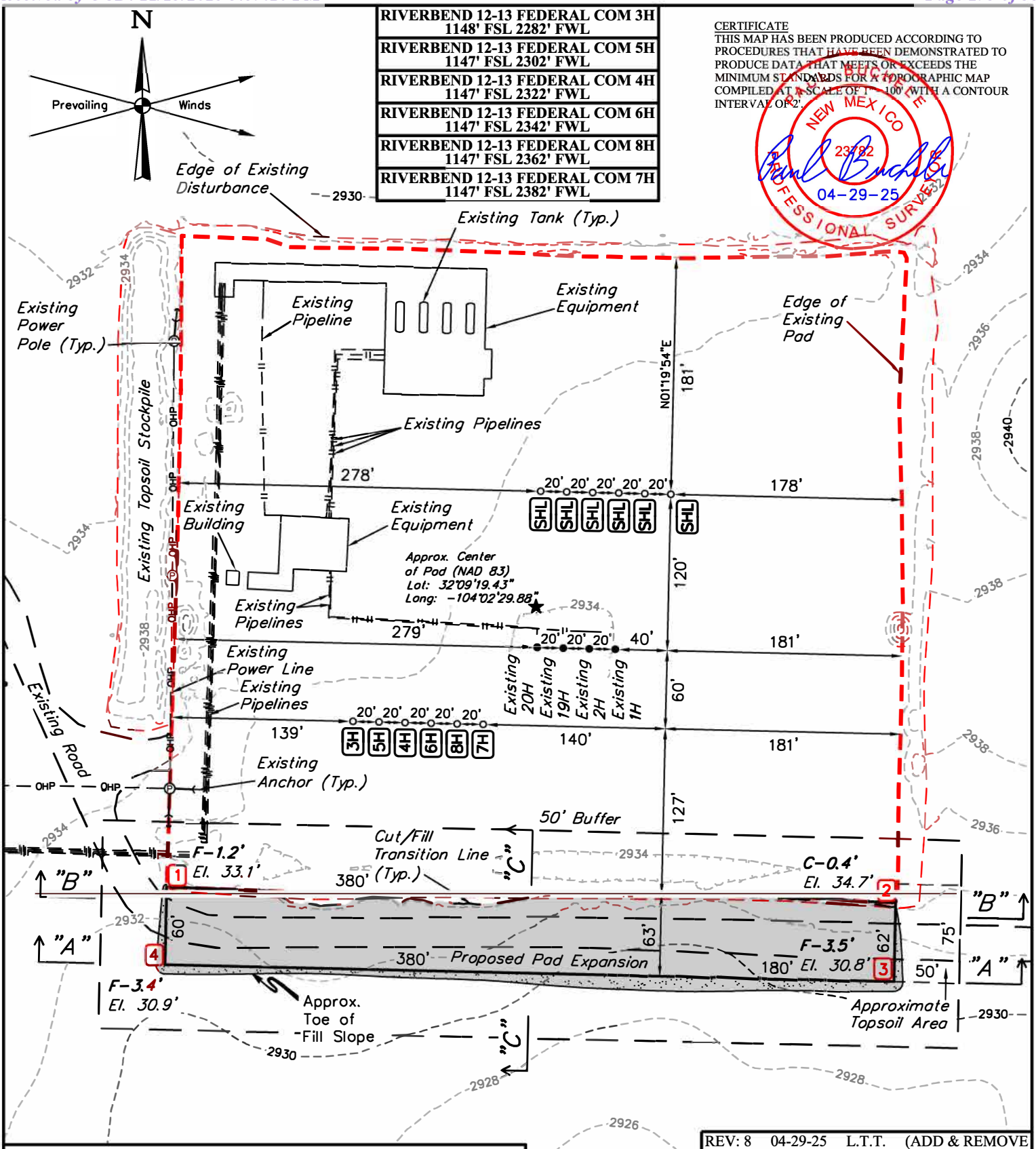
- **Flare/combustor maintenance:**
  - Minimize downtime by coordinating with vendor and Cimarex staff travel logistics.
  - Utilizing preventative and predictive maintenance programs to replace high wear components before failure.
  - Because the flare/combustor is the primary equipment used to limit 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.

RIVERBEND 12-13 FEDERAL COM 3H 1148' FSL 2282' FWL
RIVERBEND 12-13 FEDERAL COM 5H 1147' FSL 2302' FWL
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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)

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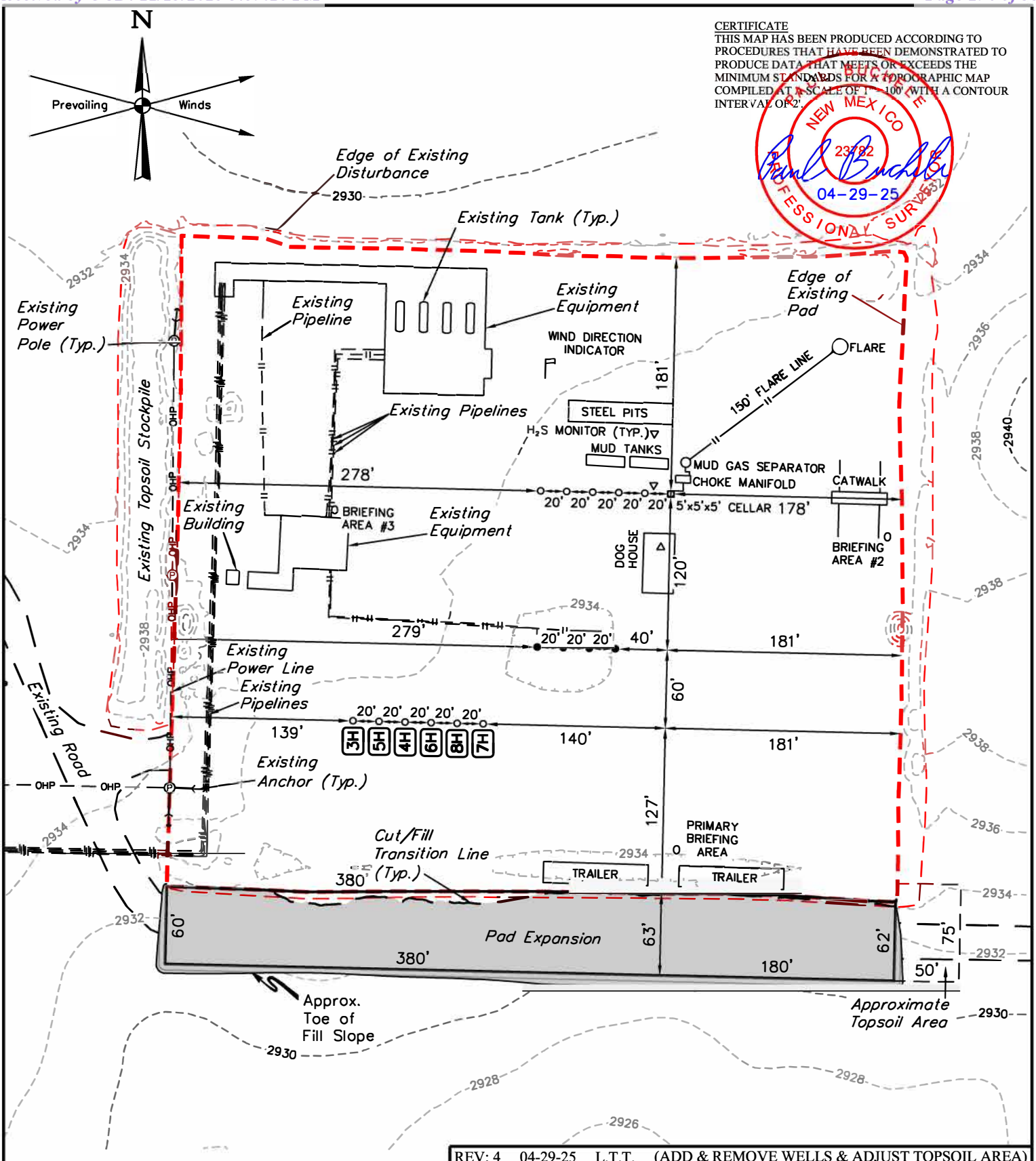
CIMAREX ENERGY CO.

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)

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CIMAREX ENERGY CO.

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1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
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SURVEYED BY	A.H.	08-12-24	SCALE
DRAWN BY	C.D.	03-22-17	1" = 100'
TYPICAL RIG LAYOUT			EXHIBIT K

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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 4H		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:	

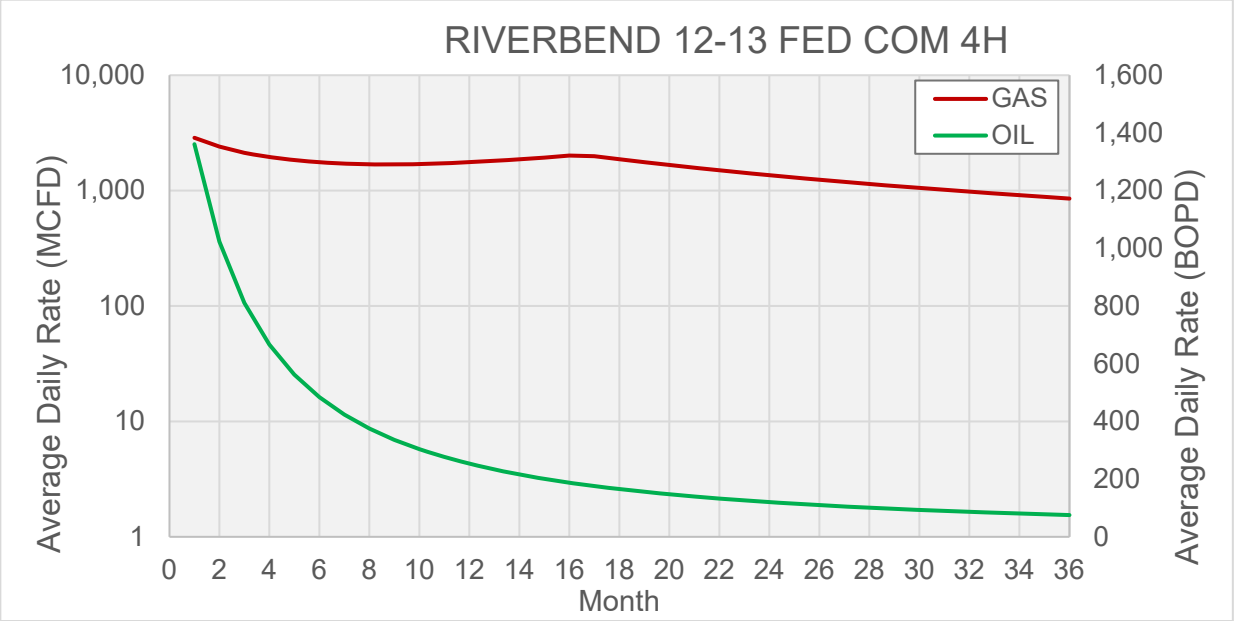
From State of New Mexico, Natural Gas Management Plan

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 4H	RIVERBEND 12-13 FED COM 4H
GAS MCFD	OIL BOPD
2,875	1,361
2,408	1,023
2,126	811
1,947	666
1,831	562
1,757	484
1,713	424
1,691	375
1,688	336
1,699	304
1,723	276
1,760	253
1,807	233
1,864	216
1,932	201
2,011	188
1,988	176
1,869	165
1,762	156
1,666	147
1,578	140
1,499	133
1,426	126
1,359	120
1,298	115
1,242	110
1,190	105
1,141	101
1,096	97
1,054	93
1,015	90
979	87
944	84
912	81
882	78
853	76


RIVERBEND 12-13 FED COM 4H
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

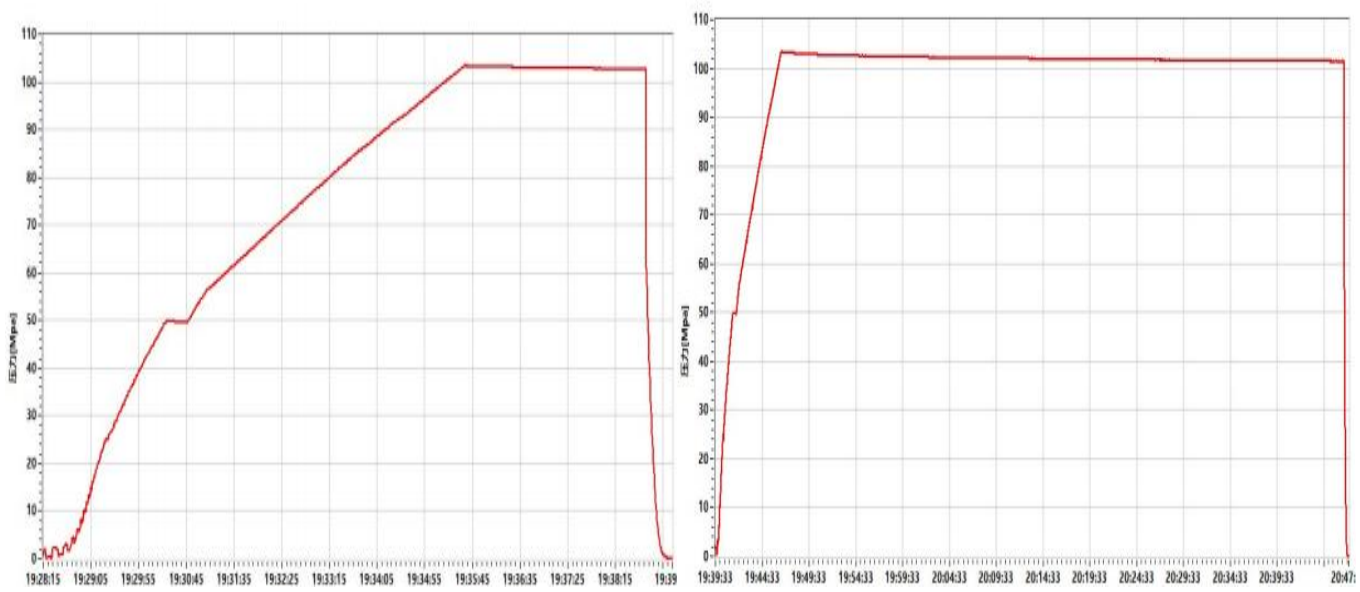
LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD LETONE

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

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

Standard New Mexico Variances

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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
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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

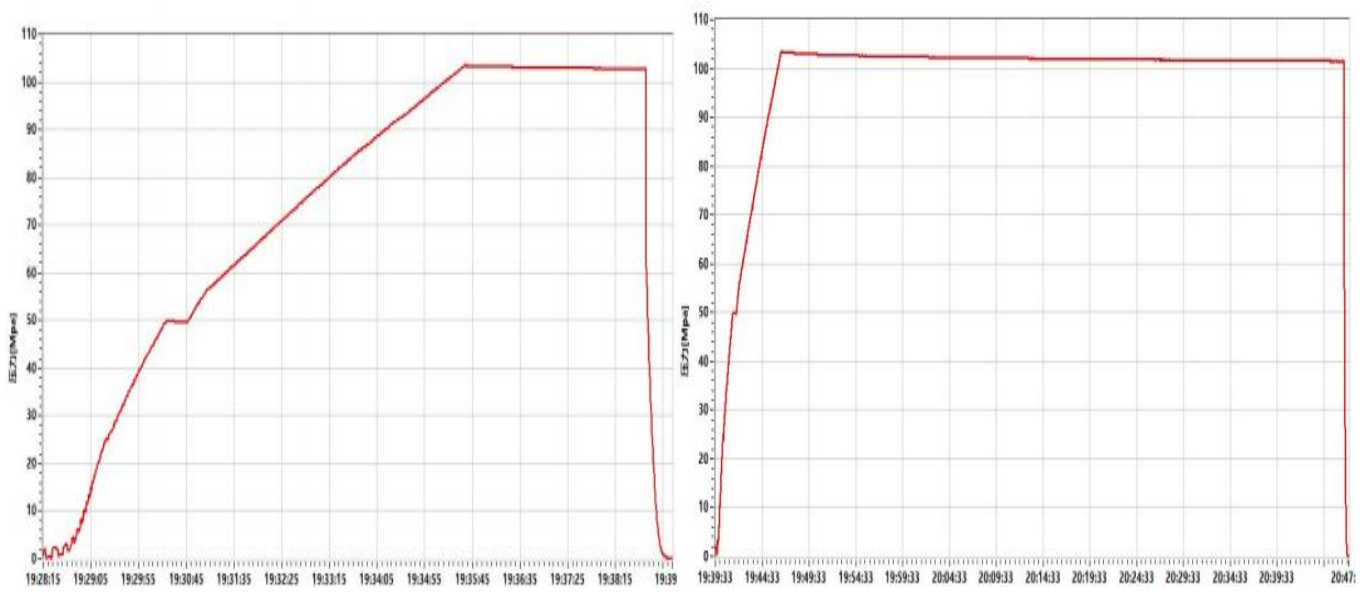
LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD LETONE

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%		
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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

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

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

SUPO Data Report
10/16/2025

APD ID: 10400105541 **Submission Date:** 08/07/2025

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 4H

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_20250827070019.pdf
RIVERBEND_12_13_FED_COM_W2E2_road_access_20250925095857.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:** 4H

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Existing Well map Attachment:

RIVERBEND_12_13_FED_COM_W2E2_one_mile_radius_map_20250827070043.pdf
RIVERBEND_12_13_FED_COM_W2E2_one_mile_radius_map_20250925095914.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:

RB_12_13__PLOT_PLAN_Rev.3_20250827075138.pdf
RB_12_13__PLOT_PLAN_Rev.3_20250925095945.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:** 4H

Water source and transportation

Riverbend_12_13_Fed_Com_W2E2_Drilling_Water_Source_Route_20250827131625.pdf
Riverbend_12_13_Fed_Com_W2E2_Drilling_Water_Source_Route_20250925100004.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:** 4H

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: 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.

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

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:** 4H

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_20250602121317.pdf
RIVERBEND_12_13_FED_COM_W2E2_location_layout_plat_20250827070247.pdf
RIVERBEND_12_13_FED_COM_W2E2_location_layout_plat_20250925100110.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: 4H

Recontouring

RIVERBEND_12_13_FED_COM_W2E2_reclamation_plat_20250807090959.pdf
RIVERBEND_12_13_FED_COM_W2E2_reclamation_plat_20250827070315.pdf
RIVERBEND_12_13_FED_COM_W2E2_reclamation_plat_20250925100129.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

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 4H

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 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

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 4H

Existing Vegetation Community at the pipeline

Existing Vegetation Community at other disturbances: N/A

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

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 4H

Weed treatment plan description: N/A

Weed treatment plan

Monitoring plan description: N/A

Monitoring plan

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

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 4H

SUPO Additional Information: Onsite conducted on August 5, 2024 with Brendan Harris & Brandon Carico, 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.

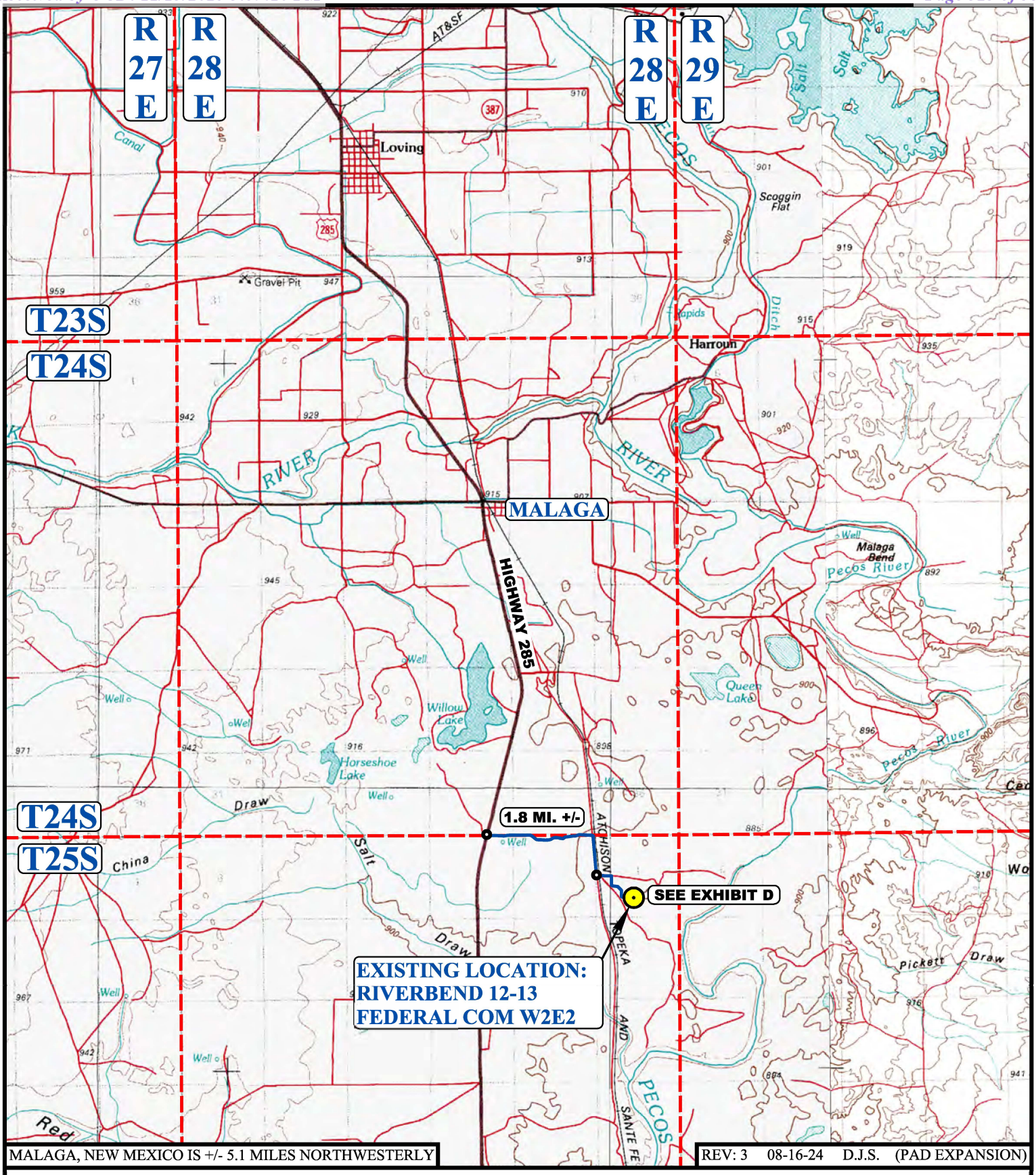
RIVERBEND 12-13 FEDERAL COM W2E2
1238' FSL 2421' FEL (APPROX. CENTER OF PAD)
E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

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	
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.

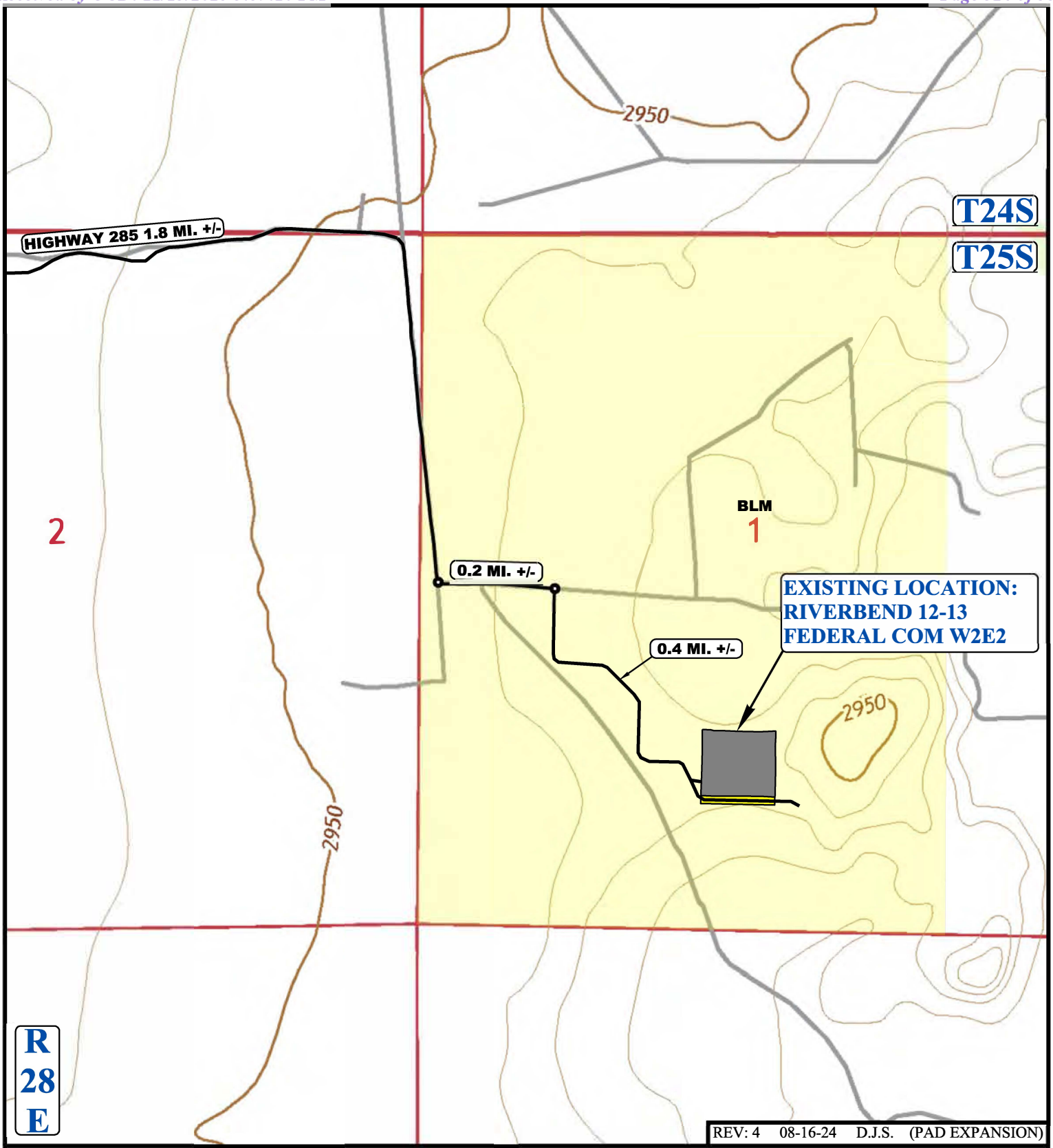
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EDDY COUNTY, NEW MEXICO

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

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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
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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.

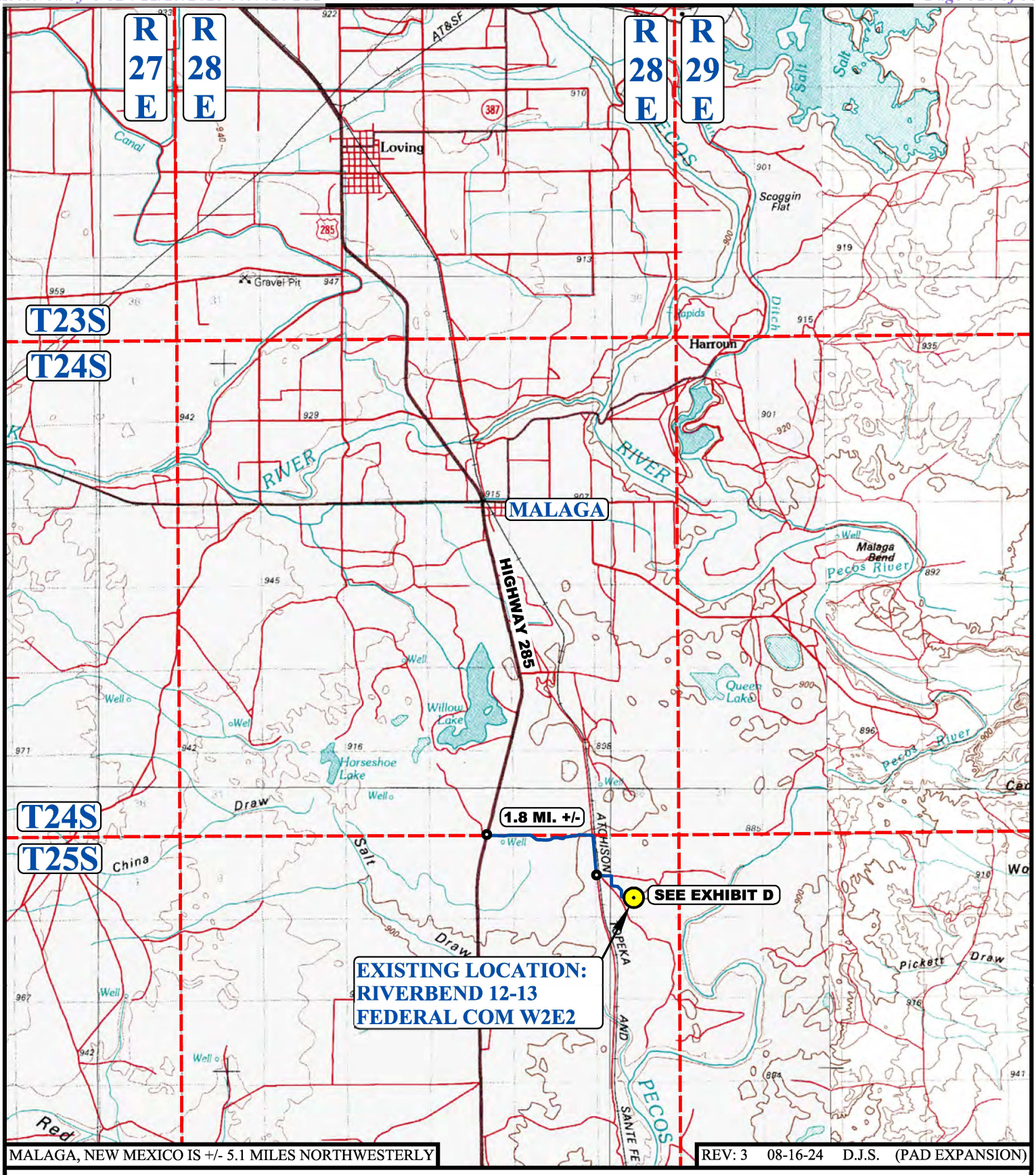
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EDDY COUNTY, NEW MEXICO

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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.

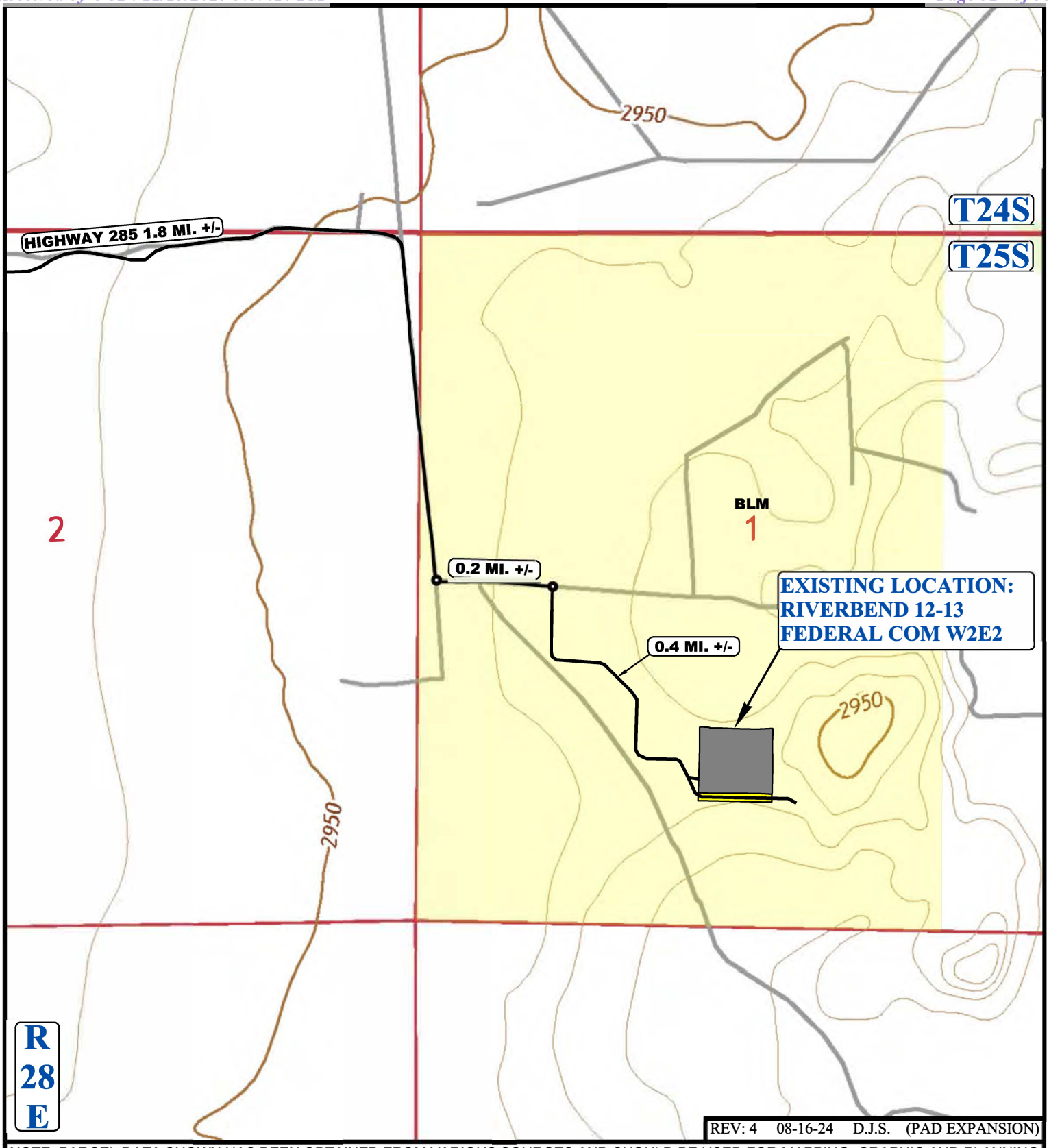
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EDDY COUNTY, NEW MEXICO

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

PUBLIC ACCESS ROAD MAP | **EXHIBIT B**

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

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LEGEND:

EXISTING ROAD

N

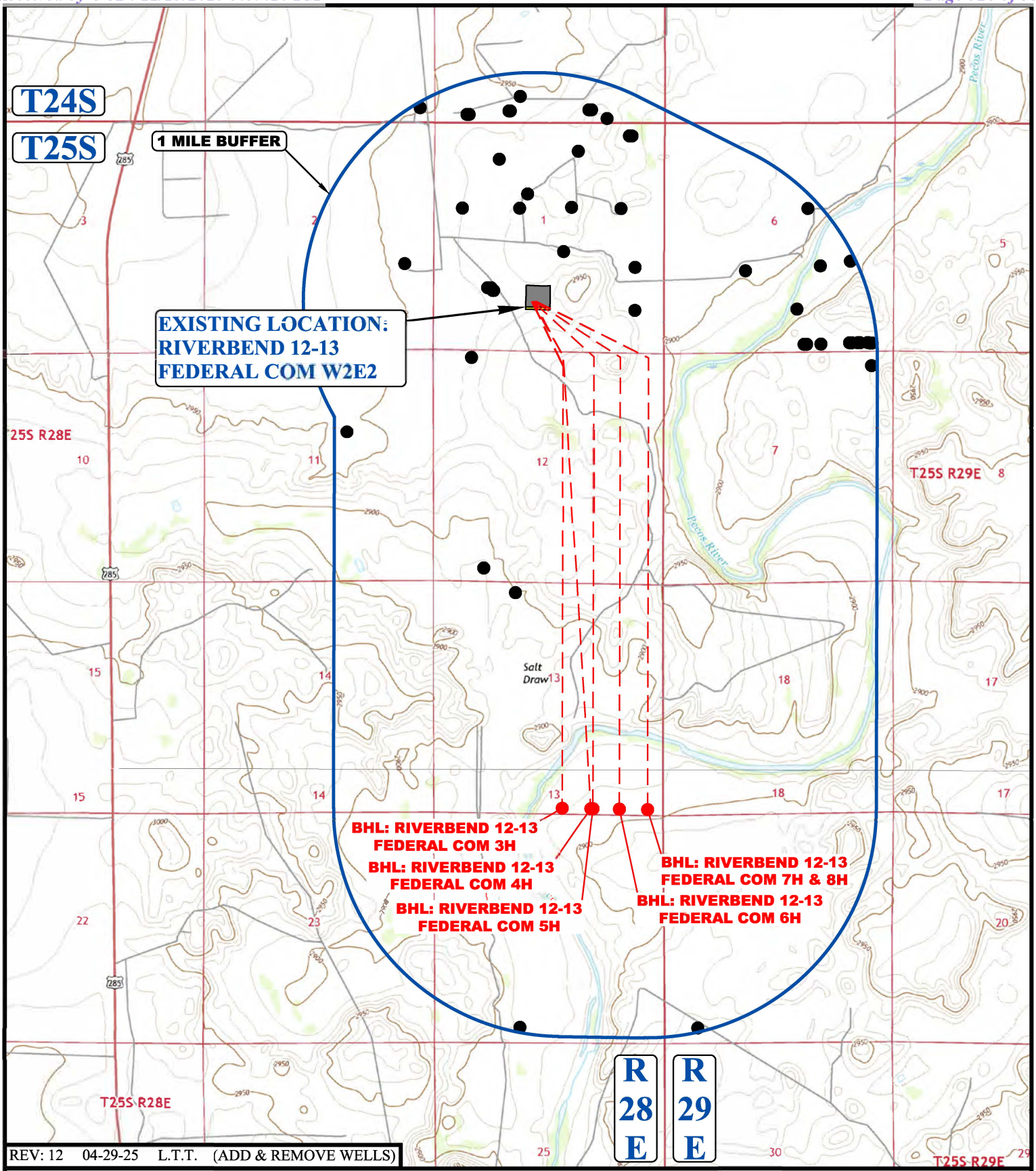
CIMAREX ENERGY CO.

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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

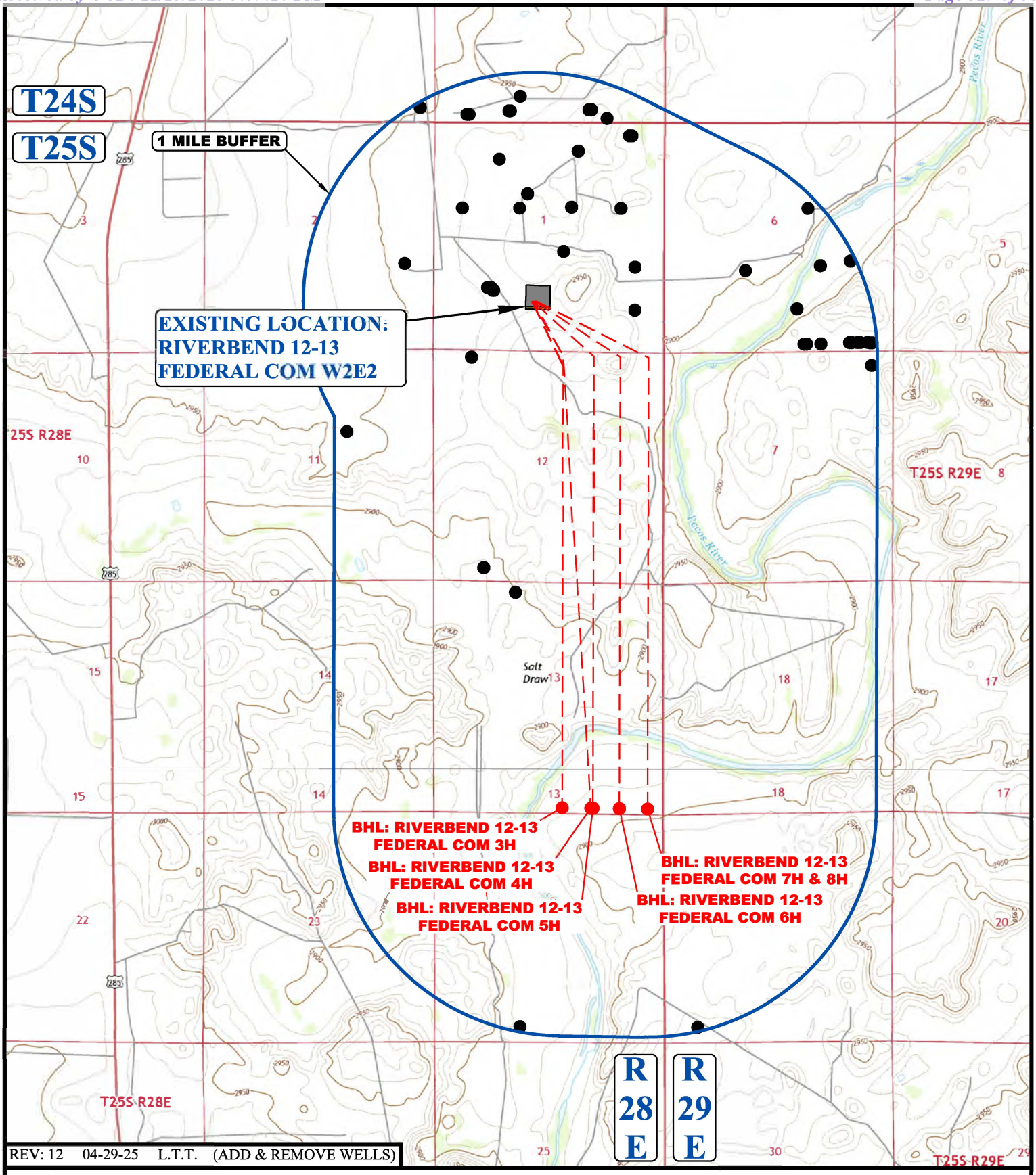
CIMAREX ENERGY CO.

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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.

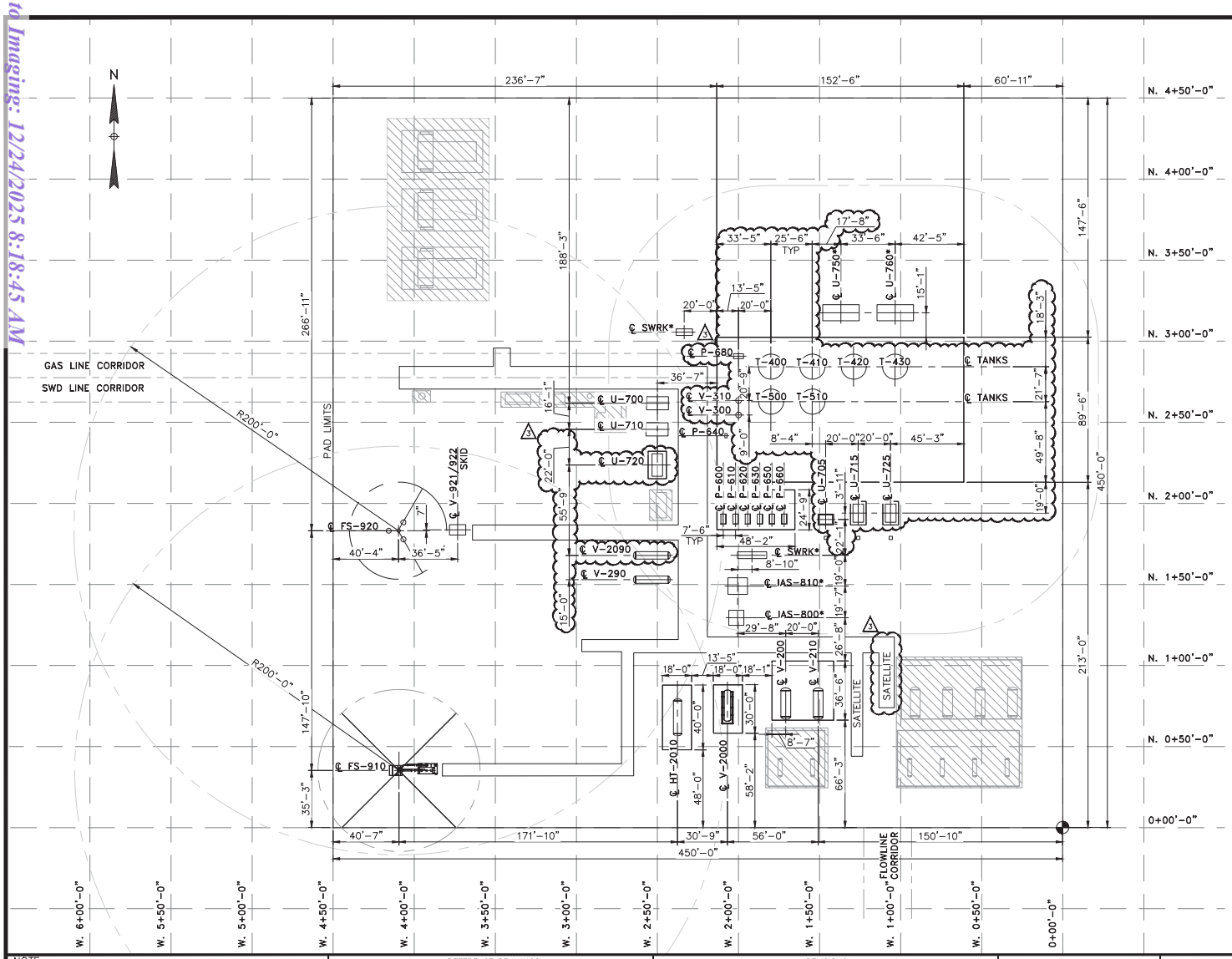
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EDDY COUNTY, NEW MEXICO

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

Released to Imaging: 12/24/2025 8:18:45 AM
Received by OCD: 11/13/2025 3:39:10 PM



EQUIPMENT		
TAG	DESCRIPTION	HP
V-200	HZ 3PH TEST SEPERATOR 72" OD x 16' S/S	
V-210	HZ 3PH TEST SEPERATOR 72" OD x 16' S/S	
V-290	2PH HZ LP SCRUBBER 54" OD x 20'-0"	
V-2090	2PH HZ LP SCRUBBER 54" OD x 20'-0"	
V-2000	HZ HEATER TREATER 48" OD x 16' S/S	
HT-2010	HZ HEATER TREATER 60" OD x 20' S/S	
V-300	VAPOR RECOVERY TOWER 36" OD x 40' S/S	
V-310	VAPOR RECOVERY TOWER 36" OD x 40' S/S	
T-400 THRU T-430	1000 BBL OIL TANK 15'-6" x 30'-0" HT	
T-500 THRU T-510	1000 BBL WATER TANK 15'-6" x 30'-0" HT	
P-600	WATER TRANSFER PUMP	25
P-610	WATER TRANSFER PUMP	25
P-620	WATER TRANSFER PUMP	25
P-630	WATER TRANSFER PUMP	25
P-640	RECIRCULATION PUMP	3
P-650	WATER TRANSFER PUMP	100
P-660	WATER TRANSFER PUMP	100
P-680	PCP RECIRCULATION PUMP	2
U-700	VAPOR RECOVERY UNIT (G17)	160
U-705	VAPER RECOVERY UNIT (HY-BON NK100)	30
U-710	VAPOR RECOVERY UNIT (G17)	160
U-715	VAPOR RECOVERY UNIT (FLOGISTIX FX10V75)	75
U-720	VAPOR RECOVERY UNIT (FLOGISTIX FX12V125)	125
U-725	VAPOR RECOVERY UNIT (FLOGISTIX FX10V75)	75
U-750	MPLX LACT WITH BOOSTER PUMP	160
U-760	MPLX LACT WITH BOOSTER PUMP	170
IAS-800	AIR COMPRESSOR	(2) 7.5
IAS-810	AIR COMPRESSOR	(2) 7.5
FS-910	HERO 12" DUAL 10 MMCFD FLARE	18
V-911/912	DUAL SCRUBBER SKID	3
FS-920	TRIPOD 3.0/1.5 MMCFD DUAL FLARE STACK	18
V-921/922	DUAL SCUBBER SKID	3

ISSUED
SEPTEMBER 08, 2023
FOR CONSTRUCTION

LEGEND
FUTURE

NOTE:
LP B2P8; SWEET; OFF PAD
* FIELD VERIFY LOCATION PRIOR TO CONSTUCTION

REFERENCE DRAWINGS	
NO.	TITLE

REVISIONS					
NO.	DATE	DESCRIPTION	BY	CHK.	APP.
0	04/26/18	ISSUED FOR CONSTRUCTION	MJR	NR	
1	07/15/19	IFC-3S PROJ: 9216 5 WELL ADD ON	CJ	LL	
2	09/08/23	ISSUED AS-BUILT	NR	JM	
3	09/08/23	IFC 3S PROJ 23129	NR	JM	

3S Services, LLC
ENGINEERING & DESIGN
Ph: 432-687-5611 Midland, Texas 79705
WWW.3SENGINEERINGDESIGN.COM
TBPE FIRM REG. #13809
NM FIRM REG. #4545320
OKLA FIRM REG. #3712353615

NOTICE
THIS DRAWING HAS NOT BEEN PUBLISHED BUT RATHER HAS BEEN PREPARED BY 3S ENGINEERING & DESIGN, FOR USE BY THE CLIENT NAMED IN THE TITLE BLOCK SOLELY IN RESPECT OF THE CONSTRUCTION, OPERATION AND MAINTENANCE OF FACILITY NAMED IN THE TITLE BLOCK AND SHALL NOT BE USED FOR ANY OTHER PURPOSE, OR FURNISHED TO ANY OTHER PARTY, WITHOUT THE EXPRESS WRITTEN PERMISSION OF 3S ENGINEERING & DESIGN.

ENGINEERING RECORD		
	BY	DATE
DRN:	JV	02/21/18
DES:	NR	
CHK:		
APP:		
AFE No.		
FACILITY ENGR.	C. CUMBIE	
PROJ. ENGR:	J. MCNEELY	
SCALE:	NONE	

COTERRA

RIVERBEND 12-13 W2 BATTERY

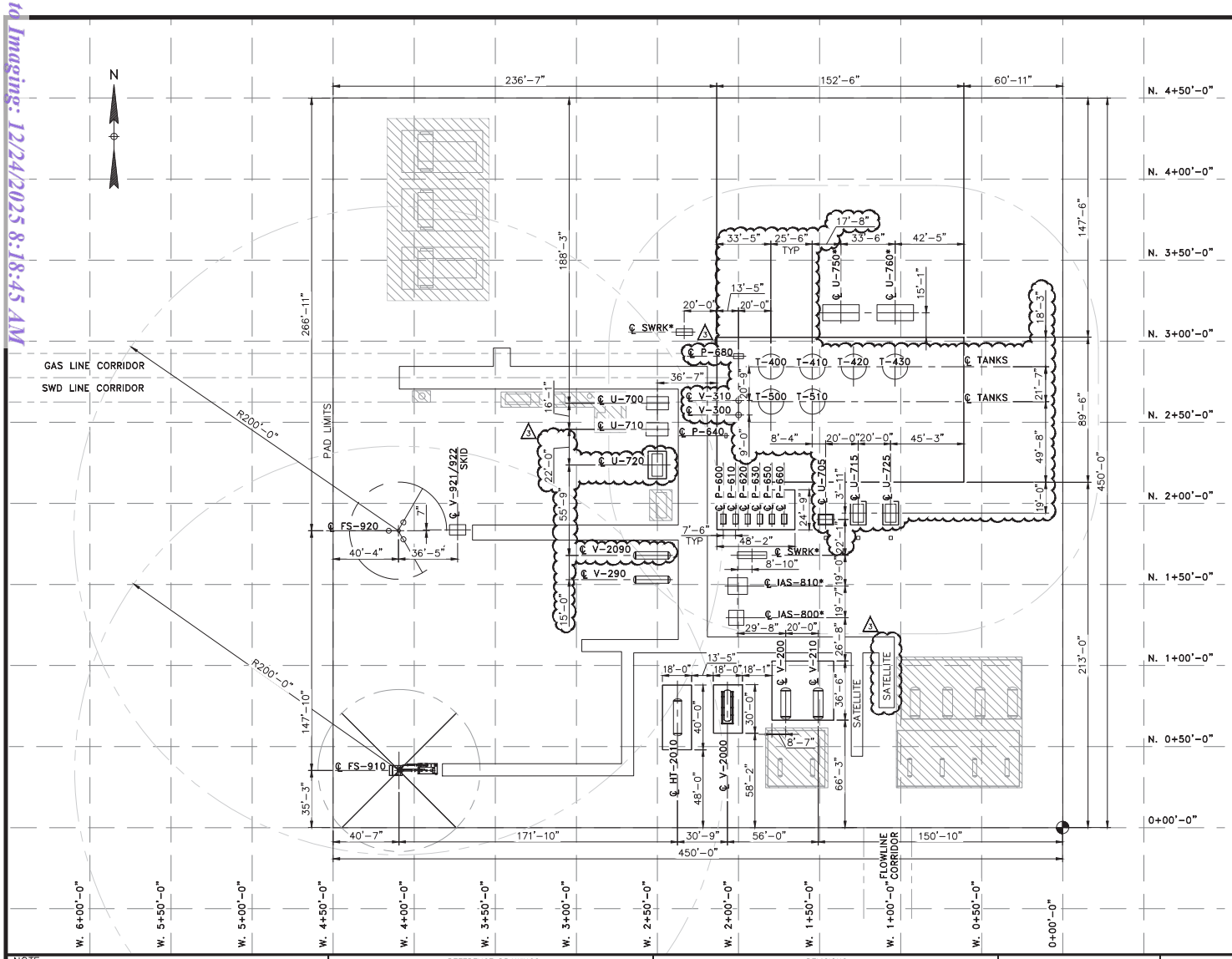
PLOT PLAN

EDDY COUNTY

PLOT SCALE NONE
DWG. NO. D-8102-20-100
CAD NO.
REV. 3

Q:\01_Coterra\23129 - Riverbend 12-13 1H,2H,19H, 20H Add-on\2. Eng., Design\2.3 Piping, Mech\2.3.2 Plot Plans\D-8102-20-100.dwg 20230908.085959

Released to Imaging: 12/24/2025 8:18:45 AM
Received by OCD: 11/13/2025 3:39:10 PM



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U-700	VAPOR RECOVERY UNIT (G17)	160
U-705	VAPER RECOVERY UNIT (HY-BON NK100)	30
U-710	VAPOR RECOVERY UNIT (G17)	160
U-715	VAPOR RECOVERY UNIT (FLOGISTIX FX10V75)	75
U-720	VAPOR RECOVERY UNIT (FLOGISTIX FX12V125)	125
U-725	VAPOR RECOVERY UNIT (FLOGISTIX FX10V75)	75
U-750	MPLX LACT WITH BOOSTER PUMP	160
U-760	MPLX LACT WITH BOOSTER PUMP	170
IAS-800	AIR COMPRESSOR	(2) 7.5
IAS-810	AIR COMPRESSOR	(2) 7.5
FS-910	HERO 12" DUAL 10 MMCFD FLARE	18
V-911/912	DUAL SCRUBBER SKID	3
FS-920	TRIPOD 3.0/1.5 MMCFD DUAL FLARE STACK	18
V-921/922	DUAL SCUBBER SKID	3

ISSUED
SEPTEMBER 08, 2023
FOR CONSTRUCTION

LEGEND
FUTURE

NOTE:
LP B2P8; SWEET; OFF PAD
* FIELD VERIFY LOCATION PRIOR TO CONSTUCTION

REFERENCE DRAWINGS	
NO.	TITLE

REVISIONS					
NO.	DATE	DESCRIPTION	BY	CHK.	APP.
0	04/26/18	ISSUED FOR CONSTRUCTION	MJR	NR	
1	07/15/19	IFC-3S PROJ: 9216 5 WELL ADD ON	CJ	LL	
2	09/08/23	ISSUED AS-BUILT	NR	JM	
3	09/08/23	IFC 3S PROJ 23129	NR	JM	

3S Services, LLC
ENGINEERING & DESIGN
Ph: 432-687-5611 Midland, Texas 79705
WWW.3SENGINEERINGDESIGN.COM
TBPE FIRM REG. #13809
NM FIRM REG. #4545320
OKLA FIRM REG. #3712353615

NOTICE
THIS DRAWING HAS NOT BEEN PUBLISHED BUT RATHER HAS BEEN PREPARED BY 3S ENGINEERING & DESIGN, FOR USE BY THE CLIENT NAMED IN THE TITLE BLOCK SOLELY IN RESPECT OF THE CONSTRUCTION, OPERATION AND MAINTENANCE OF FACILITY NAMED IN THE TITLE BLOCK AND SHALL NOT BE USED FOR ANY OTHER PURPOSE, OR FURNISHED TO ANY OTHER PARTY, WITHOUT THE EXPRESS WRITTEN PERMISSION OF 3S ENGINEERING & DESIGN.

ENGINEERING RECORD		
	BY	DATE
DRN:	JV	02/21/18
DES:	NR	
CHK:		
APP:		
AFE No.		
FACILITY ENGR.	C. CUMBIE	
PROJ. ENGR:	J. MCNEELY	
SCALE:	NONE	

COTERRA

RIVERBEND 12-13 W2 BATTERY

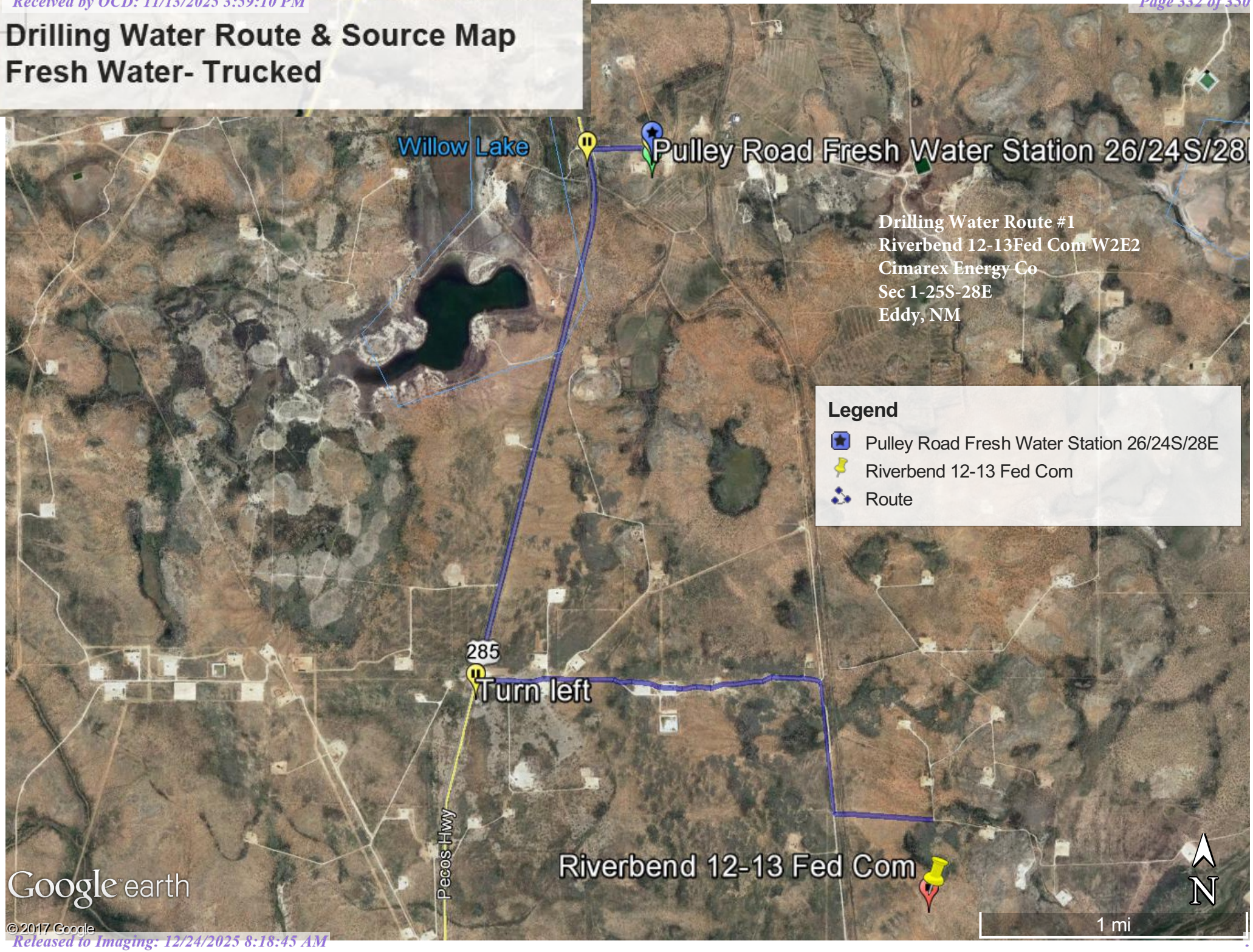
PLOT PLAN

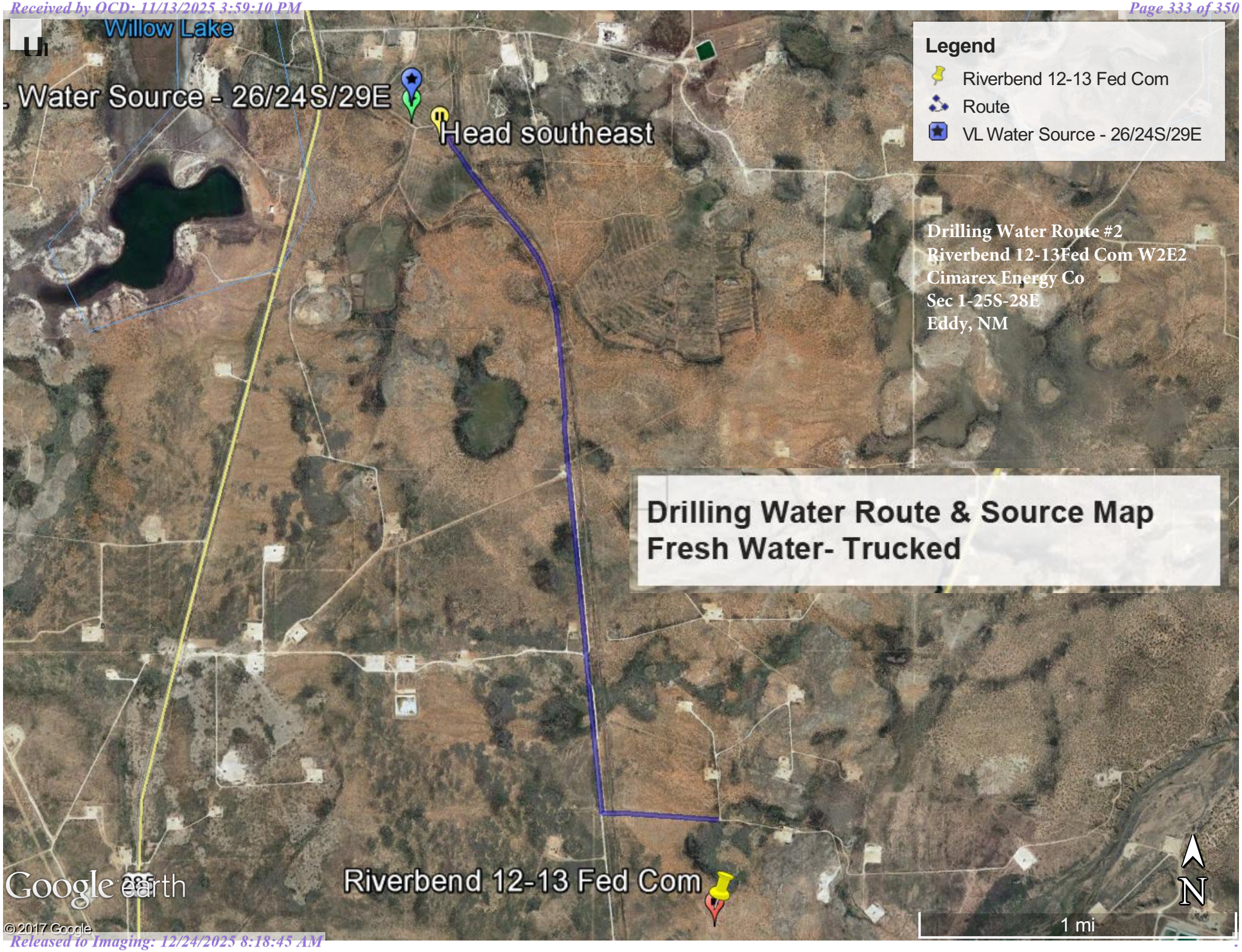
EDDY COUNTY

PLOT SCALE NONE
CAD NO.
DWG. NO. D-8102-20-100
REV. 3

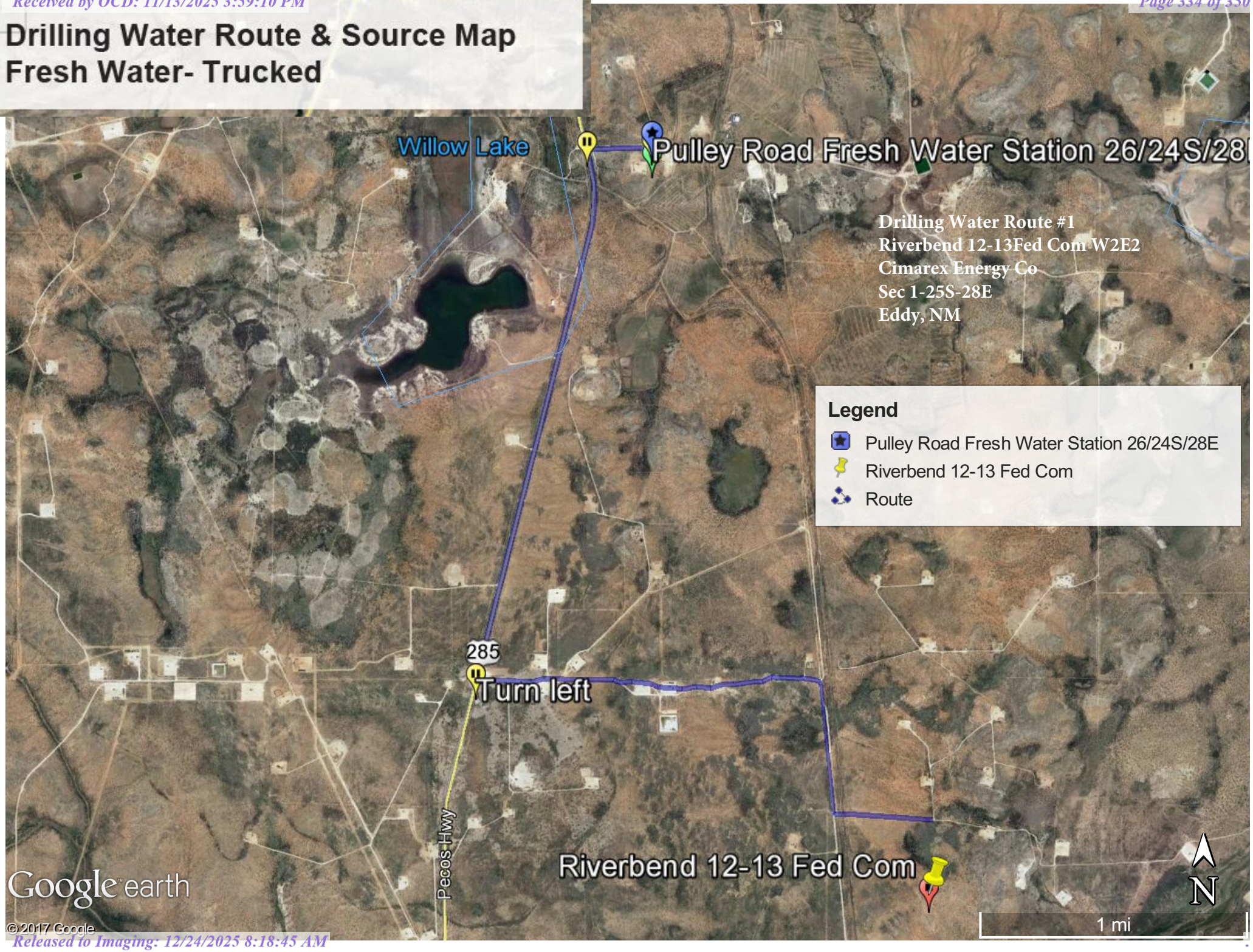
Q:\01_Coterra\23129 - Riverbend 12-13 1H,2H,19H, 20H Add-on\2. Eng., Design\2.3 Piping, Mech\2.3.2 Plot Plans\D-8102-20-100.dwg 20230908.085959

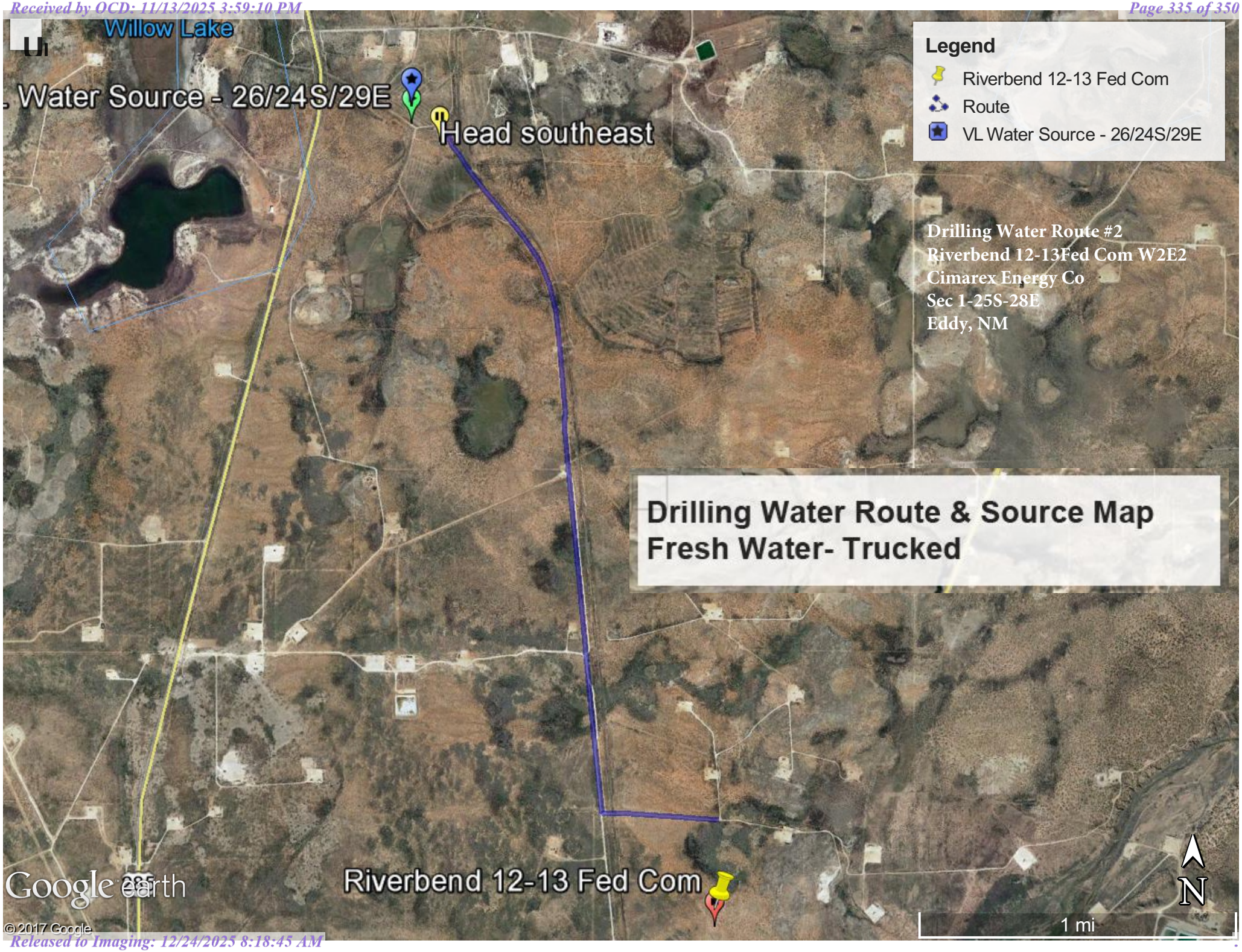
Drilling Water Route & Source Map
Fresh Water- Trucked




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
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Drilling Water Route & Source Map
Fresh Water- Trucked

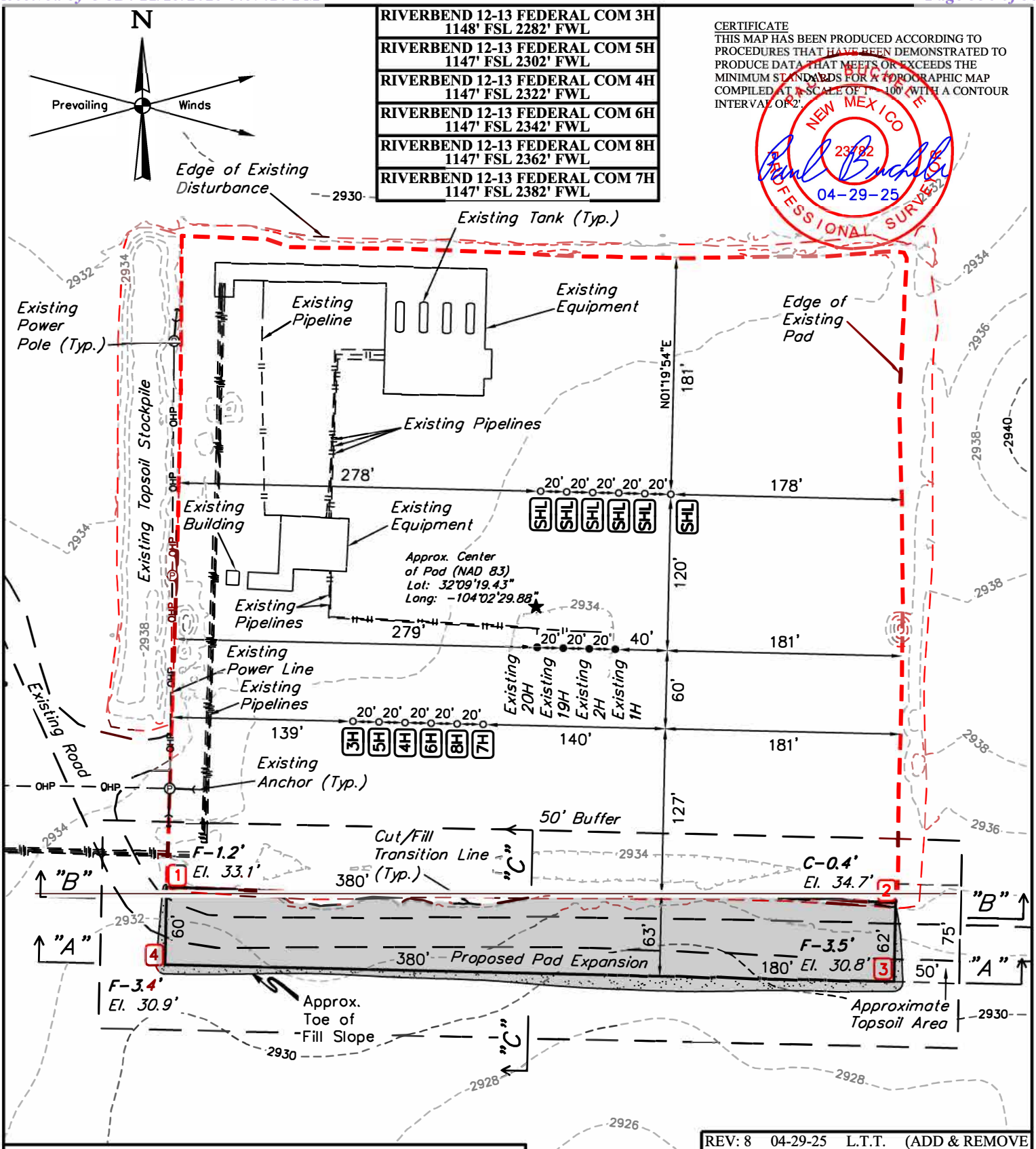



Willow Lake
Water Source - 26/24S/29E
Head southeast
Legend
Riverbend 12-13 Fed Com
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Drilling Water Route #2
Riverbend 12-13Fed Com W2E2
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Eddy, NM
Drilling Water Route & Source Map
Fresh Water- Trucked
Riverbend 12-13 Fed Com
Google earth
© 2017 Google
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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
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RIVERBEND 12-13 FEDERAL COM 8H 1147' FSL 2362' FWL
RIVERBEND 12-13 FEDERAL COM 7H 1147' FSL 2382' FWL

CERTIFICATE
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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.)
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UINTAH ENGINEERING & LAND SURVEYING

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

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

RIVERBEND 12-13 FEDERAL COM 3H 1148' FSL 2282' FWL
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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'

279' 20' 20' 20' 40' 181'

139' 20' 20' 20' 20' 20' 140' 181'

120' 60' 127' 181' 63' 62' 75' 50'

Existing 20H Existing 19H Existing 2H Existing 1H

SHL SHL SHL SHL SHL SHL

3H 5H 4H 6H 8H 7H

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

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

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

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SHL SHL SHL SHL SHL SHL

3H 5H 4H 6H 8H 7H

120' 60' 127' 63' 62' 75' 50'

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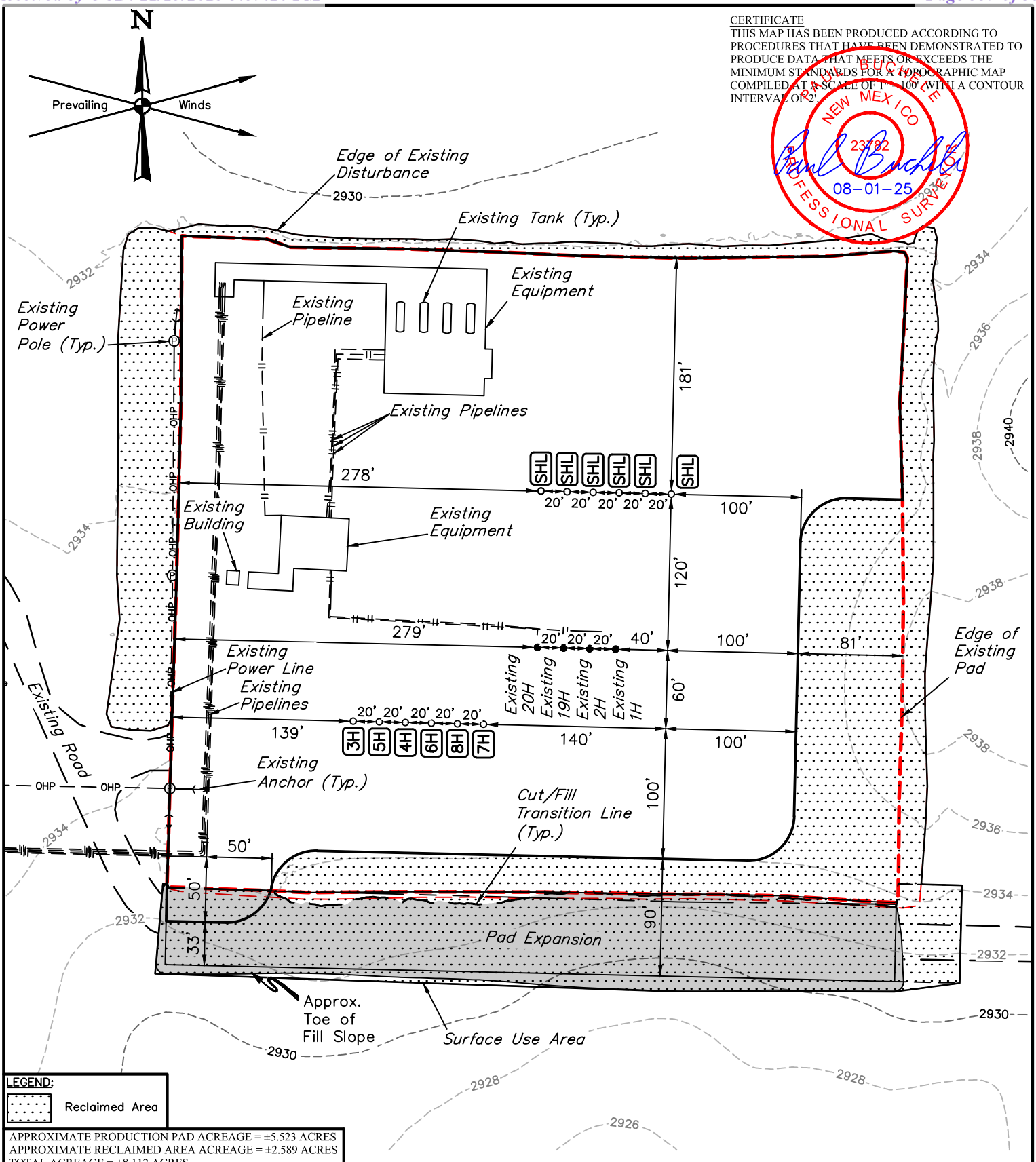
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Vernal, UT 84078 * (435) 789-1017

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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.

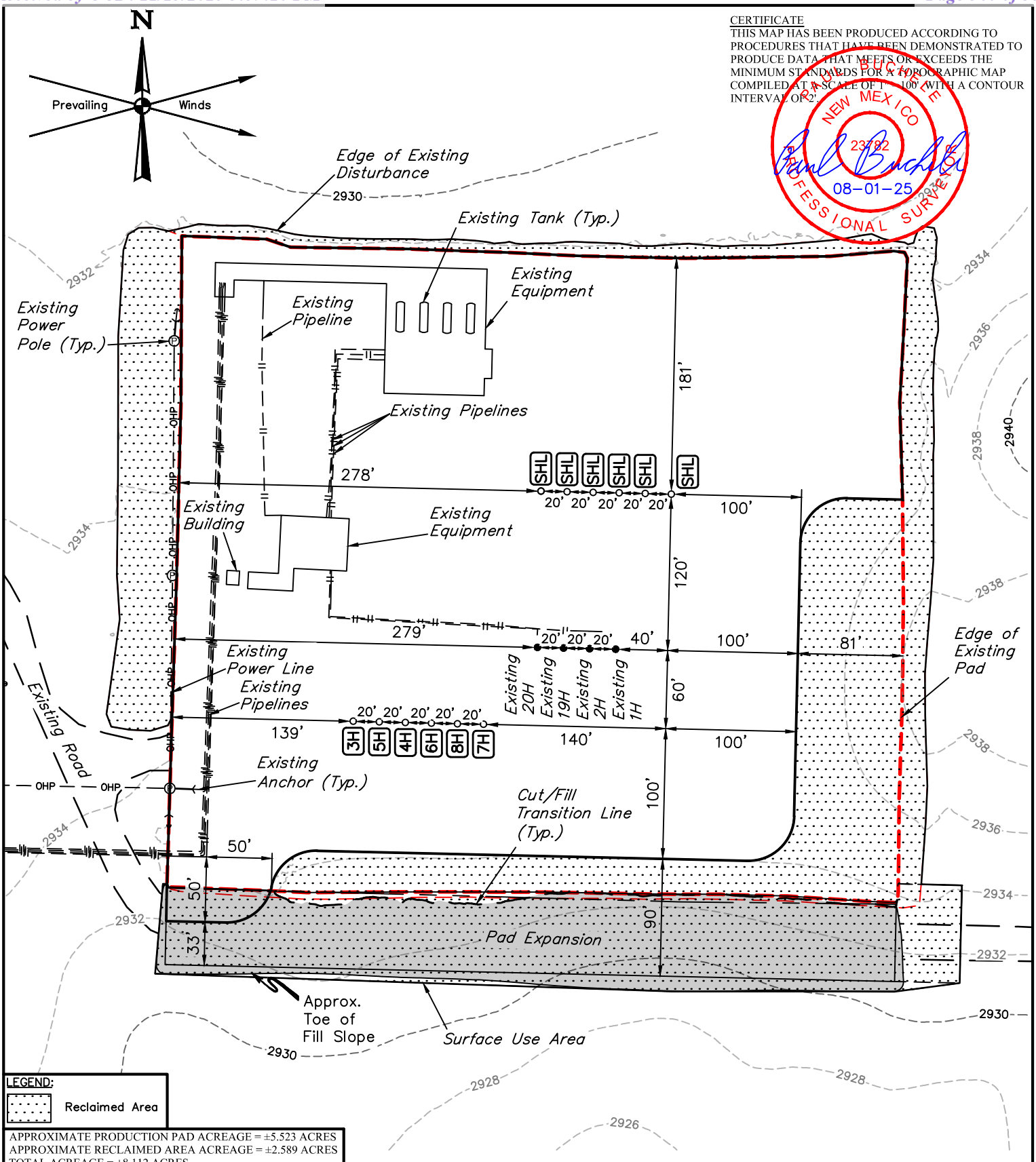
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E 1/2 SW 1/4, SECTION 1, T25S, R28E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

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

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BUCKLE
NEW MEXICO
23782
Paul Buchele
08-01-25
PROFESSIONAL SURVEYOR

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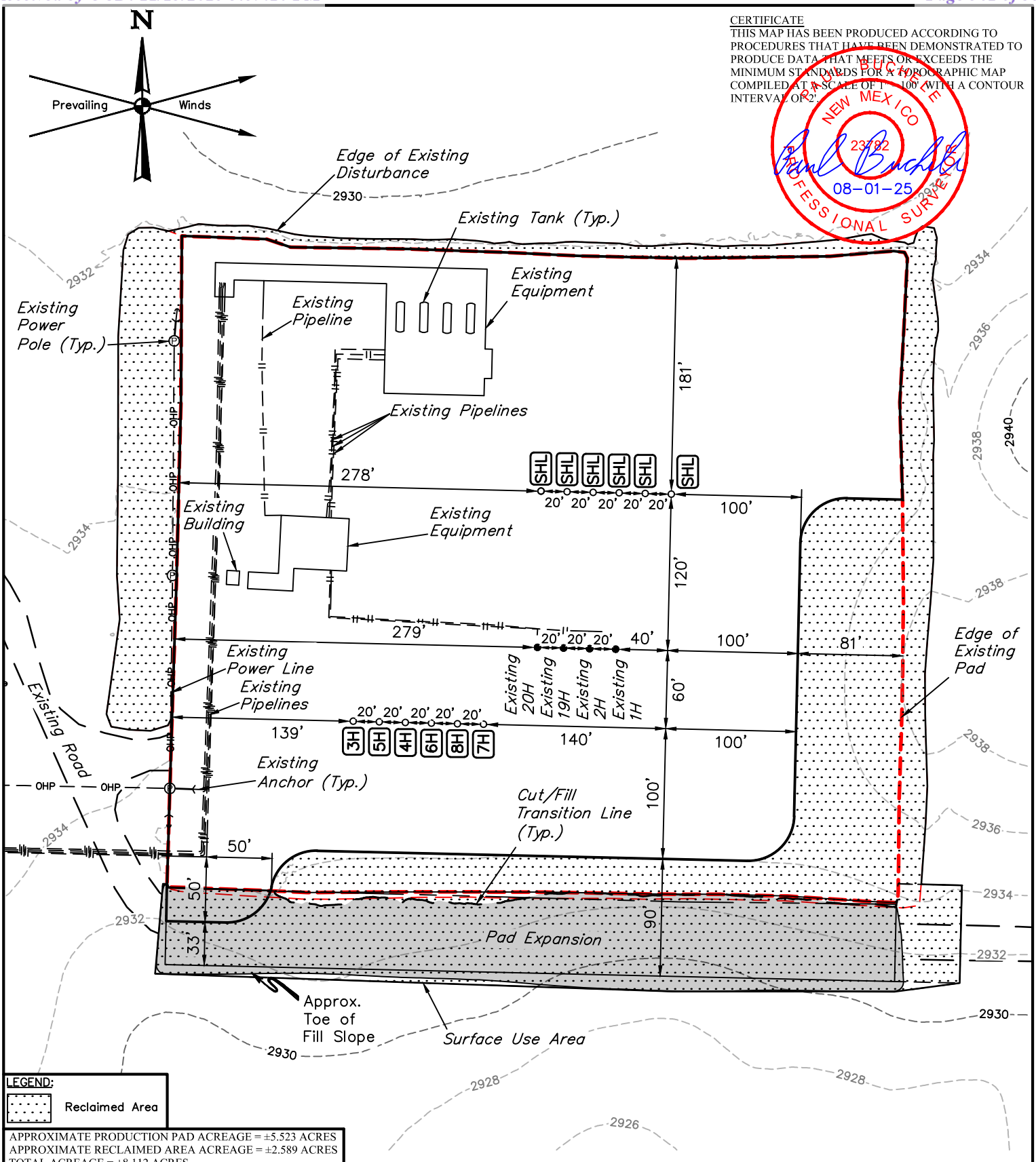
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EDDY COUNTY, NEW MEXICO

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DRAWN BY	N.R.	08-01-25	1" = 100'
RECLAMATION LAYOUT			EXHIBIT P

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BUCKLE NEW MEXICO 23782 PROFESSIONAL SURVEYOR 08-01-25

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AFMSS

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

PWD Data Report

10/16/2025

APD ID: 10400105541 **Submission Date:** 08/07/2025

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 4H

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:** 4H

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:** 4H

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:** 4H

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

10/16/2025

APD ID: 10400105541 **Submission Date:** 08/07/2025

Operator Name: CIMAREX ENERGY COMPANY OF COLORADO

Well Name: RIVERBEND 12-13 FEDERAL COM **Well Number:** 4H

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
30-015-57613	96217	WILLOW LAKE; BONE SPRING, SOUTHEAST

Property Code	Property Name	Well Number
338169	RIVERBEND 12-13 FEDERAL COM	4H

OGRID No.	Operator Name	Ground Level Elevation
162683	CIMAREX ENERGY CO. OF COLORADO	2934.1'

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	2322 WEST	32.155152°	-104.041957°	EDDY

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
O	13	25S	28E		100 SOUTH	1650 EAST	32.123005°	-104.037639°	EDDY

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
640	Infill Well	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
B	12	25S	28E		100 NORTH	2310 EAST	32.151687°	-104.039742°	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
B	12	25S	28E		100 NORTH	2310 EAST	32.151687°	-104.039742°	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
O	13	25S	28E		100 SOUTH	1650 EAST	32.123005°	-104.037639°	EDDY

Unitized Area or Area of Uniform Interest	Spacing Unit Type	Ground Floor Elevation:
N/A	☑ Horizontal ☐ Vertical	2934.1'

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

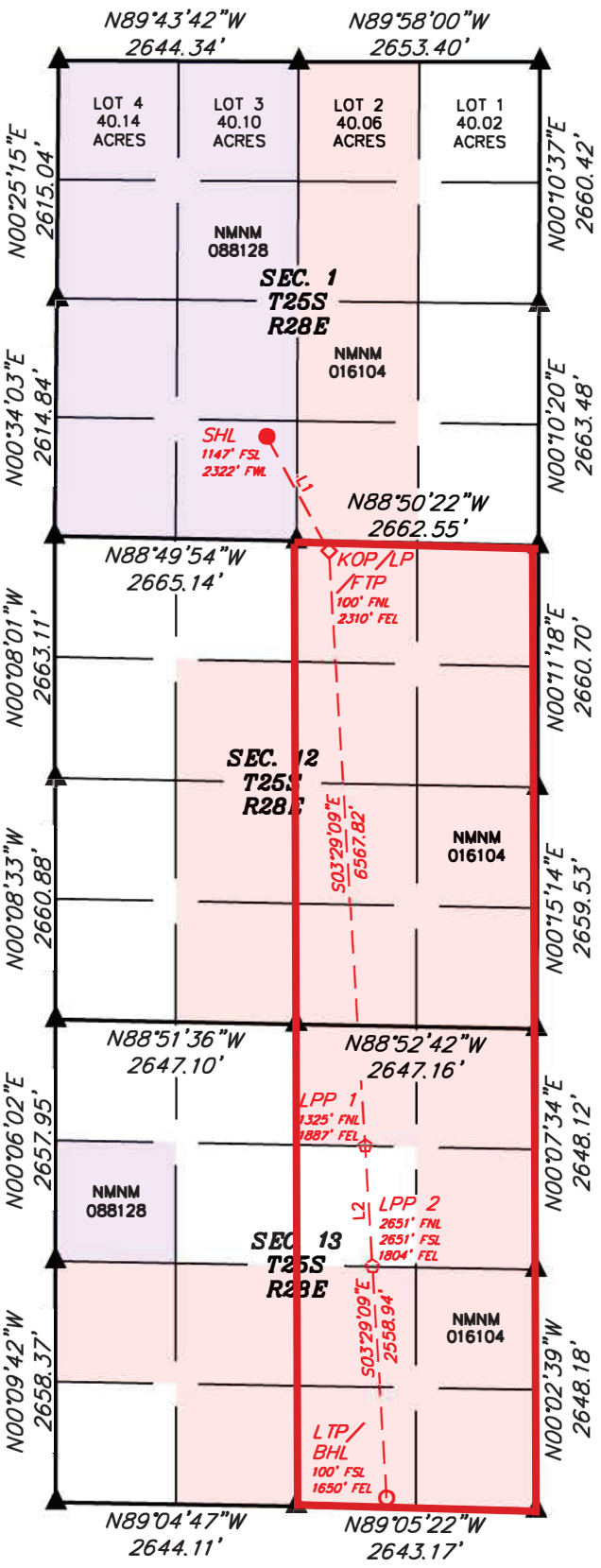
Signature and Seal of Professional Surveyor

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	4H	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°09'18.55" (32.155152°)
LONGITUDE = -104°02'31.04" (-104.041957°)
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32°09'18.10" (32.155029°)
LONGITUDE = -104°02'29.28" (-104.041468°)
STATE PLANE NAD 83 (N.M. EAST)
N: 420301.44' E: 631508.48'
STATE PLANE NAD 27 (N.M. EAST)
N: 420243.15' E: 590324.30'

NAD 83 (KOP/LP/FTP)
LATITUDE = 32°09'06.07" (32.151687°)
LONGITUDE = -104°02'23.07" (-104.039742°)
NAD 27 (KOP/LP/FTP)
LATITUDE = 32°09'05.63" (32.151564°)
LONGITUDE = -104°02'21.31" (-104.039253°)
STATE PLANE NAD 83 (N.M. EAST)
N: 419043.03' E: 632197.46'
STATE PLANE NAD 27 (N.M. EAST)
N: 418984.76' E: 591013.23'

NAD 83 (LPP 1)
LATITUDE = 32°08'01.22" (32.133672°)
LONGITUDE = -104°02'18.32" (-104.038421°)
NAD 27 (LPP 1)
LATITUDE = 32°08'00.77" (32.133548°)
LONGITUDE = -104°02'16.56" (-104.037933°)
STATE PLANE NAD 83 (N.M. EAST)
N: 412490.50' E: 632624.09'
STATE PLANE NAD 27 (N.M. EAST)
N: 412432.36' E: 591439.70'

NAD 83 (LPP 2)
LATITUDE = 32°07'48.09" (32.130025°)
LONGITUDE = -104°02'17.35" (-104.038154°)
NAD 27 (LPP 2)
LATITUDE = 32°07'47.64" (32.129901°)
LONGITUDE = -104°02'15.60" (-104.037666°)
STATE PLANE NAD 83 (N.M. EAST)
N: 411163.99' E: 632710.46'
STATE PLANE NAD 27 (N.M. EAST)
N: 411105.87' E: 591526.04'

NAD 83 (LTP/BHL)
LATITUDE = 32°07'22.82" (32.123005°)
LONGITUDE = -104°02'15.50" (-104.037639°)
NAD 27 (LTP/BHL)
LATITUDE = 32°07'22.38" (32.122882°)
LONGITUDE = -104°02'13.75" (-104.037152°)
STATE PLANE NAD 83 (N.M. EAST)
N: 408611.01' E: 632876.68'
STATE PLANE NAD 27 (N.M. EAST)
N: 408552.94' E: 591692.19'

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S28°27'40"E	1434.98'
L2	S03°29'09"E	1329.61'

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: 526478
	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.

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

CONDITIONS

Operator: CIMAREX ENERGY CO. OF COLORADO 6001 Deauville Blvd Midland, TX 79706	OGRID: 162683
	Action Number: 526478
	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.	12/24/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	12/24/2025
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.	12/24/2025
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.	12/24/2025