

Santa Fe Main Office  
Phone: (505) 476-3441  
General Information  
Phone: (505) 629-6116

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
Revised July 18, 2013

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

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

WELL API NO.	30-025-53339
5. Indicate Type of Lease	STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.	VB2312002
7. Lease Name or Unit Agreement Name	Rope State Com
8. Well Number	304H
9. OGRID Number	215099
10. Pool name or Wildcat	Airstrip; Bone Spring, WC-025 G-06 S183518A; Bone Spring
11. Elevation (Show whether DR, RKB, RT, GR, etc.)	3939.0

**SUNDRY NOTICES AND REPORTS ON WELLS**  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well  Gas Well  Other

2. Name of Operator: Coterra Energy Operating Co.

3. Address of Operator: 6001 Deauville Blvd, Midland, TX 79706

4. Well Location  
Unit Letter M : 338 feet from the S line and 1073 feet from the E line  
Section 30 Township 18S Range 35E NMPM SESE County Lea

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

<b>NOTICE OF INTENTION TO:</b>		<b>SUBSEQUENT REPORT OF:</b>	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input checked="" type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
DOWNHOLE COMMINGLE <input type="checkbox"/>			
CLOSED-LOOP SYSTEM <input type="checkbox"/>			
OTHER: <input type="checkbox"/>		OTHER: <input type="checkbox"/>	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Coterra Energy Operating Co. requests the following changes to the Rope State Com 304H:

- Well number change from 304H to 504H
- SHL from 338 FSL 1073 FEL to 338 FSL 1113 FEL
- BHL from 100 FNL 360 FEL to 2545 FSL 260 FEL
- MD from 24964' to 28349'
- TVD from 9194' to 10060'
- Update Airstrip; Bone Spring spacing to 320 acres
- Update WC-025 G-06 S183518A; Bone Spring spacing to 800 acres

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Shelly Bowen TITLE Sr. Regulatory Analyst DATE 3/25/2026

Type or print name Shelly Bowen E-mail address: shelly.bowen@coterra.com PHONE: 432-620-1644

**For State Use Only**

APPROVED BY: \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

Conditions of Approval (if any): \_\_\_\_\_

<b>C-102</b>  Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department <b>OIL CONSERVATION DIVISION</b>	Revised July 9, 2024
		Submittal Type: <input type="checkbox"/> Initial Submittal <input type="checkbox"/> Amended Report <input type="checkbox"/> As Drilled

**WELL LOCATION INFORMATION**

API Number 30-025-53339	Pool Code 960	Pool Name Airstrip; Bone Spring
Property Code <b>338213</b>	Property Name ROPE STATE COM	
Well Number 504H	Ground Level Elevation 3939.0'	
OGRID No. 215099	Operator Name COTERRA ENERGY OPERATING CO.	
Surface Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal		
Mineral Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal		

Surface Location

UL P	Section 30	Township 18S	Range 35E	Lot	Ft. from N/S 338 SOUTH	Ft. from E/W 1,113 EAST	Latitude (NAD 83) 32.712397°	Longitude (NAD 83) -103.491820°	County LEA
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Bottom Hole Location

UL I	Section 7	Township 18S	Range 35E	Lot	Ft. from N/S 2,545 SOUTH	Ft. from E/W 360 EAST	Latitude (NAD 83) 32.762075°	Longitude (NAD 83) -103.489537°	County LEA
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Dedicated Acres 320	Infill or Defining Well Infill	Defining Well API 30-025-53337	Overlapping Spacing Unit (Y/N) Y	Consolidation Code C
Order Numbers. NA - JOA		Well setbacks are under Common Ownership: <input type="checkbox"/> Yes <input type="checkbox"/> No NA		

Kick Off Point (KOP)

UL P	Section 30	Township 18S	Range 35E	Lot	Ft. from N/S 100 SOUTH	Ft. from E/W 360 EAST	Latitude (NAD 83) 32.711731°	Longitude (NAD 83) -103.489371°	County LEA
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Last Take Point (LTP)

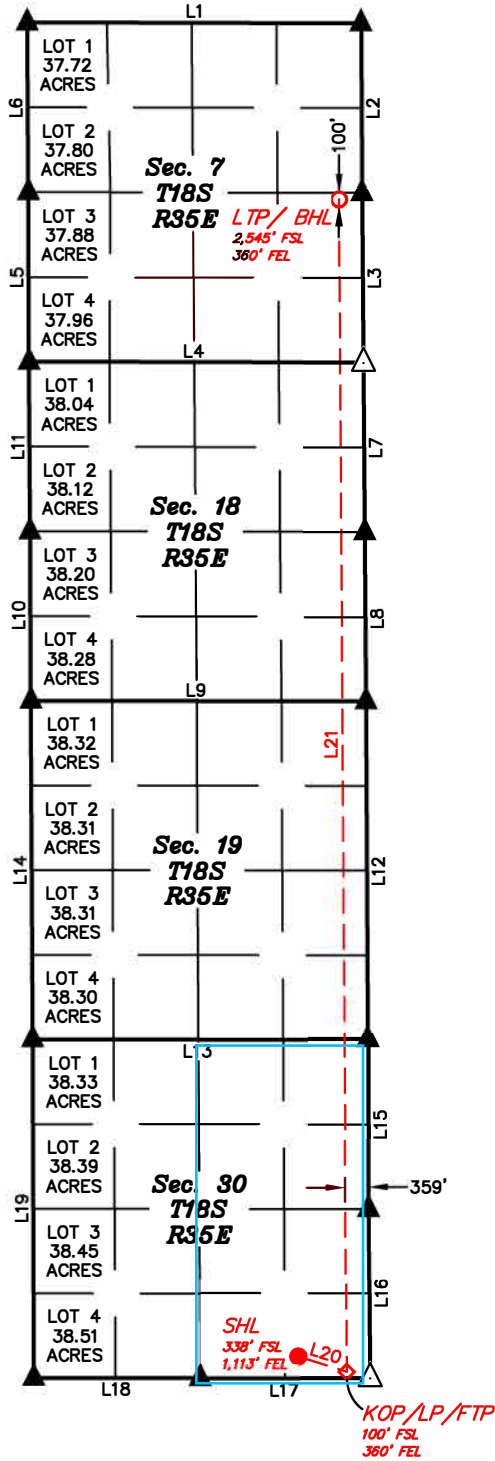
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Unitized Area or Area of Uniform Interest E2 Sec 30,19,18,7	Spacing Unit Type <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Floor Elevation: 3939.0
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<p><b>OPERATOR CERTIFICATIONS</b></p> <p><i>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.</i></p> <p><i>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.</i></p> <p style="text-align: center;"><i>Shelly Bowen</i>                      04/08/2026</p>	<p><b>SURVEYOR CERTIFICATIONS</b></p> <p><i>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.</i></p> <div style="text-align: center;">  </div>
Signature _____ Date _____	Signature and Seal of Professional Surveyor _____
Printed Name Rachael Overbey	23782                      February 21, 2024
Email Address roverbey@fmllc.com	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 ROPE STATE COM	Well Number 504H	Drawn By E.C. 11-12-25	Revised By REV. 1 T.I.R. 01-19-26 (UPDATE BHL)
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LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N89°52'35"W	5215.75'
L2	N00°20'12"W	2652.85'
L3	N00°29'20"W	2644.93'
L4	N89°50'52"W	5226.42'
L5	N00°14'19"W	2646.78'
L6	N00°21'23"W	2648.29'
L7	N00°25'18"W	2644.91'
L8	N00°27'34"W	2647.99'
L9	N89°54'23"W	5237.28'
L10	N00°17'55"W	2647.91'
L11	N00°20'48"W	2650.24'
L12	N00°16'43"W	5289.66'
L13	N89°55'29"W	5236.78'
L14	N00°17'02"W	5291.33'
L15	N00°17'51"W	2644.77'
L16	N00°23'11"W	2647.64'
L17	N89°52'25"W	2645.47'
L18	N89°51'48"W	2601.02'
L19	N00°14'14"W	5287.20'
L20	S72°23'31"E	791.52'
L21	N00°22'21"W	18320.16'

<b>NAD 83 (SURFACE HOLE LOCATION)</b> LATITUDE = 32°42'44.63" (32.712397°) LONGITUDE = -103°29'30.55" (-103.491820°)
<b>NAD 27 (SURFACE HOLE LOCATION)</b> LATITUDE = 32°42'44.18" (32.712273°) LONGITUDE = -103°29'28.78" (-103.491327°)
<b>STATE PLANE NAD 83 (N.M. EAST)</b> N: 623928.60' E: 800163.28'
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<b>NAD 83 (KOP/LP/FTP)</b> LATITUDE = 32°42'42.23" (32.711731°) LONGITUDE = -103°29'21.74" (-103.489371°)
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**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)
- Section breakdown information for this plan may be obtained from Uintah Engineering and Land Surveying.

- = SURFACE HOLE LOCATION
- ◆ = KICK OFF POINT/LANDING POINT/FIRST TAKE POINT
- = LAST TAKE POINT/BOTTOM HOLE LOCATION
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**WELL LOCATION INFORMATION**

API Number 30-025-53339	Pool Code 97930	Pool Name WC-025 G-06 S183518A; Bone Spring
Property Code <b>338213</b>	Property Name ROPE STATE COM	Well Number 504H
OGRID No. 215099	Operator Name COTERRA ENERGY OPERATING CO.	Ground Level Elevation 3939.0'
Surface Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal		Mineral Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal

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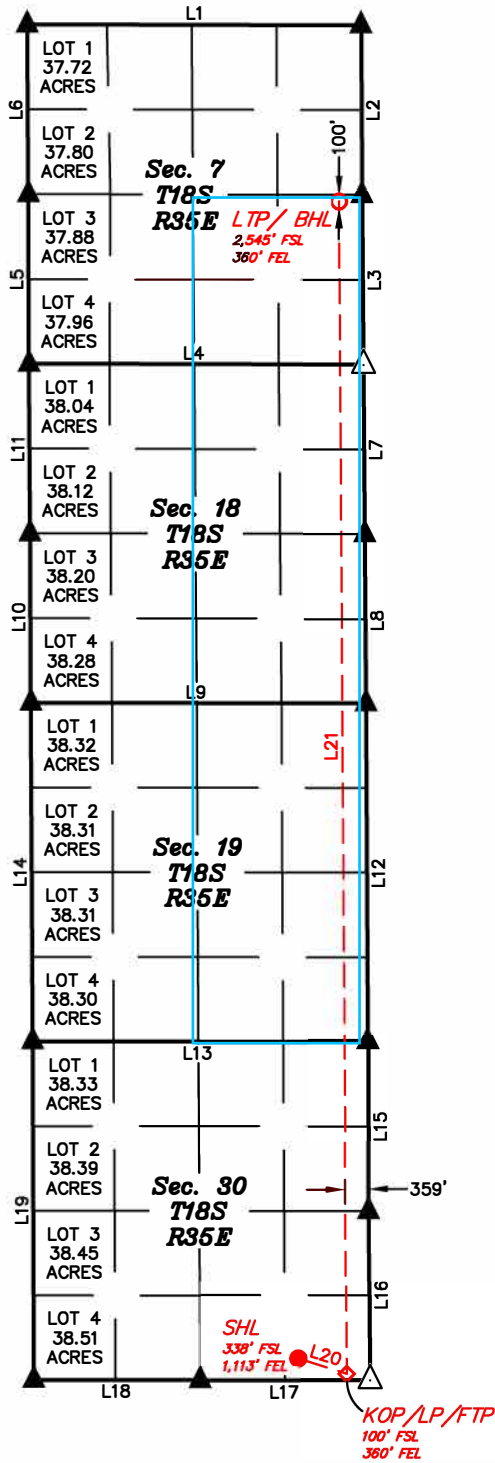
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**1. Geological Formations**

TVD of target Pilot Hole TD N/A  
 MD at TD Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	1892	N/A	
Top of Salt	2157	N/A	
Base of Salt/Lamar	5727	N/A	
Top Delaware Sands/Bell Canyon	5850	N/A	
Cherry Canyon	6120	N/A	
Brushy Canyon	6582	N/A	
Basal Brushy Canyon	7416	N/A	
Bone Spring Lime	7570	N/A	
Leonard/Avalon Sand	7783	N/A	
1st Bone Spring Sand	9095	Hydrocarbons	
2nd Bone Spring Sand	9639	Hydrocarbons	
2nd Bone Spring Sand - Target	10046	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	2003	2003	13-3/8"	54.50	J-55	BT&C	1.31	3.17	7.81
12 1/4	0	5752	5752	9-5/8"	40.00	HCK-55	LT&C	1.24	1.28	2.44
8 1/2	0	9556	9556	7"	26.00	P-110	BT&C	1.39	2.23	5.11
8 1/2	9556	28349	8120	5-1/2"	20.00	P-110	BT&C	2.92	3.25	(22.32)
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 43 CFR 3172.

	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.	N
Is premium or uncommon casing planned? If yes attach casing specification sheet.	Y
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	# Sk	Wt. lb/gal	Yld ft3/sack	H2O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	971	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	260	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate	1074	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
	292	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Production	224	10.30	3.64	22.18		Lead: Tuned Light + LCM
	4946	14.20	1.30	5.86	14:30	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS

Casing String	TOC	% Excess
Surface		45
Intermediate		52
Production	5552	

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	5M	100% of working pressure
			Blind Ram		10M
			Pipe Ram		
			Double Ram	X	
			Other		
8 1/2	13 5/8	10M	Annular	5M	100% of working pressure
			Blind Ram		10M
			Pipe Ram	X	
			Double Ram	X	
			Other		

X	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.
X	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 2003'	Fresh Water	7.80 - 8.30	28	N/C
2003' to 5752'	Brine Water	9.80 - 10.30	30-32	N/C
5752' to 28349'	Oil Based Mud	8.50 - 9.00	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
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**6. Logging and Testing Procedures**

Logging, Coring and Testing	
	Will run GR/CNL from TD 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	3800 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**

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 5M 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 except the annular, which is tested to 5K). 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: Rope State Com Pad  
 Well: Rope State Com 504H  
 Wellbore: OH  
 Design: Plan #2  
 Rig:



SHL

338' FSL, 1113' FEL  
 RKB Elevation: GE 3939' + KB 23' @ 3962.00usft

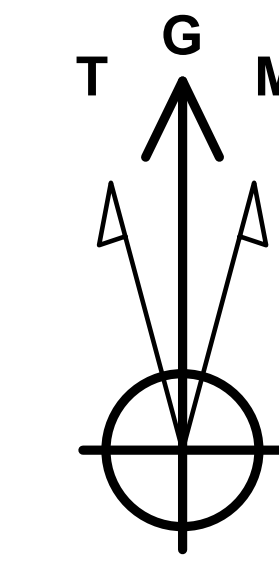
+N/-S 0.00 +E/-W 0.00 Northing 623928.60 Easting 800163.28 Latitude 32.7123968 Longitude -103.4918204 Slot

Formations

TVDPath	MDPath	Formation
1892.00	1892.02	Rustler
1978.00	1978.11	A3 Top
2076.00	2076.43	A3 Base (Tamarisk)
2157.00	2157.93	Top Salt/Salado
5727.00	5762.95	Base Salt/Lamar/CTRA_BASE ANHYDRITE
5850.00	5887.15	Top Delaware Sands/Bell Canyon
6120.00	6159.81	Cherry Canyon
6582.00	6624.43	Brushy Canyon
7416.00	7458.44	Basal Brushy Canyon
7570.00	7612.44	Bone Spring Line
7783.00	7825.44	Leonard/Avalon Sand
9095.00	9137.44	1st Bone Spring Sand
9639.00	9682.46	2nd Bone Spring Sand
10046.00	10238.79	2nd Bone Spring Sand Lower Target

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	
1800.00	0.00	0.00	1800.00	0.00	0.00	0.00	0.00	0.00	Nudge, Build 2.00"/100'
2199.85	8.00	112.06	2198.55	-10.46	25.82	2.00	112.06	-10.74	Hold - 2199.85' MD/2198.55' TVD
6297.59	8.00	112.06	6256.45	-224.54	554.18	0.00	0.00	-230.52	Drop, 2.00"/100' DLS
6697.44	0.00	0.00	6655.00	-235.00	580.00	2.00	180.00	-241.26	Hold - 6697.44' MD/6655.00' TVD
9556.26	0.00	0.00	9513.82	-235.00	580.00	0.00	0.00	-241.26	KOP - Start 10.00"/100' DLS
10306.26	75.00	3.17	10067.25	189.02	603.48	10.00	3.17	182.47	75° Inc - 10306.26' MD/10067.25' TVD
10678.92	93.63	3.17	10104.00	557.64	623.91	5.00	0.01	550.85	LP - 10678.92' MD
12446.64	93.63	3.17	9992.00	2319.10	721.62	0.00	0.00	2311.16	Start DLS 2.00 TFO -89.92
12636.00	93.63	359.38	9980.00	2508.00	725.83	2.00	-89.92	2500.00	Start DLS 2.00 TFO 176.52
12639.34	93.56	359.38	9979.79	2511.33	725.79	2.00	176.52	2503.33	Hold - 12639.34' MD/9979.79' TVD
14840.26	93.56	359.38	9843.00	4707.87	702.18	0.00	0.00	4700.00	Start DLS 2.00 TFO -179.59
14849.37	93.38	359.38	9842.45	4716.97	702.08	2.00	-179.59	4709.10	Hold - 14849.37' MD/9842.45' TVD
15942.18	93.38	359.38	9778.00	5807.81	690.33	0.00	0.00	5800.00	Start DLS 2.00 TFO 0.07
16015.96	94.86	359.38	9772.70	5881.39	689.54	2.00	0.07	5873.59	Hold - 16015.96' MD/9772.70' TVD
17347.15	94.86	359.38	9660.00	7207.73	675.29	0.00	0.00	7200.00	Start DLS 2.00 TFO -0.04
17357.27	95.06	359.38	9659.13	7217.81	675.18	2.00	-0.04	7210.08	Hold - 17357.27' MD/9659.13' TVD
20057.71	95.06	359.38	9421.00	9907.57	646.28	0.00	0.00	9900.00	Start DLS 2.00 TFO 0.02
20099.22	95.89	359.38	9417.04	9948.90	645.84	2.00	0.02	9941.32	Hold - 20099.22' MD/9417.04' TVD
22068.29	95.89	359.38	9215.00	11907.46	624.80	0.00	0.00	11900.00	Start DLS 2.00 TFO -0.01
22182.30	98.17	359.38	9201.05	12020.59	623.58	2.00	-0.01	12013.14	Hold - 22182.30' MD/9201.05' TVD
24139.01	98.17	359.38	8923.00	13957.34	602.77	0.00	0.00	13950.00	Start DLS 2.00 TFO 0.00
24513.17	105.65	359.38	8845.83	14323.16	598.84	2.00	0.00	14315.84	Hold - 24513.17' MD/8845.83' TVD
25950.64	105.65	359.38	8458.00	15707.24	583.97	0.00	0.00	15700.00	Start DLS 2.00 TFO -180.00
26509.06	94.48	359.38	8360.53	16256.16	578.07	2.00	-180.00	16248.95	Hold - 26509.06' MD/8360.53' TVD
26861.19	94.48	359.38	8333.00	16607.19	574.30	0.00	0.00	16600.00	Start DLS 2.00 TFO 0.00
27061.98	98.50	359.38	8310.30	16806.64	572.16	2.00	0.00	16799.47	Hold - 27061.98' MD/8310.30' TVD
28349.47	98.50	359.38	8120.00	18079.92	558.48	0.00	0.00	18072.82	TD - 28349.47' MD



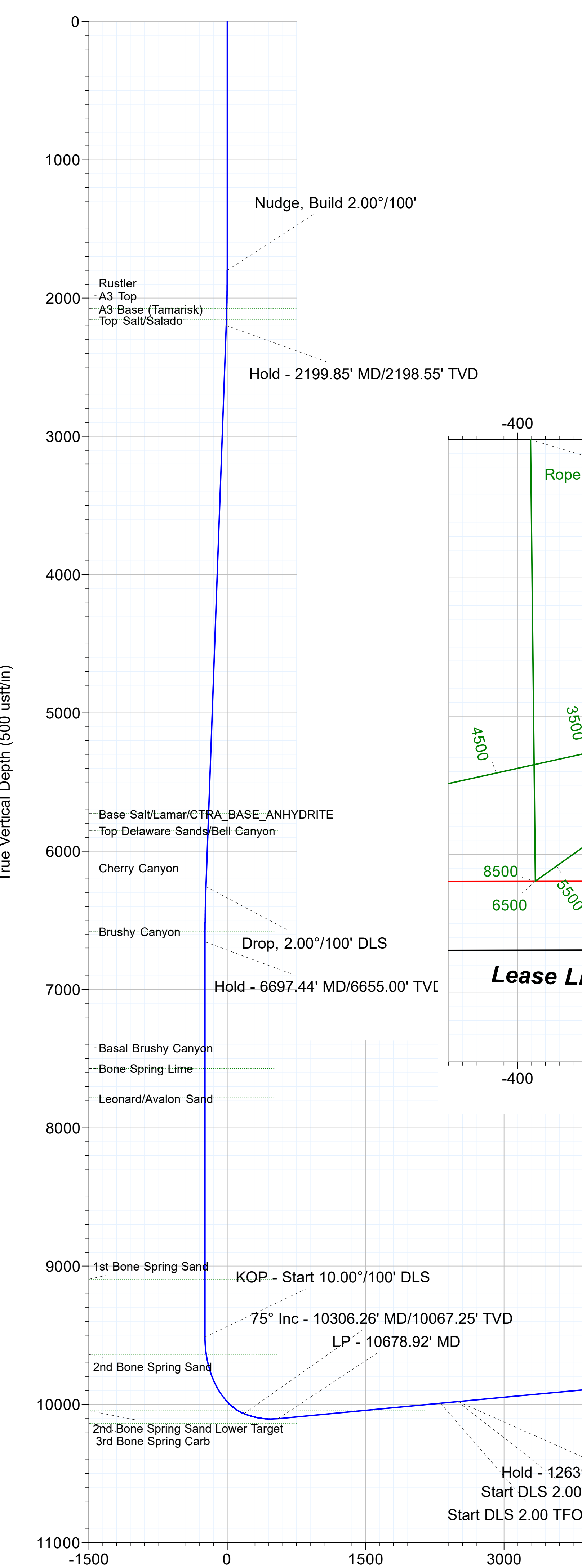
Azimuths to Grid North  
 True North: -0.45°  
 Magnetic North: 5.53°

Magnetic Field  
 Strength: 47286.3nT  
 Dip Angle: 60.42°  
 Date: 3/11/2026  
 Model: HDGM2026

To convert a Magnetic Direction to a Grid Direction, Add 5.53°

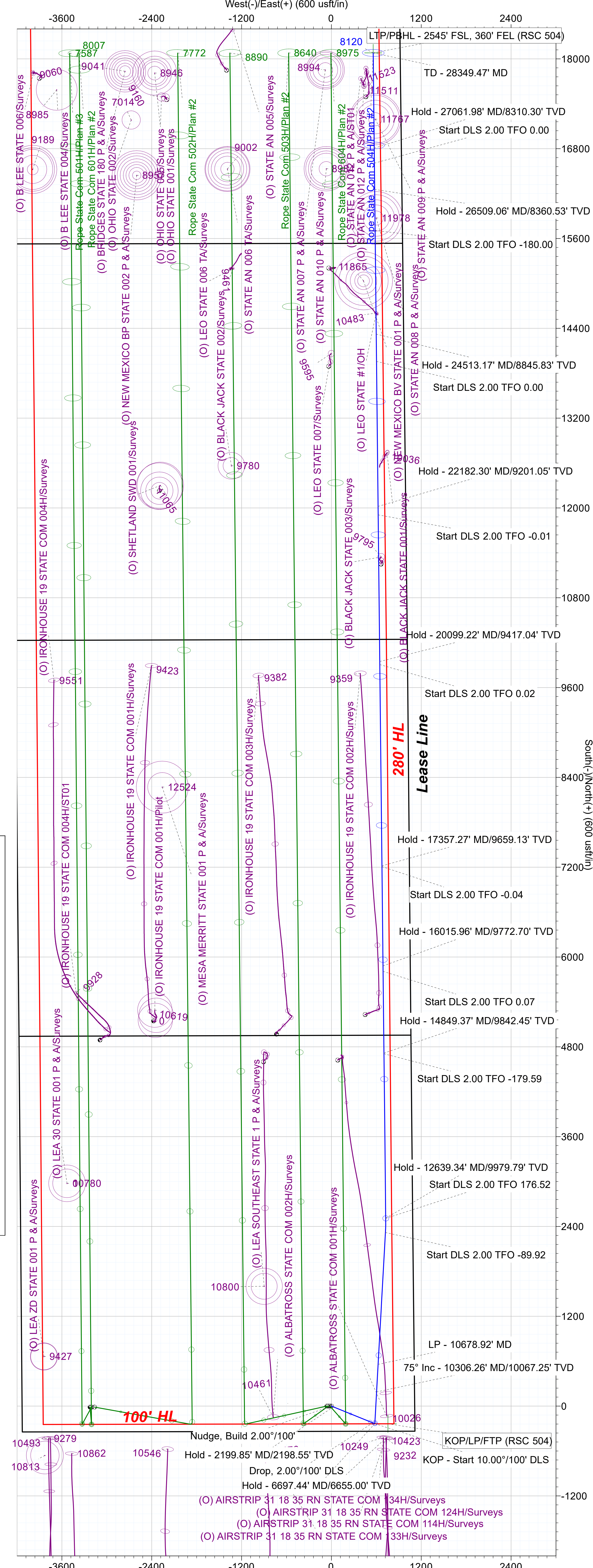
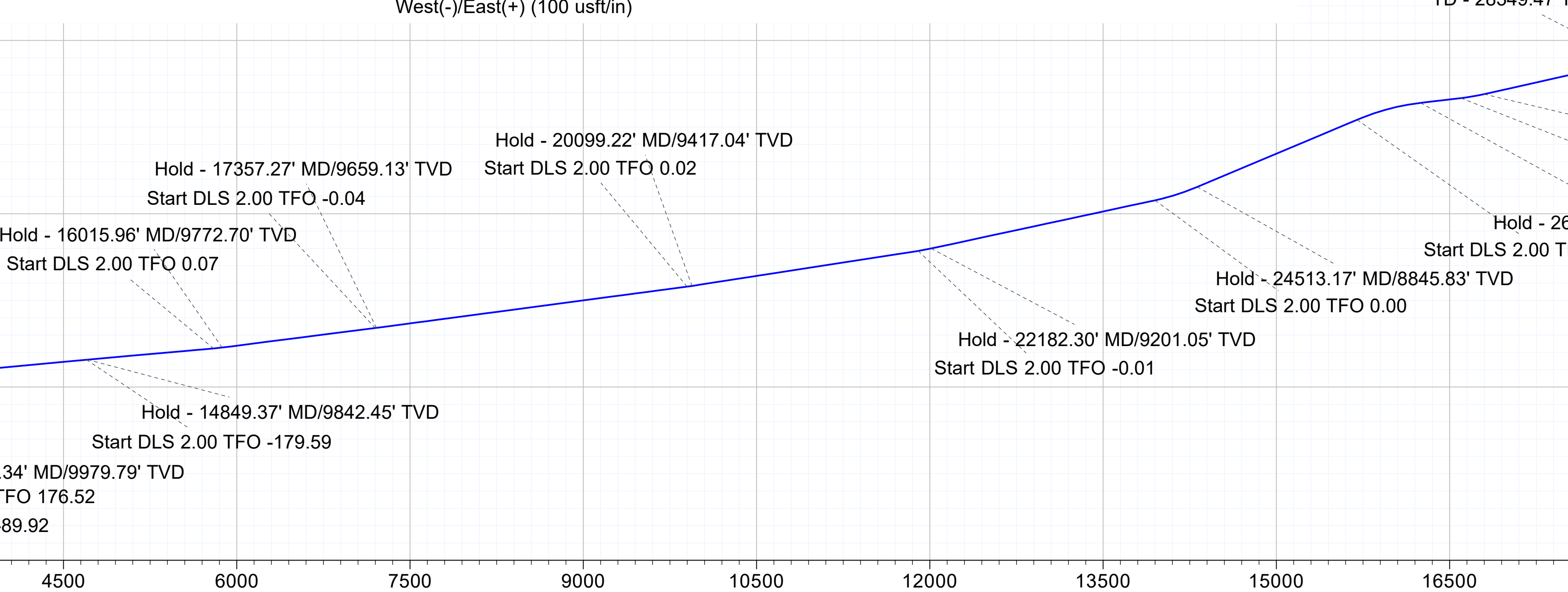
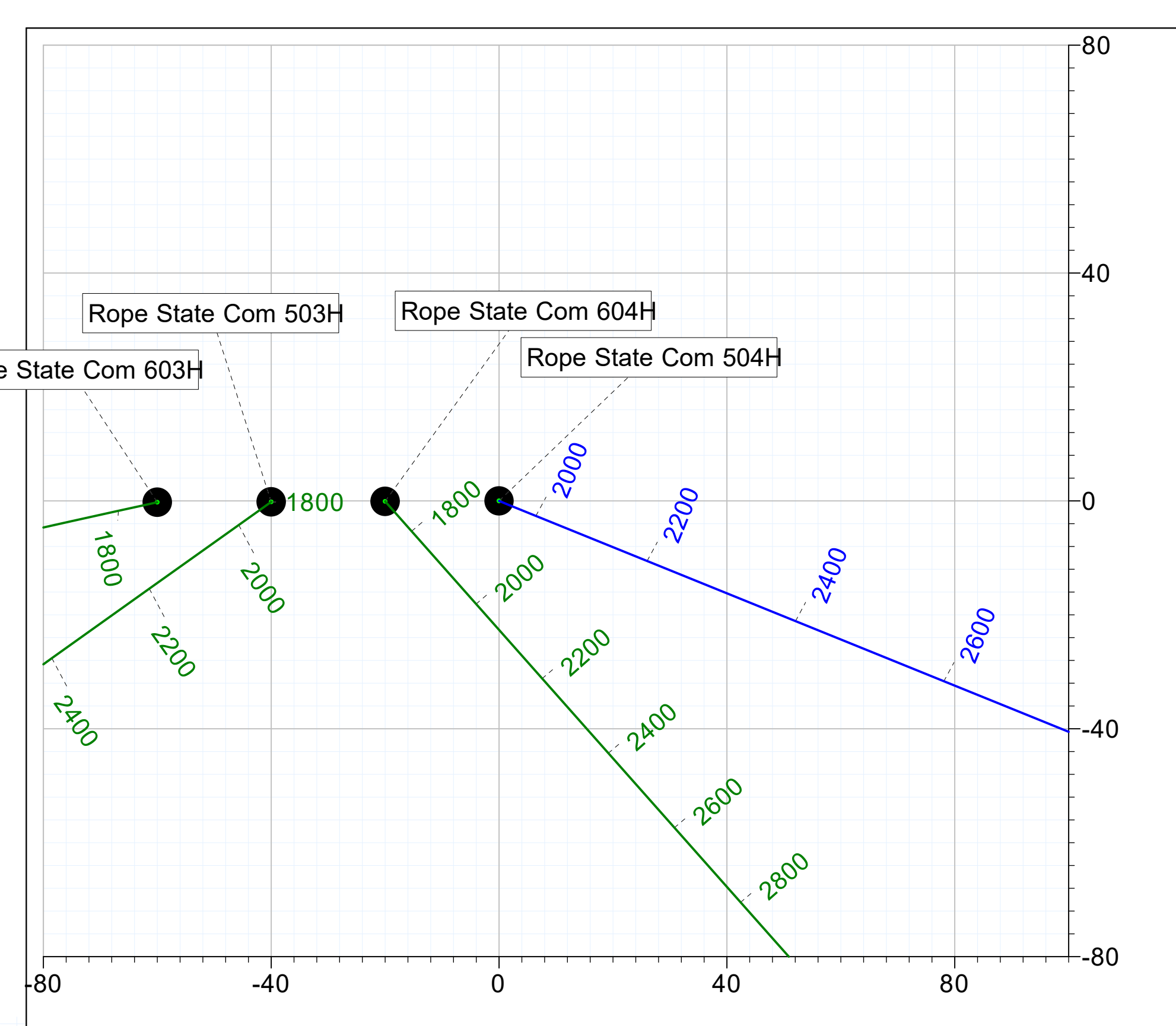
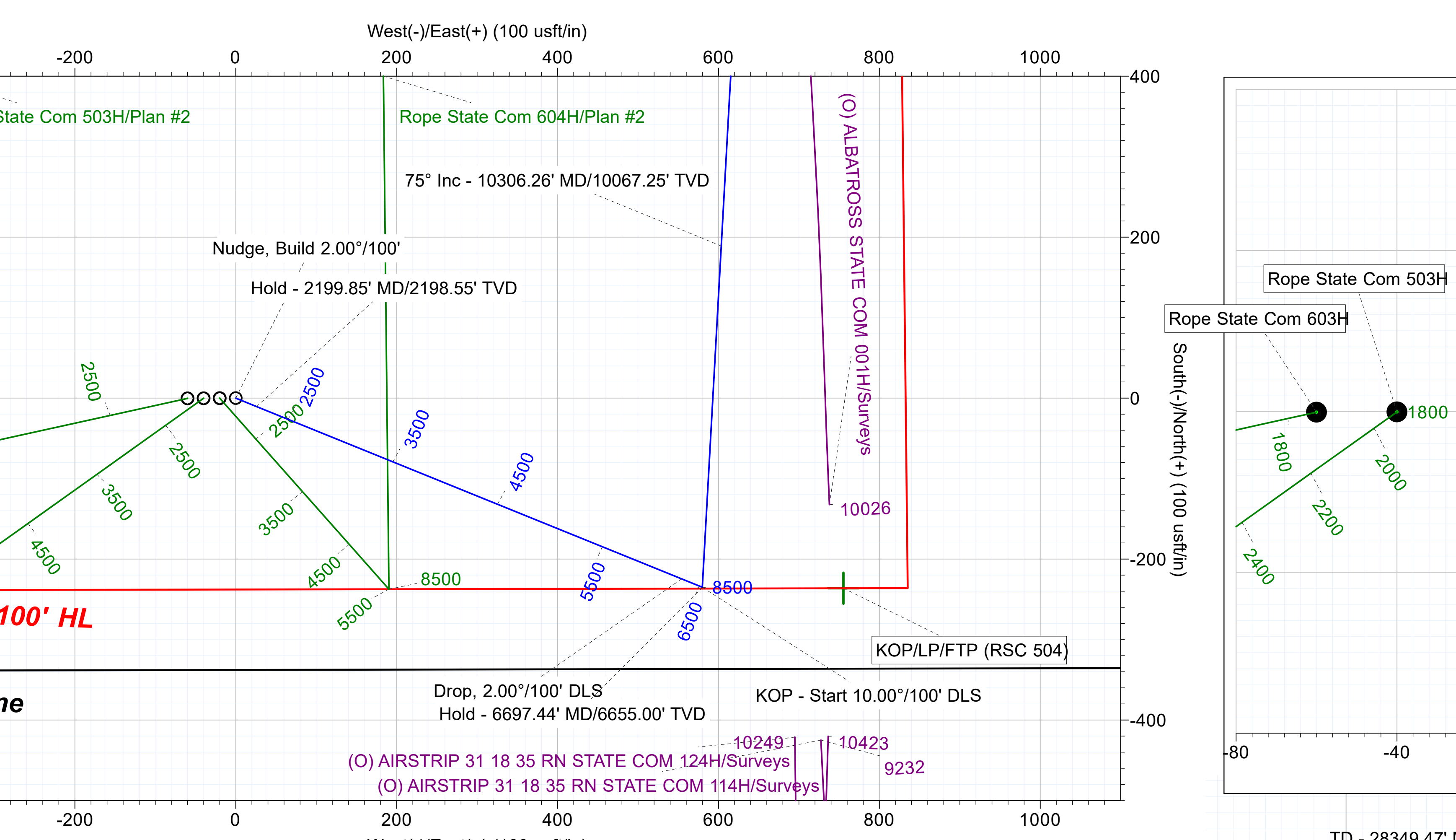
PROJECT DETAILS: Lea County, NM (NAD 83)

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



WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LTP/PBHL - 2545' FSL, 360' FEL (RSC 504)	8120.00	18079.92	558.48	642008.52	800721.76	32.7620752	-103.4895367
KOP/LP/FTP (RSC 504)	9513.82	-236.20	755.32	623692.40	800918.60	32.7117311	-103.4893710



# Coterra Energy

Lea County, NM (NAD 83)

Rope State Com Pad

Rope State Com 504H

338' FSL, 1113' FEL

OH

Plan: Plan #2



## Standard Plan Report

18 March, 2026

Total Report Version 1.80

COMPASS 5000.16 Build 97

### ATTENTION

All annotation callouts related to distances are uncertified and are approximated footages using available software and measurement tools. They should not be mistaken as an official record, which can only be obtained via a certified land surveyor.

# Total Directional Planned Survey Report



<b>Company:</b> Coterra Energy	<b>Local Co-ordinate Reference:</b> Well Rope State Com 504H
<b>Project:</b> Lea County, NM (NAD 83)	<b>TVD Reference:</b> GE 3939' + KB 23' @ 3962.00usft
<b>Site:</b> Rope State Com Pad	<b>MD Reference:</b> GE 3939' + KB 23' @ 3962.00usft
<b>Well:</b> Rope State Com 504H	<b>North Reference:</b> Grid
<b>Wellbore:</b> OH	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Plan #2	<b>Database:</b> .Total Directional Production DB

<b>Project</b> Lea County, NM (NAD 83)	<b>System Datum:</b> Mean Sea Level
<b>Map System:</b> US State Plane 1983	
<b>Geo Datum:</b> North American Datum 1983	
<b>Map Zone:</b> New Mexico Eastern Zone	

<b>Site</b> Rope State Com Pad	
<b>Site Position:</b>	<b>Northing:</b> 623,928.44 usft
<b>From:</b> Map	<b>Latitude:</b> 32.7123973
<b>Position Uncertainty:</b> 0.00 usft	<b>Easting:</b> 800,123.29 usft
	<b>Longitude:</b> -103.4919504
	<b>Slot Radius:</b> 13-3/16 "

<b>Well</b> Rope State Com 504H	
<b>Well Position</b> +N/-S 0.00 usft	<b>Northing:</b> 623,928.60 usft
+E/-W 0.00 usft	<b>Easting:</b> 800,163.28 usft
<b>Position Uncertainty</b> 0.00 usft	<b>Latitude:</b> 32.7123968
<b>Grid Convergence:</b> 0.45 °	<b>Longitude:</b> -103.4918204
	<b>Wellhead Elevation:</b> usft
	<b>Ground Level:</b> 3,939.00 usft

<b>Wellbore</b> OH	
<b>Magnetics</b>	
<b>Model Name</b>	<b>Sample Date</b>
HDGM2026	3/11/2026
<b>Declination</b> (°)	<b>Dip Angle</b> (°)
5.98	60.42
<b>Field Strength</b> (nT)	<b>Field Strength</b> (nT)
47,286.30000000	47,286.30000000

<b>Design</b> Plan #2	
<b>Audit Notes:</b>	
<b>Version:</b>	<b>Phase:</b> PLAN
	<b>Tie On Depth:</b> 0.00
<b>Vertical Section:</b>	
<b>Depth From (TVD)</b> (usft)	<b>+N/-S</b> (usft)
0.00	0.00
<b>+E/-W</b> (usft)	<b>Direction</b> (°)
0.00	359.38

<b>Survey Tool Program</b>	<b>Date</b> 3/18/2026
<b>From</b> (usft)	<b>To</b> (usft)
0.00	28,349.47
<b>Survey (Wellbore)</b>	<b>Tool Name</b>
Plan #2 (OH)	MWD+IFR1+MS
<b>Description</b>	<b>Description</b>
OWSG MWD + IFR1 + Multi-Station Correction	OWSG MWD + IFR1 + Multi-Station Correction

# Total Directional Planned Survey Report



<b>Company:</b> Coterra Energy	<b>Local Co-ordinate Reference:</b> Well Rope State Com 504H
<b>Project:</b> Lea County, NM (NAD 83)	<b>TVD Reference:</b> GE 3939' + KB 23' @ 3962.00usft
<b>Site:</b> Rope State Com Pad	<b>MD Reference:</b> GE 3939' + KB 23' @ 3962.00usft
<b>Well:</b> Rope State Com 504H	<b>North Reference:</b> Grid
<b>Wellbore:</b> OH	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Plan #2	<b>Database:</b> .Total Directional Production DB

**Plan Summary**

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,199.85	8.00	112.06	2,198.55	-10.46	25.82	2.00	2.00	0.00	112.06	
6,297.59	8.00	112.06	6,256.45	-224.54	554.18	0.00	0.00	0.00	0.00	
6,697.44	0.00	0.00	6,655.00	-235.00	580.00	2.00	-2.00	0.00	180.00	
9,556.26	0.00	0.00	9,513.82	-235.00	580.00	0.00	0.00	0.00	0.00	
10,306.26	75.00	3.17	10,067.25	189.02	603.48	10.00	10.00	0.00	3.17	
10,678.92	93.63	3.17	10,104.00	557.64	623.91	5.00	5.00	0.00	0.01	
12,446.64	93.63	3.17	9,992.00	2,319.10	721.62	0.00	0.00	0.00	0.00	
12,636.00	93.63	359.38	9,980.00	2,508.00	725.83	2.00	0.00	-2.00	-89.92	
12,639.34	93.56	359.38	9,979.79	2,511.33	725.79	2.00	-2.00	0.12	176.52	
14,840.26	93.56	359.38	9,843.00	4,707.87	702.18	0.00	0.00	0.00	0.00	
14,849.38	93.38	359.38	9,842.45	4,716.97	702.08	2.00	-2.00	-0.01	-179.59	
15,942.18	93.38	359.38	9,778.00	5,807.81	690.33	0.00	0.00	0.00	0.00	
16,015.96	94.86	359.38	9,772.70	5,881.39	689.54	2.00	2.00	0.00	0.07	
17,347.15	94.86	359.38	9,660.00	7,207.73	675.29	0.00	0.00	0.00	0.00	
17,357.27	95.06	359.38	9,659.13	7,217.81	675.18	2.00	2.00	0.00	-0.04	
20,057.71	95.06	359.38	9,421.00	9,907.57	646.28	0.00	0.00	0.00	0.00	
20,099.22	95.89	359.38	9,417.04	9,948.90	645.84	2.00	2.00	0.00	0.02	
22,068.29	95.89	359.38	9,215.00	11,907.46	624.80	0.00	0.00	0.00	0.00	
22,182.30	98.17	359.38	9,201.05	12,020.59	623.58	2.00	2.00	0.00	-0.01	
24,139.01	98.17	359.38	8,923.00	13,957.34	602.77	0.00	0.00	0.00	0.00	
24,513.17	105.65	359.38	8,845.83	14,323.16	598.84	2.00	2.00	0.00	0.00	
25,950.64	105.65	359.38	8,458.00	15,707.24	583.97	0.00	0.00	0.00	0.00	
26,509.06	94.48	359.38	8,360.53	16,256.16	578.07	2.00	-2.00	0.00	-180.00	
26,861.19	94.48	359.38	8,333.00	16,607.19	574.30	0.00	0.00	0.00	0.00	
27,061.98	98.50	359.38	8,310.30	16,806.64	572.16	2.00	2.00	0.00	0.00	
28,349.47	98.50	359.38	8,120.00	18,079.92	558.48	0.00	0.00	0.00	0.00	LTP/PBHL - 2545' F

**Planned Survey**

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates (usft)		Map Coordinates (usft)		Geo Coordinates (°)		Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
				+N/-S	+E/-W	Northing	Easting	Latitude	Longitude				
0.00	0.00	0.00	0.00	0.00	0.00	623,928.60	800,163.28	32.7123968	-103.4918204	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	623,928.60	800,163.28	32.7123968	-103.4918204	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	623,928.60	800,163.28	32.7123968	-103.4918204	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	623,928.60	800,163.28	32.7123968	-103.4918204	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	623,928.60	800,163.28	32.7123968	-103.4918204	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	623,928.60	800,163.28	32.7123968	-103.4918204	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	623,928.60	800,163.28	32.7123968	-103.4918204	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	623,928.60	800,163.28	32.7123968	-103.4918204	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	623,928.60	800,163.28	32.7123968	-103.4918204	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	623,928.60	800,163.28	32.7123968	-103.4918204	0.00	0.00	0.00	0.00

# Total Directional Planned Survey Report



<b>Company:</b> Coterra Energy	<b>Local Co-ordinate Reference:</b> Well Rope State Com 504H
<b>Project:</b> Lea County, NM (NAD 83)	<b>TVD Reference:</b> GE 3939' + KB 23' @ 3962.00usft
<b>Site:</b> Rope State Com Pad	<b>MD Reference:</b> GE 3939' + KB 23' @ 3962.00usft
<b>Well:</b> Rope State Com 504H	<b>North Reference:</b> Grid
<b>Wellbore:</b> OH	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Plan #2	<b>Database:</b> .Total Directional Production DB

**Planned Survey**

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,000.00	0.00	0.00	1,000.00	0.00	0.00	623,928.60	800,163.28	32.7123968	-103.4918204	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	623,928.60	800,163.28	32.7123968	-103.4918204	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	623,928.60	800,163.28	32.7123968	-103.4918204	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	623,928.60	800,163.28	32.7123968	-103.4918204	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	623,928.60	800,163.28	32.7123968	-103.4918204	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	623,928.60	800,163.28	32.7123968	-103.4918204	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	623,928.60	800,163.28	32.7123968	-103.4918204	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	623,928.60	800,163.28	32.7123968	-103.4918204	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	623,928.60	800,163.28	32.7123968	-103.4918204	0.00	0.00	0.00	0.00
<b>Nudge, Build 2.00°/100'</b>													
1,892.02	1.84	112.06	1,892.00	-0.55	1.37	623,928.05	800,164.65	32.7123953	-103.4918160	-0.57	2.00	2.00	0.00
<b>Rustler</b>													
1,900.00	2.00	112.06	1,899.98	-0.66	1.62	623,927.94	800,164.90	32.7123950	-103.4918152	-0.67	2.00	2.00	0.00
1,978.11	3.56	112.06	1,978.00	-2.08	5.13	623,926.52	800,168.41	32.7123910	-103.4918038	-2.13	2.00	2.00	0.00
<b>A3 Top</b>													
2,000.00	4.00	112.06	1,999.84	-2.62	6.47	623,925.98	800,169.75	32.7123895	-103.4917995	-2.69	2.00	2.00	0.00
2,076.43	5.53	112.06	2,076.00	-5.00	12.35	623,923.60	800,175.63	32.7123828	-103.4917804	-5.14	2.00	2.00	0.00
<b>A3 Base (Tamarisk)</b>													
2,100.00	6.00	112.06	2,099.45	-5.89	14.55	623,922.71	800,177.83	32.7123803	-103.4917733	-6.05	2.00	2.00	0.00
2,157.93	7.16	112.06	2,157.00	-8.39	20.70	623,920.21	800,183.98	32.7123733	-103.4917534	-8.61	2.00	2.00	0.00
<b>Top Salt/Salado</b>													
2,199.85	8.00	112.06	2,198.55	-10.46	25.82	623,918.14	800,189.10	32.7123675	-103.4917368	-10.74	2.00	2.00	0.00
<b>Hold - 2199.85' MD/2198.55' TVD</b>													
2,300.00	8.00	112.06	2,297.73	-15.69	38.73	623,912.91	800,202.01	32.7123528	-103.4916949	-16.11	0.00	0.00	0.00
2,400.00	8.00	112.06	2,396.76	-20.92	51.63	623,907.68	800,214.91	32.7123382	-103.4916531	-21.48	0.00	0.00	0.00
2,500.00	8.00	112.06	2,495.78	-26.14	64.52	623,902.46	800,227.80	32.7123236	-103.4916113	-26.84	0.00	0.00	0.00
2,600.00	8.00	112.06	2,594.81	-31.37	77.42	623,897.23	800,240.70	32.7123089	-103.4915696	-32.20	0.00	0.00	0.00
2,700.00	8.00	112.06	2,693.84	-36.59	90.31	623,892.01	800,253.59	32.7122943	-103.4915278	-37.57	0.00	0.00	0.00
2,800.00	8.00	112.06	2,792.87	-41.82	103.20	623,886.78	800,266.48	32.7122797	-103.4914860	-42.93	0.00	0.00	0.00
2,900.00	8.00	112.06	2,891.89	-47.04	116.10	623,881.56	800,279.38	32.7122650	-103.4914442	-48.29	0.00	0.00	0.00
3,000.00	8.00	112.06	2,990.92	-52.26	128.99	623,876.34	800,292.27	32.7122504	-103.4914024	-53.66	0.00	0.00	0.00
3,100.00	8.00	112.06	3,089.95	-57.49	141.88	623,871.11	800,305.16	32.7122357	-103.4913606	-59.02	0.00	0.00	0.00
3,200.00	8.00	112.06	3,188.98	-62.71	154.78	623,865.89	800,318.06	32.7122211	-103.4913189	-64.38	0.00	0.00	0.00
3,300.00	8.00	112.06	3,288.00	-67.94	167.67	623,860.66	800,330.95	32.7122065	-103.4912771	-69.75	0.00	0.00	0.00
3,400.00	8.00	112.06	3,387.03	-73.16	180.57	623,855.44	800,343.85	32.7121918	-103.4912353	-75.11	0.00	0.00	0.00
3,500.00	8.00	112.06	3,486.06	-78.38	193.46	623,850.22	800,356.74	32.7121772	-103.4911935	-80.47	0.00	0.00	0.00
3,600.00	8.00	112.06	3,585.09	-83.61	206.35	623,844.99	800,369.63	32.7121625	-103.4911517	-85.84	0.00	0.00	0.00
3,700.00	8.00	112.06	3,684.11	-88.83	219.25	623,839.77	800,382.53	32.7121479	-103.4911100	-91.20	0.00	0.00	0.00
3,800.00	8.00	112.06	3,783.14	-94.06	232.14	623,834.54	800,395.42	32.7121333	-103.4910682	-96.56	0.00	0.00	0.00

## Total Directional Planned Survey Report



<b>Company:</b> Coterra Energy	<b>Local Co-ordinate Reference:</b> Well Rope State Com 504H
<b>Project:</b> Lea County, NM (NAD 83)	<b>TVD Reference:</b> GE 3939' + KB 23' @ 3962.00usft
<b>Site:</b> Rope State Com Pad	<b>MD Reference:</b> GE 3939' + KB 23' @ 3962.00usft
<b>Well:</b> Rope State Com 504H	<b>North Reference:</b> Grid
<b>Wellbore:</b> OH	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Plan #2	<b>Database:</b> .Total Directional Production DB

**Planned Survey**

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,900.00	8.00	112.06	3,882.17	-99.28	245.04	623,829.32	800,408.32	32.7121186	-103.4910264	-101.93	0.00	0.00	0.00
4,000.00	8.00	112.06	3,981.20	-104.51	257.93	623,824.09	800,421.21	32.7121040	-103.4909846	-107.29	0.00	0.00	0.00
4,100.00	8.00	112.06	4,080.22	-109.73	270.82	623,818.87	800,434.10	32.7120893	-103.4909428	-112.65	0.00	0.00	0.00
4,200.00	8.00	112.06	4,179.25	-114.95	283.72	623,813.65	800,447.00	32.7120747	-103.4909010	-118.02	0.00	0.00	0.00
4,300.00	8.00	112.06	4,278.28	-120.18	296.61	623,808.42	800,459.89	32.7120601	-103.4908593	-123.38	0.00	0.00	0.00
4,400.00	8.00	112.06	4,377.31	-125.40	309.51	623,803.20	800,472.79	32.7120454	-103.4908175	-128.74	0.00	0.00	0.00
4,500.00	8.00	112.06	4,476.34	-130.63	322.40	623,797.97	800,485.68	32.7120308	-103.4907757	-134.11	0.00	0.00	0.00
4,600.00	8.00	112.06	4,575.36	-135.85	335.29	623,792.75	800,498.57	32.7120161	-103.4907339	-139.47	0.00	0.00	0.00
4,700.00	8.00	112.06	4,674.39	-141.08	348.19	623,787.52	800,511.47	32.7120015	-103.4906921	-144.84	0.00	0.00	0.00
4,800.00	8.00	112.06	4,773.42	-146.30	361.08	623,782.30	800,524.36	32.7119869	-103.4906503	-150.20	0.00	0.00	0.00
4,900.00	8.00	112.06	4,872.45	-151.52	373.98	623,777.08	800,537.26	32.7119722	-103.4906086	-155.56	0.00	0.00	0.00
5,000.00	8.00	112.06	4,971.47	-156.75	386.87	623,771.85	800,550.15	32.7119576	-103.4905668	-160.93	0.00	0.00	0.00
5,100.00	8.00	112.06	5,070.50	-161.97	399.76	623,766.63	800,563.04	32.7119429	-103.4905250	-166.29	0.00	0.00	0.00
5,200.00	8.00	112.06	5,169.53	-167.20	412.66	623,761.40	800,575.94	32.7119283	-103.4904832	-171.65	0.00	0.00	0.00
5,300.00	8.00	112.06	5,268.56	-172.42	425.55	623,756.18	800,588.83	32.7119137	-103.4904414	-177.02	0.00	0.00	0.00
5,400.00	8.00	112.06	5,367.58	-177.65	438.44	623,750.95	800,601.72	32.7118990	-103.4903997	-182.38	0.00	0.00	0.00
5,500.00	8.00	112.06	5,466.61	-182.87	451.34	623,745.73	800,614.62	32.7118844	-103.4903579	-187.74	0.00	0.00	0.00
5,600.00	8.00	112.06	5,565.64	-188.09	464.23	623,740.51	800,627.51	32.7118697	-103.4903161	-193.11	0.00	0.00	0.00
5,700.00	8.00	112.06	5,664.67	-193.32	477.13	623,735.28	800,640.41	32.7118551	-103.4902743	-198.47	0.00	0.00	0.00
5,762.95	8.00	112.06	5,727.00	-196.61	485.24	623,731.99	800,648.52	32.7118459	-103.4902480	-201.85	0.00	0.00	0.00
<b>Base Salt/Lamar/CTRA_BASE_ANHYDRITE</b>													
5,800.00	8.00	112.06	5,763.69	-198.54	490.02	623,730.06	800,653.30	32.7118405	-103.4902325	-203.83	0.00	0.00	0.00
5,887.15	8.00	112.06	5,850.00	-203.10	501.26	623,725.50	800,664.54	32.7118277	-103.4901961	-208.51	0.00	0.00	0.00
<b>Top Delaware Sands/Bell Canyon</b>													
5,900.00	8.00	112.06	5,862.72	-203.77	502.91	623,724.83	800,666.19	32.7118258	-103.4901907	-209.20	0.00	0.00	0.00
6,000.00	8.00	112.06	5,961.75	-208.99	515.81	623,719.61	800,679.09	32.7118112	-103.4901490	-214.56	0.00	0.00	0.00
6,100.00	8.00	112.06	6,060.78	-214.22	528.70	623,714.38	800,691.98	32.7117965	-103.4901072	-219.92	0.00	0.00	0.00
6,159.81	8.00	112.06	6,120.00	-217.34	536.41	623,711.26	800,699.69	32.7117878	-103.4900822	-223.13	0.00	0.00	0.00
<b>Cherry Canyon</b>													
6,200.00	8.00	112.06	6,159.80	-219.44	541.60	623,709.16	800,704.88	32.7117819	-103.4900654	-225.29	0.00	0.00	0.00
6,297.59	8.00	112.06	6,256.45	-224.54	554.18	623,704.06	800,717.46	32.7117676	-103.4900246	-230.52	0.00	0.00	0.00
<b>Drop, 2.00°/100' DLS</b>													
6,300.00	7.95	112.06	6,258.83	-224.66	554.49	623,703.94	800,717.77	32.7117673	-103.4900236	-230.65	2.00	-2.00	0.00
6,400.00	5.95	112.06	6,358.09	-229.21	565.70	623,699.39	800,728.98	32.7117545	-103.4899873	-235.31	2.00	-2.00	0.00
6,500.00	3.95	112.06	6,457.71	-232.45	573.70	623,696.15	800,736.98	32.7117454	-103.4899614	-238.64	2.00	-2.00	0.00
6,600.00	1.95	112.06	6,557.58	-234.38	578.46	623,694.22	800,741.74	32.7117400	-103.4899459	-240.62	2.00	-2.00	0.00
6,624.44	1.46	112.06	6,582.00	-234.65	579.14	623,693.95	800,742.42	32.7117393	-103.4899437	-240.90	2.00	-2.00	0.00
<b>Brushy Canyon</b>													

# Total Directional Planned Survey Report



<b>Company:</b> Coterra Energy	<b>Local Co-ordinate Reference:</b> Well Rope State Com 504H
<b>Project:</b> Lea County, NM (NAD 83)	<b>TVD Reference:</b> GE 3939' + KB 23' @ 3962.00usft
<b>Site:</b> Rope State Com Pad	<b>MD Reference:</b> GE 3939' + KB 23' @ 3962.00usft
<b>Well:</b> Rope State Com 504H	<b>North Reference:</b> Grid
<b>Wellbore:</b> OH	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Plan #2	<b>Database:</b> .Total Directional Production DB

**Planned Survey**

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,697.44	0.00	0.00	6,655.00	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	2.00	-2.00	0.00
<b>Hold - 6697.44' MD/6655.00' TVD</b>													
6,700.00	0.00	0.00	6,657.56	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
6,800.00	0.00	0.00	6,757.56	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
6,900.00	0.00	0.00	6,857.56	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
7,000.00	0.00	0.00	6,957.56	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
7,100.00	0.00	0.00	7,057.56	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
7,200.00	0.00	0.00	7,157.56	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
7,300.00	0.00	0.00	7,257.56	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
7,400.00	0.00	0.00	7,357.56	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
7,458.44	0.00	0.00	7,416.00	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
<b>Basal Brushy Canyon</b>													
7,500.00	0.00	0.00	7,457.56	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
7,600.00	0.00	0.00	7,557.56	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
7,612.44	0.00	0.00	7,570.00	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
<b>Bone Spring Lime</b>													
7,700.00	0.00	0.00	7,657.56	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
7,800.00	0.00	0.00	7,757.56	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
7,825.44	0.00	0.00	7,783.00	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
<b>Leonard/Avalon Sand</b>													
7,900.00	0.00	0.00	7,857.56	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
8,000.00	0.00	0.00	7,957.56	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
8,100.00	0.00	0.00	8,057.56	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
8,200.00	0.00	0.00	8,157.56	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
8,300.00	0.00	0.00	8,257.56	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
8,400.00	0.00	0.00	8,357.56	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
8,500.00	0.00	0.00	8,457.56	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
8,600.00	0.00	0.00	8,557.56	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
8,700.00	0.00	0.00	8,657.56	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
8,800.00	0.00	0.00	8,757.56	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
8,900.00	0.00	0.00	8,857.56	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
9,000.00	0.00	0.00	8,957.56	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
9,100.00	0.00	0.00	9,057.56	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
9,137.44	0.00	0.00	9,095.00	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
<b>1st Bone Spring Sand</b>													
9,200.00	0.00	0.00	9,157.56	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
9,300.00	0.00	0.00	9,257.56	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
9,400.00	0.00	0.00	9,357.56	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
9,500.00	0.00	0.00	9,457.56	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00

## Total Directional Planned Survey Report



<b>Company:</b> Coterra Energy	<b>Local Co-ordinate Reference:</b> Well Rope State Com 504H
<b>Project:</b> Lea County, NM (NAD 83)	<b>TVD Reference:</b> GE 3939' + KB 23' @ 3962.00usft
<b>Site:</b> Rope State Com Pad	<b>MD Reference:</b> GE 3939' + KB 23' @ 3962.00usft
<b>Well:</b> Rope State Com 504H	<b>North Reference:</b> Grid
<b>Wellbore:</b> OH	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Plan #2	<b>Database:</b> .Total Directional Production DB

**Planned Survey**

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,556.26	0.00	0.00	9,513.82	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	0.00	0.00	0.00
<b>KOP - Start 10.00°/100' DLS</b>													
9,556.59	0.03	3.17	9,514.14	-235.00	580.00	623,693.60	800,743.28	32.7117383	-103.4899409	-241.26	10.00	10.00	0.00
<b>KOP/LP/FTP (RSC 504)</b>													
9,600.00	4.37	3.17	9,557.51	-233.33	580.09	623,695.27	800,743.37	32.7117429	-103.4899406	-239.60	10.00	10.00	0.00
9,650.00	9.37	3.17	9,607.14	-227.36	580.42	623,701.24	800,743.70	32.7117593	-103.4899394	-233.63	10.00	10.00	0.00
9,682.46	12.62	3.17	9,639.00	-221.18	580.77	623,707.42	800,744.05	32.7117763	-103.4899381	-227.45	10.00	10.00	0.00
<b>2nd Bone Spring Sand</b>													
9,700.00	14.37	3.17	9,656.05	-217.09	580.99	623,711.51	800,744.27	32.7117875	-103.4899373	-223.37	10.00	10.00	0.00
9,750.00	19.37	3.17	9,703.89	-202.61	581.79	623,725.99	800,745.07	32.7118273	-103.4899343	-208.89	10.00	10.00	0.00
9,800.00	24.37	3.17	9,750.27	-184.01	582.82	623,744.59	800,746.10	32.7118784	-103.4899304	-190.31	10.00	10.00	0.00
9,850.00	29.37	3.17	9,794.86	-161.45	584.07	623,767.15	800,747.35	32.7119403	-103.4899258	-167.76	10.00	10.00	0.00
9,900.00	34.37	3.17	9,837.31	-135.10	585.53	623,793.50	800,748.81	32.7120127	-103.4899204	-141.43	10.00	10.00	0.00
9,950.00	39.37	3.17	9,877.29	-105.15	587.19	623,823.45	800,750.47	32.7120950	-103.4899142	-111.50	10.00	10.00	0.00
10,000.00	44.37	3.17	9,914.51	-71.84	589.04	623,856.76	800,752.32	32.7121865	-103.4899073	-78.21	10.00	10.00	0.00
10,050.00	49.37	3.17	9,948.68	-35.41	591.05	623,893.19	800,754.33	32.7122866	-103.4898998	-41.81	10.00	10.00	0.00
10,100.00	54.37	3.17	9,979.54	3.85	593.23	623,932.45	800,756.51	32.7123944	-103.4898918	-2.57	10.00	10.00	0.00
10,150.00	59.37	3.17	10,006.86	45.64	595.54	623,974.24	800,758.82	32.7125093	-103.4898832	39.20	10.00	10.00	0.00
10,200.00	64.37	3.17	10,030.42	89.66	597.98	624,018.26	800,761.26	32.7126302	-103.4898741	83.18	10.00	10.00	0.00
10,238.79	68.25	3.17	10,046.00	125.12	599.94	624,053.72	800,763.22	32.7127276	-103.4898668	118.62	10.00	10.00	0.00
<b>2nd Bone Spring Sand Lower Target</b>													
10,250.00	69.37	3.17	10,050.05	135.55	600.52	624,064.15	800,763.80	32.7127563	-103.4898646	129.05	10.00	10.00	0.00
10,300.00	74.37	3.17	10,065.60	182.98	603.15	624,111.58	800,766.43	32.7128866	-103.4898549	176.45	10.00	10.00	0.00
10,306.26	75.00	3.17	10,067.25	189.02	603.48	624,117.62	800,766.76	32.7129031	-103.4898536	182.47	10.00	10.00	0.00
<b>75° Inc - 10306.26' MD/10067.25' TVD</b>													
10,400.00	79.69	3.17	10,087.79	280.31	608.54	624,208.91	800,771.82	32.7131539	-103.4898348	273.71	5.00	5.00	0.00
10,500.00	84.69	3.17	10,101.38	379.20	614.02	624,307.80	800,777.30	32.7134256	-103.4898145	372.53	5.00	5.00	0.00
10,600.00	89.69	3.17	10,106.28	478.89	619.55	624,407.49	800,782.83	32.7136995	-103.4897939	472.16	5.00	5.00	0.00
10,678.92	93.63	3.17	10,104.00	557.64	623.91	624,486.24	800,787.19	32.7139158	-103.4897777	550.85	5.00	5.00	0.00
<b>LP - 10678.92' MD</b>													
10,700.00	93.63	3.17	10,102.66	578.65	625.08	624,507.25	800,788.36	32.7139735	-103.4897733	571.85	0.00	0.00	0.00
10,800.00	93.63	3.17	10,096.33	678.29	630.61	624,606.89	800,793.89	32.7142473	-103.4897528	671.43	0.00	0.00	0.00
10,900.00	93.63	3.17	10,089.99	777.94	636.13	624,706.54	800,799.41	32.7145210	-103.4897323	771.01	0.00	0.00	0.00
11,000.00	93.63	3.17	10,083.66	877.59	641.66	624,806.19	800,804.94	32.7147948	-103.4897117	870.59	0.00	0.00	0.00
11,100.00	93.63	3.17	10,077.32	977.23	647.19	624,905.83	800,810.47	32.7150685	-103.4896912	970.17	0.00	0.00	0.00
11,200.00	93.63	3.17	10,070.98	1,076.88	652.72	625,005.48	800,816.00	32.7153423	-103.4896706	1,069.75	0.00	0.00	0.00
11,300.00	93.63	3.17	10,064.65	1,176.52	658.24	625,105.12	800,821.52	32.7156160	-103.4896501	1,169.33	0.00	0.00	0.00
11,400.00	93.63	3.17	10,058.31	1,276.17	663.77	625,204.77	800,827.05	32.7158897	-103.4896295	1,268.91	0.00	0.00	0.00

### Total Directional Planned Survey Report



<b>Company:</b> Coterra Energy	<b>Local Co-ordinate Reference:</b> Well Rope State Com 504H
<b>Project:</b> Lea County, NM (NAD 83)	<b>TVD Reference:</b> GE 3939' + KB 23' @ 3962.00usft
<b>Site:</b> Rope State Com Pad	<b>MD Reference:</b> GE 3939' + KB 23' @ 3962.00usft
<b>Well:</b> Rope State Com 504H	<b>North Reference:</b> Grid
<b>Wellbore:</b> OH	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Plan #2	<b>Database:</b> .Total Directional Production DB

**Planned Survey**

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,500.00	93.63	3.17	10,051.98	1,375.82	669.30	625,304.42	800,832.58	32.7161635	-103.4896090	1,368.49	0.00	0.00	0.00
11,600.00	93.63	3.17	10,045.64	1,475.46	674.82	625,404.06	800,838.10	32.7164372	-103.4895884	1,468.07	0.00	0.00	0.00
11,700.00	93.63	3.17	10,039.30	1,575.11	680.35	625,503.71	800,843.63	32.7167110	-103.4895679	1,567.65	0.00	0.00	0.00
11,800.00	93.63	3.17	10,032.97	1,674.75	685.88	625,603.35	800,849.16	32.7169847	-103.4895473	1,667.23	0.00	0.00	0.00
11,900.00	93.63	3.17	10,026.63	1,774.40	691.40	625,703.00	800,854.68	32.7172585	-103.4895268	1,766.81	0.00	0.00	0.00
12,000.00	93.63	3.17	10,020.30	1,874.05	696.93	625,802.65	800,860.21	32.7175322	-103.4895062	1,866.39	0.00	0.00	0.00
12,100.00	93.63	3.17	10,013.96	1,973.69	702.46	625,902.29	800,865.74	32.7178060	-103.4894857	1,965.97	0.00	0.00	0.00
12,200.00	93.63	3.17	10,007.62	2,073.34	707.99	626,001.94	800,871.27	32.7180797	-103.4894651	2,065.55	0.00	0.00	0.00
12,300.00	93.63	3.17	10,001.29	2,172.98	713.51	626,101.58	800,876.79	32.7183535	-103.4894446	2,165.14	0.00	0.00	0.00
12,400.00	93.63	3.17	9,994.95	2,272.63	719.04	626,201.23	800,882.32	32.7186272	-103.4894240	2,264.72	0.00	0.00	0.00
12,446.64	93.63	3.17	9,992.00	2,319.10	721.62	626,247.70	800,884.90	32.7187549	-103.4894144	2,311.16	0.00	0.00	0.00
<b>Start DLS 2.00 TFO -89.92</b>													
12,500.00	93.63	2.11	9,988.62	2,372.30	724.07	626,300.90	800,887.35	32.7189010	-103.4894051	2,364.33	2.00	0.00	-2.00
12,600.00	93.63	0.10	9,982.28	2,472.07	725.99	626,400.67	800,889.27	32.7191752	-103.4893963	2,464.07	2.00	0.00	-2.00
12,636.00	93.63	359.38	9,980.00	2,508.00	725.83	626,436.60	800,889.11	32.7192739	-103.4893959	2,500.00	2.00	0.00	-2.00
<b>Start DLS 2.00 TFO 176.52</b>													
12,639.34	93.56	359.38	9,979.79	2,511.33	725.79	626,439.93	800,889.07	32.7192831	-103.4893959	2,503.33	2.00	-2.00	0.12
<b>Hold - 12639.34' MD/9979.79' TVD</b>													
12,700.00	93.56	359.38	9,976.02	2,571.87	725.14	626,500.47	800,888.42	32.7194495	-103.4893964	2,563.88	0.00	0.00	0.00
12,800.00	93.56	359.38	9,969.81	2,671.68	724.07	626,600.28	800,887.35	32.7197238	-103.4893973	2,663.68	0.00	0.00	0.00
12,900.00	93.56	359.38	9,963.59	2,771.48	723.00	626,700.08	800,886.28	32.7199981	-103.4893983	2,763.49	0.00	0.00	0.00
13,000.00	93.56	359.38	9,957.38	2,871.28	721.92	626,799.88	800,885.20	32.7202725	-103.4893992	2,863.30	0.00	0.00	0.00
13,100.00	93.56	359.38	9,951.16	2,971.08	720.85	626,899.68	800,884.13	32.7205468	-103.4894001	2,963.10	0.00	0.00	0.00
13,200.00	93.56	359.38	9,944.94	3,070.88	719.78	626,999.48	800,883.06	32.7208211	-103.4894010	3,062.91	0.00	0.00	0.00
13,300.00	93.56	359.38	9,938.73	3,170.68	718.71	627,099.28	800,881.99	32.7210954	-103.4894019	3,162.72	0.00	0.00	0.00
13,400.00	93.56	359.38	9,932.51	3,270.48	717.63	627,199.08	800,880.91	32.7213697	-103.4894028	3,262.52	0.00	0.00	0.00
13,500.00	93.56	359.38	9,926.30	3,370.28	716.56	627,298.88	800,879.84	32.7216440	-103.4894037	3,362.33	0.00	0.00	0.00
13,600.00	93.56	359.38	9,920.08	3,470.08	715.49	627,398.68	800,878.77	32.7219183	-103.4894046	3,462.14	0.00	0.00	0.00
13,700.00	93.56	359.38	9,913.87	3,569.88	714.41	627,498.48	800,877.69	32.7221927	-103.4894055	3,561.94	0.00	0.00	0.00
13,800.00	93.56	359.38	9,907.65	3,669.68	713.34	627,598.28	800,876.62	32.7224670	-103.4894064	3,661.75	0.00	0.00	0.00
13,900.00	93.56	359.38	9,901.44	3,769.49	712.27	627,698.09	800,875.55	32.7227413	-103.4894073	3,761.56	0.00	0.00	0.00
14,000.00	93.56	359.38	9,895.22	3,869.29	711.20	627,797.89	800,874.48	32.7230156	-103.4894082	3,861.36	0.00	0.00	0.00
14,100.00	93.56	359.38	9,889.01	3,969.09	710.12	627,897.69	800,873.40	32.7232899	-103.4894091	3,961.17	0.00	0.00	0.00
14,200.00	93.56	359.38	9,882.79	4,068.89	709.05	627,997.49	800,872.33	32.7235642	-103.4894100	4,060.98	0.00	0.00	0.00
14,300.00	93.56	359.38	9,876.58	4,168.69	707.98	628,097.29	800,871.26	32.7238386	-103.4894109	4,160.78	0.00	0.00	0.00
14,400.00	93.56	359.38	9,870.36	4,268.49	706.90	628,197.09	800,870.18	32.7241129	-103.4894118	4,260.59	0.00	0.00	0.00
14,500.00	93.56	359.38	9,864.15	4,368.29	705.83	628,296.89	800,869.11	32.7243872	-103.4894127	4,360.40	0.00	0.00	0.00
14,600.00	93.56	359.38	9,857.93	4,468.09	704.76	628,396.69	800,868.04	32.7246615	-103.4894136	4,460.20	0.00	0.00	0.00

## Total Directional Planned Survey Report



<b>Company:</b> Coterra Energy	<b>Local Co-ordinate Reference:</b> Well Rope State Com 504H
<b>Project:</b> Lea County, NM (NAD 83)	<b>TVD Reference:</b> GE 3939' + KB 23' @ 3962.00usft
<b>Site:</b> Rope State Com Pad	<b>MD Reference:</b> GE 3939' + KB 23' @ 3962.00usft
<b>Well:</b> Rope State Com 504H	<b>North Reference:</b> Grid
<b>Wellbore:</b> OH	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Plan #2	<b>Database:</b> .Total Directional Production DB

**Planned Survey**

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,700.00	93.56	359.38	9,851.72	4,567.89	703.68	628,496.49	800,866.96	32.7249358	-103.4894145	4,560.01	0.00	0.00	0.00
14,800.00	93.56	359.38	9,845.50	4,667.69	702.61	628,596.29	800,865.89	32.7252101	-103.4894154	4,659.82	0.00	0.00	0.00
14,840.26	93.56	359.38	9,843.00	4,707.87	702.18	628,636.47	800,865.46	32.7253206	-103.4894158	4,700.00	0.00	0.00	0.00
<b>Start DLS 2.00 TFO -179.59</b>													
14,849.38	93.38	359.38	9,842.45	4,716.97	702.08	628,645.57	800,865.36	32.7253456	-103.4894159	4,709.10	2.00	-2.00	-0.01
<b>Hold - 14849.37' MD/9842.45' TVD</b>													
14,900.00	93.38	359.38	9,839.46	4,767.50	701.54	628,696.10	800,864.82	32.7254845	-103.4894164	4,759.63	0.00	0.00	0.00
15,000.00	93.38	359.38	9,833.56	4,867.33	700.46	628,795.92	800,863.74	32.7257588	-103.4894173	4,859.46	0.00	0.00	0.00
15,100.00	93.38	359.38	9,827.67	4,967.15	699.39	628,895.75	800,862.67	32.7260332	-103.4894182	4,959.29	0.00	0.00	0.00
15,200.00	93.38	359.38	9,821.77	5,066.97	698.31	628,995.57	800,861.59	32.7263076	-103.4894191	5,059.11	0.00	0.00	0.00
15,300.00	93.38	359.38	9,815.87	5,166.79	697.24	629,095.39	800,860.52	32.7265819	-103.4894200	5,158.94	0.00	0.00	0.00
15,400.00	93.38	359.38	9,809.98	5,266.61	696.16	629,195.21	800,859.44	32.7268563	-103.4894209	5,258.76	0.00	0.00	0.00
15,500.00	93.38	359.38	9,804.08	5,366.43	695.09	629,295.03	800,858.37	32.7271307	-103.4894218	5,358.59	0.00	0.00	0.00
15,600.00	93.38	359.38	9,798.18	5,466.25	694.01	629,394.85	800,857.29	32.7274050	-103.4894227	5,458.42	0.00	0.00	0.00
15,700.00	93.38	359.38	9,792.28	5,566.07	692.93	629,494.67	800,856.21	32.7276794	-103.4894236	5,558.24	0.00	0.00	0.00
15,800.00	93.38	359.38	9,786.39	5,665.89	691.86	629,594.49	800,855.14	32.7279538	-103.4894246	5,658.07	0.00	0.00	0.00
15,900.00	93.38	359.38	9,780.49	5,765.71	690.78	629,694.31	800,854.06	32.7282282	-103.4894255	5,757.89	0.00	0.00	0.00
15,942.18	93.38	359.38	9,778.00	5,807.81	690.33	629,736.41	800,853.61	32.7283439	-103.4894259	5,800.00	0.00	0.00	0.00
<b>Start DLS 2.00 TFO 0.07</b>													
16,000.00	94.54	359.38	9,774.01	5,865.49	689.71	629,794.09	800,852.99	32.7285024	-103.4894264	5,857.68	2.00	2.00	0.00
16,015.96	94.86	359.38	9,772.70	5,881.39	689.54	629,809.99	800,852.82	32.7285461	-103.4894265	5,873.59	2.00	2.00	0.00
<b>Hold - 16015.96' MD/9772.70' TVD</b>													
16,100.00	94.86	359.38	9,765.59	5,965.13	688.64	629,893.73	800,851.92	32.7287763	-103.4894273	5,957.33	0.00	0.00	0.00
16,200.00	94.86	359.38	9,757.12	6,064.76	687.57	629,993.36	800,850.85	32.7290501	-103.4894282	6,056.97	0.00	0.00	0.00
16,300.00	94.86	359.38	9,748.65	6,164.40	686.50	630,093.00	800,849.78	32.7293240	-103.4894291	6,156.61	0.00	0.00	0.00
16,400.00	94.86	359.38	9,740.19	6,264.03	685.43	630,192.63	800,848.71	32.7295979	-103.4894300	6,256.25	0.00	0.00	0.00
16,500.00	94.86	359.38	9,731.72	6,363.67	684.36	630,292.27	800,847.64	32.7298717	-103.4894309	6,355.89	0.00	0.00	0.00
16,600.00	94.86	359.38	9,723.26	6,463.30	683.29	630,391.90	800,846.57	32.7301456	-103.4894318	6,455.53	0.00	0.00	0.00
16,700.00	94.86	359.38	9,714.79	6,562.94	682.22	630,491.54	800,845.50	32.7304194	-103.4894327	6,555.17	0.00	0.00	0.00
16,800.00	94.86	359.38	9,706.32	6,662.57	681.15	630,591.17	800,844.43	32.7306933	-103.4894336	6,654.81	0.00	0.00	0.00
16,900.00	94.86	359.38	9,697.86	6,762.21	680.08	630,690.81	800,843.36	32.7309672	-103.4894345	6,754.45	0.00	0.00	0.00
17,000.00	94.86	359.38	9,689.39	6,861.84	679.01	630,790.44	800,842.29	32.7312410	-103.4894354	6,854.10	0.00	0.00	0.00
17,100.00	94.86	359.38	9,680.92	6,961.48	677.94	630,890.08	800,841.22	32.7315149	-103.4894363	6,953.74	0.00	0.00	0.00
17,200.00	94.86	359.38	9,672.46	7,061.11	676.87	630,989.71	800,840.15	32.7317887	-103.4894372	7,053.38	0.00	0.00	0.00
17,300.00	94.86	359.38	9,663.99	7,160.75	675.79	631,089.35	800,839.07	32.7320626	-103.4894381	7,153.02	0.00	0.00	0.00
17,347.15	94.86	359.38	9,660.00	7,207.73	675.29	631,136.33	800,838.57	32.7321917	-103.4894385	7,200.00	0.00	0.00	0.00
<b>Start DLS 2.00 TFO -0.04</b>													
17,357.27	95.06	359.38	9,659.13	7,217.81	675.18	631,146.41	800,838.46	32.7322194	-103.4894386	7,210.08	2.00	2.00	0.00
<b>Hold - 17357.27' MD/9659.13' TVD</b>													

### Total Directional Planned Survey Report



<b>Company:</b> Coterra Energy	<b>Local Co-ordinate Reference:</b> Well Rope State Com 504H
<b>Project:</b> Lea County, NM (NAD 83)	<b>TVD Reference:</b> GE 3939' + KB 23' @ 3962.00usft
<b>Site:</b> Rope State Com Pad	<b>MD Reference:</b> GE 3939' + KB 23' @ 3962.00usft
<b>Well:</b> Rope State Com 504H	<b>North Reference:</b> Grid
<b>Wellbore:</b> OH	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Plan #2	<b>Database:</b> .Total Directional Production DB

Planned Survey													
Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates (usft)		Map Coordinates (usft)		Geo Coordinates (°)		Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
				+N/-S	+E/-W	Northing	Easting	Latitude	Longitude				
17,400.00	95.06	359.38	9,655.36	7,260.37	674.72	631,188.97	800,838.00	32.7323364	-103.4894390	7,252.64	0.00	0.00	0.00
17,500.00	95.06	359.38	9,646.54	7,359.98	673.65	631,288.58	800,836.93	32.7326102	-103.4894399	7,352.25	0.00	0.00	0.00
17,600.00	95.06	359.38	9,637.72	7,459.58	672.58	631,388.18	800,835.86	32.7328840	-103.4894408	7,451.87	0.00	0.00	0.00
17,700.00	95.06	359.38	9,628.90	7,559.18	671.51	631,487.78	800,834.79	32.7331577	-103.4894417	7,551.48	0.00	0.00	0.00
17,800.00	95.06	359.38	9,620.09	7,658.79	670.44	631,587.39	800,833.72	32.7334315	-103.4894426	7,651.09	0.00	0.00	0.00
17,900.00	95.06	359.38	9,611.27	7,758.39	669.37	631,686.99	800,832.65	32.7337053	-103.4894435	7,750.70	0.00	0.00	0.00
18,000.00	95.06	359.38	9,602.45	7,858.00	668.30	631,786.60	800,831.58	32.7339791	-103.4894444	7,850.31	0.00	0.00	0.00
18,100.00	95.06	359.38	9,593.63	7,957.60	667.23	631,886.20	800,830.51	32.7342528	-103.4894453	7,949.92	0.00	0.00	0.00
18,200.00	95.06	359.38	9,584.81	8,057.21	666.16	631,985.81	800,829.44	32.7345266	-103.4894462	8,049.53	0.00	0.00	0.00
18,300.00	95.06	359.38	9,576.00	8,156.81	665.09	632,085.41	800,828.37	32.7348004	-103.4894471	8,149.14	0.00	0.00	0.00
18,400.00	95.06	359.38	9,567.18	8,256.42	664.02	632,185.02	800,827.30	32.7350742	-103.4894480	8,248.75	0.00	0.00	0.00
18,500.00	95.06	359.38	9,558.36	8,356.02	662.95	632,284.62	800,826.23	32.7353479	-103.4894489	8,348.36	0.00	0.00	0.00
18,600.00	95.06	359.38	9,549.54	8,455.63	661.88	632,384.23	800,825.16	32.7356217	-103.4894498	8,447.97	0.00	0.00	0.00
18,700.00	95.06	359.38	9,540.72	8,555.23	660.81	632,483.83	800,824.09	32.7358955	-103.4894507	8,547.58	0.00	0.00	0.00
18,800.00	95.06	359.38	9,531.91	8,654.84	659.74	632,583.44	800,823.02	32.7361693	-103.4894516	8,647.19	0.00	0.00	0.00
18,900.00	95.06	359.38	9,523.09	8,754.44	658.67	632,683.04	800,821.95	32.7364430	-103.4894525	8,746.80	0.00	0.00	0.00
19,000.00	95.06	359.38	9,514.27	8,854.05	657.60	632,782.65	800,820.88	32.7367168	-103.4894534	8,846.41	0.00	0.00	0.00
19,100.00	95.06	359.38	9,505.45	8,953.65	656.53	632,882.25	800,819.81	32.7369906	-103.4894543	8,946.02	0.00	0.00	0.00
19,200.00	95.06	359.38	9,496.63	9,053.26	655.46	632,981.86	800,818.74	32.7372644	-103.4894552	9,045.63	0.00	0.00	0.00
19,300.00	95.06	359.38	9,487.82	9,152.86	654.39	633,081.46	800,817.67	32.7375382	-103.4894561	9,145.24	0.00	0.00	0.00
19,400.00	95.06	359.38	9,479.00	9,252.46	653.32	633,181.06	800,816.60	32.7378119	-103.4894570	9,244.85	0.00	0.00	0.00
19,500.00	95.06	359.38	9,470.18	9,352.07	652.25	633,280.67	800,815.53	32.7380857	-103.4894579	9,344.46	0.00	0.00	0.00
19,600.00	95.06	359.38	9,461.36	9,451.67	651.18	633,380.27	800,814.46	32.7383595	-103.4894588	9,444.07	0.00	0.00	0.00
19,700.00	95.06	359.38	9,452.54	9,551.28	650.11	633,479.88	800,813.39	32.7386333	-103.4894597	9,543.68	0.00	0.00	0.00
19,800.00	95.06	359.38	9,443.72	9,650.88	649.04	633,579.48	800,812.32	32.7389070	-103.4894606	9,643.30	0.00	0.00	0.00
19,900.00	95.06	359.38	9,434.91	9,750.49	647.97	633,679.09	800,811.25	32.7391808	-103.4894615	9,742.91	0.00	0.00	0.00
20,000.00	95.06	359.38	9,426.09	9,850.09	646.90	633,778.69	800,810.18	32.7394546	-103.4894624	9,842.52	0.00	0.00	0.00
20,057.71	95.06	359.38	9,421.00	9,907.57	646.28	633,836.17	800,809.56	32.7396126	-103.4894629	9,900.00	0.00	0.00	0.00
<b>Start DLS 2.00 TFO 0.02</b>													
20,099.22	95.89	359.38	9,417.04	9,948.90	645.84	633,877.50	800,809.12	32.7397261	-103.4894633	9,941.32	2.00	2.00	0.00
<b>Hold - 20099.22' MD/9417.04' TVD</b>													
20,200.00	95.89	359.38	9,406.70	10,049.14	644.76	633,977.73	800,808.04	32.7400017	-103.4894642	10,041.57	0.00	0.00	0.00
20,300.00	95.89	359.38	9,396.44	10,148.60	643.69	634,077.20	800,806.97	32.7402751	-103.4894651	10,141.04	0.00	0.00	0.00
20,400.00	95.89	359.38	9,386.18	10,248.07	642.62	634,176.67	800,805.90	32.7405485	-103.4894660	10,240.51	0.00	0.00	0.00
20,500.00	95.89	359.38	9,375.92	10,347.53	641.55	634,276.13	800,804.83	32.7408219	-103.4894669	10,339.99	0.00	0.00	0.00
20,600.00	95.89	359.38	9,365.66	10,447.00	640.49	634,375.60	800,803.77	32.7410952	-103.4894678	10,439.46	0.00	0.00	0.00
20,700.00	95.89	359.38	9,355.40	10,546.47	639.42	634,475.07	800,802.70	32.7413686	-103.4894687	10,538.93	0.00	0.00	0.00

### Total Directional Planned Survey Report



<b>Company:</b> Coterra Energy	<b>Local Co-ordinate Reference:</b> Well Rope State Com 504H
<b>Project:</b> Lea County, NM (NAD 83)	<b>TVD Reference:</b> GE 3939' + KB 23' @ 3962.00usft
<b>Site:</b> Rope State Com Pad	<b>MD Reference:</b> GE 3939' + KB 23' @ 3962.00usft
<b>Well:</b> Rope State Com 504H	<b>North Reference:</b> Grid
<b>Wellbore:</b> OH	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Plan #2	<b>Database:</b> .Total Directional Production DB

**Planned Survey**

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
20,800.00	95.89	359.38	9,345.14	10,645.93	638.35	634,574.53	800,801.63	32.7416420	-103.4894696	10,638.40	0.00	0.00	0.00
20,900.00	95.89	359.38	9,334.87	10,745.40	637.28	634,674.00	800,800.56	32.7419154	-103.4894705	10,737.88	0.00	0.00	0.00
21,000.00	95.89	359.38	9,324.61	10,844.87	636.21	634,773.47	800,799.49	32.7421888	-103.4894714	10,837.35	0.00	0.00	0.00
21,100.00	95.89	359.38	9,314.35	10,944.33	635.14	634,872.93	800,798.42	32.7424622	-103.4894723	10,936.82	0.00	0.00	0.00
21,200.00	95.89	359.38	9,304.09	11,043.80	634.08	634,972.40	800,797.36	32.7427356	-103.4894732	11,036.29	0.00	0.00	0.00
21,300.00	95.89	359.38	9,293.83	11,143.27	633.01	635,071.87	800,796.29	32.7430090	-103.4894741	11,135.76	0.00	0.00	0.00
21,400.00	95.89	359.38	9,283.57	11,242.73	631.94	635,171.33	800,795.22	32.7432824	-103.4894750	11,235.24	0.00	0.00	0.00
21,500.00	95.89	359.38	9,273.31	11,342.20	630.87	635,270.80	800,794.15	32.7435558	-103.4894759	11,334.71	0.00	0.00	0.00
21,600.00	95.89	359.38	9,263.05	11,441.67	629.80	635,370.27	800,793.08	32.7438292	-103.4894768	11,434.18	0.00	0.00	0.00
21,700.00	95.89	359.38	9,252.79	11,541.13	628.73	635,469.73	800,792.01	32.7441026	-103.4894776	11,533.65	0.00	0.00	0.00
21,800.00	95.89	359.38	9,242.53	11,640.60	627.67	635,569.20	800,790.95	32.7443760	-103.4894785	11,633.13	0.00	0.00	0.00
21,900.00	95.89	359.38	9,232.27	11,740.07	626.60	635,668.66	800,789.88	32.7446494	-103.4894794	11,732.60	0.00	0.00	0.00
22,000.00	95.89	359.38	9,222.01	11,839.53	625.53	635,768.13	800,788.81	32.7449228	-103.4894803	11,832.07	0.00	0.00	0.00
22,068.29	95.89	359.38	9,215.00	11,907.46	624.80	635,836.06	800,788.08	32.7451095	-103.4894810	11,900.00	0.00	0.00	0.00
<b>Start DLS 2.00 TFO -0.01</b>													
22,100.00	96.52	359.38	9,211.57	11,938.98	624.46	635,867.58	800,787.74	32.7451961	-103.4894812	11,931.52	2.00	2.00	0.00
22,182.30	98.17	359.38	9,201.05	12,020.59	623.58	635,949.19	800,786.86	32.7454205	-103.4894820	12,013.14	2.00	2.00	0.00
<b>Hold - 22182.30' MD/9201.05' TVD</b>													
22,200.00	98.17	359.38	9,198.53	12,038.12	623.40	635,966.72	800,786.68	32.7454686	-103.4894821	12,030.67	0.00	0.00	0.00
22,300.00	98.17	359.38	9,184.32	12,137.10	622.33	636,065.69	800,785.61	32.7457407	-103.4894830	12,129.65	0.00	0.00	0.00
22,400.00	98.17	359.38	9,170.11	12,236.07	621.27	636,164.67	800,784.55	32.7460127	-103.4894839	12,228.64	0.00	0.00	0.00
22,500.00	98.17	359.38	9,155.90	12,335.05	620.20	636,263.65	800,783.48	32.7462848	-103.4894848	12,327.62	0.00	0.00	0.00
22,600.00	98.17	359.38	9,141.69	12,434.03	619.14	636,362.63	800,782.42	32.7465568	-103.4894857	12,426.61	0.00	0.00	0.00
22,700.00	98.17	359.38	9,127.48	12,533.01	618.08	636,461.61	800,781.36	32.7468289	-103.4894866	12,525.59	0.00	0.00	0.00
22,800.00	98.17	359.38	9,113.27	12,631.99	617.01	636,560.59	800,780.29	32.7471010	-103.4894875	12,624.58	0.00	0.00	0.00
22,900.00	98.17	359.38	9,099.06	12,730.97	615.95	636,659.57	800,779.23	32.7473730	-103.4894884	12,723.56	0.00	0.00	0.00
23,000.00	98.17	359.38	9,084.85	12,829.95	614.89	636,758.55	800,778.17	32.7476451	-103.4894893	12,822.55	0.00	0.00	0.00
23,100.00	98.17	359.38	9,070.64	12,928.93	613.82	636,857.53	800,777.10	32.7479171	-103.4894902	12,921.53	0.00	0.00	0.00
23,200.00	98.17	359.38	9,056.43	13,027.91	612.76	636,956.51	800,776.04	32.7481892	-103.4894911	13,020.52	0.00	0.00	0.00
23,300.00	98.17	359.38	9,042.22	13,126.89	611.69	637,055.49	800,774.97	32.7484612	-103.4894920	13,119.50	0.00	0.00	0.00
23,400.00	98.17	359.38	9,028.01	13,225.87	610.63	637,154.47	800,773.91	32.7487333	-103.4894929	13,218.49	0.00	0.00	0.00
23,500.00	98.17	359.38	9,013.80	13,324.85	609.57	637,253.45	800,772.85	32.7490053	-103.4894938	13,317.47	0.00	0.00	0.00
23,600.00	98.17	359.38	8,999.59	13,423.83	608.50	637,352.43	800,771.78	32.7492774	-103.4894947	13,416.46	0.00	0.00	0.00
23,700.00	98.17	359.38	8,985.38	13,522.81	607.44	637,451.41	800,770.72	32.7495495	-103.4894956	13,515.44	0.00	0.00	0.00
23,800.00	98.17	359.38	8,971.17	13,621.79	606.38	637,550.39	800,769.66	32.7498215	-103.4894964	13,614.43	0.00	0.00	0.00
23,900.00	98.17	359.38	8,956.96	13,720.77	605.31	637,649.37	800,768.59	32.7500936	-103.4894973	13,713.41	0.00	0.00	0.00
24,000.00	98.17	359.38	8,942.75	13,819.75	604.25	637,748.35	800,767.53	32.7503656	-103.4894982	13,812.40	0.00	0.00	0.00
24,100.00	98.17	359.38	8,928.54	13,918.73	603.19	637,847.33	800,766.46	32.7506377	-103.4894991	13,911.38	0.00	0.00	0.00

# Total Directional Planned Survey Report



<b>Company:</b> Coterra Energy	<b>Local Co-ordinate Reference:</b> Well Rope State Com 504H
<b>Project:</b> Lea County, NM (NAD 83)	<b>TVD Reference:</b> GE 3939' + KB 23' @ 3962.00usft
<b>Site:</b> Rope State Com Pad	<b>MD Reference:</b> GE 3939' + KB 23' @ 3962.00usft
<b>Well:</b> Rope State Com 504H	<b>North Reference:</b> Grid
<b>Wellbore:</b> OH	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Plan #2	<b>Database:</b> .Total Directional Production DB

**Planned Survey**

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates (usft)		Map Coordinates (usft)		Geo Coordinates (°)		Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
				+N/-S	+E/-W	Northing	Easting	Latitude	Longitude				
24,139.01	98.17	359.38	8,923.00	13,957.34	602.77	637,885.94	800,766.05	32.7507438	-103.4894995	13,950.00	0.00	0.00	0.00
<b>Start DLS 2.00 TFO 0.00</b>													
24,200.00	99.39	359.38	8,913.69	14,017.61	602.12	637,946.21	800,765.40	32.7509095	-103.4895000	14,010.27	2.00	2.00	0.00
24,300.00	101.39	359.38	8,895.66	14,115.96	601.07	638,044.56	800,764.35	32.7511798	-103.4895009	14,108.63	2.00	2.00	0.00
24,400.00	103.39	359.38	8,874.21	14,213.62	600.02	638,142.22	800,763.30	32.7514482	-103.4895018	14,206.29	2.00	2.00	0.00
24,500.00	105.39	359.38	8,849.36	14,310.47	598.98	638,239.07	800,762.26	32.7517144	-103.4895027	14,303.15	2.00	2.00	0.00
24,513.17	105.65	359.38	8,845.83	14,323.16	598.84	638,251.76	800,762.12	32.7517493	-103.4895028	14,315.84	2.00	2.00	0.00
<b>Hold - 24513.17' MD/8845.83' TVD</b>													
24,600.00	105.65	359.38	8,822.41	14,406.77	597.94	638,335.37	800,761.22	32.7519791	-103.4895035	14,399.45	0.00	0.00	0.00
24,700.00	105.65	359.38	8,795.42	14,503.05	596.91	638,431.65	800,760.19	32.7522438	-103.4895044	14,495.74	0.00	0.00	0.00
24,800.00	105.65	359.38	8,768.44	14,599.34	595.87	638,527.94	800,759.15	32.7525084	-103.4895053	14,592.04	0.00	0.00	0.00
24,900.00	105.65	359.38	8,741.46	14,695.62	594.84	638,624.22	800,758.12	32.7527731	-103.4895061	14,688.33	0.00	0.00	0.00
25,000.00	105.65	359.38	8,714.48	14,791.91	593.80	638,720.51	800,757.08	32.7530377	-103.4895070	14,784.62	0.00	0.00	0.00
25,100.00	105.65	359.38	8,687.50	14,888.20	592.77	638,816.80	800,756.05	32.7533024	-103.4895079	14,880.91	0.00	0.00	0.00
25,200.00	105.65	359.38	8,660.52	14,984.48	591.73	638,913.08	800,755.01	32.7535670	-103.4895088	14,977.20	0.00	0.00	0.00
25,300.00	105.65	359.38	8,633.54	15,080.77	590.70	639,009.37	800,753.98	32.7538317	-103.4895096	15,073.49	0.00	0.00	0.00
25,400.00	105.65	359.38	8,606.56	15,177.05	589.67	639,105.65	800,752.95	32.7540963	-103.4895105	15,169.79	0.00	0.00	0.00
25,500.00	105.65	359.38	8,579.58	15,273.34	588.63	639,201.94	800,751.91	32.7543610	-103.4895114	15,266.08	0.00	0.00	0.00
25,600.00	105.65	359.38	8,552.60	15,369.63	587.60	639,298.23	800,750.88	32.7546256	-103.4895122	15,362.37	0.00	0.00	0.00
25,700.00	105.65	359.38	8,525.62	15,465.91	586.56	639,394.51	800,749.84	32.7548903	-103.4895131	15,458.66	0.00	0.00	0.00
25,800.00	105.65	359.38	8,498.64	15,562.20	585.53	639,490.80	800,748.81	32.7551550	-103.4895140	15,554.95	0.00	0.00	0.00
25,900.00	105.65	359.38	8,471.66	15,658.48	584.49	639,587.08	800,747.77	32.7554196	-103.4895148	15,651.24	0.00	0.00	0.00
25,950.64	105.65	359.38	8,458.00	15,707.24	583.97	639,635.84	800,747.25	32.7555536	-103.4895153	15,700.00	0.00	0.00	0.00
<b>Start DLS 2.00 TFO -180.00</b>													
26,000.00	104.67	359.38	8,445.09	15,754.88	583.46	639,683.48	800,746.74	32.7556846	-103.4895157	15,747.65	2.00	-2.00	0.00
26,100.00	102.67	359.38	8,421.47	15,852.04	582.41	639,780.64	800,745.69	32.7559516	-103.4895166	15,844.81	2.00	-2.00	0.00
26,200.00	100.67	359.38	8,401.25	15,949.97	581.36	639,878.57	800,744.64	32.7562208	-103.4895175	15,942.74	2.00	-2.00	0.00
26,300.00	98.67	359.38	8,384.46	16,048.54	580.30	639,977.14	800,743.58	32.7564917	-103.4895184	16,041.32	2.00	-2.00	0.00
26,400.00	96.67	359.38	8,371.12	16,147.63	579.24	640,076.23	800,742.52	32.7567641	-103.4895193	16,140.42	2.00	-2.00	0.00
26,509.06	94.48	359.38	8,360.53	16,256.16	578.07	640,184.76	800,741.35	32.7570624	-103.4895202	16,248.95	2.00	-2.00	0.00
<b>Hold - 26509.06' MD/8360.53' TVD</b>													
26,600.00	94.48	359.38	8,353.42	16,346.82	577.10	640,275.42	800,740.38	32.7573116	-103.4895211	16,339.62	0.00	0.00	0.00
26,700.00	94.48	359.38	8,345.60	16,446.51	576.03	640,375.11	800,739.31	32.7575856	-103.4895220	16,439.31	0.00	0.00	0.00
26,800.00	94.48	359.38	8,337.78	16,546.20	574.96	640,474.79	800,738.24	32.7578596	-103.4895229	16,539.01	0.00	0.00	0.00
26,861.19	94.48	359.38	8,333.00	16,607.19	574.30	640,535.79	800,737.58	32.7580272	-103.4895234	16,600.00	0.00	0.00	0.00
<b>Start DLS 2.00 TFO 0.00</b>													
26,900.00	95.26	359.38	8,329.70	16,645.86	573.88	640,574.46	800,737.16	32.7581335	-103.4895238	16,638.68	2.00	2.00	0.00
27,000.00	97.26	359.38	8,318.80	16,745.25	572.82	640,673.85	800,736.10	32.7584067	-103.4895246	16,738.08	2.00	2.00	0.00
27,061.98	98.50	359.38	8,310.30	16,806.64	572.16	640,735.24	800,735.44	32.7585754	-103.4895252	16,799.47	2.00	2.00	0.00

# Total Directional Planned Survey Report



<b>Company:</b> Coterra Energy	<b>Local Co-ordinate Reference:</b> Well Rope State Com 504H
<b>Project:</b> Lea County, NM (NAD 83)	<b>TVD Reference:</b> GE 3939' + KB 23' @ 3962.00usft
<b>Site:</b> Rope State Com Pad	<b>MD Reference:</b> GE 3939' + KB 23' @ 3962.00usft
<b>Well:</b> Rope State Com 504H	<b>North Reference:</b> Grid
<b>Wellbore:</b> OH	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Plan #2	<b>Database:</b> .Total Directional Production DB

**Planned Survey**

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
<b>Hold - 27061.98' MD/8310.30' TVD</b>													
27,100.00	98.50	359.38	8,304.68	16,844.24	571.75	640,772.84	800,735.03	32.7586788	-103.4895255	16,837.07	0.00	0.00	0.00
27,200.00	98.50	359.38	8,289.90	16,943.14	570.69	640,871.74	800,733.97	32.7589506	-103.4895264	16,935.97	0.00	0.00	0.00
27,300.00	98.50	359.38	8,275.12	17,042.04	569.63	640,970.64	800,732.91	32.7592224	-103.4895273	17,034.87	0.00	0.00	0.00
27,400.00	98.50	359.38	8,260.34	17,140.93	568.57	641,069.53	800,731.85	32.7594943	-103.4895282	17,133.78	0.00	0.00	0.00
27,500.00	98.50	359.38	8,245.56	17,239.83	567.50	641,168.43	800,730.78	32.7597661	-103.4895291	17,232.68	0.00	0.00	0.00
27,600.00	98.50	359.38	8,230.78	17,338.72	566.44	641,267.32	800,729.72	32.7600379	-103.4895300	17,331.58	0.00	0.00	0.00
27,700.00	98.50	359.38	8,216.00	17,437.62	565.38	641,366.22	800,728.66	32.7603098	-103.4895309	17,430.48	0.00	0.00	0.00
27,800.00	98.50	359.38	8,201.22	17,536.52	564.32	641,465.12	800,727.60	32.7605816	-103.4895318	17,529.38	0.00	0.00	0.00
27,900.00	98.50	359.38	8,186.44	17,635.41	563.25	641,564.01	800,726.53	32.7608534	-103.4895327	17,628.28	0.00	0.00	0.00
28,000.00	98.50	359.38	8,171.65	17,734.31	562.19	641,662.91	800,725.47	32.7611252	-103.4895336	17,727.19	0.00	0.00	0.00
28,100.00	98.50	359.38	8,156.87	17,833.20	561.13	641,761.80	800,724.41	32.7613971	-103.4895345	17,826.09	0.00	0.00	0.00
28,200.00	98.50	359.38	8,142.09	17,932.10	560.07	641,860.70	800,723.35	32.7616689	-103.4895353	17,924.99	0.00	0.00	0.00
28,300.00	98.50	359.38	8,127.31	18,031.00	559.01	641,959.60	800,722.29	32.7619407	-103.4895362	18,023.89	0.00	0.00	0.00
28,349.47	98.50	359.38	8,120.00	18,079.92	558.48	642,008.52	800,721.76	32.7620752	-103.4895367	18,072.82	0.00	0.00	0.00
<b>TD - 28349.47' MD - LTP/PBHL - 2545' FSL, 360' FEL (RSC 504)</b>													

**Design Targets**

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LTP/PBHL - 2545' FSI - hit/miss target - Shape - plan hits target center - Point	0.00	0.00	8,120.00	18,079.92	558.48	642,008.52	800,721.76	32.7620752	-103.4895367
KOP/LP/FTP (RSC 504) - plan misses target center by 175.32usft at 9556.27usft MD (9513.82 TVD, -235.00 N, 580.00 E) - Point	0.00	0.00	9,513.82	-236.20	755.32	623,692.40	800,918.60	32.7117312	-103.4893710

## Total Directional Planned Survey Report



<b>Company:</b> Coterra Energy	<b>Local Co-ordinate Reference:</b> Well Rope State Com 504H
<b>Project:</b> Lea County, NM (NAD 83)	<b>TVD Reference:</b> GE 3939' + KB 23' @ 3962.00usft
<b>Site:</b> Rope State Com Pad	<b>MD Reference:</b> GE 3939' + KB 23' @ 3962.00usft
<b>Well:</b> Rope State Com 504H	<b>North Reference:</b> Grid
<b>Wellbore:</b> OH	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Plan #2	<b>Database:</b> .Total Directional Production DB

**Formations**

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,892.02	1,892.00	Rustler			
1,978.11	1,978.00	A3 Top			
2,076.43	2,076.00	A3 Base (Tamarisk)			
2,157.93	2,157.00	Top Salt/Salado			
5,762.95	5,727.00	Base Salt/Lamar/CTRA_BASE_ANH			
5,887.15	5,850.00	Top Delaware Sands/Bell Canyon			
6,159.81	6,120.00	Cherry Canyon			
6,624.44	6,582.00	Brushy Canyon			
7,458.44	7,416.00	Basal Brushy Canyon			
7,612.44	7,570.00	Bone Spring Lime			
7,825.44	7,783.00	Leonard/Avalon Sand			
9,137.44	9,095.00	1st Bone Spring Sand			
9,682.46	9,639.00	2nd Bone Spring Sand			
10,238.79	10,046.00	2nd Bone Spring Sand Lower Target			

**Plan Annotations**

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1800	1800	0	0	Nudge, Build 2.00°/100'
2200	2199	-10	26	Hold - 2199.85' MD/2198.55' TVD
6298	6256	-225	554	Drop, 2.00°/100' DLS
6697	6655	-235	580	Hold - 6697.44' MD/6655.00' TVD
9556	9514	-235	580	KOP - Start 10.00°/100' DLS
10,306	10,067	189	603	75° Inc - 10306.26' MD/10067.25' TVD
10,679	10,104	558	624	LP - 10678.92' MD
12,447	9992	2319	722	Start DLS 2.00 TFO -89.92
12,636	9980	2508	726	Start DLS 2.00 TFO 176.52
12,639	9980	2511	726	Hold - 12639.34' MD/9979.79' TVD
14,840	9843	4708	702	Start DLS 2.00 TFO -179.59
14,849	9842	4717	702	Hold - 14849.37' MD/9842.45' TVD
15,942	9778	5808	690	Start DLS 2.00 TFO 0.07
16,016	9773	5881	690	Hold - 16015.96' MD/9772.70' TVD
17,347	9660	7208	675	Start DLS 2.00 TFO -0.04
17,357	9659	7218	675	Hold - 17357.27' MD/9659.13' TVD
20,058	9421	9908	646	Start DLS 2.00 TFO 0.02
20,099	9417	9949	646	Hold - 20099.22' MD/9417.04' TVD
22,068	9215	11,907	625	Start DLS 2.00 TFO -0.01
22,182	9201	12,021	624	Hold - 22182.30' MD/9201.05' TVD
24,139	8923	13,957	603	Start DLS 2.00 TFO 0.00
24,513	8846	14,323	599	Hold - 24513.17' MD/8845.83' TVD
25,951	8458	15,707	584	Start DLS 2.00 TFO -180.00
26,509	8361	16,256	578	Hold - 26509.06' MD/8360.53' TVD
26,861	8333	16,607	574	Start DLS 2.00 TFO 0.00
27,062	8310	16,807	572	Hold - 27061.98' MD/8310.30' TVD
28,349	8120	18,080	558	TD - 28349.47' MD

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

COMPANY Coterra Energy  
 FIELD Lea County, NM (NAD 83)  
 SITE Rope State Com Pad  
 WELL Rope State Com 504H  
 WELLPATH OH  
 DESIGN Plan #2  
 DEPTHUNT (usft)

WELL INFO

MAP DATUM North American Datum 1983  
 MAP SYSTEM US State Plane 1983  
 MAP ZONE New Mexico Eastern Zone  
 WELL LAT 32.712397  
 WELL LON -103.49182  
 WELL EW MAI 800163.28  
 WELL NS MAP 623928.6  
 CONVERGENC 0.45  
 MAGMODEL HDGM2026  
 DECLINATION 5.98  
 NORTH REF Grid  
 GROUND ELE\ 3939  
 KB ELEVN 3962  
 VS AZI 359.38

SURVEY PROGRAM

1 0.00 - 28349.47 PLAN #2 : MWD+IFR1+MS

SURVEY LIST

Measured Depth	Inclination	Azimuth	Course Length	True Vertical	SubSea TVD	Local N/-S
MD	INC	AZI	CL	TVD	SSTVD	NS
0.00	0.00	0.00	0.00	0.00	3962.00	0.00
100.00	0.00	0.00	100.00	100.00	3862.00	0.00
200.00	0.00	0.00	100.00	200.00	3762.00	0.00
300.00	0.00	0.00	100.00	300.00	3662.00	0.00
400.00	0.00	0.00	100.00	400.00	3562.00	0.00
500.00	0.00	0.00	100.00	500.00	3462.00	0.00
600.00	0.00	0.00	100.00	600.00	3362.00	0.00
700.00	0.00	0.00	100.00	700.00	3262.00	0.00
800.00	0.00	0.00	100.00	800.00	3162.00	0.00
900.00	0.00	0.00	100.00	900.00	3062.00	0.00
1000.00	0.00	0.00	100.00	1000.00	2962.00	0.00
1100.00	0.00	0.00	100.00	1100.00	2862.00	0.00
1200.00	0.00	0.00	100.00	1200.00	2762.00	0.00
1300.00	0.00	0.00	100.00	1300.00	2662.00	0.00

1400.00	0.00	0.00	100.00	1400.00	2562.00	0.00
1500.00	0.00	0.00	100.00	1500.00	2462.00	0.00
1600.00	0.00	0.00	100.00	1600.00	2362.00	0.00
1700.00	0.00	0.00	100.00	1700.00	2262.00	0.00
1800.00	0.00	0.00	100.00	1800.00	2162.00	0.00
1900.00	2.00	112.06	100.00	1899.98	2062.02	-0.66
2000.00	4.00	112.06	100.00	1999.84	1962.16	-2.62
2100.00	6.00	112.06	100.00	2099.45	1862.55	-5.89
2199.85	8.00	112.06	99.85	2198.55	1763.45	-10.46
2300.00	8.00	112.06	100.15	2297.73	1664.27	-15.69
2400.00	8.00	112.06	100.00	2396.76	1565.24	-20.92
2500.00	8.00	112.06	100.00	2495.78	1466.22	-26.14
2600.00	8.00	112.06	100.00	2594.81	1367.19	-31.37
2700.00	8.00	112.06	100.00	2693.84	1268.16	-36.59
2800.00	8.00	112.06	100.00	2792.87	1169.13	-41.82
2900.00	8.00	112.06	100.00	2891.89	1070.11	-47.04
3000.00	8.00	112.06	100.00	2990.92	971.08	-52.26
3100.00	8.00	112.06	100.00	3089.95	872.05	-57.49
3200.00	8.00	112.06	100.00	3188.98	773.02	-62.71
3300.00	8.00	112.06	100.00	3288.01	674.00	-67.94
3400.00	8.00	112.06	100.00	3387.03	574.97	-73.16
3500.00	8.00	112.06	100.00	3486.06	475.94	-78.39
3600.00	8.00	112.06	100.00	3585.09	376.91	-83.61
3700.00	8.00	112.06	100.00	3684.12	277.89	-88.83
3800.00	8.00	112.06	100.00	3783.14	178.86	-94.06
3900.00	8.00	112.06	100.00	3882.17	79.83	-99.28
4000.00	8.00	112.06	100.00	3981.20	-19.20	-104.51
4100.00	8.00	112.06	100.00	4080.23	-118.23	-109.73
4200.00	8.00	112.06	100.00	4179.25	-217.25	-114.96
4300.00	8.00	112.06	100.00	4278.28	-316.28	-120.18
4400.00	8.00	112.06	100.00	4377.31	-415.31	-125.40
4500.00	8.00	112.06	100.00	4476.34	-514.34	-130.63
4600.00	8.00	112.06	100.00	4575.36	-613.36	-135.85
4700.00	8.00	112.06	100.00	4674.39	-712.39	-141.08
4800.00	8.00	112.06	100.00	4773.42	-811.42	-146.30
4900.00	8.00	112.06	100.00	4872.45	-910.45	-151.52
5000.00	8.00	112.06	100.00	4971.47	-1009.47	-156.75
5100.00	8.00	112.06	100.00	5070.50	-1108.50	-161.97
5200.00	8.00	112.06	100.00	5169.53	-1207.53	-167.20
5300.00	8.00	112.06	100.00	5268.56	-1306.56	-172.42
5400.00	8.00	112.06	100.00	5367.58	-1405.58	-177.65
5500.00	8.00	112.06	100.00	5466.61	-1504.61	-182.87
5600.00	8.00	112.06	100.00	5565.64	-1603.64	-188.09
5700.00	8.00	112.06	100.00	5664.67	-1702.67	-193.32

5800.00	8.00	112.06	100.00	5763.69	-1801.69	-198.54
5900.00	8.00	112.06	100.00	5862.72	-1900.72	-203.77
6000.00	8.00	112.06	100.00	5961.75	-1999.75	-208.99
6100.00	8.00	112.06	100.00	6060.78	-2098.78	-214.22
6200.00	8.00	112.06	100.00	6159.80	-2197.80	-219.44
6297.59	8.00	112.06	97.59	6256.45	-2294.45	-224.54
6300.00	7.95	112.06	2.41	6258.83	-2296.83	-224.66
6400.00	5.95	112.06	100.00	6358.09	-2396.09	-229.21
6500.00	3.95	112.06	100.00	6457.71	-2495.71	-232.45
6600.00	1.95	112.06	100.00	6557.58	-2595.58	-234.38
6697.44	0.00	0.00	97.44	6655.00	-2693.00	-235.00
6700.00	0.00	0.00	2.56	6657.56	-2695.56	-235.00
6800.00	0.00	0.00	100.00	6757.56	-2795.56	-235.00
6900.00	0.00	0.00	100.00	6857.56	-2895.56	-235.00
7000.00	0.00	0.00	100.00	6957.56	-2995.56	-235.00
7100.00	0.00	0.00	100.00	7057.56	-3095.56	-235.00
7200.00	0.00	0.00	100.00	7157.56	-3195.56	-235.00
7300.00	0.00	0.00	100.00	7257.56	-3295.56	-235.00
7400.00	0.00	0.00	100.00	7357.56	-3395.56	-235.00
7500.00	0.00	0.00	100.00	7457.56	-3495.56	-235.00
7600.00	0.00	0.00	100.00	7557.56	-3595.56	-235.00
7700.00	0.00	0.00	100.00	7657.56	-3695.56	-235.00
7800.00	0.00	0.00	100.00	7757.56	-3795.56	-235.00
7900.00	0.00	0.00	100.00	7857.56	-3895.56	-235.00
8000.00	0.00	0.00	100.00	7957.56	-3995.56	-235.00
8100.00	0.00	0.00	100.00	8057.56	-4095.56	-235.00
8200.00	0.00	0.00	100.00	8157.56	-4195.56	-235.00
8300.00	0.00	0.00	100.00	8257.56	-4295.56	-235.00
8400.00	0.00	0.00	100.00	8357.56	-4395.56	-235.00
8500.00	0.00	0.00	100.00	8457.56	-4495.56	-235.00
8600.00	0.00	0.00	100.00	8557.56	-4595.56	-235.00
8700.00	0.00	0.00	100.00	8657.56	-4695.56	-235.00
8800.00	0.00	0.00	100.00	8757.56	-4795.56	-235.00
8900.00	0.00	0.00	100.00	8857.56	-4895.56	-235.00
9000.00	0.00	0.00	100.00	8957.56	-4995.56	-235.00
9100.00	0.00	0.00	100.00	9057.56	-5095.56	-235.00
9200.00	0.00	0.00	100.00	9157.56	-5195.56	-235.00
9300.00	0.00	0.00	100.00	9257.56	-5295.56	-235.00
9400.00	0.00	0.00	100.00	9357.56	-5395.56	-235.00
9500.00	0.00	0.00	100.00	9457.56	-5495.56	-235.00
9556.26	0.00	0.00	56.26	9513.82	-5551.82	-235.00
9600.00	4.37	3.17	43.74	9557.52	-5595.52	-233.33
9650.00	9.37	3.17	50.00	9607.14	-5645.14	-227.36
9700.00	14.37	3.17	50.00	9656.05	-5694.05	-217.09

9750.00	19.37	3.17	50.00	9703.89	-5741.89	-202.61
9800.00	24.37	3.17	50.00	9750.27	-5788.27	-184.01
9850.00	29.37	3.17	50.00	9794.86	-5832.86	-161.45
9900.00	34.37	3.17	50.00	9837.31	-5875.31	-135.10
9950.00	39.37	3.17	50.00	9877.29	-5915.29	-105.15
10000.00	44.37	3.17	50.00	9914.51	-5952.51	-71.84
10050.00	49.37	3.17	50.00	9948.68	-5986.68	-35.41
10100.00	54.37	3.17	50.00	9979.54	-6017.54	3.85
10150.00	59.37	3.17	50.00	10006.86	-6044.86	45.64
10200.00	64.37	3.17	50.00	10030.42	-6068.42	89.66
10250.00	69.37	3.17	50.00	10050.05	-6088.05	135.55
10300.00	74.37	3.17	50.00	10065.60	-6103.60	182.98
10306.26	75.00	3.17	6.26	10067.26	-6105.26	189.02
10400.00	79.69	3.17	93.74	10087.79	-6125.79	280.31
10500.00	84.69	3.17	100.00	10101.38	-6139.38	379.20
10600.00	89.69	3.17	100.00	10106.28	-6144.28	478.89
10678.92	93.63	3.18	78.92	10104.00	-6142.00	557.64
10700.00	93.63	3.18	21.09	10102.66	-6140.66	578.65
10800.00	93.63	3.18	100.00	10096.33	-6134.33	678.29
10900.00	93.63	3.18	100.00	10089.99	-6127.99	777.94
11000.00	93.63	3.18	100.00	10083.66	-6121.66	877.59
11100.00	93.63	3.18	100.00	10077.32	-6115.32	977.23
11200.00	93.63	3.18	100.00	10070.98	-6108.98	1076.88
11300.00	93.63	3.18	100.00	10064.65	-6102.65	1176.52
11400.00	93.63	3.18	100.00	10058.31	-6096.31	1276.17
11500.00	93.63	3.18	100.00	10051.98	-6089.98	1375.82
11600.00	93.63	3.18	100.00	10045.64	-6083.64	1475.46
11700.00	93.63	3.18	100.00	10039.30	-6077.30	1575.11
11800.00	93.63	3.18	100.00	10032.97	-6070.97	1674.75
11900.00	93.63	3.18	100.00	10026.63	-6064.63	1774.40
12000.00	93.63	3.18	100.00	10020.30	-6058.30	1874.05
12100.00	93.63	3.18	100.00	10013.96	-6051.96	1973.69
12200.00	93.63	3.18	100.00	10007.62	-6045.62	2073.34
12300.00	93.63	3.18	100.00	10001.29	-6039.29	2172.98
12400.00	93.63	3.18	100.00	9994.95	-6032.95	2272.63
12446.64	93.63	3.18	46.64	9992.00	-6030.00	2319.10
12500.00	93.63	2.11	53.36	9988.62	-6026.62	2372.30
12600.00	93.63	0.10	100.00	9982.28	-6020.28	2472.08
12636.00	93.63	359.38	36.00	9980.00	-6018.00	2508.00
12639.34	93.56	359.38	3.34	9979.79	-6017.79	2511.33
12700.00	93.56	359.38	60.66	9976.02	-6014.02	2571.87
12800.00	93.56	359.38	100.00	9969.81	-6007.81	2671.68
12900.00	93.56	359.38	100.00	9963.59	-6001.59	2771.48
13000.00	93.56	359.38	100.00	9957.38	-5995.38	2871.28

13100.00	93.56	359.38	100.00	9951.16	-5989.16	2971.08
13200.00	93.56	359.38	100.00	9944.94	-5982.94	3070.88
13300.00	93.56	359.38	100.00	9938.73	-5976.73	3170.68
13400.00	93.56	359.38	100.00	9932.51	-5970.51	3270.48
13500.00	93.56	359.38	100.00	9926.30	-5964.30	3370.28
13600.00	93.56	359.38	100.00	9920.08	-5958.08	3470.08
13700.00	93.56	359.38	100.00	9913.87	-5951.87	3569.88
13800.00	93.56	359.38	100.00	9907.65	-5945.65	3669.68
13900.00	93.56	359.38	100.00	9901.44	-5939.44	3769.49
14000.00	93.56	359.38	100.00	9895.22	-5933.22	3869.29
14100.00	93.56	359.38	100.00	9889.01	-5927.01	3969.09
14200.00	93.56	359.38	100.00	9882.79	-5920.79	4068.89
14300.00	93.56	359.38	100.00	9876.58	-5914.58	4168.69
14400.00	93.56	359.38	100.00	9870.36	-5908.36	4268.49
14500.00	93.56	359.38	100.00	9864.15	-5902.15	4368.29
14600.00	93.56	359.38	100.00	9857.93	-5895.93	4468.09
14700.00	93.56	359.38	100.00	9851.72	-5889.72	4567.89
14800.00	93.56	359.38	100.00	9845.50	-5883.50	4667.69
14840.26	93.56	359.38	40.26	9843.00	-5881.00	4707.87
14849.38	93.38	359.38	9.12	9842.45	-5880.45	4716.97
14900.00	93.38	359.38	50.63	9839.46	-5877.46	4767.51
15000.00	93.38	359.38	100.00	9833.57	-5871.57	4867.33
15100.00	93.38	359.38	100.00	9827.67	-5865.67	4967.15
15200.00	93.38	359.38	100.00	9821.77	-5859.77	5066.97
15300.00	93.38	359.38	100.00	9815.87	-5853.87	5166.79
15400.00	93.38	359.38	100.00	9809.98	-5847.98	5266.61
15500.00	93.38	359.38	100.00	9804.08	-5842.08	5366.43
15600.00	93.38	359.38	100.00	9798.18	-5836.18	5466.25
15700.00	93.38	359.38	100.00	9792.28	-5830.28	5566.07
15800.00	93.38	359.38	100.00	9786.39	-5824.39	5665.89
15900.00	93.38	359.38	100.00	9780.49	-5818.49	5765.71
15942.18	93.38	359.38	42.18	9778.00	-5816.00	5807.81
16000.00	94.54	359.38	57.82	9774.01	-5812.01	5865.49
16015.96	94.86	359.39	15.96	9772.70	-5810.70	5881.39
16100.00	94.86	359.39	84.04	9765.59	-5803.59	5965.13
16200.00	94.86	359.39	100.00	9757.12	-5795.12	6064.76
16300.00	94.86	359.39	100.00	9748.65	-5786.65	6164.40
16400.00	94.86	359.39	100.00	9740.19	-5778.19	6264.03
16500.00	94.86	359.39	100.00	9731.72	-5769.72	6363.67
16600.00	94.86	359.39	100.00	9723.26	-5761.26	6463.30
16700.00	94.86	359.39	100.00	9714.79	-5752.79	6562.94
16800.00	94.86	359.39	100.00	9706.32	-5744.32	6662.57
16900.00	94.86	359.39	100.00	9697.86	-5735.86	6762.21
17000.00	94.86	359.39	100.00	9689.39	-5727.39	6861.84

17100.00	94.86	359.39	100.00	9680.92	-5718.92	6961.48
17200.00	94.86	359.39	100.00	9672.46	-5710.46	7061.12
17300.00	94.86	359.39	100.00	9663.99	-5701.99	7160.75
17347.15	94.86	359.39	47.15	9660.00	-5698.00	7207.73
17357.27	95.06	359.38	10.12	9659.13	-5697.13	7217.81
17400.00	95.06	359.38	42.73	9655.36	-5693.36	7260.37
17500.00	95.06	359.38	100.00	9646.54	-5684.54	7359.98
17600.00	95.06	359.38	100.00	9637.72	-5675.72	7459.58
17700.00	95.06	359.38	100.00	9628.90	-5666.90	7559.19
17800.00	95.06	359.38	100.00	9620.09	-5658.09	7658.79
17900.00	95.06	359.38	100.00	9611.27	-5649.27	7758.39
18000.00	95.06	359.38	100.00	9602.45	-5640.45	7858.00
18100.00	95.06	359.38	100.00	9593.63	-5631.63	7957.60
18200.00	95.06	359.38	100.00	9584.81	-5622.81	8057.21
18300.00	95.06	359.38	100.00	9576.00	-5614.00	8156.81
18400.00	95.06	359.38	100.00	9567.18	-5605.18	8256.42
18500.00	95.06	359.38	100.00	9558.36	-5596.36	8356.02
18600.00	95.06	359.38	100.00	9549.54	-5587.54	8455.63
18700.00	95.06	359.38	100.00	9540.72	-5578.72	8555.23
18800.00	95.06	359.38	100.00	9531.91	-5569.91	8654.84
18900.00	95.06	359.38	100.00	9523.09	-5561.09	8754.44
19000.00	95.06	359.38	100.00	9514.27	-5552.27	8854.05
19100.00	95.06	359.38	100.00	9505.45	-5543.45	8953.65
19200.00	95.06	359.38	100.00	9496.63	-5534.63	9053.26
19300.00	95.06	359.38	100.00	9487.82	-5525.82	9152.86
19400.00	95.06	359.38	100.00	9479.00	-5517.00	9252.47
19500.00	95.06	359.38	100.00	9470.18	-5508.18	9352.07
19600.00	95.06	359.38	100.00	9461.36	-5499.36	9451.67
19700.00	95.06	359.38	100.00	9452.54	-5490.54	9551.28
19800.00	95.06	359.38	100.00	9443.73	-5481.73	9650.88
19900.00	95.06	359.38	100.00	9434.91	-5472.91	9750.49
20000.00	95.06	359.38	100.00	9426.09	-5464.09	9850.09
20057.71	95.06	359.38	57.71	9421.00	-5459.00	9907.57
20099.22	95.89	359.39	41.52	9417.04	-5455.04	9948.90
20200.00	95.89	359.39	100.78	9406.70	-5444.70	10049.14
20300.00	95.89	359.39	100.00	9396.44	-5434.44	10148.60
20400.00	95.89	359.39	100.00	9386.18	-5424.18	10248.07
20500.00	95.89	359.39	100.00	9375.92	-5413.92	10347.53
20600.00	95.89	359.39	100.00	9365.66	-5403.66	10447.00
20700.00	95.89	359.39	100.00	9355.40	-5393.40	10546.47
20800.00	95.89	359.39	100.00	9345.14	-5383.14	10645.93
20900.00	95.89	359.39	100.00	9334.87	-5372.87	10745.40
21000.00	95.89	359.39	100.00	9324.61	-5362.61	10844.87
21100.00	95.89	359.39	100.00	9314.35	-5352.35	10944.33

21200.00	95.89	359.39	100.00	9304.09	-5342.09	11043.80
21300.00	95.89	359.39	100.00	9293.83	-5331.83	11143.27
21400.00	95.89	359.39	100.00	9283.57	-5321.57	11242.73
21500.00	95.89	359.39	100.00	9273.31	-5311.31	11342.20
21600.00	95.89	359.39	100.00	9263.05	-5301.05	11441.67
21700.00	95.89	359.39	100.00	9252.79	-5290.79	11541.13
21800.00	95.89	359.39	100.00	9242.53	-5280.53	11640.60
21900.00	95.89	359.39	100.00	9232.27	-5270.27	11740.07
22000.00	95.89	359.39	100.00	9222.01	-5260.01	11839.53
22068.29	95.89	359.39	68.29	9215.00	-5253.00	11907.46
22100.00	96.52	359.39	31.71	9211.57	-5249.57	11938.98
22182.30	98.17	359.38	82.30	9201.05	-5239.05	12020.59
22200.00	98.17	359.38	17.70	9198.53	-5236.53	12038.12
22300.00	98.17	359.38	100.00	9184.32	-5222.32	12137.10
22400.00	98.17	359.38	100.00	9170.11	-5208.11	12236.07
22500.00	98.17	359.38	100.00	9155.90	-5193.90	12335.05
22600.00	98.17	359.38	100.00	9141.69	-5179.69	12434.03
22700.00	98.17	359.38	100.00	9127.48	-5165.48	12533.01
22800.00	98.17	359.38	100.00	9113.27	-5151.27	12631.99
22900.00	98.17	359.38	100.00	9099.06	-5137.06	12730.97
23000.00	98.17	359.38	100.00	9084.85	-5122.85	12829.95
23100.00	98.17	359.38	100.00	9070.64	-5108.64	12928.93
23200.00	98.17	359.38	100.00	9056.43	-5094.43	13027.91
23300.00	98.17	359.38	100.00	9042.22	-5080.22	13126.89
23400.00	98.17	359.38	100.00	9028.01	-5066.01	13225.87
23500.00	98.17	359.38	100.00	9013.80	-5051.80	13324.85
23600.00	98.17	359.38	100.00	8999.59	-5037.59	13423.83
23700.00	98.17	359.38	100.00	8985.38	-5023.38	13522.81
23800.00	98.17	359.38	100.00	8971.17	-5009.17	13621.79
23900.00	98.17	359.38	100.00	8956.96	-4994.96	13720.77
24000.00	98.17	359.38	100.00	8942.75	-4980.75	13819.75
24100.00	98.17	359.38	100.00	8928.54	-4966.54	13918.73
24139.01	98.17	359.38	39.01	8923.00	-4961.00	13957.34
24200.00	99.39	359.38	60.99	8913.69	-4951.69	14017.61
24300.00	101.39	359.38	100.00	8895.66	-4933.66	14115.96
24400.00	103.39	359.38	100.00	8874.21	-4912.21	14213.62
24500.00	105.39	359.38	100.00	8849.36	-4887.36	14310.47
24513.17	105.65	359.38	13.17	8845.83	-4883.83	14323.16
24600.00	105.65	359.38	86.83	8822.41	-4860.41	14406.77
24700.00	105.65	359.38	100.00	8795.43	-4833.43	14503.05
24800.00	105.65	359.38	100.00	8768.44	-4806.44	14599.34
24900.00	105.65	359.38	100.00	8741.46	-4779.46	14695.62
25000.00	105.65	359.38	100.00	8714.48	-4752.48	14791.91
25100.00	105.65	359.38	100.00	8687.50	-4725.50	14888.20

25200.00	105.65	359.38	100.00	8660.52	-4698.52	14984.48
25300.00	105.65	359.38	100.00	8633.54	-4671.54	15080.77
25400.00	105.65	359.38	100.00	8606.56	-4644.56	15177.05
25500.00	105.65	359.38	100.00	8579.58	-4617.58	15273.34
25600.00	105.65	359.38	100.00	8552.60	-4590.60	15369.63
25700.00	105.65	359.38	100.00	8525.62	-4563.62	15465.91
25800.00	105.65	359.38	100.00	8498.64	-4536.64	15562.20
25900.00	105.65	359.38	100.00	8471.66	-4509.66	15658.48
25950.64	105.65	359.38	50.64	8458.00	-4496.00	15707.24
26000.00	104.67	359.38	49.36	8445.09	-4483.09	15754.88
26100.00	102.67	359.38	100.00	8421.47	-4459.47	15852.04
26200.00	100.67	359.38	100.00	8401.25	-4439.25	15949.97
26300.00	98.67	359.38	100.00	8384.46	-4422.46	16048.54
26400.00	96.67	359.38	100.00	8371.12	-4409.12	16147.63
26509.06	94.48	359.38	109.06	8360.53	-4398.53	16256.16
26600.00	94.48	359.38	90.94	8353.42	-4391.42	16346.82
26700.00	94.48	359.38	100.00	8345.60	-4383.60	16446.51
26800.00	94.48	359.38	100.00	8337.78	-4375.78	16546.20
26861.19	94.48	359.38	61.19	8333.00	-4371.00	16607.19
26900.00	95.26	359.38	38.81	8329.70	-4367.70	16645.86
27000.00	97.26	359.38	100.00	8318.80	-4356.80	16745.25
27061.98	98.50	359.39	61.98	8310.30	-4348.30	16806.64
27100.00	98.50	359.39	38.02	8304.68	-4342.68	16844.24
27200.00	98.50	359.39	100.00	8289.90	-4327.90	16943.14
27300.00	98.50	359.39	100.00	8275.12	-4313.12	17042.04
27400.00	98.50	359.39	100.00	8260.34	-4298.34	17140.93
27500.00	98.50	359.39	100.00	8245.56	-4283.56	17239.83
27600.00	98.50	359.39	100.00	8230.78	-4268.78	17338.72
27700.00	98.50	359.39	100.00	8216.00	-4254.00	17437.62
27800.00	98.50	359.39	100.00	8201.22	-4239.22	17536.52
27900.00	98.50	359.39	100.00	8186.44	-4224.44	17635.41
28000.00	98.50	359.39	100.00	8171.66	-4209.66	17734.31
28100.00	98.50	359.39	100.00	8156.87	-4194.87	17833.20
28200.00	98.50	359.39	100.00	8142.09	-4180.09	17932.10
28300.00	98.50	359.39	100.00	8127.31	-4165.31	18031.00
28349.47	98.50	359.39	49.47	8120.00	-4158.00	18079.92

Local E/-W EW	Easting X	Northing Y	Latitude LAT	Longitude LON	Dogleg Severi DLS	Build Rate BLD
0.00	800163.28	623928.60	32.712397	-103.491820	0.00	0.00
0.00	800163.28	623928.60	32.712397	-103.491820	0.00	0.00
0.00	800163.28	623928.60	32.712397	-103.491820	0.00	0.00
0.00	800163.28	623928.60	32.712397	-103.491820	0.00	0.00
0.00	800163.28	623928.60	32.712397	-103.491820	0.00	0.00
0.00	800163.28	623928.60	32.712397	-103.491820	0.00	0.00
0.00	800163.28	623928.60	32.712397	-103.491820	0.00	0.00
0.00	800163.28	623928.60	32.712397	-103.491820	0.00	0.00
0.00	800163.28	623928.60	32.712397	-103.491820	0.00	0.00
0.00	800163.28	623928.60	32.712397	-103.491820	0.00	0.00
0.00	800163.28	623928.60	32.712397	-103.491820	0.00	0.00
0.00	800163.28	623928.60	32.712397	-103.491820	0.00	0.00
0.00	800163.28	623928.60	32.712397	-103.491820	0.00	0.00
0.00	800163.28	623928.60	32.712397	-103.491820	0.00	0.00
0.00	800163.28	623928.60	32.712397	-103.491820	0.00	0.00

0.00	800163.28	623928.60	32.712397	-103.491820	0.00	0.00
0.00	800163.28	623928.60	32.712397	-103.491820	0.00	0.00
0.00	800163.28	623928.60	32.712397	-103.491820	0.00	0.00
0.00	800163.28	623928.60	32.712397	-103.491820	0.00	0.00
0.00	800163.28	623928.60	32.712397	-103.491820	0.00	0.00
1.62	800164.90	623927.95	32.712395	-103.491815	2.00	2.00
6.47	800169.75	623925.98	32.712389	-103.491799	2.00	2.00
14.55	800177.83	623922.71	32.712380	-103.491773	2.00	2.00
25.82	800189.10	623918.14	32.712367	-103.491737	2.00	2.00
38.73	800202.01	623912.91	32.712353	-103.491695	0.00	0.00
51.63	800214.91	623907.68	32.712338	-103.491653	0.00	0.00
64.52	800227.80	623902.46	32.712324	-103.491611	0.00	0.00
77.42	800240.70	623897.23	32.712309	-103.491570	0.00	0.00
90.31	800253.59	623892.01	32.712294	-103.491528	0.00	0.00
103.20	800266.48	623886.79	32.712280	-103.491486	0.00	0.00
116.10	800279.38	623881.56	32.712265	-103.491444	0.00	0.00
128.99	800292.27	623876.34	32.712250	-103.491402	0.00	0.00
141.89	800305.17	623871.11	32.712236	-103.491361	0.00	0.00
154.78	800318.06	623865.89	32.712221	-103.491319	0.00	0.00
167.67	800330.95	623860.66	32.712206	-103.491277	0.00	0.00
180.57	800343.85	623855.44	32.712192	-103.491235	0.00	0.00
193.46	800356.74	623850.22	32.712177	-103.491194	0.00	0.00
206.35	800369.63	623844.99	32.712163	-103.491152	0.00	0.00
219.25	800382.53	623839.77	32.712148	-103.491110	0.00	0.00
232.14	800395.42	623834.54	32.712133	-103.491068	0.00	0.00
245.04	800408.32	623829.32	32.712119	-103.491026	0.00	0.00
257.93	800421.21	623824.09	32.712104	-103.490985	0.00	0.00
270.82	800434.10	623818.87	32.712089	-103.490943	0.00	0.00
283.72	800447.00	623813.65	32.712075	-103.490901	0.00	0.00
296.61	800459.89	623808.42	32.712060	-103.490859	0.00	0.00
309.51	800472.79	623803.20	32.712045	-103.490817	0.00	0.00
322.40	800485.68	623797.97	32.712031	-103.490776	0.00	0.00
335.29	800498.57	623792.75	32.712016	-103.490734	0.00	0.00
348.19	800511.47	623787.52	32.712001	-103.490692	0.00	0.00
361.08	800524.36	623782.30	32.711987	-103.490650	0.00	0.00
373.98	800537.26	623777.08	32.711972	-103.490609	0.00	0.00
386.87	800550.15	623771.85	32.711958	-103.490567	0.00	0.00
399.76	800563.04	623766.63	32.711943	-103.490525	0.00	0.00
412.66	800575.94	623761.40	32.711928	-103.490483	0.00	0.00
425.55	800588.83	623756.18	32.711914	-103.490441	0.00	0.00
438.45	800601.73	623750.95	32.711899	-103.490400	0.00	0.00
451.34	800614.62	623745.73	32.711884	-103.490358	0.00	0.00
464.23	800627.51	623740.51	32.711870	-103.490316	0.00	0.00
477.13	800640.41	623735.28	32.711855	-103.490274	0.00	0.00



581.79	800745.07	623725.99	32.711827	-103.489934	10.00	10.00
582.82	800746.10	623744.59	32.711878	-103.489930	10.00	10.00
584.07	800747.35	623767.15	32.711940	-103.489926	10.00	10.00
585.53	800748.81	623793.50	32.712013	-103.489920	10.00	10.00
587.19	800750.47	623823.45	32.712095	-103.489914	10.00	10.00
589.04	800752.32	623856.76	32.712187	-103.489907	10.00	10.00
591.05	800754.33	623893.19	32.712287	-103.489900	10.00	10.00
593.23	800756.51	623932.45	32.712394	-103.489892	10.00	10.00
595.54	800758.82	623974.24	32.712509	-103.489883	10.00	10.00
597.98	800761.26	624018.26	32.712630	-103.489874	10.00	10.00
600.52	800763.80	624064.15	32.712756	-103.489865	10.00	10.00
603.15	800766.43	624111.58	32.712887	-103.489855	10.00	10.00
603.48	800766.76	624117.62	32.712903	-103.489854	10.00	10.00
608.54	800771.82	624208.91	32.713154	-103.489835	5.00	5.00
614.02	800777.30	624307.80	32.713426	-103.489814	5.00	5.00
619.55	800782.83	624407.49	32.713699	-103.489794	5.00	5.00
623.92	800787.20	624486.24	32.713916	-103.489778	5.00	5.00
625.08	800788.36	624507.25	32.713974	-103.489773	0.00	0.00
630.61	800793.89	624606.89	32.714247	-103.489753	0.00	0.00
636.13	800799.41	624706.54	32.714521	-103.489732	0.00	0.00
641.66	800804.94	624806.19	32.714795	-103.489712	0.00	0.00
647.19	800810.47	624905.83	32.715068	-103.489691	0.00	0.00
652.72	800816.00	625005.48	32.715342	-103.489671	0.00	0.00
658.24	800821.52	625105.12	32.715616	-103.489650	0.00	0.00
663.77	800827.05	625204.77	32.715890	-103.489630	0.00	0.00
669.30	800832.58	625304.42	32.716163	-103.489609	0.00	0.00
674.82	800838.10	625404.06	32.716437	-103.489588	0.00	0.00
680.35	800843.63	625503.71	32.716711	-103.489568	0.00	0.00
685.88	800849.16	625603.35	32.716985	-103.489547	0.00	0.00
691.41	800854.69	625703.00	32.717258	-103.489527	0.00	0.00
696.93	800860.21	625802.65	32.717532	-103.489506	0.00	0.00
702.46	800865.74	625902.29	32.717806	-103.489486	0.00	0.00
707.99	800871.27	626001.94	32.718080	-103.489465	0.00	0.00
713.51	800876.79	626101.58	32.718353	-103.489445	0.00	0.00
719.04	800882.32	626201.23	32.718627	-103.489424	0.00	0.00
721.62	800884.90	626247.70	32.718755	-103.489414	0.00	0.00
724.07	800887.35	626300.90	32.718901	-103.489405	2.00	0.00
725.99	800889.27	626400.68	32.719175	-103.489396	2.00	0.00
725.83	800889.11	626436.60	32.719274	-103.489396	2.00	0.00
725.79	800889.07	626439.93	32.719283	-103.489396	2.00	-2.00
725.14	800888.42	626500.47	32.719449	-103.489396	0.00	0.00
724.07	800887.35	626600.28	32.719724	-103.489397	0.00	0.00
723.00	800886.28	626700.08	32.719998	-103.489398	0.00	0.00
721.92	800885.20	626799.88	32.720272	-103.489399	0.00	0.00

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719.78	800883.06	626999.48	32.720821	-103.489401	0.00	0.00
718.71	800881.99	627099.28	32.721095	-103.489402	0.00	0.00
717.63	800880.91	627199.08	32.721370	-103.489403	0.00	0.00
716.56	800879.84	627298.88	32.721644	-103.489404	0.00	0.00
715.49	800878.77	627398.68	32.721918	-103.489405	0.00	0.00
714.41	800877.69	627498.48	32.722193	-103.489406	0.00	0.00
713.34	800876.62	627598.28	32.722467	-103.489406	0.00	0.00
712.27	800875.55	627698.09	32.722741	-103.489407	0.00	0.00
711.20	800874.48	627797.89	32.723016	-103.489408	0.00	0.00
710.12	800873.40	627897.69	32.723290	-103.489409	0.00	0.00
709.05	800872.33	627997.49	32.723564	-103.489410	0.00	0.00
707.98	800871.26	628097.29	32.723839	-103.489411	0.00	0.00
706.90	800870.18	628197.09	32.724113	-103.489412	0.00	0.00
705.83	800869.11	628296.89	32.724387	-103.489413	0.00	0.00
704.76	800868.04	628396.69	32.724661	-103.489414	0.00	0.00
703.69	800866.97	628496.49	32.724936	-103.489415	0.00	0.00
702.61	800865.89	628596.29	32.725210	-103.489415	0.00	0.00
702.18	800865.46	628636.47	32.725321	-103.489416	0.00	0.00
702.08	800865.36	628645.57	32.725346	-103.489416	2.00	-2.00
701.54	800864.82	628696.11	32.725484	-103.489416	0.00	0.00
700.46	800863.74	628795.93	32.725759	-103.489417	0.00	0.00
699.39	800862.67	628895.75	32.726033	-103.489418	0.00	0.00
698.31	800861.59	628995.57	32.726308	-103.489419	0.00	0.00
697.24	800860.52	629095.39	32.726582	-103.489420	0.00	0.00
696.16	800859.44	629195.21	32.726856	-103.489421	0.00	0.00
695.09	800858.37	629295.03	32.727131	-103.489422	0.00	0.00
694.01	800857.29	629394.85	32.727405	-103.489423	0.00	0.00
692.93	800856.21	629494.67	32.727679	-103.489424	0.00	0.00
691.86	800855.14	629594.49	32.727954	-103.489425	0.00	0.00
690.78	800854.06	629694.31	32.728228	-103.489425	0.00	0.00
690.33	800853.61	629736.41	32.728344	-103.489426	0.00	0.00
689.71	800852.99	629794.09	32.728502	-103.489426	2.00	2.00
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687.57	800850.85	629993.36	32.729050	-103.489428	0.00	0.00
686.50	800849.78	630093.00	32.729324	-103.489429	0.00	0.00
685.43	800848.71	630192.63	32.729598	-103.489430	0.00	0.00
684.36	800847.64	630292.27	32.729872	-103.489431	0.00	0.00
683.29	800846.57	630391.90	32.730146	-103.489432	0.00	0.00
682.22	800845.50	630491.54	32.730419	-103.489433	0.00	0.00
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680.08	800843.36	630690.81	32.730967	-103.489434	0.00	0.00
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677.94	800841.22	630890.08	32.731515	-103.489436	0.00	0.00
676.87	800840.15	630989.72	32.731789	-103.489437	0.00	0.00
675.80	800839.08	631089.35	32.732063	-103.489438	0.00	0.00
675.29	800838.57	631136.33	32.732192	-103.489439	0.00	0.00
675.18	800838.46	631146.41	32.732219	-103.489439	2.00	2.00
674.72	800838.00	631188.97	32.732336	-103.489439	0.00	0.00
673.65	800836.93	631288.58	32.732610	-103.489440	0.00	0.00
672.58	800835.86	631388.18	32.732884	-103.489441	0.00	0.00
671.51	800834.79	631487.79	32.733158	-103.489442	0.00	0.00
670.44	800833.72	631587.39	32.733432	-103.489443	0.00	0.00
669.37	800832.65	631686.99	32.733705	-103.489443	0.00	0.00
668.30	800831.58	631786.60	32.733979	-103.489444	0.00	0.00
667.23	800830.51	631886.20	32.734253	-103.489445	0.00	0.00
666.16	800829.44	631985.81	32.734527	-103.489446	0.00	0.00
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664.02	800827.30	632185.02	32.735074	-103.489448	0.00	0.00
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661.88	800825.16	632384.23	32.735622	-103.489450	0.00	0.00
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659.74	800823.02	632583.44	32.736169	-103.489452	0.00	0.00
658.67	800821.95	632683.04	32.736443	-103.489452	0.00	0.00
657.60	800820.88	632782.65	32.736717	-103.489453	0.00	0.00
656.53	800819.81	632882.25	32.736991	-103.489454	0.00	0.00
655.46	800818.74	632981.86	32.737264	-103.489455	0.00	0.00
654.39	800817.67	633081.46	32.737538	-103.489456	0.00	0.00
653.32	800816.60	633181.07	32.737812	-103.489457	0.00	0.00
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650.11	800813.39	633479.88	32.738633	-103.489460	0.00	0.00
649.04	800812.32	633579.48	32.738907	-103.489461	0.00	0.00
647.97	800811.25	633679.09	32.739181	-103.489462	0.00	0.00
646.90	800810.18	633778.69	32.739455	-103.489462	0.00	0.00
646.28	800809.56	633836.17	32.739613	-103.489463	0.00	0.00
645.84	800809.12	633877.50	32.739726	-103.489463	2.00	2.00
644.76	800808.04	633977.74	32.740002	-103.489464	0.00	0.00
643.69	800806.97	634077.20	32.740275	-103.489465	0.00	0.00
642.62	800805.90	634176.67	32.740548	-103.489466	0.00	0.00
641.55	800804.83	634276.13	32.740822	-103.489467	0.00	0.00
640.49	800803.77	634375.60	32.741095	-103.489468	0.00	0.00
639.42	800802.70	634475.07	32.741369	-103.489469	0.00	0.00
638.35	800801.63	634574.53	32.741642	-103.489470	0.00	0.00
637.28	800800.56	634674.00	32.741915	-103.489470	0.00	0.00
636.21	800799.49	634773.47	32.742189	-103.489471	0.00	0.00
635.15	800798.43	634872.93	32.742462	-103.489472	0.00	0.00

634.08	800797.36	634972.40	32.742736	-103.489473	0.00	0.00
633.01	800796.29	635071.87	32.743009	-103.489474	0.00	0.00
631.94	800795.22	635171.33	32.743282	-103.489475	0.00	0.00
630.87	800794.15	635270.80	32.743556	-103.489476	0.00	0.00
629.80	800793.08	635370.27	32.743829	-103.489477	0.00	0.00
628.74	800792.02	635469.73	32.744103	-103.489478	0.00	0.00
627.67	800790.95	635569.20	32.744376	-103.489479	0.00	0.00
626.60	800789.88	635668.67	32.744649	-103.489479	0.00	0.00
625.53	800788.81	635768.13	32.744923	-103.489480	0.00	0.00
624.80	800788.08	635836.06	32.745109	-103.489481	0.00	0.00
624.46	800787.74	635867.58	32.745196	-103.489481	2.00	2.00
623.59	800786.87	635949.19	32.745420	-103.489482	2.00	2.00
623.40	800786.68	635966.72	32.745469	-103.489482	0.00	0.00
622.33	800785.61	636065.70	32.745741	-103.489483	0.00	0.00
621.27	800784.55	636164.67	32.746013	-103.489484	0.00	0.00
620.21	800783.49	636263.65	32.746285	-103.489485	0.00	0.00
619.14	800782.42	636362.63	32.746557	-103.489486	0.00	0.00
618.08	800781.36	636461.61	32.746829	-103.489487	0.00	0.00
617.01	800780.29	636560.59	32.747101	-103.489488	0.00	0.00
615.95	800779.23	636659.57	32.747373	-103.489488	0.00	0.00
614.89	800778.17	636758.55	32.747645	-103.489489	0.00	0.00
613.82	800777.10	636857.53	32.747917	-103.489490	0.00	0.00
612.76	800776.04	636956.51	32.748189	-103.489491	0.00	0.00
611.70	800774.98	637055.49	32.748461	-103.489492	0.00	0.00
610.63	800773.91	637154.47	32.748733	-103.489493	0.00	0.00
609.57	800772.85	637253.45	32.749005	-103.489494	0.00	0.00
608.50	800771.78	637352.43	32.749277	-103.489495	0.00	0.00
607.44	800770.72	637451.41	32.749549	-103.489496	0.00	0.00
606.38	800769.66	637550.39	32.749821	-103.489496	0.00	0.00
605.31	800768.59	637649.37	32.750094	-103.489497	0.00	0.00
604.25	800767.53	637748.35	32.750366	-103.489498	0.00	0.00
603.19	800766.47	637847.33	32.750638	-103.489499	0.00	0.00
602.77	800766.05	637885.94	32.750744	-103.489499	0.00	0.00
602.12	800765.40	637946.21	32.750909	-103.489500	2.00	2.00
601.07	800764.35	638044.56	32.751180	-103.489501	2.00	2.00
600.02	800763.30	638142.22	32.751448	-103.489502	2.00	2.00
598.98	800762.26	638239.07	32.751714	-103.489503	2.00	2.00
598.84	800762.12	638251.76	32.751749	-103.489503	2.00	2.00
597.94	800761.22	638335.37	32.751979	-103.489504	0.00	0.00
596.91	800760.19	638431.65	32.752244	-103.489504	0.00	0.00
595.87	800759.15	638527.94	32.752508	-103.489505	0.00	0.00
594.84	800758.12	638624.22	32.752773	-103.489506	0.00	0.00
593.80	800757.08	638720.51	32.753038	-103.489507	0.00	0.00
592.77	800756.05	638816.80	32.753302	-103.489508	0.00	0.00

591.74	800755.02	638913.08	32.753567	-103.489509	0.00	0.00
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589.67	800752.95	639105.65	32.754096	-103.489511	0.00	0.00
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587.60	800750.88	639298.23	32.754626	-103.489512	0.00	0.00
586.56	800749.84	639394.51	32.754890	-103.489513	0.00	0.00
585.53	800748.81	639490.80	32.755155	-103.489514	0.00	0.00
584.49	800747.77	639587.08	32.755420	-103.489515	0.00	0.00
583.97	800747.25	639635.84	32.755554	-103.489515	0.00	0.00
583.46	800746.74	639683.48	32.755685	-103.489516	2.00	-2.00
582.41	800745.69	639780.64	32.755952	-103.489517	2.00	-2.00
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580.30	800743.58	639977.14	32.756492	-103.489518	2.00	-2.00
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578.07	800741.35	640184.76	32.757062	-103.489520	2.00	-2.00
577.10	800740.38	640275.42	32.757312	-103.489521	0.00	0.00
576.03	800739.31	640375.11	32.757586	-103.489522	0.00	0.00
574.96	800738.24	640474.80	32.757860	-103.489523	0.00	0.00
574.30	800737.58	640535.79	32.758027	-103.489523	0.00	0.00
573.88	800737.16	640574.46	32.758134	-103.489524	2.00	2.00
572.82	800736.10	640673.85	32.758407	-103.489525	2.00	2.00
572.16	800735.44	640735.24	32.758575	-103.489525	2.00	2.00
571.75	800735.03	640772.84	32.758679	-103.489526	0.00	0.00
570.69	800733.97	640871.74	32.758951	-103.489526	0.00	0.00
569.63	800732.91	640970.64	32.759222	-103.489527	0.00	0.00
568.57	800731.85	641069.53	32.759494	-103.489528	0.00	0.00
567.50	800730.78	641168.43	32.759766	-103.489529	0.00	0.00
566.44	800729.72	641267.32	32.760038	-103.489530	0.00	0.00
565.38	800728.66	641366.22	32.760310	-103.489531	0.00	0.00
564.32	800727.60	641465.12	32.760582	-103.489532	0.00	0.00
563.26	800726.54	641564.01	32.760853	-103.489533	0.00	0.00
562.19	800725.47	641662.91	32.761125	-103.489534	0.00	0.00
561.13	800724.41	641761.80	32.761397	-103.489534	0.00	0.00
560.07	800723.35	641860.70	32.761669	-103.489535	0.00	0.00
559.01	800722.29	641959.60	32.761941	-103.489536	0.00	0.00
558.48	800721.76	642008.52	32.762075	-103.489537	0.00	0.00

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

0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	-0.67
0.00	-2.69
0.00	-6.05
0.00	-10.74
0.00	-16.11
0.00	-21.48
0.00	-26.84
0.00	-32.20
0.00	-37.57
0.00	-42.93
0.00	-48.29
0.00	-53.66
0.00	-59.02
0.00	-64.38
0.00	-69.75
0.00	-75.11
0.00	-80.47
0.00	-85.84
0.00	-91.20
0.00	-96.56
0.00	-101.93
0.00	-107.29
0.00	-112.66
0.00	-118.02
0.00	-123.38
0.00	-128.75
0.00	-134.11
0.00	-139.47
0.00	-144.84
0.00	-150.20
0.00	-155.56
0.00	-160.93
0.00	-166.29
0.00	-171.65
0.00	-177.02
0.00	-182.38
0.00	-187.74
0.00	-193.11
0.00	-198.47



0.00	-208.89
0.00	-190.31
0.00	-167.76
0.00	-141.43
0.00	-111.50
0.00	-78.21
0.00	-41.81
0.00	-2.57
0.00	39.20
0.00	83.18
0.00	129.05
0.00	176.45
0.00	182.47
0.00	273.71
0.00	372.53
0.00	472.16
0.00	550.86
0.00	571.85
0.00	671.43
0.00	771.01
0.00	870.59
0.00	970.17
0.00	1069.75
0.00	1169.33
0.00	1268.91
0.00	1368.49
0.00	1468.07
0.00	1567.65
0.00	1667.23
0.00	1766.81
0.00	1866.39
0.00	1965.98
0.00	2065.56
0.00	2165.14
0.00	2264.72
0.00	2311.16
-2.00	2364.33
-2.00	2464.07
-2.00	2500.00
0.12	2503.33
0.00	2563.88
0.00	2663.68
0.00	2763.49
0.00	2863.30

0.00	2963.10
0.00	3062.91
0.00	3162.72
0.00	3262.52
0.00	3362.33
0.00	3462.14
0.00	3561.94
0.00	3661.75
0.00	3761.56
0.00	3861.36
0.00	3961.17
0.00	4060.98
0.00	4160.78
0.00	4260.59
0.00	4360.40
0.00	4460.20
0.00	4560.01
0.00	4659.82
0.00	4700.00
-0.01	4709.10
0.00	4759.63
0.00	4859.46
0.00	4959.29
0.00	5059.11
0.00	5158.94
0.00	5258.76
0.00	5358.59
0.00	5458.42
0.00	5558.24
0.00	5658.07
0.00	5757.89
0.00	5800.00
0.00	5857.68
0.00	5873.59
0.00	5957.33
0.00	6056.97
0.00	6156.61
0.00	6256.25
0.00	6355.89
0.00	6455.53
0.00	6555.17
0.00	6654.81
0.00	6754.45
0.00	6854.10

0.00	6953.74
0.00	7053.38
0.00	7153.02
0.00	7200.00
0.00	7210.08
0.00	7252.64
0.00	7352.26
0.00	7451.87
0.00	7551.48
0.00	7651.09
0.00	7750.70
0.00	7850.31
0.00	7949.92
0.00	8049.53
0.00	8149.14
0.00	8248.75
0.00	8348.36
0.00	8447.97
0.00	8547.58
0.00	8647.19
0.00	8746.80
0.00	8846.41
0.00	8946.02
0.00	9045.63
0.00	9145.24
0.00	9244.85
0.00	9344.46
0.00	9444.07
0.00	9543.69
0.00	9643.30
0.00	9742.91
0.00	9842.52
0.00	9900.00
0.00	9941.32
0.00	10041.57
0.00	10141.04
0.00	10240.51
0.00	10339.99
0.00	10439.46
0.00	10538.93
0.00	10638.40
0.00	10737.88
0.00	10837.35
0.00	10936.82

0.00	11036.29
0.00	11135.76
0.00	11235.24
0.00	11334.71
0.00	11434.18
0.00	11533.65
0.00	11633.13
0.00	11732.60
0.00	11832.07
0.00	11900.00
0.00	11931.52
0.00	12013.14
0.00	12030.67
0.00	12129.65
0.00	12228.64
0.00	12327.62
0.00	12426.61
0.00	12525.59
0.00	12624.58
0.00	12723.56
0.00	12822.55
0.00	12921.53
0.00	13020.52
0.00	13119.50
0.00	13218.49
0.00	13317.47
0.00	13416.46
0.00	13515.44
0.00	13614.43
0.00	13713.41
0.00	13812.40
0.00	13911.38
0.00	13950.00
0.00	14010.27
0.00	14108.63
0.00	14206.30
0.00	14303.15
0.00	14315.84
0.00	14399.45
0.00	14495.74
0.00	14592.04
0.00	14688.33
0.00	14784.62
0.00	14880.91

0.00	14977.20
0.00	15073.49
0.00	15169.79
0.00	15266.08
0.00	15362.37
0.00	15458.66
0.00	15554.95
0.00	15651.24
0.00	15700.00
0.00	15747.65
0.00	15844.81
0.00	15942.74
0.00	16041.32
0.00	16140.42
0.00	16248.95
0.00	16339.62
0.00	16439.31
0.00	16539.01
0.00	16600.00
0.00	16638.68
0.00	16738.08
0.00	16799.47
0.00	16837.07
0.00	16935.97
0.00	17034.88
0.00	17133.78
0.00	17232.68
0.00	17331.58
0.00	17430.48
0.00	17529.38
0.00	17628.28
0.00	17727.19
0.00	17826.09
0.00	17924.99
0.00	18023.89
0.00	18072.82

# Coterra Energy

Lea County, NM (NAD 83)

Rope State Com Pad

Rope State Com 504H

338' FSL, 1113' FEL

OH

Plan #2



**Total Directional**  
*Driven by TOTAL performance*

## Anticollision Report

Minimum Magnetic Interference Warning level is 20' center to center

18 March, 2026

Total Report Version 1.70

COMPASS 5000.16 Build 97

[Click here for our anticollision policy](#)

### ATTENTION

All offset data provided was gathered using available software and resources. Total Directional Services cannot guarantee the accuracy of all offset data, which should be verified for accuracy by the Operator.

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

<b>Reference</b>	Plan #2		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	MD Interval 100.00usft	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum centre distance of 1,663.40usft	<b>Error Surface:</b>	Pedal Curve
<b>Warning Levels Evaluated at:</b>	2.00 Sigma	<b>Casing Method:</b>	Not applied

<b>Well</b>	Rope State Com 504H				
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	623,928.60 usft	<b>Latitude:</b> 32.7123968
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	800,163.28 usft	<b>Longitude:</b> -103.4918204
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b> 3,939.00 usft
<b>Grid Convergence:</b>	0.45 °				

<b>Survey Tool Program</b>	<b>Date</b>	3/18/2026			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
0.00	28,349.47	Plan #2 (OH)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction	

**Experimental: Summary Highlights: Rope State Com 504H**

- At 1,858.83 MD, Rope State Com 604H - OH - Plan #2 is 15.41 usft away with a 1.18 SF.
- At 10,200.00 MD, (O) ALBATROSS STATE COM 001H - Horizontal - PRODUCING - Surveys is 132.64 usft away with a 1.15 SF.
- At 11,167.99 MD, (O) ALBATROSS STATE COM 001H - Horizontal - PRODUCING - Surveys is 94.01 usft away with a 1.64 SF.
- At 16,337.15 MD, (O) IRONHOUSE 19 STATE COM 002H - Horizontal - PRODUCING - Surveys is 107.94 usft away with a 1.33 SF.
- At 16,400.00 MD, (O) IRONHOUSE 19 STATE COM 002H - Horizontal - PRODUCING - Surveys is 108.69 usft away with a 1.31 SF.
- At 16,500.00 MD, (O) IRONHOUSE 19 STATE COM 002H - Horizontal - PRODUCING - Surveys is 111.17 usft away with a 1.31 SF.
- At 21,492.91 MD, (O) BLACK JACK STATE 003 - Verticals - Surveys is 28.31 usft away with a 0.20 SF.
- At 22,882.20 MD, (O) BLACK JACK STATE 001 - Verticals - Surveys is 109.50 usft away with a 0.82 SF.
- At 24,788.96 MD, (O) LEO STATE #1 - OH - OH is 20.54 usft away with a 0.15 SF.
- At 25,253.74 MD, (O) NEW MEXICO BV STATE 001 P & A - Vertical - Surveys is 161.96 usft away with a 0.44 SF.
- At 26,122.46 MD, (O) STATE AN 008 P & A - Vertical - Surveys is 16.23 usft away with a 0.05 SF.
- At 26,792.84 MD, (O) STATE AN 010 P & A - Vertical - Surveys is 643.22 usft away with a 1.62 SF.
- At 27,453.86 MD, (O) STATE AN 009 P & A - Vertical - Surveys is 17.74 usft away with a 0.05 SF.
- At 28,115.19 MD, (O) STATE AN 012 P & A - OH - Surveys is 95.26 usft away with a 0.55 SF.
- At 28,115.19 MD, (O) STATE AN 012 P & A - ST01 - ST01 is 95.26 usft away with a 0.55 SF.
- At 28,126.31 MD, (O) STATE AN 007 P & A - Vertical - Surveys is 641.99 usft away with a 1.74 SF.

**Offset Listing**

Offset Customer - Project - Site Name Offset Well	Ground Level KB Height		Map Coordinates		Geographical Coordinates		Surface Uncertainty	
			Northing	Easting	Latitude	Longitude	Site	Well
- - Rope State Com Pad								
(O) AIRSTRIP 31 18 35 RN STATE COM 111H -	3,948.00	3,977.00	618,499.40	796,383.01	32.6975570	-103.5042480	0.00	0.00
(O) AIRSTRIP 31 18 35 RN STATE COM 114H -	3,931.00	3,960.00	618,609.72	800,455.74	32.6977720	-103.4910070	0.00	0.00
(O) AIRSTRIP 31 18 35 RN STATE COM 124H -	3,930.00	3,959.00	618,639.91	800,455.51	32.6978550	-103.4910070	0.00	0.00
(O) AIRSTRIP 31 18 35 RN STATE COM 131H -	3,948.00	3,977.00	618,499.27	796,413.16	32.6975560	-103.5041500	0.00	0.00
(O) AIRSTRIP 31 18 35 RN STATE COM 132H -	3,937.00	3,955.00	619,144.37	797,713.76	32.6993010	-103.4999060	0.00	0.00

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

Offset Listing								
Offset Customer - Project - Site Name Offset Well	Ground Level KB Height		Map Coordinates		Geographical Coordinates		Surface Uncertainty	
			Northing	Easting	Latitude	Longitude	Site	Well
- - Rope State Com Pad								
(O) AIRSTRIP 31 18 35 RN STATE COM 133H -	3,940.00	3,969.00	618,487.04	799,023.98	32.6974660	-103.4956640	0.00	0.00
(O) AIRSTRIP 31 18 35 RN STATE COM 134H -	3,930.00	3,959.00	618,639.68	800,425.66	32.6978550	-103.4911040	0.00	0.00
(O) AIRSTRIP 31 18 35 RN STATE COM 201H -	3,948.00	3,977.00	618,510.02	796,391.85	32.6975860	-103.5042190	0.00	0.00
(O) AIRSTRIP STATE 001 P & A -	3,951.00	3,966.00	623,270.15	796,335.87	32.7106700	-103.5042800	0.00	0.00
(O) ALBATROSS STATE COM 001H -	3,937.00	3,954.00	628,551.33	800,248.81	32.7251000	-103.4914230	0.00	0.00
(O) ALBATROSS STATE COM 002H -	3,949.00	3,967.00	628,528.18	799,256.51	32.7250580	-103.4946500	0.00	0.00
(O) B LEE STATE 004 -	3,965.00	3,977.00	641,515.13	796,493.15	32.7608110	-103.5033040	0.00	0.00
(O) B LEE STATE 005 P & A -	3,967.00	3,985.00	640,452.00	796,173.13	32.7578960	-103.5043720	0.00	0.00
(O) B LEE STATE 006 -	3,976.00	3,993.00	641,668.68	796,262.29	32.7612380	-103.5040510	0.00	0.00
(O) BLACK JACK STATE 001 -	3,956.00	3,974.00	636,473.15	800,806.97	32.7468600	-103.4894030	0.00	0.00
(O) BLACK JACK STATE 002 -	3,964.00	3,981.00	636,492.36	798,826.94	32.7469560	-103.4958420	0.00	0.00
(O) BLACK JACK STATE 003 -	3,956.00	3,973.00	635,178.36	800,826.82	32.7433010	-103.4893720	0.00	0.00
(O) BRIDGES STATE 180 P & A -	3,970.00	3,983.00	641,762.44	797,406.13	32.7614710	-103.5003280	0.00	0.00
(O) IRONHOUSE 19 STATE COM 001H -	3,952.00	3,970.00	629,074.37	797,787.93	32.7265910	-103.4994110	0.00	0.00
(O) IRONHOUSE 19 STATE COM 002H -	3,932.00	3,950.00	629,159.32	800,614.89	32.7267630	-103.4902170	0.00	0.00
(O) IRONHOUSE 19 STATE COM 003H -	3,946.00	3,964.00	628,897.40	799,429.51	32.7260690	-103.4940780	0.00	0.00
(O) IRONHOUSE 19 STATE COM 004H -	3,954.00	3,958.00	628,819.14	797,072.11	32.7259050	-103.5017450	0.00	0.00
(O) LEA 30 STATE 001 P & A -	3,966.00	3,979.00	626,904.76	796,631.31	32.7206530	-103.5032270	0.00	0.00
(O) LEA SOUTHEAST STATE 1 P & A -	3,947.00	3,959.00	625,529.41	799,265.47	32.7168160	-103.4946980	0.00	0.00
(O) LEA ZD STATE 001 P & A -	3,971.00	3,984.00	624,591.55	796,323.07	32.7143020	-103.5042880	0.00	0.00
(O) LEO STATE #1 -	3,961.00	3,978.00	639,133.16	800,128.00	32.7541856	-103.4915424	0.00	0.00
(O) LEO STATE 006 TA -	3,963.00	3,981.00	639,316.50	798,957.11	32.7547150	-103.4953460	0.00	0.00
(O) LEO STATE 007 -	3,961.00	3,978.00	637,821.27	800,127.79	32.7505800	-103.4915770	0.00	0.00
(O) MESA MERRITT STATE 001 P & A -	3,959.00	3,976.00	632,198.92	797,903.57	32.7351760	-103.4989550	0.00	0.00
(O) NEW MEXICO BP STATE 002 P & A -	3,972.00	3,986.00	640,373.03	797,562.48	32.7576490	-103.4998550	0.00	0.00
(O) NEW MEXICO BV STATE 001 P & A -	3,945.00	3,968.00	638,963.09	800,592.51	32.7537080	-103.4900360	0.00	0.00
(O) OHIO STATE 001 -	3,969.00	3,985.00	641,739.00	797,802.59	32.7613980	-103.4990390	0.00	0.00
(O) OHIO STATE 002 -	3,969.00	3,988.00	641,112.16	797,488.72	32.7596820	-103.5000760	0.00	0.00
(O) OHIO STATE 005 -	3,969.00	3,986.00	641,383.71	797,964.95	32.7604180	-103.4985200	0.00	0.00
(O) SHETLAND SWD 001 -	3,964.00	3,976.00	636,158.39	797,865.31	32.7460590	-103.4989780	0.00	0.00
(O) STATE AN 005 -	3,977.00	3,995.00	641,777.14	798,761.78	32.7614820	-103.4959180	0.00	0.00
(O) STATE AN 006 TA -	3,966.00	3,972.00	640,457.55	798,774.37	32.7578550	-103.4959110	0.00	0.00
(O) STATE AN 007 P & A -	3,970.00	3,984.00	641,780.69	800,082.17	32.7614630	-103.4916230	0.00	0.00
(O) STATE AN 008 P & A -	3,950.00	3,970.00	639,802.75	800,761.69	32.7560120	-103.4894640	0.00	0.00
(O) STATE AN 009 P & A -	3,955.00	3,976.00	641,122.70	800,749.01	32.7596400	-103.4894710	0.00	0.00
(O) STATE AN 010 P & A -	3,966.00	3,980.00	640,460.74	800,095.13	32.7578350	-103.4916150	0.00	0.00
(O) STATE AN 012 P & A -	3,961.00	3,984.00	641,422.62	800,624.57	32.7604670	-103.4898680	0.00	0.00
Rope State Com 501H -	3,951.90	3,974.90	623,914.59	796,958.97	32.7124278	-103.5022379	0.00	0.00
Rope State Com 502H -	3,951.80	3,974.80	623,914.67	796,998.97	32.7124272	-103.5021079	0.00	0.00
Rope State Com 503H -	3,939.20	3,962.20	623,928.44	800,123.29	32.7123973	-103.4919504	0.00	0.00
Rope State Com 601H -	3,952.10	3,975.10	623,914.56	796,938.98	32.7124281	-103.5023029	0.00	0.00
Rope State Com 603H -	3,939.30	3,962.30	623,928.37	800,103.29	32.7123975	-103.4920155	0.00	0.00
Rope State Com 604H -	3,939.10	3,962.10	623,928.52	800,143.29	32.7123970	-103.4918854	0.00	0.00

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

**Total Directional**  
Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
<b>Offset Well - Wellbore - Design</b>						
Rope State Com Pad						
(O) AIRSTRIP 31 18 35 RN STATE COM 111H - Horizontal						Out of range
(O) AIRSTRIP 31 18 35 RN STATE COM 114H - Horizontal	9,274.16	14,300.00	240.31	147.88	2.60	CC, ES
(O) AIRSTRIP 31 18 35 RN STATE COM 114H - Horizontal	9,300.00	14,300.00	241.70	147.91	2.58	SF
(O) AIRSTRIP 31 18 35 RN STATE COM 124H - Horizontal	9,999.44	15,150.00	494.82	431.11	7.77	CC, ES, SF
(O) AIRSTRIP 31 18 35 RN STATE COM 131H - Horizontal						Out of range
(O) AIRSTRIP 31 18 35 RN STATE COM 132H - Horizontal						Out of range
(O) AIRSTRIP 31 18 35 RN STATE COM 133H - Horizontal						Out of range
(O) AIRSTRIP 31 18 35 RN STATE COM 134H - Horizontal	10,061.41	15,475.00	627.47	568.02	10.55	CC, ES, SF
(O) AIRSTRIP 31 18 35 RN STATE COM 201H - Horizontal						Out of range
(O) AIRSTRIP STATE 001 P & A - Vertical - Surveys						Out of range
(O) ALBATROSS STATE COM 001H - Horizontal - PROD	10,200.00	14,243.43	132.64	17.24	1.15	Level 2, ES, SF
(O) ALBATROSS STATE COM 001H - Horizontal - PROD	11,167.99	13,289.39	94.01	36.58	1.64	CC
(O) ALBATROSS STATE COM 002H - Horizontal - PROD	10,200.00	14,838.57	1,456.14	1,346.26	13.25	SF
(O) ALBATROSS STATE COM 002H - Horizontal - PROD	10,212.33	14,827.04	1,456.07	1,346.24	13.26	CC, ES
(O) B LEE STATE 004 - Verticals - Surveys						Out of range
(O) B LEE STATE 005 P & A - Vertical - Surveys						Out of range
(O) B LEE STATE 006 - Verticals - Surveys						Out of range
(O) BLACK JACK STATE 001 - Verticals - Surveys	22,882.20	9,114.16	109.50	-23.76	0.82	Level 1, CC, ES, SF
(O) BLACK JACK STATE 002 - Verticals - Surveys						Out of range
(O) BLACK JACK STATE 003 - Verticals - Surveys	21,492.91	9,287.01	28.31	-113.85	0.20	Level 1, CC, ES, SF
(O) BRIDGES STATE 180 P & A - Vertical - Surveys						Out of range
(O) IRONHOUSE 19 STATE COM 001H - Horizontal - PR						Out of range
(O) IRONHOUSE 19 STATE COM 001H - Pilot - Pilot						Out of range
(O) IRONHOUSE 19 STATE COM 002H - Horizontal - PR	16,337.15	10,220.48	107.94	26.64	1.33	Level 3, CC
(O) IRONHOUSE 19 STATE COM 002H - Horizontal - PR	16,400.00	10,280.91	108.69	26.02	1.31	Level 3, ES
(O) IRONHOUSE 19 STATE COM 002H - Horizontal - PR	16,500.00	10,380.37	111.17	26.25	1.31	Level 3, SF
(O) IRONHOUSE 19 STATE COM 003H - Horizontal - PR	15,660.93	9,707.00	1,315.22	1,230.16	15.46	CC
(O) IRONHOUSE 19 STATE COM 003H - Horizontal - PR	15,800.00	9,853.81	1,316.05	1,229.26	15.16	ES
(O) IRONHOUSE 19 STATE COM 003H - Horizontal - PR	20,100.00	14,036.00	1,632.12	1,473.53	10.29	SF
(O) IRONHOUSE 19 STATE COM 004H - Horizontal - PR						Out of range
(O) IRONHOUSE 19 STATE COM 004H - ST01 - ST01						Out of range
(O) LEA 30 STATE 001 P & A - Vertical - Surveys						Out of range
(O) LEA SOUTHEAST STATE 1 P & A - Vertical - Surveys	11,638.97	10,042.67	1,577.20	1,317.73	6.08	CC, ES, SF
(O) LEA ZD STATE 001 P & A - Vertical - Surveys						Out of range
(O) LEO STATE #1 - OH - OH	24,788.96	8,902.79	20.54	-119.95	0.15	Level 1, CC, ES, SF
(O) LEO STATE 006 TA - Verticals - Surveys						Out of range
(O) LEO STATE 007 - Verticals - Surveys	24,234.09	8,931.46	621.58	465.65	3.99	CC, ES, SF
(O) MESA MERRITT STATE 001 P & A - Vertical - Surveys						Out of range
(O) NEW MEXICO BP STATE 002 P & A - Vertical - Surve						Out of range
(O) NEW MEXICO BV STATE 001 P & A - Vertical - Surve	25,253.74	8,658.09	161.96	-202.80	0.44	Level 1, CC, ES, SF
(O) OHIO STATE 001 - Verticals - Surveys						Out of range
(O) OHIO STATE 002 - Verticals - Surveys						Out of range
(O) OHIO STATE 005 - Verticals - Surveys						Out of range
(O) SHETLAND SWD 001 - Vertical - Surveys						Out of range
(O) STATE AN 005 - Verticals - Surveys						Out of range
(O) STATE AN 006 TA - Vertical - Surveys						Out of range
(O) STATE AN 007 P & A - Vertical - Surveys	28,126.31	8,179.96	641.99	273.91	1.74	CC, ES, SF
(O) STATE AN 008 P & A - Vertical - Surveys	26,122.46	8,428.33	16.23	-326.42	0.05	Level 1, CC, ES, SF

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



### Total Directional Anticollision Report

<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

Summary						
Site Name	Reference	Offset	Distance		Separation Factor	Warning
	Measured Depth (usft)	Measured Depth (usft)	Between Centres (usft)	Between Ellipses (usft)		
<b>Offset Well - Wellbore - Design</b>						
Rope State Com Pad						
(O) STATE AN 009 P & A - Vertical - Surveys	27,453.86	8,269.81	17.74	-325.65	0.05	Level 1, CC, ES, SF
(O) STATE AN 010 P & A - Vertical - Surveys	26,792.84	8,364.04	643.22	245.81	1.62	CC, ES, SF
(O) STATE AN 012 P & A - OH - Surveys	28,115.19	8,185.89	95.26	-76.85	0.55	Level 1, CC, ES, SF
(O) STATE AN 012 P & A - ST01 - ST01	28,115.19	8,185.89	95.26	-76.85	0.55	Level 1, CC, ES, SF
Rope State Com 501H - OH - Plan #3						Out of range
Rope State Com 502H - OH - Plan #2						Out of range
Rope State Com 503H - OH - Plan #2	1,716.60	1,716.80	39.99	27.85	3.29	CC
Rope State Com 503H - OH - Plan #2	1,800.00	1,800.00	39.99	27.25	3.14	ES, SF
Rope State Com 601H - OH - Plan #2						Out of range
Rope State Com 603H - OH - Plan #2	1,516.57	1,516.87	59.99	49.28	5.60	CC
Rope State Com 603H - OH - Plan #2	1,600.00	1,600.00	59.99	48.69	5.31	ES
Rope State Com 603H - OH - Plan #2	1,700.00	1,698.25	61.67	49.67	5.14	SF
Rope State Com 604H - OH - Plan #2	1,858.83	1,859.46	15.41	2.32	1.18	Level 2, CC, ES, SF

Offset Design: Rope State Com Pad - (O) AIRSTRIP 31 18 35 RN STATE COM 114H - Horizontal - PRODUCING - Surveys														Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG Rev5														Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance				Warning		
		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
7,700.00	7,657.56	14,300.00	9,231.72	27.43	85.77	142.19	-424.86	727.32	1,592.40	1,535.99	56.41	28.230			
7,800.00	7,757.56	14,300.00	9,231.72	27.78	85.77	142.19	-424.86	727.32	1,493.62	1,437.05	56.57	26.402			
7,900.00	7,857.56	14,300.00	9,231.72	28.12	85.77	142.19	-424.86	727.32	1,395.01	1,338.28	56.74	24.587			
8,000.00	7,957.56	14,300.00	9,231.72	28.47	85.77	142.19	-424.86	727.32	1,296.62	1,239.71	56.91	22.784			
8,100.00	8,057.56	14,300.00	9,231.72	28.81	85.77	142.19	-424.86	727.32	1,198.50	1,141.41	57.09	20.993			
8,200.00	8,157.56	14,300.00	9,231.72	29.16	85.77	142.19	-424.86	727.32	1,100.71	1,043.42	57.29	19.213			
8,300.00	8,257.56	14,300.00	9,231.72	29.50	85.77	142.19	-424.86	727.32	1,003.36	945.85	57.52	17.445			
8,400.00	8,357.56	14,300.00	9,231.72	29.85	85.77	142.19	-424.86	727.32	906.59	848.80	57.79	15.687			
8,500.00	8,457.56	14,300.00	9,231.72	30.19	85.77	142.19	-424.86	727.32	810.60	752.44	58.16	13.938			
8,600.00	8,557.56	14,300.00	9,231.72	30.54	85.77	142.19	-424.86	727.32	715.71	657.03	58.68	12.197			
8,700.00	8,657.56	14,300.00	9,231.72	30.89	85.77	142.19	-424.86	727.32	622.42	562.94	59.48	10.464			
8,800.00	8,757.56	14,300.00	9,231.72	31.23	85.77	142.19	-424.86	727.32	531.58	470.76	60.82	8.740			
8,900.00	8,857.56	14,300.00	9,231.72	31.58	85.77	142.19	-424.86	727.32	444.69	381.51	63.17	7.039			
9,000.00	8,957.56	14,300.00	9,231.72	31.93	85.77	142.19	-424.86	727.32	364.57	297.12	67.46	5.404			
9,100.00	9,057.56	14,300.00	9,231.72	32.27	85.77	142.19	-424.86	727.32	296.79	221.78	75.00	3.957			
9,200.00	9,157.56	14,300.00	9,231.72	32.62	85.77	142.19	-424.86	727.32	251.50	165.79	85.70	2.935			
9,274.16	9,231.72	14,300.00	9,231.72	32.88	85.77	142.19	-424.86	727.32	240.31	147.88	92.43	2.600	CC, ES		
9,300.00	9,257.56	14,300.00	9,231.72	32.97	85.77	142.19	-424.86	727.32	241.70	147.91	93.79	2.577	SF		
9,400.00	9,357.56	14,300.00	9,231.72	33.32	85.77	142.19	-424.86	727.32	271.27	177.74	93.52	2.901			
9,500.00	9,457.56	14,300.00	9,231.72	33.67	85.77	142.19	-424.86	727.32	329.78	241.15	88.63	3.721			
9,600.00	9,557.51	14,300.00	9,231.72	34.02	85.77	135.02	-424.86	727.32	405.59	321.94	83.65	4.849			
9,700.00	9,656.05	14,300.00	9,231.72	34.36	85.77	119.12	-424.86	727.32	494.61	414.73	79.88	6.192			
9,800.00	9,750.27	14,300.00	9,231.72	34.67	85.77	89.19	-424.86	727.32	589.73	512.27	77.46	7.613			
9,900.00	9,837.31	14,300.00	9,231.72	34.96	85.77	55.19	-424.86	727.32	686.15	610.17	75.98	9.030			
10,000.00	9,914.51	14,300.00	9,231.72	35.19	85.77	34.30	-424.86	727.32	781.00	705.91	75.09	10.401			
10,100.00	9,979.54	14,300.00	9,231.72	35.39	85.77	23.48	-424.86	727.32	872.36	797.84	74.52	11.707			
10,200.00	10,030.42	14,300.00	9,231.72	35.54	85.77	17.46	-424.86	727.32	958.84	884.73	74.11	12.938			
10,300.00	10,065.60	14,300.00	9,231.72	35.66	85.77	13.80	-424.86	727.32	1,039.35	965.59	73.76	14.091			
10,400.00	10,087.79	14,300.00	9,231.72	35.75	85.77	12.39	-424.86	727.32	1,115.45	1,042.06	73.39	15.199			
10,500.00	10,101.38	14,300.00	9,231.72	35.84	85.77	11.25	-424.86	727.32	1,189.81	1,116.86	72.96	16.308			

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design: Rope State Com Pad - (O) AIRSTRIP 31 18 35 RN STATE COM 114H - Horizontal - PRODUCING - Surveys													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG Rev5											Rule Assigned:		Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
10,600.00	10,106.28	14,300.00	9,231.72	35.92	85.77	10.27	-424.86	727.32	1,262.24	1,189.78	72.46	17.420		
10,700.00	10,102.66	14,300.00	9,231.72	36.02	85.77	9.60	-424.86	727.32	1,332.68	1,260.81	71.87	18.543		
10,800.00	10,096.33	14,300.00	9,231.72	36.15	85.77	9.60	-424.86	727.32	1,404.94	1,333.71	71.23	19.725		
10,900.00	10,089.99	14,300.00	9,231.72	36.29	85.77	9.60	-424.86	727.32	1,480.43	1,409.88	70.55	20.983		
11,000.00	10,083.66	14,300.00	9,231.72	36.45	85.77	9.60	-424.86	727.32	1,558.69	1,488.82	69.87	22.308		
11,100.00	10,077.32	14,300.00	9,231.72	36.63	85.77	9.60	-424.86	727.32	1,639.31	1,570.11	69.20	23.691		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design: Rope State Com Pad - (O) AIRSTRIP 31 18 35 RN STATE COM 124H - Horizontal - PRODUCING - Surveys													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG Rev5											Rule Assigned:		Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
8,700.00	8,657.56	15,150.00	10,248.58	30.89	87.01	148.29	-421.15	694.99	1,606.00	1,544.26	61.74	26.014		
8,800.00	8,757.56	15,150.00	10,248.58	31.23	87.01	148.29	-421.15	694.99	1,506.99	1,445.06	61.93	24.334		
8,900.00	8,857.56	15,150.00	10,248.58	31.58	87.01	148.29	-421.15	694.99	1,408.13	1,346.01	62.12	22.669		
9,000.00	8,957.56	15,150.00	10,248.58	31.93	87.01	148.29	-421.15	694.99	1,309.43	1,247.13	62.31	21.016		
9,100.00	9,057.56	15,150.00	10,248.58	32.27	87.01	148.29	-421.15	694.99	1,210.95	1,148.46	62.49	19.377		
9,200.00	9,157.56	15,150.00	10,248.58	32.62	87.01	148.29	-421.15	694.99	1,112.75	1,050.06	62.68	17.752		
9,300.00	9,257.56	15,150.00	10,248.58	32.97	87.01	148.29	-421.15	694.99	1,014.89	952.01	62.88	16.140		
9,400.00	9,357.56	15,150.00	10,248.58	33.32	87.01	148.29	-421.15	694.99	917.49	854.40	63.09	14.543		
9,500.00	9,457.56	15,150.00	10,248.58	33.67	87.01	148.29	-421.15	694.99	820.73	757.39	63.33	12.959		
9,600.00	9,557.51	15,150.00	10,248.58	34.02	87.01	151.80	-421.15	694.99	725.29	661.67	63.62	11.400		
9,700.00	9,656.05	15,150.00	10,248.58	34.36	87.01	159.71	-421.15	694.99	636.96	573.06	63.91	9.967		
9,800.00	9,750.27	15,150.00	10,248.58	34.67	87.01	163.25	-421.15	694.99	563.14	498.98	64.16	8.777		
9,900.00	9,837.31	15,150.00	10,248.58	34.96	87.01	164.88	-421.15	694.99	512.79	448.58	64.21	7.986		
9,999.44	9,914.11	15,150.00	10,248.58	35.19	87.01	165.35	-421.15	694.99	494.82	431.11	63.71	7.767	CC, ES, SF	
10,000.00	9,914.51	15,150.00	10,248.58	35.19	87.01	165.35	-421.15	694.99	494.82	431.12	63.70	7.768		
10,100.00	9,979.54	15,150.00	10,248.58	35.39	87.01	164.87	-421.15	694.99	513.19	450.63	62.56	8.203		
10,200.00	10,030.42	15,150.00	10,248.58	35.54	87.01	163.22	-421.15	694.99	563.85	502.60	61.25	9.205		
10,300.00	10,065.60	15,150.00	10,248.58	35.66	87.01	159.65	-421.15	694.99	637.88	577.72	60.16	10.603		
10,400.00	10,087.79	15,150.00	10,248.58	35.75	87.01	156.13	-421.15	694.99	724.82	665.49	59.34	12.216		
10,500.00	10,101.38	15,150.00	10,248.58	35.84	87.01	150.38	-421.15	694.99	817.79	759.06	58.73	13.926		
10,600.00	10,106.28	15,150.00	10,248.58	35.92	87.01	139.62	-421.15	694.99	914.34	856.11	58.23	15.702		
10,700.00	10,102.66	15,150.00	10,248.58	36.02	87.01	123.43	-421.15	694.99	1,012.80	955.00	57.80	17.523		
10,800.00	10,096.33	15,150.00	10,248.58	36.15	87.01	123.43	-421.15	694.99	1,111.80	1,054.35	57.45	19.352		
10,900.00	10,089.99	15,150.00	10,248.58	36.29	87.01	123.43	-421.15	694.99	1,210.96	1,153.77	57.19	21.175		
11,000.00	10,083.66	15,150.00	10,248.58	36.45	87.01	123.43	-421.15	694.99	1,310.25	1,253.27	56.98	22.995		
11,100.00	10,077.32	15,150.00	10,248.58	36.63	87.01	123.43	-421.15	694.99	1,409.64	1,352.82	56.82	24.810		
11,200.00	10,070.98	15,150.00	10,248.58	36.82	87.01	123.43	-421.15	694.99	1,509.11	1,452.42	56.69	26.622		
11,300.00	10,064.65	15,150.00	10,248.58	37.03	87.01	123.43	-421.15	694.99	1,608.64	1,552.06	56.58	28.430		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design: Rope State Com Pad - (O) AIRSTRIP 31 18 35 RN STATE COM 134H - Horizontal - PRODUCING - Surveys													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG Rev5													Offset Well Error:	0.00 usft
Reference				Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
8,900.00	8,857.56	15,475.00	10,422.93	31.58	87.43	139.77	-420.01	736.50	1,584.02	1,524.69	59.34	26.696		
9,000.00	8,957.56	15,475.00	10,422.93	31.93	87.43	139.77	-420.01	736.50	1,485.28	1,425.80	59.47	24.973		
9,100.00	9,057.56	15,475.00	10,422.93	32.27	87.43	139.77	-420.01	736.50	1,386.71	1,327.10	59.61	23.263		
9,200.00	9,157.56	15,475.00	10,422.93	32.62	87.43	139.77	-420.01	736.50	1,288.37	1,228.63	59.75	21.564		
9,300.00	9,257.56	15,475.00	10,422.93	32.97	87.43	139.77	-420.01	736.50	1,190.31	1,130.42	59.88	19.877		
9,400.00	9,357.56	15,475.00	10,422.93	33.32	87.43	139.77	-420.01	736.50	1,092.59	1,032.56	60.03	18.200		
9,500.00	9,457.56	15,475.00	10,422.93	33.67	87.43	139.77	-420.01	736.50	995.33	935.12	60.20	16.533		
9,600.00	9,557.51	15,475.00	10,422.93	34.02	87.43	145.61	-420.01	736.50	899.03	838.64	60.40	14.885		
9,700.00	9,656.05	15,475.00	10,422.93	34.36	87.43	156.25	-420.01	736.50	808.37	747.94	60.44	13.376		
9,800.00	9,750.27	15,475.00	10,422.93	34.67	87.43	161.04	-420.01	736.50	729.24	668.93	60.31	12.092		
9,900.00	9,837.31	15,475.00	10,422.93	34.96	87.43	163.40	-420.01	736.50	668.53	608.47	60.05	11.132		
10,000.00	9,914.51	15,475.00	10,422.93	35.19	87.43	164.45	-420.01	736.50	633.61	573.90	59.71	10.611		
10,061.41	9,956.02	15,475.00	10,422.93	35.31	87.43	164.61	-420.01	736.50	627.47	568.02	59.46	10.553	CC, ES, SF	
10,100.00	9,979.54	15,475.00	10,422.93	35.39	87.43	164.55	-420.01	736.50	629.91	570.61	59.29	10.623		
10,200.00	10,030.42	15,475.00	10,422.93	35.54	87.43	163.74	-420.01	736.50	658.04	599.18	58.86	11.179		
10,300.00	10,065.60	15,475.00	10,422.93	35.66	87.43	161.73	-420.01	736.50	713.49	655.04	58.46	12.205		
10,400.00	10,087.79	15,475.00	10,422.93	35.75	87.43	159.85	-420.01	736.50	786.86	728.75	58.11	13.541		
10,500.00	10,101.38	15,475.00	10,422.93	35.84	87.43	157.06	-420.01	736.50	870.14	812.30	57.84	15.044		
10,600.00	10,106.28	15,475.00	10,422.93	35.92	87.43	152.62	-420.01	736.50	960.20	902.63	57.56	16.681		
10,700.00	10,102.66	15,475.00	10,422.93	36.02	87.43	147.04	-420.01	736.50	1,054.66	997.42	57.24	18.425		
10,800.00	10,096.33	15,475.00	10,422.93	36.15	87.43	147.04	-420.01	736.50	1,150.72	1,093.75	56.97	20.198		
10,900.00	10,089.99	15,475.00	10,422.93	36.29	87.43	147.04	-420.01	736.50	1,247.40	1,190.62	56.79	21.967		
11,000.00	10,083.66	15,475.00	10,422.93	36.45	87.43	147.04	-420.01	736.50	1,344.57	1,287.91	56.66	23.731		
11,100.00	10,077.32	15,475.00	10,422.93	36.63	87.43	147.04	-420.01	736.50	1,442.12	1,385.55	56.58	25.490		
11,200.00	10,070.98	15,475.00	10,422.93	36.82	87.43	147.04	-420.01	736.50	1,539.99	1,483.47	56.52	27.245		
11,300.00	10,064.65	15,475.00	10,422.93	37.03	87.43	147.04	-420.01	736.50	1,638.12	1,581.62	56.49	28.996		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design: Rope State Com Pad - (O) ALBATROSS STATE COM 001H - Horizontal - PRODUCING - Surveys													Offset Site Error:	0.00 usft
Survey Program: 100-NS-GYRO-MS, 7863-MWD OWSG Rev5											Rule Assigned:		Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
8,500.00	8,457.56	14,469.00	10,026.44	30.19	84.49	56.96	-132.29	737.95	1,580.16	1,521.98	58.18	27.160		
8,600.00	8,557.56	14,469.00	10,026.44	30.54	84.49	56.96	-132.29	737.95	1,480.92	1,422.36	58.56	25.287		
8,700.00	8,657.56	14,469.00	10,026.44	30.89	84.49	56.96	-132.29	737.95	1,381.79	1,322.81	58.98	23.428		
8,800.00	8,757.56	14,469.00	10,026.44	31.23	84.49	56.96	-132.29	737.95	1,282.80	1,223.36	59.44	21.583		
8,900.00	8,857.56	14,469.00	10,026.44	31.58	84.49	56.96	-132.29	737.95	1,183.97	1,124.03	59.94	19.751		
9,000.00	8,957.56	14,469.00	10,026.44	31.93	84.49	56.96	-132.29	737.95	1,085.36	1,024.84	60.52	17.933		
9,100.00	9,057.56	14,469.00	10,026.44	32.27	84.49	56.96	-132.29	737.95	987.03	925.83	61.20	16.128		
9,200.00	9,157.56	14,469.00	10,026.44	32.62	84.49	56.96	-132.29	737.95	889.08	827.06	62.02	14.336		
9,300.00	9,257.56	14,469.00	10,026.44	32.97	84.49	56.96	-132.29	737.95	791.63	728.59	63.05	12.556		
9,400.00	9,357.56	14,469.00	10,026.44	33.32	84.49	56.96	-132.29	737.95	694.91	630.52	64.39	10.792		
9,500.00	9,457.56	14,469.00	10,026.44	33.67	84.49	56.96	-132.29	737.95	599.27	533.01	66.26	9.044		
9,600.00	9,557.51	14,469.00	10,026.44	34.02	84.49	64.19	-132.29	737.95	505.00	436.02	68.97	7.322		
9,700.00	9,656.05	14,469.00	10,026.44	34.36	84.49	90.57	-132.29	737.95	411.11	338.22	72.89	5.640		
9,800.00	9,750.27	14,469.00	10,026.44	34.67	84.49	111.25	-132.29	737.95	320.95	242.14	78.81	4.072		
9,900.00	9,837.31	14,457.85	10,026.00	34.96	84.31	120.27	-121.16	737.48	242.67	154.85	87.82	2.763		
10,000.00	9,914.51	14,397.52	10,023.49	35.19	83.34	113.35	-60.93	734.99	182.48	81.64	100.84	1.810		
10,100.00	9,979.54	14,325.02	10,019.48	35.39	82.16	99.67	11.41	732.26	144.86	31.33	113.53	1.276	Level 3	
10,200.00	10,030.42	14,243.43	10,013.31	35.54	80.85	81.37	92.72	729.48	132.64	17.24	115.40	1.149	Level 2, ES, SF	
10,209.14	10,034.31	14,235.45	10,012.64	35.55	80.72	79.63	100.66	729.20	132.57	17.68	114.89	1.154	Level 2	
10,300.00	10,065.60	14,152.49	10,005.61	35.66	79.38	64.05	183.26	725.99	136.71	29.93	106.78	1.280	Level 3	
10,400.00	10,087.79	14,054.22	9,998.86	35.75	77.79	51.70	281.18	721.17	143.51	46.56	96.95	1.480	Level 3	
10,500.00	10,101.38	13,957.31	9,992.97	35.84	76.22	43.29	377.77	716.15	148.94	60.31	88.63	1.681		
10,600.00	10,106.28	13,855.57	9,987.23	35.92	74.57	37.32	479.19	710.47	149.80	67.36	82.44	1.817		
10,700.00	10,102.66	13,749.33	9,983.98	36.02	72.82	32.75	584.97	701.29	141.19	63.56	77.63	1.819		
10,800.00	10,096.33	13,647.56	9,982.86	36.15	71.13	26.73	685.83	687.79	127.28	55.50	71.79	1.773		
10,900.00	10,089.99	13,549.43	9,982.09	36.29	69.51	19.25	782.95	673.78	114.01	48.70	65.31	1.746		
11,000.00	10,083.66	13,451.27	9,981.78	36.45	67.88	9.50	879.96	658.80	103.33	44.23	59.11	1.748		
11,100.00	10,077.32	13,354.25	9,981.85	36.63	66.27	-1.50	975.94	644.62	95.52	39.29	56.23	1.699		
11,167.99	10,073.01	13,289.39	9,980.56	36.76	65.20	-9.82	1,040.01	634.62	94.01	36.58	57.43	1.637	CC	
11,200.00	10,070.98	13,258.07	9,979.82	36.82	64.68	-14.01	1,070.91	629.54	94.25	35.28	58.97	1.598		
11,300.00	10,064.65	13,159.62	9,978.08	37.03	63.05	-27.26	1,167.91	612.82	98.14	31.60	66.55	1.475	Level 3	
11,400.00	10,058.31	13,062.01	9,977.23	37.25	61.44	-38.83	1,264.24	597.08	105.66	31.13	74.54	1.418	Level 3	
11,500.00	10,051.98	12,965.81	9,974.26	37.49	59.86	-47.37	1,359.28	582.53	117.65	37.69	79.96	1.471	Level 3	
11,600.00	10,045.64	12,867.96	9,968.25	37.74	58.27	-53.00	1,456.00	568.96	132.57	49.92	82.65	1.604		
11,700.00	10,039.30	12,769.98	9,961.37	38.00	56.68	-57.03	1,552.89	556.19	148.26	64.30	83.96	1.766		
11,800.00	10,032.97	12,670.23	9,953.07	38.28	55.07	-59.80	1,651.54	543.98	164.49	80.20	84.29	1.951		
11,900.00	10,026.63	12,571.85	9,947.07	38.57	53.47	-62.70	1,748.97	531.69	180.23	95.67	84.57	2.131		
12,000.00	10,020.30	12,474.70	9,941.20	38.88	51.88	-65.19	1,845.10	518.99	196.87	112.35	84.53	2.329		
12,100.00	10,013.96	12,372.84	9,936.53	39.19	50.24	-67.79	1,945.93	505.37	213.56	129.24	84.33	2.533		
12,200.00	10,007.62	12,274.38	9,935.50	39.52	48.67	-70.75	2,043.52	492.34	229.34	145.12	84.22	2.723		
12,300.00	10,001.29	12,176.15	9,935.18	39.86	47.11	-73.50	2,140.84	479.02	245.75	161.85	83.90	2.929		
12,400.00	9,994.95	12,077.93	9,934.74	40.21	45.55	-75.87	2,238.17	465.83	262.54	179.18	83.36	3.149		
12,500.00	9,988.62	11,979.13	9,933.40	40.57	44.00	-77.85	2,336.11	452.92	279.07	196.44	82.63	3.377		
12,600.00	9,982.28	11,882.00	9,931.54	40.95	42.48	-79.45	2,432.43	440.50	292.66	210.89	81.78	3.579		
12,700.00	9,976.02	11,786.55	9,929.54	41.33	41.00	-80.67	2,526.97	427.47	304.61	223.74	80.87	3.767		
12,800.00	9,969.81	11,686.06	9,927.62	41.72	39.45	-81.83	2,626.40	413.07	317.10	237.18	79.92	3.968		
12,900.00	9,963.59	11,590.72	9,923.93	42.13	37.99	-82.53	2,720.65	399.26	330.09	251.15	78.93	4.182		
13,000.00	9,957.38	11,495.32	9,917.77	42.54	36.55	-82.72	2,814.75	384.79	344.12	266.23	77.90	4.418		
13,100.00	9,951.16	11,404.11	9,911.25	42.97	35.18	-82.92	2,904.43	369.51	359.83	282.96	76.87	4.681		
13,200.00	9,944.94	11,311.75	9,905.84	43.40	33.80	-83.27	2,994.97	352.11	377.46	301.58	75.88	4.975		
13,300.00	9,938.73	11,211.12	9,901.34	43.84	32.33	-83.83	3,093.58	332.54	395.56	320.63	74.93	5.279		
13,400.00	9,932.51	11,109.85	9,897.45	44.29	30.87	-84.42	3,192.95	313.41	413.08	339.07	74.01	5.581		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Rope State Com Pad - (O) ALBATROSS STATE COM 001H - Horizontal - PRODUCING - Surveys

Survey Program: 100-NS-GYRO-MS, 7863-MWD OWSG Rev5										Rule Assigned:		Offset Site Error:	
Reference										Distance		Offset Well Error:	
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Between	Between	Minimum	Separation	Warning
Depth	Depth	Depth	Depth	(usft)	(usft)	Toolface	+N/-S	+E/-W	Centres	Ellipses	Separation	Factor	
(usft)	(usft)	(usft)	(usft)			(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
13,500.00	9,926.30	11,005.58	9,893.88	44.75	29.41	-85.03	3,295.46	294.70	429.67	356.54	73.13	5.875	
13,600.00	9,920.08	10,901.35	9,890.29	45.22	27.99	-85.58	3,398.23	277.65	444.70	372.42	72.28	6.152	
13,700.00	9,913.87	10,799.01	9,885.53	45.70	26.64	-85.92	3,499.18	261.60	459.18	387.72	71.47	6.425	
13,800.00	9,907.65	10,693.93	9,881.29	46.18	25.32	-86.31	3,603.08	246.41	472.39	401.69	70.70	6.681	
13,900.00	9,901.44	10,587.50	9,877.09	46.68	24.03	-86.69	3,708.48	232.32	484.42	414.42	70.00	6.920	
14,000.00	9,895.22	10,476.33	9,870.24	47.18	22.77	-86.77	3,818.74	219.92	494.50	425.18	69.32	7.133	
14,100.00	9,889.01	10,367.11	9,864.15	47.68	21.63	-86.90	3,927.34	210.15	502.33	433.58	68.75	7.306	
14,200.00	9,882.79	10,265.76	9,860.62	48.20	20.65	-87.26	4,028.32	202.27	508.89	440.56	68.33	7.448	
14,300.00	9,876.58	10,172.68	9,854.17	48.72	19.86	-87.21	4,120.85	194.67	516.02	448.02	68.00	7.588	
14,400.00	9,870.36	10,066.37	9,839.77	49.24	19.06	-86.40	4,225.80	185.76	523.79	456.10	67.68	7.739	
14,500.00	9,864.15	9,965.82	9,817.94	49.78	18.47	-84.73	4,323.64	179.60	530.14	462.70	67.44	7.861	
14,600.00	9,857.93	9,894.00	9,791.11	50.32	18.15	-82.36	4,389.95	174.69	539.95	472.78	67.17	8.039	
14,700.00	9,851.72	9,836.65	9,760.57	50.86	17.96	-79.56	4,438.14	169.33	557.38	490.66	66.73	8.353	
14,800.00	9,845.50	9,777.10	9,723.12	51.41	17.81	-76.17	4,484.04	163.54	582.50	516.38	66.12	8.809	
14,900.00	9,839.46	9,719.35	9,682.88	51.97	17.72	-72.69	4,525.03	157.75	615.64	550.22	65.43	9.410	
15,000.00	9,833.56	9,665.86	9,642.28	52.53	17.65	-69.22	4,559.56	153.48	656.13	591.46	64.67	10.145	
15,100.00	9,827.67	9,622.81	9,607.24	53.10	17.62	-66.32	4,584.44	151.09	704.05	640.17	63.88	11.021	
15,200.00	9,821.77	9,586.89	9,576.64	53.67	17.59	-63.86	4,603.19	149.67	759.06	695.96	63.11	12.028	
15,300.00	9,815.87	9,556.72	9,550.20	54.25	17.57	-61.80	4,617.67	148.68	820.38	758.00	62.38	13.151	
15,400.00	9,809.98	9,531.52	9,527.64	54.83	17.56	-60.11	4,628.86	147.90	887.14	825.42	61.72	14.373	
15,500.00	9,804.08	9,513.00	9,510.80	55.41	17.55	-58.88	4,636.56	147.27	958.55	897.43	61.12	15.684	
15,600.00	9,798.18	9,491.12	9,490.65	56.00	17.55	-57.45	4,645.06	146.47	1,033.79	973.17	60.62	17.052	
15,700.00	9,792.28	9,482.00	9,482.18	56.60	17.54	-56.87	4,648.39	146.12	1,112.34	1,052.22	60.12	18.501	
15,800.00	9,786.39	9,450.00	9,452.09	57.20	17.53	-54.86	4,659.20	144.77	1,193.51	1,133.65	59.86	19.938	
15,900.00	9,780.49	9,450.00	9,452.09	57.80	17.53	-54.86	4,659.20	144.77	1,276.84	1,217.41	59.43	21.485	
16,000.00	9,774.01	9,431.35	9,434.34	58.41	17.53	-52.22	4,664.87	143.89	1,361.90	1,302.71	59.19	23.009	
16,100.00	9,765.59	9,418.00	9,421.56	59.02	17.53	-51.05	4,668.67	143.22	1,447.98	1,389.04	58.94	24.565	
16,200.00	9,757.12	9,402.75	9,406.90	59.64	17.53	-50.22	4,672.78	142.40	1,535.41	1,476.65	58.75	26.133	
16,300.00	9,748.65	9,386.00	9,390.74	60.27	17.53	-49.33	4,677.09	141.46	1,623.96	1,565.35	58.61	27.707	

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design: Rope State Com Pad - (O) ALBATROSS STATE COM 002H - Horizontal - PRODUCING - Surveys													Offset Site Error:	0.00 usft
Survey Program: 100-r.5 GYRO-NS, 9783-3_MWD+HRGM											Rule Assigned:		Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Reference (usft)	Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
9,600.00	9,557.51	14,962.00	10,460.68	34.02	79.12	-92.50	-148.62	-777.17	1,632.50	1,532.00	100.50	16.244		
9,700.00	9,656.05	14,962.00	10,460.68	34.36	79.12	-98.63	-148.62	-777.17	1,580.10	1,477.18	102.92	15.353		
9,800.00	9,750.27	14,962.00	10,460.68	34.67	79.12	-103.62	-148.62	-777.17	1,534.77	1,429.53	105.24	14.583		
9,900.00	9,837.31	14,962.00	10,460.68	34.96	79.12	-107.37	-148.62	-777.17	1,498.58	1,391.25	107.33	13.962		
10,000.00	9,914.51	14,962.00	10,460.68	35.19	79.12	-109.84	-148.62	-777.17	1,473.34	1,364.29	109.05	13.511		
10,100.00	9,979.54	14,936.91	10,459.80	35.39	78.79	-110.46	-123.68	-779.79	1,460.17	1,350.13	110.04	13.269		
10,200.00	10,030.42	14,838.57	10,458.25	35.54	77.49	-108.78	-25.81	-789.09	1,456.14	1,346.26	109.88	13.252	SF	
10,212.33	10,035.63	14,827.04	10,458.46	35.56	77.33	-108.59	-14.31	-789.97	1,456.07	1,346.24	109.83	13.257	CC, ES	
10,300.00	10,065.60	14,693.81	10,464.49	35.66	75.60	-106.86	118.60	-796.36	1,456.67	1,347.93	108.74	13.396		
10,400.00	10,087.79	14,576.30	10,470.74	35.75	74.08	-105.86	235.90	-799.36	1,459.73	1,352.09	107.64	13.561		
10,500.00	10,101.38	14,451.78	10,469.92	35.84	72.48	-104.90	360.36	-802.27	1,463.58	1,357.18	106.40	13.755		
10,600.00	10,106.28	14,393.74	10,467.34	35.92	71.74	-104.31	418.30	-804.34	1,470.20	1,364.32	105.88	13.885		
10,700.00	10,102.66	14,340.54	10,465.52	36.02	71.06	-103.81	471.34	-807.98	1,482.18	1,376.90	105.28	14.079		
10,800.00	10,096.33	14,245.25	10,461.49	36.15	69.83	-103.76	566.18	-816.25	1,496.43	1,392.20	104.23	14.357		
10,900.00	10,089.99	14,139.51	10,453.42	36.29	68.49	-103.56	671.14	-826.13	1,510.53	1,407.40	103.13	14.646		
11,000.00	10,083.66	14,034.51	10,444.50	36.45	67.16	-103.34	775.31	-835.86	1,524.39	1,422.31	102.07	14.934		
11,100.00	10,077.32	13,920.52	10,435.74	36.63	65.73	-103.15	888.59	-845.11	1,537.30	1,436.36	100.94	15.230		
11,200.00	10,070.98	13,825.50	10,428.56	36.82	64.54	-103.00	983.05	-852.45	1,549.90	1,449.89	100.01	15.498		
11,300.00	10,064.65	13,722.43	10,422.57	37.03	63.27	-102.90	1,085.63	-860.42	1,562.92	1,463.92	99.00	15.786		
11,400.00	10,058.31	13,574.76	10,415.81	37.25	61.47	-102.86	1,232.91	-868.75	1,574.26	1,476.69	97.56	16.136		
11,500.00	10,051.98	13,418.07	10,411.03	37.49	59.59	-102.95	1,389.49	-871.34	1,581.98	1,485.98	96.00	16.478		
11,600.00	10,045.64	13,303.67	10,407.57	37.74	58.25	-103.04	1,503.83	-870.40	1,587.30	1,492.37	94.94	16.720		
11,700.00	10,039.30	13,222.85	10,404.58	38.00	57.30	-103.08	1,584.59	-870.10	1,592.92	1,498.65	94.28	16.896		
11,800.00	10,032.97	13,136.24	10,402.08	38.28	56.30	-103.14	1,671.16	-870.57	1,599.62	1,506.05	93.57	17.096		
11,900.00	10,026.63	13,024.00	10,398.13	38.57	55.02	-103.19	1,783.33	-871.51	1,606.48	1,513.87	92.61	17.346		
12,000.00	10,020.30	12,899.87	10,390.65	38.88	53.63	-103.15	1,907.23	-871.32	1,611.73	1,520.14	91.59	17.598		
12,100.00	10,013.96	12,827.00	10,386.16	39.19	52.82	-103.12	1,979.96	-871.05	1,616.95	1,525.83	91.12	17.746		
12,200.00	10,007.62	12,757.93	10,382.06	39.52	52.06	-103.09	2,048.90	-872.03	1,623.96	1,533.27	90.69	17.907		
12,300.00	10,001.29	12,682.11	10,377.68	39.86	51.24	-103.05	2,124.52	-875.05	1,633.26	1,543.06	90.21	18.106		
12,400.00	9,994.95	12,573.91	10,373.52	40.21	50.08	-103.06	2,232.56	-879.34	1,643.08	1,553.64	89.45	18.370		
12,500.00	9,988.62	12,454.41	10,368.67	40.57	48.82	-103.13	2,351.92	-882.67	1,651.20	1,562.59	88.62	18.633		
12,600.00	9,982.28	12,350.25	10,364.98	40.95	47.76	-103.30	2,455.99	-884.70	1,655.61	1,567.65	87.96	18.823		
12,700.00	9,976.02	12,252.57	10,363.67	41.33	46.78	-103.50	2,553.64	-886.06	1,657.28	1,569.91	87.37	18.968		
12,800.00	9,969.81	12,143.02	10,362.76	41.72	45.72	-103.70	2,663.19	-887.28	1,658.59	1,571.87	86.72	19.125		
12,900.00	9,963.59	12,007.11	10,357.23	42.13	44.44	-103.80	2,798.97	-887.90	1,658.52	1,572.60	85.93	19.302		
13,000.00	9,957.38	11,864.90	10,348.66	42.54	43.16	-103.84	2,940.90	-885.54	1,655.87	1,570.73	85.14	19.449		
13,100.00	9,951.16	11,781.00	10,345.17	42.97	42.44	-103.93	3,024.69	-883.14	1,652.55	1,567.70	84.85	19.477		
13,200.00	9,944.94	11,700.90	10,343.55	43.40	41.77	-104.06	3,104.75	-881.32	1,650.32	1,565.71	84.61	19.505		
13,279.52	9,940.00	11,647.51	10,342.91	43.75	41.34	-104.16	3,158.13	-880.73	1,649.63	1,565.12	84.51	19.520		
13,300.00	9,938.73	11,634.51	10,342.77	43.84	41.23	-104.19	3,171.13	-880.73	1,649.68	1,565.19	84.49	19.526		
13,400.00	9,932.51	11,568.60	10,342.12	44.29	40.71	-104.30	3,237.03	-881.63	1,651.22	1,566.84	84.38	19.570		
13,500.00	9,926.30	11,498.36	10,340.84	44.75	40.16	-104.39	3,307.22	-884.04	1,654.61	1,570.36	84.25	19.638		
13,600.00	9,920.08	11,370.65	10,335.44	45.22	39.23	-104.44	3,434.68	-889.50	1,658.24	1,574.36	83.88	19.770		
13,700.00	9,913.87	11,229.10	10,324.94	45.70	38.28	-104.36	3,575.79	-893.38	1,659.52	1,576.01	83.52	19.871		
13,800.00	9,907.65	11,130.45	10,316.95	46.18	37.66	-104.30	3,674.10	-894.95	1,659.56	1,576.14	83.42	19.893		
13,900.00	9,901.44	11,040.58	10,311.47	46.68	37.14	-104.30	3,763.79	-896.36	1,660.08	1,576.67	83.41	19.902		
14,000.00	9,895.22	10,952.98	10,307.74	47.18	36.68	-104.35	3,851.29	-897.95	1,661.28	1,577.83	83.44	19.909		
14,100.00	9,889.01	10,859.61	10,304.03	47.68	36.22	-104.41	3,944.56	-900.20	1,663.12	1,579.62	83.50	19.917		
14,400.00	9,870.36	10,240.05	10,170.46	49.24	34.47	-101.15	4,535.80	-905.35	1,661.59	1,577.79	83.80	19.828		
14,500.00	9,864.15	10,124.41	10,089.23	49.78	34.43	-98.53	4,617.91	-905.55	1,646.07	1,561.73	84.34	19.517		
14,600.00	9,857.93	9,838.98	9,831.37	50.32	34.37	-89.67	4,727.73	-901.88	1,627.70	1,543.27	84.43	19.278		
14,700.00	9,851.72	9,827.45	9,819.89	50.86	34.37	-89.26	4,728.76	-901.53	1,613.57	1,528.55	85.02	18.978		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design: Rope State Com Pad - (O) ALBATROSS STATE COM 002H - Horizontal - PRODUCING - Surveys													Offset Site Error:	0.00 usft
Survey Program: 100-r.5 GYRO-NS, 9783-3_MWD+HRGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
14,800.00	9,845.50	9,815.00	9,807.48	51.41	34.37	-88.82	4,729.70	-901.21	1,605.47	1,519.94	85.53	18.770		
14,881.40	9,840.55	9,815.00	9,807.48	51.87	34.37	-88.82	4,729.70	-901.21	1,603.40	1,517.49	85.92	18.662		
14,900.00	9,839.46	9,815.00	9,807.48	51.97	34.37	-88.82	4,729.70	-901.21	1,603.51	1,517.52	85.99	18.647		
15,000.00	9,833.56	9,803.62	9,796.12	52.53	34.37	-88.41	4,730.40	-900.97	1,607.71	1,521.38	86.32	18.624		
15,100.00	9,827.67	9,798.15	9,790.66	53.10	34.37	-88.22	4,730.68	-900.87	1,618.06	1,531.49	86.57	18.691		
15,200.00	9,821.77	9,793.34	9,785.85	53.67	34.37	-88.05	4,730.89	-900.80	1,634.44	1,547.72	86.72	18.848		
15,300.00	9,815.87	9,783.00	9,775.52	54.25	34.37	-87.68	4,731.23	-900.68	1,656.70	1,569.95	86.75	19.097		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Rope State Com Pad - (O) BLACK JACK STATE 001 - Verticals - Surveys

Survey Program:		0-MWD OWSG Rev5		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Reference	Vertical	Measured	Offset	Reference	Offset		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	(usft)	(usft)								
21,300.00	9,293.83	9,269.65	9,254.77	94.27	33.79	137.28	12,716.64	729.20	1,576.80	1,503.52	73.28	21.516	
21,400.00	9,283.57	9,262.94	9,248.07	94.99	33.77	135.72	12,716.49	729.03	1,477.38	1,403.97	73.41	20.124	
21,500.00	9,273.31	9,256.08	9,241.21	95.70	33.76	134.02	12,716.34	728.86	1,378.00	1,304.45	73.55	18.734	
21,600.00	9,263.05	9,249.08	9,234.22	96.42	33.75	132.17	12,716.19	728.69	1,278.68	1,204.97	73.72	17.346	
21,700.00	9,252.79	9,241.92	9,227.06	97.14	33.73	130.16	12,716.05	728.51	1,179.43	1,105.52	73.90	15.960	
21,800.00	9,242.53	9,234.61	9,219.75	97.86	33.72	127.97	12,715.91	728.33	1,080.25	1,006.13	74.12	14.574	
21,900.00	9,232.27	9,227.13	9,212.28	98.58	33.70	125.57	12,715.77	728.14	981.18	906.79	74.39	13.190	
22,000.00	9,222.01	9,217.00	9,202.15	99.30	33.68	122.07	12,715.59	727.89	882.25	807.56	74.68	11.813	
22,100.00	9,211.57	9,211.27	9,196.42	100.02	33.67	123.20	12,715.50	727.75	783.51	708.33	75.18	10.422	
22,200.00	9,198.53	9,200.35	9,185.50	100.75	33.65	126.75	12,715.33	727.49	685.29	609.49	75.79	9.042	
22,300.00	9,184.32	9,188.17	9,173.33	101.47	33.63	122.62	12,715.14	727.20	587.58	510.88	76.70	7.660	
22,400.00	9,170.11	9,175.84	9,161.01	102.20	33.61	117.98	12,714.96	726.92	490.49	412.33	78.15	6.276	
22,500.00	9,155.90	9,163.36	9,148.53	102.93	33.59	112.82	12,714.79	726.64	394.44	313.77	80.67	4.889	
22,600.00	9,141.69	9,150.73	9,135.91	103.66	33.56	107.13	12,714.63	726.37	300.44	214.93	85.51	3.514	
22,700.00	9,127.48	9,137.95	9,123.13	104.38	33.54	100.96	12,714.48	726.10	211.23	115.35	95.88	2.203	
22,800.00	9,113.27	9,125.00	9,110.19	105.11	33.52	94.42	12,714.33	725.83	136.50	18.53	117.97	1.157	Level 2
22,882.20	9,101.59	9,114.16	9,099.35	105.71	33.50	88.81	12,714.21	725.61	109.50	-23.76	133.26	0.822	Level 1, CC, ES, SF
22,900.00	9,099.06	9,111.85	9,097.03	105.84	33.49	87.61	12,714.18	725.57	110.91	-21.06	131.97	0.840	Level 1
23,000.00	9,084.85	9,099.16	9,084.35	106.57	33.47	81.08	12,714.00	725.30	160.12	51.46	108.65	1.474	Level 3
23,100.00	9,070.64	9,087.02	9,072.22	107.30	33.44	75.00	12,713.79	725.04	242.19	149.35	92.84	2.609	
23,200.00	9,056.43	9,075.39	9,060.59	108.03	33.42	69.45	12,713.56	724.79	333.74	248.28	85.46	3.905	
23,300.00	9,042.22	9,064.23	9,049.44	108.77	33.40	64.46	12,713.31	724.54	428.76	347.04	81.72	5.247	
23,400.00	9,028.01	9,053.52	9,038.73	109.50	33.38	60.00	12,713.05	724.30	525.38	445.76	79.62	6.599	
23,500.00	9,013.80	9,043.23	9,028.45	110.23	33.36	56.05	12,712.77	724.06	622.87	544.54	78.34	7.951	
23,600.00	8,999.59	9,027.00	9,012.23	110.96	33.33	50.45	12,712.28	723.67	720.92	643.25	77.67	9.282	
23,700.00	8,985.38	9,027.00	9,012.23	111.70	33.33	50.45	12,712.28	723.67	819.26	742.40	76.86	10.659	
23,800.00	8,971.17	9,014.09	8,999.33	112.43	33.30	46.53	12,711.85	723.35	917.86	841.33	76.53	11.993	
23,900.00	8,956.96	9,004.75	8,990.00	113.17	33.28	43.97	12,711.52	723.12	1,016.63	940.39	76.24	13.334	
24,000.00	8,942.75	8,995.68	8,980.94	113.90	33.25	41.67	12,711.19	722.88	1,115.54	1,039.51	76.03	14.673	
24,100.00	8,928.54	8,986.86	8,972.12	114.64	33.23	39.61	12,710.86	722.65	1,214.54	1,138.68	75.87	16.009	
24,200.00	8,913.69	8,977.74	8,963.02	115.37	33.21	32.81	12,710.50	722.41	1,313.56	1,237.82	75.74	17.342	
24,300.00	8,895.66	8,966.27	8,951.56	116.11	33.19	25.40	12,710.03	722.10	1,412.24	1,336.61	75.63	18.673	
24,400.00	8,874.21	8,952.33	8,937.64	116.85	33.15	20.20	12,709.43	721.72	1,510.44	1,434.92	75.52	20.001	
24,500.00	8,849.36	8,937.86	8,923.19	117.58	33.12	16.53	12,708.77	721.31	1,608.06	1,532.68	75.39	21.331	

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Rope State Com Pad - (O) BLACK JACK STATE 003 - Verticals - Surveys

Survey Program: 243-3\_INC-Only, 1797-MWD OWSG Rev5, 4047-INC-ONLY, 4548-MWD OWSG Rev5  
 Rule Assigned: Offset Site Error: 0.00 usft  
 Offset Well Error: 0.00 usft

Measured Depth (usft)	Vertical Depth (usft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
19,900.00	9,434.91	9,431.95	9,419.01	84.34	47.13	167.05	11,336.20	659.45	1,585.84	1,499.26	86.58	18.316	
20,000.00	9,426.09	9,424.85	9,411.91	85.04	47.12	166.31	11,336.13	659.40	1,486.16	1,399.51	86.65	17.152	
20,100.00	9,416.96	9,417.37	9,404.43	85.75	47.11	167.65	11,336.06	659.36	1,386.52	1,299.80	86.72	15.989	
20,200.00	9,406.70	9,408.77	9,395.82	86.45	47.10	166.82	11,335.99	659.31	1,286.98	1,200.20	86.78	14.830	
20,300.00	9,396.44	9,400.05	9,387.11	87.16	47.09	165.87	11,335.92	659.27	1,187.46	1,100.61	86.85	13.673	
20,400.00	9,386.18	9,391.23	9,378.29	87.86	47.08	164.74	11,335.85	659.24	1,087.94	1,001.02	86.92	12.517	
20,500.00	9,375.92	9,382.29	9,369.35	88.57	47.07	163.41	11,335.79	659.21	988.44	901.45	86.98	11.363	
20,600.00	9,365.66	9,373.25	9,360.31	89.28	47.06	161.79	11,335.73	659.18	888.95	801.89	87.05	10.212	
20,700.00	9,355.40	9,364.09	9,351.15	89.99	47.05	159.80	11,335.68	659.17	789.47	702.35	87.12	9.062	
20,800.00	9,345.14	9,354.81	9,341.87	90.70	47.04	157.31	11,335.64	659.15	690.02	602.83	87.19	7.914	
20,900.00	9,334.87	9,345.41	9,332.47	91.41	47.03	154.12	11,335.59	659.15	590.60	503.33	87.27	6.767	
21,000.00	9,324.61	9,335.89	9,322.95	92.13	47.02	149.90	11,335.56	659.15	491.23	403.86	87.37	5.623	
21,100.00	9,314.35	9,326.24	9,313.30	92.84	47.01	144.16	11,335.53	659.16	391.93	304.43	87.50	4.479	
21,200.00	9,304.09	9,316.47	9,303.53	93.55	47.00	136.11	11,335.51	659.18	292.78	205.02	87.76	3.336	
21,300.00	9,293.83	9,306.57	9,293.63	94.27	46.99	124.60	11,335.49	659.20	194.00	105.47	88.53	2.191	
21,400.00	9,283.57	9,296.46	9,283.52	94.99	46.98	108.44	11,335.48	659.23	96.68	3.65	93.02	1.039	Level 2
21,492.91	9,274.04	9,287.01	9,274.07	95.65	46.97	90.07	11,335.46	659.25	28.31	-113.85	142.16	0.199	Level 1, CC, ES, SF
21,500.00	9,273.31	9,286.30	9,273.36	95.70	46.97	88.63	11,335.46	659.25	29.17	-111.53	140.70	0.207	Level 1
21,600.00	9,263.05	9,276.38	9,263.44	96.42	46.96	69.57	11,335.42	659.26	110.25	14.96	95.29	1.157	Level 2
21,700.00	9,252.79	9,266.69	9,253.75	97.14	46.95	54.49	11,335.38	659.24	208.00	117.31	90.69	2.293	
21,800.00	9,242.53	9,257.22	9,244.28	97.86	46.94	43.67	11,335.33	659.21	306.90	217.35	89.55	3.427	
21,900.00	9,232.27	9,247.97	9,235.03	98.58	46.93	36.02	11,335.27	659.17	406.12	317.01	89.10	4.558	
22,000.00	9,222.01	9,238.92	9,225.98	99.30	46.92	30.50	11,335.20	659.12	505.47	416.57	88.89	5.686	
22,100.00	9,211.57	9,229.91	9,216.97	100.02	46.91	23.94	11,335.12	659.05	604.88	516.09	88.79	6.813	
22,200.00	9,198.53	9,218.68	9,205.75	100.75	46.90	16.78	11,335.00	658.94	704.05	615.32	88.73	7.935	
22,300.00	9,184.32	9,206.63	9,193.69	101.47	46.89	14.89	11,334.86	658.81	803.11	714.42	88.69	9.055	
22,400.00	9,170.11	9,194.82	9,181.89	102.20	46.88	13.37	11,334.71	658.65	902.22	813.54	88.68	10.174	
22,500.00	9,155.90	9,183.27	9,170.34	102.93	46.87	12.14	11,334.55	658.47	1,001.34	912.67	88.68	11.292	
22,600.00	9,141.69	9,171.96	9,159.04	103.66	46.86	11.11	11,334.37	658.28	1,100.50	1,011.82	88.68	12.409	
22,700.00	9,127.48	9,160.89	9,147.97	104.38	46.85	10.23	11,334.18	658.07	1,199.68	1,110.98	88.70	13.526	
22,800.00	9,113.27	9,150.04	9,137.13	105.11	46.84	9.48	11,333.98	657.84	1,298.87	1,210.16	88.72	14.641	
22,900.00	9,099.06	9,139.42	9,126.51	105.84	46.83	8.83	11,333.77	657.60	1,398.09	1,309.35	88.74	15.755	
23,000.00	9,084.85	9,129.01	9,116.10	106.57	46.82	8.26	11,333.55	657.35	1,497.33	1,408.56	88.77	16.868	
23,100.00	9,070.64	9,118.81	9,105.90	107.30	46.81	7.75	11,333.32	657.08	1,596.58	1,507.78	88.80	17.980	

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design: Rope State Com Pad - (O) IRONHOUSE 19 STATE COM 002H - Horizontal - PRODUCING - Surveys													Offset Site Error:	0.00 usft
Survey Program: 100-r.5 GYRO-NS, 9214-MWD OWSG Rev5													Offset Well Error:	0.00 usft
Rule Assigned:														
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
14,100.00	9,889.01	9,339.00	9,338.67	47.68	32.67	-8.08	5,441.84	629.34	1,574.30	1,507.86	66.44	23.695		
14,200.00	9,882.79	9,339.00	9,338.67	48.20	32.67	-8.08	5,441.84	629.34	1,479.00	1,412.68	66.32	22.301		
14,300.00	9,876.58	9,356.76	9,355.22	48.72	32.68	-8.30	5,448.24	629.89	1,383.90	1,317.57	66.33	20.865		
14,400.00	9,870.36	9,370.00	9,367.39	49.24	32.68	-8.47	5,453.44	630.38	1,289.55	1,223.26	66.29	19.453		
14,500.00	9,864.15	9,370.00	9,367.39	49.78	32.68	-8.47	5,453.44	630.38	1,195.83	1,129.70	66.13	18.082		
14,600.00	9,857.93	9,384.62	9,380.64	50.32	32.69	-8.65	5,459.60	630.99	1,102.88	1,036.79	66.09	16.688		
14,700.00	9,851.72	9,402.00	9,396.10	50.86	32.70	-8.87	5,467.48	631.78	1,010.94	944.88	66.06	15.303		
14,800.00	9,845.50	9,402.00	9,396.10	51.41	32.70	-8.87	5,467.48	631.78	920.13	854.28	65.85	13.973		
14,900.00	9,839.46	9,433.00	9,422.85	51.97	32.72	-9.23	5,483.08	633.09	830.84	764.91	65.93	12.602		
15,000.00	9,833.56	9,433.00	9,422.85	52.53	32.72	-9.23	5,483.08	633.09	743.22	677.55	65.67	11.317		
15,100.00	9,827.67	9,465.00	9,449.20	53.10	32.75	-9.74	5,501.19	634.16	657.80	592.05	65.75	10.005		
15,200.00	9,821.77	9,481.68	9,462.36	53.67	32.76	-10.05	5,511.43	634.61	575.13	509.49	65.64	8.762		
15,300.00	9,815.87	9,506.78	9,481.30	54.25	32.78	-10.56	5,527.88	635.05	496.18	430.56	65.62	7.561		
15,400.00	9,809.98	9,536.49	9,502.24	54.83	32.80	-11.29	5,548.95	635.09	422.08	356.41	65.67	6.428		
15,500.00	9,804.08	9,574.58	9,526.68	55.41	32.83	-12.45	5,578.14	634.44	354.19	288.35	65.84	5.380		
15,600.00	9,798.18	9,623.00	9,554.42	56.00	32.85	-14.23	5,617.78	632.94	293.44	227.22	66.22	4.431		
15,700.00	9,792.28	9,686.00	9,585.11	56.60	32.89	-16.51	5,672.76	632.37	240.77	173.83	66.94	3.597		
15,800.00	9,786.39	9,749.00	9,610.74	57.20	32.92	-19.25	5,730.28	631.26	196.64	128.67	67.97	2.893		
15,900.00	9,780.49	9,826.70	9,635.22	57.80	33.07	-23.49	5,803.92	628.35	162.67	92.91	69.77	2.332		
16,000.00	9,774.01	9,912.08	9,654.86	58.41	33.37	-28.46	5,886.95	626.05	136.78	64.62	72.16	1.895		
16,100.00	9,765.59	9,997.72	9,667.63	59.02	33.73	-34.35	5,971.52	622.27	118.50	43.09	75.41	1.571		
16,200.00	9,757.12	10,086.67	9,671.09	59.64	34.17	-38.77	6,060.27	618.52	110.40	32.06	78.34	1.409	Level 3	
16,300.00	9,748.65	10,184.00	9,667.83	60.27	34.72	-41.49	6,157.48	614.88	108.21	27.69	80.51	1.344	Level 3	
16,337.15	9,745.51	10,220.48	9,666.08	60.50	34.96	-42.40	6,193.88	613.39	107.94	26.64	81.30	1.328	Level 3, CC	
16,400.00	9,740.19	10,280.91	9,662.52	60.89	35.35	-44.00	6,254.11	610.04	108.69	26.02	82.68	1.315	Level 3, ES	
16,500.00	9,731.72	10,380.37	9,655.94	61.52	36.05	-46.62	6,353.15	603.70	111.17	26.25	84.92	1.309	Level 3, SF	
16,600.00	9,723.26	10,476.59	9,648.65	62.16	36.80	-49.24	6,448.77	595.86	115.85	28.63	87.22	1.328	Level 3	
16,700.00	9,714.79	10,575.61	9,639.86	62.79	37.61	-51.59	6,546.97	586.61	122.52	33.04	89.48	1.369	Level 3	
16,800.00	9,706.32	10,675.50	9,630.29	63.43	38.49	-53.37	6,645.99	577.64	129.50	37.92	91.58	1.414	Level 3	
16,900.00	9,697.86	10,775.83	9,620.31	64.07	39.43	-54.69	6,745.48	569.28	136.27	42.71	93.56	1.456	Level 3	
17,000.00	9,689.39	10,876.43	9,610.08	64.72	40.41	-55.62	6,845.27	561.77	142.51	47.06	95.45	1.493	Level 3	
17,100.00	9,680.92	10,976.47	9,599.63	65.36	41.43	-56.23	6,944.53	554.99	148.36	51.11	97.25	1.526		
17,200.00	9,672.46	11,076.24	9,589.00	66.01	42.49	-56.72	7,043.50	548.28	154.30	55.27	99.04	1.558		
17,300.00	9,663.99	11,177.39	9,578.08	66.67	43.61	-57.04	7,143.87	541.95	159.94	59.12	100.82	1.586		
17,400.00	9,655.36	11,279.00	9,568.57	67.32	44.76	-57.72	7,244.85	536.06	164.32	61.50	102.81	1.598		
17,500.00	9,646.54	11,380.31	9,559.10	67.98	45.94	-58.25	7,345.60	531.19	167.77	63.00	104.77	1.601		
17,600.00	9,637.72	11,480.05	9,549.61	68.64	47.14	-58.59	7,444.81	527.12	170.71	64.07	106.64	1.601		
17,700.00	9,628.90	11,578.31	9,541.02	69.30	48.34	-59.32	7,542.56	521.92	174.30	65.60	108.70	1.604		
17,800.00	9,620.09	11,678.83	9,532.95	69.97	49.60	-60.40	7,642.55	515.55	178.46	67.48	110.98	1.608		
17,900.00	9,611.27	11,778.72	9,525.05	70.63	50.88	-61.40	7,741.95	509.66	182.24	68.99	113.25	1.609		
18,000.00	9,602.45	11,879.93	9,517.19	71.30	52.20	-62.38	7,842.69	503.88	185.84	70.28	115.57	1.608		
18,100.00	9,593.63	11,980.00	9,509.74	71.97	53.52	-63.29	7,942.36	498.96	188.64	70.78	117.86	1.601		
18,200.00	9,584.81	12,076.83	9,502.38	72.65	54.82	-64.20	8,038.75	493.44	192.27	72.18	120.09	1.601		
18,300.00	9,576.00	12,176.66	9,493.91	73.32	56.18	-64.98	8,138.00	488.88	197.11	74.73	122.37	1.611		
18,400.00	9,567.18	12,276.12	9,484.64	74.00	57.55	-65.49	8,236.82	480.51	202.17	77.63	124.54	1.623		
18,500.00	9,558.36	12,377.91	9,475.47	74.68	58.97	-66.00	8,338.02	474.52	206.64	79.85	126.80	1.630		
18,600.00	9,549.54	12,476.55	9,466.26	75.36	60.35	-66.38	8,436.07	468.85	211.13	82.21	128.93	1.638		
18,700.00	9,540.72	12,575.32	9,456.11	76.04	61.75	-66.53	8,534.14	463.06	216.12	85.15	130.97	1.650		
18,800.00	9,531.91	12,675.77	9,445.03	76.72	63.19	-66.52	8,633.78	456.92	221.65	88.64	133.01	1.666		
18,900.00	9,523.09	12,778.33	9,435.39	77.41	64.66	-66.81	8,735.75	451.59	225.66	90.40	135.26	1.668		
19,000.00	9,514.27	12,878.26	9,425.17	78.10	66.11	-66.86	8,835.04	446.72	229.72	92.39	137.33	1.673		
19,100.00	9,505.45	12,978.93	9,417.09	78.78	67.58	-67.44	8,935.24	441.45	233.25	93.56	139.69	1.670		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design: Rope State Com Pad - (O) IRONHOUSE 19 STATE COM 002H - Horizontal - PRODUCING - Surveys													Offset Site Error:	0.00 usft		
Survey Program: 100-r.5 GYRO-NS, 9214-MWD OWSG Rev5													Offset Well Error:	0.00 usft		
Reference													Rule Assigned:		Warning	
Measured	Vertical	Measured	Vertical	Semi Major Axis		Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning			
Depth	Depth	Depth	Depth	Reference	Offset		Toolface	+N/-S	+E/-W	Between				Between	Separation	Factor
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	(usft)				
19,200.00	9,496.63	13,079.45	9,409.82	79.47	69.06	-68.21	9,035.34	435.90	236.78	94.63	142.15	1.666				
19,300.00	9,487.82	13,179.55	9,404.70	80.17	70.55	-69.46	9,135.13	429.95	239.99	95.17	144.82	1.657				
19,400.00	9,479.00	13,278.60	9,399.90	80.86	72.03	-70.75	9,233.88	423.79	243.49	96.00	147.48	1.651				
19,500.00	9,470.18	13,376.80	9,394.60	81.55	73.51	-71.89	9,331.72	417.39	247.55	97.50	150.06	1.650				
19,600.00	9,461.36	13,476.07	9,388.65	82.25	75.01	-72.90	9,430.58	410.57	252.24	99.64	152.61	1.653				
19,700.00	9,452.54	13,575.50	9,381.67	82.95	76.51	-73.65	9,529.54	403.92	257.10	102.05	155.06	1.658				
19,800.00	9,443.72	13,672.66	9,373.88	83.64	77.99	-74.17	9,626.15	397.14	262.57	105.23	157.34	1.669				
19,900.00	9,434.91	13,772.70	9,365.08	84.34	79.52	-74.53	9,725.53	389.85	268.56	108.88	159.67	1.682				
20,000.00	9,426.09	13,836.00	9,359.21	85.04	80.49	-74.68	9,788.40	385.36	276.91	117.52	159.39	1.737				
20,100.00	9,416.96	13,836.00	9,359.21	85.75	80.49	-74.30	9,788.40	385.36	311.75	165.36	146.39	2.130				
20,200.00	9,406.70	13,836.00	9,359.21	86.45	80.49	-74.30	9,788.40	385.36	370.84	240.92	129.92	2.854				
20,300.00	9,396.44	13,836.00	9,359.21	87.16	80.49	-74.30	9,788.40	385.36	444.82	328.71	116.11	3.831				
20,400.00	9,386.18	13,836.00	9,359.21	87.86	80.49	-74.30	9,788.40	385.36	527.45	421.53	105.92	4.980				
20,500.00	9,375.92	13,836.00	9,359.21	88.57	80.49	-74.30	9,788.40	385.36	615.26	516.62	98.64	6.238				
20,600.00	9,365.66	13,836.00	9,359.21	89.28	80.49	-74.30	9,788.40	385.36	706.32	612.90	93.42	7.561				
20,700.00	9,355.40	13,836.00	9,359.21	89.99	80.49	-74.30	9,788.40	385.36	799.51	709.90	89.62	8.922				
20,800.00	9,345.14	13,836.00	9,359.21	90.70	80.49	-74.30	9,788.40	385.36	894.18	807.39	86.80	10.302				
20,900.00	9,334.87	13,836.00	9,359.21	91.41	80.49	-74.30	9,788.40	385.36	989.90	905.23	84.67	11.692				
21,000.00	9,324.61	13,836.00	9,359.21	92.13	80.49	-74.30	9,788.40	385.36	1,086.39	1,003.36	83.03	13.085				
21,100.00	9,314.35	13,836.00	9,359.21	92.84	80.49	-74.30	9,788.40	385.36	1,183.46	1,101.71	81.75	14.477				
21,200.00	9,304.09	13,836.00	9,359.21	93.55	80.49	-74.30	9,788.40	385.36	1,280.98	1,200.25	80.73	15.867				
21,300.00	9,293.83	13,836.00	9,359.21	94.27	80.49	-74.30	9,788.40	385.36	1,378.86	1,298.94	79.92	17.253				
21,400.00	9,283.57	13,836.00	9,359.21	94.99	80.49	-74.30	9,788.40	385.36	1,477.02	1,397.76	79.26	18.634				
21,500.00	9,273.31	13,836.00	9,359.21	95.70	80.49	-74.30	9,788.40	385.36	1,575.42	1,496.69	78.73	20.011				

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design: Rope State Com Pad - (O) IRONHOUSE 19 STATE COM 003H - Horizontal - PRODUCING - Surveys														Offset Site Error:	0.00 usft		
Survey Program: 100-r.5 GYRO-NS, 8272-3_MWD+HRGM														Offset Well Error:	0.00 usft		
Reference														Rule Assigned:			
Measured		Vertical		Offset		Semi Major Axis		Offset Wellbore Centre		Distance		Minimum Separation		Warning			
Depth	Depth	Measured	Vertical	Reference	Offset	Reference	Offset	+N/-S	+E/-W	Between	Between	Separation	Separation				
(usft)	(usft)	Depth	Depth	(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	Centres	Ellipses	(usft)	Factor				
14,600.00	9,857.93	9,359.00	9,338.50	50.32	29.56	-69.97	5,283.36	-584.70	1,611.58	1,537.96	73.61	21.893					
14,700.00	9,851.72	9,390.00	9,366.12	50.86	29.58	-71.13	5,297.19	-587.26	1,560.20	1,485.46	74.73	20.877					
14,800.00	9,845.50	9,403.08	9,377.59	51.41	29.59	-71.62	5,303.40	-588.28	1,513.10	1,437.34	75.76	19.972					
14,900.00	9,839.46	9,422.00	9,393.93	51.97	29.60	-72.24	5,312.82	-589.73	1,470.79	1,393.94	76.85	19.137					
15,000.00	9,833.56	9,453.00	9,420.04	52.53	29.62	-73.36	5,329.38	-591.93	1,433.45	1,355.41	78.04	18.367					
15,100.00	9,827.67	9,491.82	9,451.64	53.10	29.65	-74.74	5,351.78	-594.26	1,401.02	1,321.75	79.28	17.673					
15,200.00	9,821.77	9,527.83	9,479.72	53.67	29.68	-75.97	5,374.26	-596.05	1,373.60	1,293.15	80.45	17.073					
15,300.00	9,815.87	9,566.35	9,508.27	54.25	29.73	-77.25	5,400.05	-597.87	1,351.42	1,269.83	81.59	16.563					
15,400.00	9,809.98	9,611.00	9,540.11	54.83	29.78	-78.69	5,431.27	-600.12	1,334.28	1,251.57	82.71	16.133					
15,500.00	9,804.08	9,644.00	9,563.35	55.41	29.83	-79.75	5,454.61	-602.21	1,322.38	1,238.72	83.66	15.806					
15,600.00	9,798.18	9,683.27	9,589.83	56.00	29.90	-80.98	5,483.40	-605.47	1,316.19	1,231.62	84.57	15.563					
15,660.93	9,794.59	9,707.00	9,604.64	56.37	29.94	-81.68	5,501.79	-607.83	1,315.22	1,230.16	85.07	15.461	CC				
15,700.00	9,792.28	9,734.03	9,620.46	56.60	29.99	-82.43	5,523.52	-610.63	1,315.53	1,230.08	85.46	15.394					
15,800.00	9,786.39	9,853.81	9,681.59	57.20	30.29	-85.37	5,626.02	-619.41	1,316.05	1,229.26	86.80	15.163	ES				
15,900.00	9,780.49	9,924.46	9,706.87	57.80	30.51	-86.65	5,691.74	-624.09	1,319.01	1,231.31	87.71	15.039					
16,000.00	9,774.01	10,006.33	9,726.50	58.41	30.80	-87.67	5,770.95	-630.31	1,324.26	1,235.58	88.67	14.934					
16,100.00	9,765.59	10,098.11	9,738.86	59.02	31.19	-88.52	5,861.55	-637.61	1,330.56	1,240.82	89.74	14.827					
16,200.00	9,757.12	10,195.28	9,742.00	59.64	31.66	-89.02	5,958.34	-645.29	1,337.18	1,246.32	90.86	14.717					
16,300.00	9,748.65	10,285.68	9,741.92	60.27	32.14	-89.35	6,048.44	-652.68	1,344.21	1,252.25	91.96	14.617					
16,400.00	9,740.19	10,370.43	9,737.09	60.89	32.64	-89.46	6,132.71	-660.42	1,352.25	1,259.21	93.04	14.534					
16,500.00	9,731.72	10,458.20	9,730.09	61.52	33.20	-89.47	6,219.70	-669.38	1,361.37	1,267.20	94.18	14.456					
16,600.00	9,723.26	10,556.53	9,720.79	62.16	33.88	-89.43	6,317.04	-679.76	1,370.87	1,275.40	95.47	14.359					
16,700.00	9,714.79	10,654.19	9,711.45	62.79	34.60	-89.39	6,413.69	-690.18	1,380.49	1,283.68	96.81	14.259					
16,800.00	9,706.32	10,784.55	9,698.67	63.43	35.63	-89.32	6,542.73	-703.50	1,389.85	1,291.25	98.60	14.096					
16,900.00	9,697.86	10,905.63	9,683.56	64.07	36.64	-89.12	6,662.53	-712.48	1,396.20	1,295.90	100.30	13.920					
17,000.00	9,689.39	11,010.90	9,669.35	64.72	37.56	-88.90	6,766.58	-719.66	1,402.05	1,300.19	101.86	13.764					
17,100.00	9,680.92	11,136.07	9,653.21	65.36	38.71	-88.68	6,890.53	-726.32	1,406.32	1,302.62	103.70	13.562					
17,200.00	9,672.46	11,256.95	9,637.55	66.01	39.86	-88.46	7,010.27	-731.64	1,409.86	1,304.34	105.51	13.362					
17,300.00	9,663.99	11,365.62	9,627.10	66.67	40.92	-88.41	7,118.38	-734.67	1,411.58	1,304.34	107.24	13.163					
17,400.00	9,655.36	11,456.46	9,619.80	67.32	41.84	-88.43	7,208.89	-737.45	1,413.56	1,304.75	108.80	12.992					
17,500.00	9,646.54	11,537.15	9,612.35	67.98	42.67	-88.42	7,289.17	-740.67	1,416.51	1,306.25	110.26	12.847					
17,600.00	9,637.72	11,639.47	9,602.38	68.64	43.76	-88.39	7,390.87	-745.78	1,420.47	1,308.46	112.01	12.682					
17,700.00	9,628.90	11,746.31	9,593.65	69.30	44.91	-88.42	7,497.26	-750.37	1,423.67	1,309.83	113.84	12.506					
17,800.00	9,620.09	11,854.55	9,584.23	69.97	46.10	-88.43	7,605.00	-754.53	1,426.44	1,310.73	115.72	12.327					
17,900.00	9,611.27	11,952.91	9,576.92	70.63	47.21	-88.49	7,703.02	-758.10	1,428.96	1,311.47	117.49	12.162					
18,000.00	9,602.45	12,043.00	9,571.97	71.30	48.24	-88.61	7,792.91	-761.67	1,431.78	1,312.60	119.18	12.013					
18,100.00	9,593.63	12,116.50	9,568.52	71.97	49.09	-88.73	7,866.22	-765.52	1,435.89	1,315.24	120.65	11.902					
18,200.00	9,584.81	12,191.61	9,565.10	72.65	49.97	-88.86	7,941.06	-770.92	1,441.91	1,319.79	122.12	11.807					
18,300.00	9,576.00	12,288.27	9,559.49	73.32	51.13	-88.98	8,037.21	-779.08	1,449.21	1,325.27	123.95	11.692					
18,400.00	9,567.18	12,397.50	9,551.76	74.00	52.44	-89.06	8,145.83	-787.53	1,455.84	1,329.85	125.99	11.555					
18,500.00	9,558.36	12,477.23	9,545.47	74.68	53.42	-89.10	8,225.07	-793.85	1,462.73	1,335.19	127.55	11.468					
18,600.00	9,549.54	12,543.08	9,540.87	75.36	54.23	-89.15	8,290.43	-800.33	1,471.54	1,342.69	128.85	11.421					
18,700.00	9,540.72	12,611.00	9,537.14	76.04	55.08	-89.24	8,357.69	-809.02	1,483.05	1,352.89	130.16	11.394					
18,800.00	9,531.91	12,676.98	9,533.62	76.72	55.91	-89.33	8,422.83	-818.89	1,496.72	1,365.32	131.40	11.391					
18,900.00	9,523.09	12,763.25	9,527.83	77.41	57.01	-89.40	8,507.79	-832.67	1,511.61	1,378.55	133.06	11.360					
19,000.00	9,514.27	12,858.43	9,520.27	78.10	58.24	-89.43	8,601.36	-848.36	1,527.02	1,392.09	134.93	11.317					
19,100.00	9,505.45	12,947.99	9,512.40	78.78	59.40	-89.44	8,689.32	-863.31	1,542.67	1,405.99	136.68	11.287					
19,200.00	9,496.63	13,039.61	9,503.50	79.47	60.60	-89.41	8,779.09	-879.29	1,559.06	1,420.58	138.48	11.258					
19,300.00	9,487.82	13,214.06	9,485.31	80.17	62.89	-89.31	8,950.43	-906.38	1,573.85	1,431.72	142.13	11.073					
19,400.00	9,479.00	13,364.56	9,472.64	80.86	64.87	-89.33	9,099.43	-923.33	1,584.07	1,438.94	145.13	10.915					
19,500.00	9,470.18	13,467.28	9,463.65	81.55	66.22	-89.34	9,201.30	-933.04	1,592.46	1,445.27	147.19	10.819					
19,600.00	9,461.36	13,564.72	9,452.85	82.25	67.51	-89.26	9,297.69	-942.32	1,600.95	1,451.80	149.15	10.734					

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design: Rope State Com Pad - (O) IRONHOUSE 19 STATE COM 003H - Horizontal - PRODUCING - Surveys													Offset Site Error:	0.00 usft
Survey Program: 100-r.5 GYRO-NS, 8272-3_MWD+HRGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
19,700.00	9,452.54	13,714.21	9,435.29	82.95	69.49	-89.11	9,445.71	-953.53	1,607.20	1,455.19	152.01	10.573		
19,800.00	9,443.72	13,809.00	9,422.26	83.64	70.74	-88.94	9,539.40	-959.55	1,612.59	1,458.66	153.93	10.476		
19,900.00	9,434.91	13,903.64	9,406.95	84.34	72.00	-88.70	9,632.57	-966.03	1,618.54	1,462.70	155.84	10.386		
20,000.00	9,426.09	14,002.19	9,388.44	85.04	73.30	-88.35	9,729.12	-972.79	1,624.63	1,466.84	157.80	10.296		
20,100.00	9,416.96	14,036.00	9,381.76	85.75	73.75	-88.15	9,762.19	-975.10	1,632.12	1,473.53	158.59	10.292	SF	
20,200.00	9,406.70	14,036.00	9,381.76	86.45	73.75	-88.15	9,762.19	-975.10	1,645.27	1,486.89	158.38	10.388		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Rope State Com Pad - (O) LEA SOUTHEAST STATE 1 P & A - Vertical - Surveys

Survey Program:		0-3_INC-Only		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:		Warning	
Reference	Offset	Reference	Offset	Reference	Offset		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Offset Site Error:	Offset Well Error:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	(usft)	(usft)		+N/-S (usft)	+E/-W (usft)				
11,200.00	10,070.98	10,072.59	10,073.18	36.82	222.40	-91.09	1,601.56	-897.80	1,636.89	1,377.71	259.18	6.316
11,300.00	10,064.65	10,065.53	10,066.12	37.03	222.22	-90.83	1,601.59	-897.80	1,613.06	1,353.83	259.23	6.222
11,400.00	10,058.31	10,058.62	10,059.21	37.25	222.05	-90.58	1,601.61	-897.80	1,595.13	1,335.83	259.30	6.152
11,500.00	10,051.98	10,051.85	10,052.44	37.49	221.88	-90.34	1,601.63	-897.80	1,583.29	1,323.92	259.37	6.104
11,600.00	10,045.64	10,045.22	10,045.81	37.74	221.72	-90.10	1,601.64	-897.80	1,577.68	1,318.24	259.44	6.081
11,638.97	10,043.17	10,042.67	10,043.27	37.84	221.65	-90.00	1,601.64	-897.80	1,577.20	1,317.73	259.47	6.078 CC, ES, SF
11,700.00	10,039.30	10,038.72	10,039.32	38.00	221.55	-89.86	1,601.65	-897.80	1,578.38	1,318.86	259.51	6.082
11,800.00	10,032.97	10,032.35	10,032.95	38.28	221.39	-89.63	1,601.65	-897.80	1,585.37	1,325.79	259.57	6.108
11,900.00	10,026.63	10,026.02	10,026.63	38.57	221.24	-89.40	1,600.80	-897.80	1,598.66	1,339.04	259.62	6.158
12,000.00	10,020.30	10,019.69	10,020.30	38.88	221.08	-89.17	1,600.80	-897.80	1,617.98	1,358.33	259.64	6.232
12,100.00	10,013.96	10,013.35	10,013.96	39.19	220.92	-88.94	1,600.80	-897.80	1,643.13	1,383.49	259.64	6.328

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design: Rope State Com Pad - (O) LEO STATE #1 - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 34-MWD OWSG Rev5													Offset Well Error:	0.00 usft
Reference				Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
23,200.00	9,056.43	9,151.01	9,020.06	108.03	23.14	176.15	14,594.60	608.47	1,567.11	1,502.90	64.21	24.406		
23,300.00	9,042.22	9,128.07	8,997.14	108.77	23.20	175.36	14,593.98	609.23	1,467.78	1,403.64	64.15	22.881		
23,400.00	9,028.01	9,107.86	8,976.95	109.50	23.25	174.45	14,593.29	609.92	1,368.38	1,304.27	64.11	21.345		
23,500.00	9,013.80	9,093.00	8,962.12	110.23	23.28	173.59	14,592.70	610.44	1,268.91	1,204.78	64.12	19.788		
23,600.00	8,999.59	9,093.00	8,962.12	110.96	23.28	173.59	14,592.70	610.44	1,169.48	1,105.10	64.37	18.167		
23,700.00	8,985.38	9,077.28	8,946.42	111.70	23.31	172.44	14,592.08	611.00	1,069.99	1,005.63	64.36	16.625		
23,800.00	8,971.17	9,069.47	8,938.61	112.43	23.33	171.75	14,591.81	611.27	970.58	906.09	64.49	15.049		
23,900.00	8,956.96	9,061.22	8,930.38	113.17	23.35	170.91	14,591.54	611.55	871.20	806.57	64.63	13.479		
24,000.00	8,942.75	9,052.51	8,921.68	113.90	23.36	169.86	14,591.29	611.84	771.87	707.09	64.78	11.915		
24,100.00	8,928.54	9,043.31	8,912.48	114.64	23.38	168.51	14,591.05	612.14	672.58	607.64	64.93	10.358		
24,200.00	8,913.69	9,033.02	8,902.20	115.37	23.40	168.64	14,590.82	612.47	573.42	508.32	65.10	8.808		
24,300.00	8,895.66	9,019.37	8,888.56	116.11	23.43	168.96	14,590.57	612.89	474.81	409.51	65.31	7.271		
24,400.00	8,874.21	9,000.00	8,869.20	116.85	23.47	168.00	14,590.34	613.48	376.99	311.55	65.44	5.761		
24,500.00	8,849.36	8,977.65	8,846.86	117.58	23.51	165.79	14,590.12	614.14	280.07	214.36	65.71	4.262		
24,600.00	8,822.41	8,951.39	8,820.62	118.32	23.55	158.27	14,589.81	614.95	183.85	117.66	66.19	2.778		
24,700.00	8,795.42	8,925.52	8,794.76	119.05	23.60	138.80	14,589.46	615.77	88.45	18.31	70.14	1.261	Level 3	
24,788.96	8,771.42	8,902.79	8,772.05	119.71	23.64	91.81	14,589.10	616.51	20.54	-119.95	140.49	0.146	Level 1, CC, ES, SF	
24,800.00	8,768.44	8,899.93	8,769.19	119.79	23.64	84.14	14,589.06	616.60	23.14	-109.23	132.38	0.175	Level 1	
24,900.00	8,741.46	8,873.31	8,742.58	120.53	23.64	37.19	14,588.75	617.10	109.17	35.72	73.46	1.486	Level 3	
25,000.00	8,714.48	8,845.32	8,714.58	121.26	23.64	21.04	14,588.61	617.07	204.63	135.25	69.38	2.949		
25,100.00	8,687.50	8,820.39	8,689.66	122.00	23.64	14.76	14,588.49	616.77	300.67	232.65	68.03	4.420		
25,200.00	8,660.52	8,796.84	8,666.11	122.74	23.64	11.40	14,588.22	616.47	397.07	329.71	67.36	5.895		
25,300.00	8,633.54	8,771.66	8,640.94	123.47	23.63	9.08	14,587.79	616.13	493.69	426.55	67.14	7.353		
25,400.00	8,606.56	8,739.98	8,609.27	124.21	23.61	7.07	14,587.44	615.40	590.18	522.77	67.41	8.755		
25,500.00	8,579.58	8,708.23	8,577.54	124.95	23.58	5.58	14,587.40	614.28	686.42	618.78	67.65	10.147		
25,600.00	8,552.60	8,678.91	8,548.25	125.69	23.53	4.49	14,587.48	612.90	782.57	714.85	67.72	11.556		
25,700.00	8,525.62	8,648.99	8,518.39	126.42	23.47	3.55	14,587.63	611.16	878.66	810.85	67.81	12.958		
25,800.00	8,498.64	8,618.28	8,487.75	127.16	23.40	2.72	14,587.87	609.00	974.67	906.74	67.93	14.349		
25,900.00	8,471.66	8,554.87	8,424.58	127.90	23.24	1.32	14,589.19	603.66	1,070.50	1,001.11	69.39	15.427		
26,000.00	8,445.09	8,479.61	8,349.76	128.64	22.97	0.18	14,594.04	597.18	1,164.84	1,093.50	71.34	16.329		
26,100.00	8,421.47	8,416.88	8,287.49	129.38	22.72	-0.50	14,599.88	592.36	1,259.35	1,186.58	72.77	17.305		
26,200.00	8,401.25	8,330.76	8,202.44	130.12	22.39	-1.46	14,610.67	584.44	1,353.98	1,278.59	75.38	17.961		
26,300.00	8,384.46	8,246.13	8,119.63	130.86	22.00	-2.60	14,624.61	573.95	1,448.36	1,370.48	77.88	18.597		
26,400.00	8,371.12	8,210.25	8,084.70	131.61	21.85	-3.29	14,631.19	569.09	1,543.29	1,465.15	78.14	19.751		
26,500.00	8,361.25	8,177.56	8,052.92	132.35	21.71	-4.05	14,637.27	564.46	1,639.19	1,560.79	78.39	20.910		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Rope State Com Pad - (O) LEO STATE 007 - Verticals - Surveys

Survey Program: 305-3_INC-Only, 1741-OWSG (Rev2) MWD		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	Offset Site Error:
Reference	Vertical	Measured	Vertical	Reference	Offset		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				Offset Well Error:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)									0.00 usft
22,700.00	9,127.48	9,121.26	9,102.86	104.38	40.76	-107.22	14,049.30	-17.77	1,644.39	1,546.44	97.95	16.788		
22,800.00	9,113.27	9,109.31	9,090.91	105.11	40.73	-106.21	14,049.02	-17.96	1,552.95	1,453.28	99.67	15.580		
22,900.00	9,099.06	9,097.29	9,078.89	105.84	40.70	-105.19	14,048.75	-18.14	1,462.54	1,360.90	101.64	14.390		
23,000.00	9,084.85	9,085.19	9,066.80	106.57	40.67	-104.14	14,048.49	-18.31	1,373.35	1,269.47	103.88	13.220		
23,100.00	9,070.64	9,073.02	9,054.63	107.30	40.64	-103.08	14,048.22	-18.47	1,285.64	1,179.18	106.46	12.076		
23,200.00	9,056.43	9,060.77	9,042.39	108.03	40.61	-102.01	14,047.96	-18.62	1,199.72	1,090.30	109.42	10.964		
23,300.00	9,042.22	9,048.45	9,030.06	108.77	40.58	-100.92	14,047.70	-18.77	1,116.03	1,003.20	112.83	9.891		
23,400.00	9,028.01	9,036.04	9,017.66	109.50	40.55	-99.82	14,047.45	-18.90	1,035.08	918.34	116.74	8.866		
23,500.00	9,013.80	9,023.56	9,005.19	110.23	40.53	-98.71	14,047.19	-19.02	957.59	836.38	121.21	7.900		
23,600.00	8,999.59	9,011.00	8,992.63	110.96	40.50	-97.58	14,046.95	-19.13	884.45	758.20	126.24	7.006		
23,700.00	8,985.38	8,998.63	8,980.25	111.70	40.47	-96.46	14,046.71	-19.23	816.83	685.01	131.82	6.197		
23,800.00	8,971.17	8,986.43	8,968.07	112.43	40.44	-95.36	14,046.47	-19.32	756.22	618.45	137.77	5.489		
23,900.00	8,956.96	8,974.20	8,955.84	113.17	40.41	-94.24	14,046.24	-19.42	704.43	560.66	143.77	4.900		
24,000.00	8,942.75	8,961.93	8,943.56	113.90	40.39	-93.12	14,046.01	-19.52	663.54	514.28	149.26	4.445		
24,100.00	8,928.54	8,949.61	8,931.25	114.64	40.36	-92.00	14,045.78	-19.62	635.64	482.14	153.50	4.141		
24,200.00	8,913.69	8,936.61	8,918.25	115.37	40.33	-90.93	14,045.54	-19.73	622.49	466.77	155.72	3.997		
24,234.09	8,907.93	8,931.46	8,913.11	115.62	40.32	-90.48	14,045.45	-19.77	621.58	465.65	155.93	3.986	CC, ES, SF	
24,300.00	8,895.66	8,920.37	8,902.02	116.11	40.29	-89.41	14,045.25	-19.86	624.97	469.47	155.50	4.019		
24,400.00	8,874.21	8,900.65	8,882.30	116.85	40.25	-87.27	14,044.90	-20.02	642.63	489.70	152.93	4.202		
24,500.00	8,849.36	8,877.44	8,859.09	117.58	40.20	-84.54	14,044.50	-20.21	673.97	525.35	148.61	4.535		
24,600.00	8,822.41	8,852.03	8,833.68	118.32	40.14	-82.20	14,044.07	-20.43	716.98	573.69	143.29	5.004		
24,700.00	8,795.42	8,826.50	8,808.16	119.05	40.09	-79.99	14,043.65	-20.64	769.80	632.19	137.60	5.594		
24,800.00	8,768.44	8,800.89	8,782.55	119.79	40.03	-77.80	14,043.23	-20.86	830.55	698.54	132.01	6.291		
24,900.00	8,741.46	8,775.19	8,756.86	120.53	39.97	-75.64	14,042.83	-21.08	897.63	770.83	126.80	7.079		
25,000.00	8,714.48	8,749.40	8,731.08	121.26	39.92	-73.51	14,042.44	-21.31	969.71	847.63	122.08	7.943		
25,100.00	8,687.50	8,723.53	8,705.20	122.00	39.86	-71.43	14,042.06	-21.54	1,045.77	927.88	117.89	8.871		
25,200.00	8,660.52	8,697.56	8,679.24	122.74	39.80	-69.39	14,041.69	-21.77	1,124.99	1,010.77	114.22	9.850		
25,300.00	8,633.54	8,671.51	8,653.19	123.47	39.74	-67.40	14,041.33	-22.00	1,206.74	1,095.74	111.00	10.871		
25,400.00	8,606.56	8,645.36	8,627.05	124.21	39.68	-65.46	14,040.98	-22.24	1,290.55	1,182.34	108.21	11.927		
25,500.00	8,579.58	8,619.13	8,600.82	124.95	39.63	-63.57	14,040.64	-22.48	1,376.03	1,270.25	105.77	13.009		
25,600.00	8,552.60	8,592.81	8,574.50	125.69	39.57	-61.74	14,040.32	-22.72	1,462.89	1,359.24	103.65	14.114		
25,700.00	8,525.62	8,566.39	8,548.09	126.42	39.51	-59.96	14,040.00	-22.97	1,550.89	1,449.09	101.80	15.235		
25,800.00	8,498.64	8,539.89	8,521.59	127.16	39.45	-58.24	14,039.70	-23.22	1,639.85	1,539.68	100.18	16.370		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design: Rope State Com Pad - (O) NEW MEXICO BV STATE 001 P & A - Vertical - Surveys													Offset Site Error:	0.00 usft
Survey Program: 0-3_INC-Only													Offset Well Error:	0.00 usft
Reference				Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
23,600.00	8,999.59	9,048.21	9,035.69	110.96	259.23	-148.57	15,035.34	429.23	1,621.85	1,317.24	304.61	5.324		
23,700.00	8,985.38	9,021.52	9,009.02	111.70	258.01	-145.84	15,035.85	429.23	1,523.68	1,220.13	303.55	5.019		
23,800.00	8,971.17	8,996.93	8,984.44	112.43	256.89	-142.93	15,036.15	429.23	1,425.48	1,122.84	302.64	4.710		
23,900.00	8,956.96	8,974.19	8,961.72	113.17	255.85	-139.84	15,036.30	429.23	1,327.27	1,025.40	301.88	4.397		
24,000.00	8,942.75	8,955.16	8,942.75	113.90	254.98	-136.87	15,034.48	429.23	1,227.28	925.86	301.42	4.072		
24,100.00	8,928.54	8,940.95	8,928.54	114.64	254.34	-134.44	15,034.48	429.23	1,129.24	827.87	301.37	3.747		
24,200.00	8,913.89	8,926.10	8,913.89	115.37	253.66	-135.74	15,034.48	429.23	1,031.47	730.05	301.42	3.422		
24,300.00	8,895.66	8,908.07	8,895.66	116.11	252.84	-138.29	15,034.48	429.23	934.46	632.95	301.51	3.099		
24,400.00	8,874.21	8,886.61	8,874.21	116.85	251.86	-139.63	15,034.48	429.23	838.44	536.75	301.69	2.779		
24,500.00	8,849.36	8,861.76	8,849.36	117.58	250.73	-139.94	15,034.48	429.23	743.64	441.57	302.08	2.462		
24,600.00	8,822.41	8,860.87	8,848.59	118.32	250.66	-140.26	15,033.69	429.23	649.76	344.63	305.13	2.129		
24,700.00	8,795.42	8,818.59	8,806.36	119.05	248.78	-133.66	15,035.00	429.23	557.86	252.21	305.64	1.825		
24,800.00	8,768.44	8,781.52	8,769.32	119.79	247.14	-126.30	15,035.42	429.23	466.83	158.92	307.91	1.516		
24,900.00	8,741.46	8,753.64	8,741.46	120.53	245.91	-119.57	15,034.48	429.23	377.16	63.60	313.56	1.203	Level 2	
25,000.00	8,714.48	8,726.66	8,714.48	121.26	244.71	-112.15	15,034.48	429.23	293.13	-30.47	323.60	0.906	Level 1	
25,100.00	8,687.50	8,702.04	8,689.95	122.00	243.63	-104.67	15,034.81	429.23	219.65	-121.09	340.74	0.645	Level 1	
25,200.00	8,660.52	8,672.59	8,660.52	122.74	242.32	-94.93	15,034.48	429.23	170.02	-191.00	361.02	0.471	Level 1	
25,253.74	8,646.02	8,658.09	8,646.02	123.13	241.68	-90.00	15,034.48	429.23	161.96	-202.80	364.76	0.444	Level 1, CC, ES, SF	
25,300.00	8,633.54	8,644.36	8,632.46	123.47	241.08	-85.42	15,034.78	429.23	167.89	-191.84	359.74	0.467	Level 1	
25,400.00	8,606.56	8,616.86	8,604.98	124.21	239.86	-76.36	15,035.28	429.23	214.11	-121.79	335.90	0.637	Level 1	
25,500.00	8,579.58	8,591.42	8,579.58	124.95	238.74	-68.44	15,034.48	429.23	287.16	-28.29	315.45	0.910	Level 1	
25,600.00	8,552.60	8,564.44	8,552.60	125.69	237.55	-60.95	15,034.48	429.23	370.67	67.89	302.78	1.224	Level 2	
25,700.00	8,525.62	8,537.46	8,525.62	126.42	236.36	-54.40	15,034.48	429.23	459.22	164.37	294.85	1.557		
25,800.00	8,498.64	8,510.41	8,498.64	127.16	235.19	-48.77	15,034.48	429.23	550.37	260.79	289.59	1.901		
25,900.00	8,471.66	8,473.62	8,461.98	127.90	233.62	-42.44	15,035.02	429.23	642.58	356.72	285.86	2.248		
26,000.00	8,445.09	8,454.40	8,442.77	128.64	232.79	-41.35	15,035.20	429.23	736.03	453.04	282.98	2.601		
26,100.00	8,421.47	8,433.08	8,421.47	129.38	231.88	-42.16	15,034.48	429.23	831.78	550.99	280.79	2.962		
26,200.00	8,401.25	8,412.86	8,401.25	130.12	231.01	-43.76	15,034.48	429.23	928.04	648.92	279.12	3.325		
26,300.00	8,384.46	8,383.86	8,372.34	130.86	229.73	-44.56	15,034.89	429.23	1,024.92	747.22	277.69	3.691		
26,400.00	8,371.12	8,377.47	8,365.96	131.61	229.44	-50.38	15,034.94	429.23	1,122.77	846.03	276.74	4.057		
26,500.00	8,361.25	8,372.75	8,361.25	132.35	229.23	-58.69	15,034.48	429.23	1,221.76	945.69	276.07	4.426		
26,600.00	8,353.42	8,364.91	8,353.42	133.09	228.87	-57.68	15,034.48	429.23	1,320.64	1,045.12	275.52	4.793		
26,700.00	8,345.60	8,357.10	8,345.60	133.83	228.52	-55.75	15,034.48	429.23	1,419.63	1,144.60	275.03	5.162		
26,800.00	8,337.78	8,349.28	8,337.78	134.57	228.17	-53.91	15,034.48	429.23	1,518.72	1,244.13	274.59	5.531		
26,900.00	8,329.70	8,323.99	8,312.60	135.31	227.00	-44.54	15,034.94	429.23	1,617.50	1,343.69	273.81	5.907		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design: Rope State Com Pad - (O) STATE AN 007 P & A - Vertical - Surveys														Offset Site Error:	0.00 usft
Survey Program: 0-3_INC-Only														Offset Well Error:	0.00 usft
Reference				Offset		Semi Major Axis		Offset Wellbore Centre		Distance		Minimum Separation	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor			
26,600.00	8,353.42	8,380.77	8,353.42	133.09	232.13	-100.43	17,852.09	-81.10	1,642.89	1,341.49	301.39	5.451			
26,700.00	8,345.60	8,372.91	8,345.60	133.83	231.79	-99.76	17,852.09	-81.10	1,551.61	1,248.08	303.52	5.112			
26,800.00	8,337.78	8,365.09	8,337.78	134.57	231.44	-99.08	17,852.09	-81.10	1,461.43	1,155.45	305.98	4.776			
26,900.00	8,329.70	8,357.00	8,329.70	135.31	231.08	-99.83	17,852.09	-81.10	1,372.59	1,063.78	308.81	4.445			
27,000.00	8,318.80	8,346.06	8,318.80	136.05	230.61	-102.37	17,852.09	-81.10	1,285.57	973.62	311.95	4.121			
27,100.00	8,304.68	8,331.93	8,304.68	136.79	230.02	-103.15	17,852.09	-81.10	1,200.82	885.36	315.46	3.807			
27,200.00	8,289.90	8,317.11	8,289.90	137.54	229.40	-101.91	17,852.09	-81.10	1,118.49	798.98	319.51	3.501			
27,300.00	8,275.12	8,302.32	8,275.12	138.28	228.80	-100.65	17,852.09	-81.10	1,039.06	714.86	324.20	3.205			
27,400.00	8,260.34	8,287.54	8,260.34	139.03	228.21	-99.39	17,852.09	-81.10	963.23	633.67	329.56	2.923			
27,500.00	8,245.56	8,272.72	8,245.56	139.77	227.61	-98.11	17,852.09	-81.10	891.94	556.35	335.59	2.658			
27,600.00	8,230.78	8,257.93	8,230.78	140.52	227.01	-96.83	17,852.09	-81.10	826.35	484.16	342.19	2.415			
27,700.00	8,216.00	8,254.61	8,227.50	141.27	226.87	-96.55	17,852.10	-81.10	768.03	418.22	349.81	2.196			
27,800.00	8,201.22	8,228.32	8,201.22	142.01	225.78	-94.25	17,852.09	-81.10	718.44	362.47	355.97	2.018			
27,900.00	8,186.44	8,217.25	8,190.19	142.76	225.31	-93.28	17,852.25	-81.10	679.88	317.68	362.19	1.877			
28,000.00	8,171.65	8,198.70	8,171.65	143.51	224.51	-91.64	17,852.09	-81.10	653.99	287.67	366.32	1.785			
28,100.00	8,156.87	8,184.10	8,157.10	144.25	223.87	-90.36	17,852.29	-81.10	642.52	274.40	368.11	1.745			
28,126.31	8,152.99	8,179.96	8,152.96	144.45	223.68	-90.00	17,852.32	-81.10	641.99	273.91	368.08	1.744	CC, ES, SF		
28,200.00	8,142.09	8,169.08	8,142.09	145.00	223.19	-89.04	17,852.09	-81.10	646.14	279.26	366.89	1.761			
28,300.00	8,127.31	8,153.14	8,126.20	145.75	222.50	-87.64	17,852.28	-81.10	664.59	301.78	362.81	1.832			
28,349.47	8,120.00	8,146.94	8,120.00	146.12	222.23	-87.09	17,852.09	-81.10	678.95	318.96	359.99	1.886			

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Rope State Com Pad - (O) STATE AN 008 P & A - Vertical - Surveys

Survey Program: 0-3_INC-Only		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	Offset Site Error:
Reference	Vertical	Measured	Vertical	Reference	Offset		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				Offset Well Error:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	(usft)	(usft)									0.00 usft
24,400.00	8,874.21	8,886.61	8,874.21	116.85	231.50	177.58	15,874.15	598.41	1,660.53	1,385.64	274.89	6.041		
24,500.00	8,849.36	8,861.76	8,849.36	117.58	230.54	177.76	15,874.15	598.41	1,563.67	1,289.67	274.00	5.707		
24,600.00	8,822.41	8,849.00	8,836.60	118.32	230.04	177.73	15,874.15	598.41	1,467.45	1,193.58	273.87	5.358		
24,700.00	8,795.42	8,834.99	8,822.69	119.05	229.48	177.65	15,874.48	598.41	1,371.70	1,097.99	273.71	5.012		
24,800.00	8,768.44	8,780.71	8,768.44	119.79	227.32	177.30	15,874.15	598.41	1,274.81	1,003.81	271.00	4.704		
24,900.00	8,741.46	8,753.62	8,741.46	120.53	226.23	177.08	15,874.15	598.41	1,178.53	908.54	269.99	4.365		
25,000.00	8,714.48	8,759.68	8,747.52	121.26	226.48	177.13	15,874.03	598.41	1,082.64	811.32	271.32	3.990		
25,100.00	8,687.50	8,699.61	8,687.50	122.00	224.02	176.51	15,874.15	598.41	985.97	718.04	267.92	3.680		
25,200.00	8,660.52	8,672.63	8,660.52	122.74	222.92	176.13	15,874.15	598.41	889.69	622.80	266.89	3.334		
25,300.00	8,633.54	8,645.55	8,633.54	123.47	221.81	175.66	15,874.15	598.41	793.41	527.56	265.85	2.984		
25,400.00	8,606.56	8,624.45	8,612.46	124.21	220.95	175.21	15,874.69	598.41	697.71	432.35	265.36	2.629		
25,500.00	8,579.58	8,591.55	8,579.58	124.95	219.60	174.28	15,874.15	598.41	600.88	337.09	263.80	2.278		
25,600.00	8,552.60	8,581.03	8,569.15	125.69	219.16	173.90	15,873.82	598.41	504.58	239.94	264.64	1.907		
25,700.00	8,525.62	8,541.40	8,529.54	126.42	217.59	171.90	15,874.65	598.41	408.93	146.62	262.31	1.559		
25,800.00	8,498.64	8,510.48	8,498.64	127.16	216.36	169.08	15,874.15	598.41	312.21	51.35	260.87	1.197	Level 2	
25,900.00	8,471.66	8,483.50	8,471.66	127.90	215.29	164.40	15,874.15	598.41	216.11	-44.01	260.12	0.831	Level 1	
26,000.00	8,445.09	8,458.55	8,446.82	128.64	214.32	153.05	15,874.58	598.41	120.64	-140.51	261.15	0.462	Level 1	
26,100.00	8,421.47	8,433.18	8,421.46	129.38	213.35	106.89	15,874.76	598.41	27.78	-266.75	294.53	0.094	Level 1	
26,122.46	8,416.63	8,428.33	8,416.63	129.55	213.16	90.00	15,874.15	598.41	16.23	-326.42	342.65	0.047	Level 1, CC, ES, SF	
26,200.00	8,401.25	8,412.95	8,401.25	130.12	212.57	49.09	15,874.15	598.41	77.71	-188.39	266.11	0.292	Level 1	
26,300.00	8,384.46	8,396.17	8,384.46	130.86	211.92	31.68	15,874.15	598.41	175.33	-84.02	259.35	0.676	Level 1	
26,400.00	8,371.12	8,378.58	8,366.92	131.61	211.24	24.31	15,874.30	598.41	274.04	15.77	258.26	1.061	Level 2	
26,500.00	8,361.25	8,371.18	8,359.51	132.35	210.96	26.85	15,874.37	598.41	373.31	116.10	257.21	1.451	Level 3	
26,600.00	8,353.42	8,365.08	8,353.42	133.09	210.73	23.70	15,874.15	598.41	473.15	216.48	256.67	1.843		
26,700.00	8,345.60	8,357.26	8,345.60	133.83	210.42	19.93	15,874.15	598.41	572.80	316.45	256.35	2.234		
26,800.00	8,337.78	8,338.89	8,327.29	134.57	209.72	14.45	15,874.38	598.41	672.31	415.98	256.33	2.623		
26,900.00	8,329.70	8,333.32	8,321.73	135.31	209.50	11.66	15,874.45	598.41	771.84	515.91	255.94	3.016		
27,000.00	8,318.80	8,326.79	8,315.20	136.05	209.25	8.13	15,874.50	598.41	871.14	615.66	255.48	3.410		
27,100.00	8,304.68	8,316.26	8,304.68	136.79	208.85	6.46	15,874.15	598.41	970.47	715.50	254.96	3.806		
27,200.00	8,289.90	8,301.48	8,289.90	137.54	208.28	5.86	15,874.15	598.41	1,069.35	814.88	254.47	4.202		
27,300.00	8,275.12	8,271.27	8,259.80	138.28	207.12	4.94	15,874.61	598.41	1,167.88	913.89	253.99	4.598		
27,400.00	8,260.34	8,261.79	8,250.32	139.03	206.76	4.71	15,874.71	598.41	1,266.61	1,013.14	253.47	4.997		
27,500.00	8,245.56	8,252.90	8,241.43	139.77	206.42	4.51	15,874.76	598.41	1,365.43	1,112.43	253.00	5.397		
27,600.00	8,230.78	8,242.23	8,230.78	140.52	206.01	4.29	15,874.15	598.41	1,464.93	1,212.39	252.54	5.801		
27,700.00	8,216.00	8,227.45	8,216.00	141.27	205.44	4.02	15,874.15	598.41	1,563.82	1,311.76	252.07	6.204		
27,800.00	8,201.22	8,212.67	8,201.22	142.01	204.87	3.78	15,874.15	598.41	1,662.72	1,411.13	251.59	6.609		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Rope State Com Pad - (O) STATE AN 009 P & A - Vertical - Surveys

Survey Program: 0-3_INC-Only		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	Offset Site Error:
Reference	Vertical	Measured	Vertical	Reference	Offset		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				Offset Well Error:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	(usft)	(usft)									0.00 usft
25,800.00	8,498.64	8,516.82	8,498.64	127.16	216.61	177.69	17,194.10	585.74	1,631.90	1,370.77	261.13	6.249		
25,900.00	8,471.66	8,489.81	8,471.66	127.90	215.30	177.55	17,194.10	585.74	1,535.61	1,275.71	259.90	5.908		
26,000.00	8,445.09	8,463.10	8,445.09	128.64	213.96	177.21	17,194.10	585.74	1,439.22	1,180.57	258.65	5.564		
26,100.00	8,421.47	8,439.43	8,421.47	129.38	212.76	176.55	17,194.10	585.74	1,342.06	1,084.52	257.54	5.211		
26,200.00	8,401.25	8,419.14	8,401.25	130.12	211.74	175.59	17,194.10	585.74	1,244.14	987.54	256.60	4.849		
26,300.00	8,384.46	8,402.33	8,384.46	130.86	210.87	174.13	17,194.10	585.74	1,145.57	889.75	255.82	4.478		
26,400.00	8,371.12	8,388.92	8,371.12	131.61	210.18	171.69	17,194.10	585.74	1,046.49	791.26	255.22	4.100		
26,500.00	8,361.25	8,379.04	8,361.25	132.35	209.67	167.03	17,194.10	585.74	947.00	692.19	254.81	3.717		
26,600.00	8,353.42	8,371.19	8,353.42	133.09	209.27	165.00	17,194.10	585.74	847.32	592.83	254.49	3.329		
26,700.00	8,345.60	8,363.37	8,345.60	133.83	208.86	163.11	17,194.10	585.74	747.65	493.47	254.18	2.941		
26,800.00	8,337.78	8,360.00	8,342.23	134.57	208.69	162.14	17,194.10	585.74	648.01	393.61	254.40	2.547		
26,900.00	8,329.70	8,360.00	8,342.23	135.31	208.69	164.21	17,194.10	585.74	548.51	293.31	255.20	2.149		
27,000.00	8,318.80	8,336.43	8,318.80	136.05	207.48	162.63	17,194.10	585.74	449.03	195.92	253.11	1.774		
27,100.00	8,304.68	8,322.31	8,304.68	136.79	206.76	161.06	17,194.10	585.74	350.13	97.58	252.55	1.386	Level 3	
27,200.00	8,289.90	8,307.45	8,289.90	137.54	205.99	154.43	17,194.10	585.74	251.41	-0.70	252.10	0.997	Level 1	
27,300.00	8,275.12	8,292.64	8,275.12	138.28	205.21	141.68	17,194.10	585.74	152.91	-99.58	252.49	0.606	Level 1	
27,400.00	8,260.34	8,279.60	8,262.15	139.03	204.53	118.50	17,194.18	585.74	55.98	-209.12	265.10	0.211	Level 1	
27,453.86	8,252.38	8,269.81	8,252.38	139.43	204.02	89.99	17,194.39	585.74	17.74	-325.65	343.40	0.052	Level 1, CC, ES, SF	
27,500.00	8,245.56	8,262.98	8,245.56	139.77	203.66	69.06	17,194.10	585.74	49.23	-223.31	272.54	0.181	Level 1	
27,600.00	8,230.78	8,244.59	8,227.25	140.52	202.71	35.50	17,194.30	585.74	145.75	-108.42	254.17	0.573	Level 1	
27,700.00	8,216.00	8,233.32	8,216.00	141.27	202.14	26.22	17,194.10	585.74	244.37	-6.04	250.41	0.976	Level 1	
27,800.00	8,201.22	8,218.53	8,201.22	142.01	201.38	19.30	17,194.10	585.74	343.09	94.03	249.06	1.378	Level 3	
27,900.00	8,186.44	8,198.29	8,181.10	142.76	200.39	14.13	17,194.53	585.74	441.48	193.06	248.43	1.777		
28,000.00	8,171.65	8,188.66	8,171.48	143.51	199.92	12.51	17,194.59	585.74	540.23	292.91	247.32	2.184		
28,100.00	8,156.87	8,174.04	8,156.87	144.25	199.21	10.63	17,194.10	585.74	639.58	393.00	246.58	2.594		
28,200.00	8,142.09	8,145.66	8,128.61	145.00	197.86	8.25	17,194.48	585.74	738.19	492.03	246.17	2.999		
28,300.00	8,127.31	8,137.23	8,120.19	145.75	197.47	7.73	17,194.59	585.74	836.86	591.53	245.33	3.411		
28,349.47	8,120.00	8,133.42	8,116.39	146.12	197.30	7.52	17,194.61	585.74	885.73	640.77	244.97	3.616		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Rope State Com Pad - (O) STATE AN 010 P & A - Vertical - Surveys

Survey Program: 0-3_INC-Only		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
25,300.00	8,633.54	8,660.12	8,633.54	123.47	279.20	-121.45	16,532.14	-68.15	1,593.92	1,248.07	345.85	4.609	
25,400.00	8,606.56	8,633.06	8,606.56	124.21	277.77	-119.74	16,532.14	-68.15	1,506.31	1,159.57	346.74	4.344	
25,500.00	8,579.58	8,605.98	8,579.58	124.95	276.32	-117.97	16,532.14	-68.15	1,419.84	1,071.92	347.92	4.081	
25,600.00	8,552.60	8,578.97	8,552.60	125.69	274.85	-116.13	16,532.14	-68.15	1,334.71	985.26	349.44	3.820	
25,700.00	8,525.62	8,551.89	8,525.62	126.42	273.35	-114.24	16,532.14	-68.15	1,251.20	899.86	351.33	3.561	
25,800.00	8,498.64	8,524.81	8,498.64	127.16	271.85	-112.28	16,532.14	-68.15	1,169.65	815.97	353.69	3.307	
25,900.00	8,471.66	8,497.73	8,471.66	127.90	270.33	-110.27	16,532.14	-68.15	1,090.51	733.98	356.53	3.059	
26,000.00	8,445.09	8,471.08	8,445.09	128.64	268.82	-107.15	16,532.14	-68.15	1,014.26	654.30	359.96	2.818	
26,100.00	8,421.47	8,447.37	8,421.47	129.38	267.49	-103.18	16,532.14	-68.15	941.15	576.95	364.21	2.584	
26,200.00	8,401.25	8,427.13	8,401.25	130.12	266.37	-99.62	16,532.14	-68.15	872.24	502.94	369.30	2.362	
26,300.00	8,384.46	8,410.27	8,384.46	130.86	265.45	-96.55	16,532.14	-68.15	808.93	433.82	375.11	2.156	
26,400.00	8,371.12	8,396.91	8,371.12	131.61	264.73	-94.04	16,532.14	-68.15	752.97	371.59	381.38	1.974	
26,500.00	8,361.25	8,386.97	8,361.25	132.35	264.19	-92.11	16,532.14	-68.15	706.37	318.79	387.58	1.822	
26,600.00	8,353.42	8,381.24	8,355.54	133.09	263.88	-91.53	16,532.44	-68.15	671.42	278.36	393.06	1.708	
26,700.00	8,345.60	8,371.29	8,345.60	133.83	263.35	-90.64	16,532.14	-68.15	649.84	253.41	396.43	1.639	
26,792.84	8,338.34	8,364.04	8,338.34	134.51	262.96	-90.00	16,532.14	-68.15	643.22	245.81	397.41	1.619	CC, ES, SF
26,800.00	8,337.78	8,363.48	8,337.78	134.57	262.93	-89.95	16,532.14	-68.15	643.26	245.87	397.39	1.619	
26,900.00	8,329.70	8,352.95	8,327.34	135.31	262.35	-88.92	16,532.35	-68.15	652.00	256.62	395.38	1.649	
27,000.00	8,318.80	8,344.40	8,318.80	136.05	261.88	-87.68	16,532.14	-68.15	675.47	284.45	391.01	1.727	
27,100.00	8,304.68	8,330.28	8,304.68	136.79	261.10	-85.99	16,532.14	-68.15	711.96	327.33	384.63	1.851	
27,200.00	8,289.90	8,314.96	8,289.43	137.54	260.29	-84.66	16,532.41	-68.15	759.48	382.14	377.34	2.013	
27,300.00	8,275.12	8,300.63	8,275.12	138.28	259.53	-83.41	16,532.14	-68.15	816.55	446.70	369.85	2.208	
27,400.00	8,260.34	8,284.17	8,258.72	139.03	258.70	-81.99	16,532.42	-68.15	880.74	518.16	362.58	2.429	
27,500.00	8,245.56	8,270.99	8,245.56	139.77	258.04	-80.85	16,532.14	-68.15	951.25	595.35	355.90	2.673	
27,600.00	8,230.78	8,249.41	8,224.07	140.52	256.98	-79.02	16,532.50	-68.15	1,026.04	676.47	349.56	2.935	
27,700.00	8,216.00	8,241.33	8,216.00	141.27	256.59	-78.33	16,532.14	-68.15	1,105.10	760.81	344.29	3.210	
27,800.00	8,201.22	8,226.54	8,201.22	142.01	255.87	-77.09	16,532.14	-68.15	1,186.92	847.54	339.38	3.497	
27,900.00	8,186.44	8,206.45	8,181.18	142.76	254.87	-75.43	16,532.42	-68.15	1,270.94	936.13	334.81	3.796	
28,000.00	8,171.65	8,196.91	8,171.65	143.51	254.39	-74.64	16,532.14	-68.15	1,357.40	1,026.35	331.05	4.100	
28,100.00	8,156.87	8,175.88	8,150.69	144.25	253.30	-72.94	16,532.41	-68.15	1,445.02	1,117.74	327.28	4.415	
28,200.00	8,142.09	8,167.26	8,142.09	145.00	252.85	-72.25	16,532.14	-68.15	1,534.45	1,210.15	324.30	4.732	
28,300.00	8,127.31	8,142.20	8,117.12	145.75	251.53	-70.28	16,532.51	-68.15	1,624.47	1,303.44	321.03	5.060	

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Rope State Com Pad - (O) STATE AN 012 P & A - OH - Surveys

Survey Program:		Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:		Offset Site Error:
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside	+N/-S	+E/-W	Between	Between	Minimum	Separation	Warning	0.00 usft
Depth	Depth	Depth	Depth	(usft)	(usft)	Toolface	(usft)	(usft)	Centres	Ellipses	Separation	Factor		0.00 usft
(usft)	(usft)	(usft)	(usft)			(°)			(usft)	(usft)	(usft)			
26,500.00	8,361.25	8,224.21	8,188.93	132.35	28.11	-66.87	17,850.86	464.42	1,616.96	1,545.09	71.87	22.498		
26,600.00	8,353.42	8,228.70	8,193.39	133.09	28.11	-66.60	17,851.32	464.27	1,517.19	1,445.09	72.10	21.042		
26,700.00	8,345.60	8,232.83	8,197.50	133.83	28.11	-68.72	17,851.75	464.13	1,417.45	1,345.09	72.36	19.589		
26,800.00	8,337.78	8,235.33	8,199.98	134.57	28.11	-70.03	17,852.00	464.06	1,317.73	1,245.10	72.64	18.141		
26,900.00	8,329.70	8,238.02	8,202.66	135.31	28.11	-80.74	17,852.28	463.97	1,218.06	1,145.09	72.96	16.694		
27,000.00	8,318.80	8,237.21	8,201.85	136.05	28.11	-103.92	17,852.20	464.00	1,118.41	1,045.07	73.34	15.251		
27,100.00	8,304.68	8,232.98	8,197.64	136.79	28.11	-114.06	17,851.76	464.13	1,018.89	945.11	73.77	13.811		
27,200.00	8,289.90	8,226.90	8,191.61	137.54	28.11	-111.04	17,851.14	464.33	919.47	845.17	74.31	12.374		
27,300.00	8,275.12	8,221.24	8,185.98	138.28	28.11	-108.09	17,850.55	464.52	820.17	745.16	75.01	10.934		
27,400.00	8,260.34	8,215.95	8,180.72	139.03	28.11	-105.24	17,849.99	464.69	721.03	645.06	75.97	9.492		
27,500.00	8,245.56	8,210.99	8,175.79	139.77	28.11	-102.48	17,849.45	464.87	622.13	544.80	77.33	8.045		
27,600.00	8,230.78	8,206.33	8,171.16	140.52	28.10	-99.82	17,848.95	465.03	523.61	444.23	79.38	6.596		
27,700.00	8,216.00	8,201.95	8,166.81	141.27	28.10	-97.28	17,848.47	465.18	425.74	343.03	82.71	5.148		
27,800.00	8,201.22	8,197.65	8,162.54	142.01	28.10	-94.75	17,847.99	465.34	329.10	240.48	88.62	3.714		
27,900.00	8,186.44	8,193.39	8,158.32	142.76	28.10	-92.21	17,847.51	465.50	235.23	134.74	100.49	2.341		
28,000.00	8,171.65	8,189.63	8,154.58	143.51	28.10	-89.96	17,847.08	465.65	149.43	21.89	127.54	1.172	Level 2	
28,100.00	8,156.87	8,186.36	8,151.33	144.25	28.10	-87.99	17,846.70	465.78	96.46	-74.39	170.85	0.565	Level 1	
28,115.19	8,154.63	8,185.89	8,150.87	144.37	28.10	-87.71	17,846.64	465.80	95.26	-76.85	172.11	0.553	Level 1, CC, ES, SF	
28,200.00	8,142.09	8,183.31	8,148.31	145.00	28.10	-86.16	17,846.34	465.91	127.51	-10.48	137.99	0.924	Level 1	
28,300.00	8,127.31	8,180.36	8,145.38	145.75	28.10	-84.39	17,846.00	466.03	207.84	105.00	102.83	2.021		
28,349.47	8,120.00	8,178.93	8,143.96	146.12	28.10	-83.54	17,845.83	466.09	252.80	158.78	94.03	2.689		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Rope State Com Pad - (O) STATE AN 012 P & A - ST01 - ST01

Survey Program:		Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:		Offset Site Error:
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside		+N/-S	+E/-W	Between	Between	Minimum	Separation	Warning
Depth	Depth	Depth	Depth	(usft)	(usft)	Toolface	(°)	(usft)	(usft)	Centres	Ellipses	Separation	Factor	
(usft)	(usft)	(usft)	(usft)							(usft)	(usft)	(usft)		
26,500.00	8,361.25	8,224.21	8,188.93	132.35	28.11	-66.87		17,850.86	464.42	1,616.96	1,545.09	71.87	22.498	
26,600.00	8,353.42	8,228.70	8,193.39	133.09	28.11	-66.60		17,851.32	464.27	1,517.19	1,445.09	72.10	21.042	
26,700.00	8,345.60	8,232.83	8,197.50	133.83	28.11	-68.72		17,851.75	464.13	1,417.45	1,345.09	72.36	19.589	
26,800.00	8,337.78	8,235.33	8,199.98	134.57	28.11	-70.03		17,852.00	464.06	1,317.73	1,245.10	72.64	18.141	
26,900.00	8,329.70	8,238.02	8,202.66	135.31	28.11	-80.74		17,852.28	463.97	1,218.06	1,145.09	72.96	16.694	
27,000.00	8,318.80	8,237.21	8,201.85	136.05	28.11	-103.92		17,852.20	464.00	1,118.41	1,045.07	73.34	15.251	
27,100.00	8,304.68	8,232.98	8,197.64	136.79	28.11	-114.06		17,851.76	464.13	1,018.89	945.11	73.77	13.811	
27,200.00	8,289.90	8,226.90	8,191.61	137.54	28.11	-111.04		17,851.14	464.33	919.47	845.17	74.31	12.374	
27,300.00	8,275.12	8,221.24	8,185.98	138.28	28.11	-108.09		17,850.55	464.52	820.17	745.16	75.01	10.934	
27,400.00	8,260.34	8,215.95	8,180.72	139.03	28.11	-105.24		17,849.99	464.69	721.03	645.06	75.97	9.492	
27,500.00	8,245.56	8,210.99	8,175.79	139.77	28.11	-102.48		17,849.45	464.87	622.13	544.80	77.33	8.045	
27,600.00	8,230.78	8,206.33	8,171.16	140.52	28.10	-99.82		17,848.95	465.03	523.61	444.23	79.38	6.596	
27,700.00	8,216.00	8,201.95	8,166.81	141.27	28.10	-97.28		17,848.47	465.18	425.74	343.03	82.71	5.148	
27,800.00	8,201.22	8,197.65	8,162.54	142.01	28.10	-94.75		17,847.99	465.34	329.10	240.48	88.62	3.714	
27,900.00	8,186.44	8,193.39	8,158.32	142.76	28.10	-92.21		17,847.51	465.50	235.23	134.74	100.49	2.341	
28,000.00	8,171.65	8,189.63	8,154.58	143.51	28.10	-89.96		17,847.08	465.65	149.43	21.89	127.54	1.172	Level 2
28,100.00	8,156.87	8,186.36	8,151.33	144.25	28.10	-87.99		17,846.70	465.78	96.46	-74.39	170.85	0.565	Level 1
28,115.19	8,154.63	8,185.89	8,150.87	144.37	28.10	-87.71		17,846.64	465.80	95.26	-76.85	172.11	0.553	Level 1, CC, ES, SF
28,200.00	8,142.09	8,183.31	8,148.31	145.00	28.10	-86.16		17,846.34	465.91	127.51	-10.48	137.99	0.924	Level 1
28,300.00	8,127.31	8,180.36	8,145.38	145.75	28.10	-84.39		17,846.00	466.03	207.84	105.00	102.83	2.021	
28,349.47	8,120.00	8,178.93	8,143.96	146.12	28.10	-83.54		17,845.83	466.09	252.80	158.78	94.03	2.689	

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design: Rope State Com Pad - Rope State Com 503H - OH - Plan #2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+MS													Offset Well Error:	0.00 usft
Reference				Semi Major Axis		Highside		Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
0.00	0.00	0.20	0.00	0.00	0.00	-90.23	-0.16	-39.99	39.99	39.99				
100.00	100.00	100.20	100.00	0.28	0.28	-90.23	-0.16	-39.99	39.99	39.44	0.55	72.346		
200.00	200.00	200.20	200.00	0.63	0.64	-90.23	-0.16	-39.99	39.99	38.72	1.27	31.496		
300.00	300.00	300.20	300.00	0.99	0.99	-90.23	-0.16	-39.99	39.99	38.00	1.99	20.130		
400.00	400.00	400.20	400.00	1.35	1.35	-90.23	-0.16	-39.99	39.99	37.29	2.70	14.792		
500.00	500.00	500.20	500.00	1.71	1.71	-90.23	-0.16	-39.99	39.99	36.57	3.42	11.691		
600.00	600.00	600.20	600.00	2.07	2.07	-90.23	-0.16	-39.99	39.99	35.85	4.14	9.665		
700.00	700.00	700.20	700.00	2.43	2.43	-90.23	-0.16	-39.99	39.99	35.14	4.85	8.238		
800.00	800.00	800.20	800.00	2.79	2.79	-90.23	-0.16	-39.99	39.99	34.42	5.57	7.178		
900.00	900.00	900.20	900.00	3.14	3.14	-90.23	-0.16	-39.99	39.99	33.70	6.29	6.359		
1,000.00	1,000.00	1,000.20	1,000.00	3.50	3.50	-90.23	-0.16	-39.99	39.99	32.99	7.01	5.709		
1,100.00	1,100.00	1,100.20	1,100.00	3.86	3.86	-90.23	-0.16	-39.99	39.99	32.27	7.72	5.179		
1,200.00	1,200.00	1,200.20	1,200.00	4.22	4.22	-90.23	-0.16	-39.99	39.99	31.55	8.44	4.739		
1,300.00	1,300.00	1,300.20	1,300.00	4.58	4.58	-90.23	-0.16	-39.99	39.99	30.83	9.16	4.368		
1,400.00	1,400.00	1,400.20	1,400.00	4.94	4.94	-90.23	-0.16	-39.99	39.99	30.12	9.87	4.050		
1,500.00	1,500.00	1,500.20	1,500.00	5.29	5.30	-90.23	-0.16	-39.99	39.99	29.40	10.59	3.776		
1,600.00	1,600.00	1,600.20	1,600.00	5.65	5.65	-90.23	-0.16	-39.99	39.99	28.68	11.31	3.537		
1,700.00	1,700.00	1,700.20	1,700.00	6.01	6.01	-90.23	-0.16	-39.99	39.99	27.97	12.02	3.326		
1,716.60	1,716.60	1,716.80	1,716.60	6.07	6.07	-90.23	-0.16	-39.99	39.99	27.85	12.14	3.293	CC	
1,800.00	1,800.00	1,800.00	1,799.80	6.37	6.37	-90.23	-0.16	-39.99	39.99	27.25	12.74	3.139	ES, SF	
1,900.00	1,899.98	1,898.98	1,898.76	6.72	6.71	157.25	-1.15	-41.38	43.02	29.60	13.42	3.205		
2,000.00	1,999.84	1,997.22	1,996.86	7.05	7.04	156.17	-4.10	-45.52	52.09	38.02	14.07	3.702		
2,100.00	2,099.45	2,094.37	2,093.66	7.39	7.36	155.00	-8.93	-52.30	67.16	52.45	14.71	4.567		
2,200.00	2,198.70	2,192.29	2,191.04	7.73	7.70	154.52	-14.86	-60.63	86.91	71.55	15.37	5.655		
2,300.00	2,297.73	2,289.99	2,288.21	8.08	8.03	154.72	-20.78	-68.94	108.21	92.18	16.04	6.748		
2,400.00	2,396.76	2,387.70	2,385.38	8.43	8.36	154.86	-26.71	-77.25	129.51	112.81	16.71	7.752		
2,500.00	2,495.78	2,485.40	2,482.55	8.77	8.70	154.96	-32.63	-85.57	150.81	133.43	17.38	8.677		
2,600.00	2,594.81	2,583.11	2,579.72	9.12	9.04	155.03	-38.55	-93.88	172.11	154.05	18.06	9.531		
2,700.00	2,693.84	2,680.81	2,676.89	9.48	9.38	155.09	-44.48	-102.20	193.41	174.67	18.74	10.321		
2,800.00	2,792.87	2,778.52	2,774.06	9.83	9.72	155.13	-50.40	-110.51	214.71	195.29	19.42	11.054		
2,900.00	2,891.89	2,876.22	2,871.23	10.19	10.06	155.17	-56.32	-118.83	236.01	215.90	20.11	11.735		
3,000.00	2,990.92	2,973.93	2,968.40	10.54	10.40	155.20	-62.25	-127.14	257.31	236.51	20.80	12.370		
3,100.00	3,089.95	3,071.63	3,065.57	10.90	10.75	155.23	-68.17	-135.46	278.61	257.12	21.49	12.963		
3,200.00	3,188.98	3,169.34	3,162.74	11.26	11.09	155.25	-74.09	-143.77	299.92	277.73	22.19	13.517		
3,300.00	3,288.00	3,267.04	3,259.91	11.62	11.44	155.27	-80.02	-152.08	321.22	298.33	22.88	14.036		
3,400.00	3,387.03	3,364.75	3,357.08	11.98	11.78	155.29	-85.94	-160.40	342.52	318.93	23.58	14.524		
3,500.00	3,486.06	3,462.45	3,454.25	12.34	12.13	155.31	-91.86	-168.71	363.82	339.53	24.28	14.982		
3,600.00	3,585.09	3,560.16	3,551.42	12.70	12.48	155.32	-97.79	-177.03	385.12	360.13	24.98	15.414		
3,700.00	3,684.11	3,657.86	3,648.59	13.06	12.83	155.33	-103.71	-185.34	406.42	380.73	25.69	15.822		
3,800.00	3,783.14	3,755.57	3,745.76	13.42	13.18	155.34	-109.64	-193.66	427.72	401.33	26.39	16.207		
3,900.00	3,882.17	3,853.27	3,842.93	13.78	13.53	155.35	-115.56	-201.97	449.02	421.93	27.10	16.571		
4,000.00	3,981.20	3,950.98	3,940.10	14.15	13.88	155.36	-121.48	-210.29	470.32	442.52	27.80	16.917		
4,100.00	4,080.22	4,048.68	4,037.27	14.51	14.23	155.37	-127.41	-218.60	491.62	463.11	28.51	17.244		
4,200.00	4,179.25	4,146.39	4,134.44	14.88	14.58	155.38	-133.33	-226.91	512.92	483.71	29.22	17.555		
4,300.00	4,278.28	4,244.09	4,231.61	15.24	14.93	155.39	-139.25	-235.23	534.22	504.30	29.93	17.851		
4,400.00	4,377.31	4,341.80	4,328.78	15.61	15.28	155.39	-145.18	-243.54	555.53	524.89	30.64	18.133		
4,500.00	4,476.34	4,439.50	4,425.95	15.97	15.64	155.40	-151.10	-251.86	576.83	545.48	31.35	18.401		
4,600.00	4,575.36	4,537.21	4,523.12	16.34	15.99	155.40	-157.02	-260.17	598.13	566.07	32.06	18.657		
4,700.00	4,674.39	4,634.91	4,620.29	16.70	16.34	155.41	-162.95	-268.49	619.43	586.66	32.77	18.902		
4,800.00	4,773.42	4,732.62	4,717.46	17.07	16.69	155.41	-168.87	-276.80	640.73	607.25	33.48	19.136		
4,900.00	4,872.45	4,830.32	4,814.63	17.44	17.05	155.42	-174.79	-285.12	662.03	627.83	34.20	19.360		
5,000.00	4,971.47	4,928.03	4,911.80	17.80	17.40	155.42	-180.72	-293.43	683.33	648.42	34.91	19.574		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Rope State Com Pad - Rope State Com 503H - OH - Plan #2

Survey Program: 0-MWD+IFR1+MS		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	Offset Site Error:
Reference	Reference	Reference	Reference	Reference	Reference		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				Offset Well Error:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	(usft)	(usft)									0.00 usft
5,100.00	5,070.50	5,025.73	5,008.97	18.17	17.76	155.43	-186.64	-301.74	704.63	669.01	35.62	19.780		
5,200.00	5,169.53	5,123.44	5,106.14	18.54	18.11	155.43	-192.56	-310.06	725.93	689.59	36.34	19.977		
5,300.00	5,268.56	5,221.14	5,203.31	18.91	18.46	155.44	-198.49	-318.37	747.23	710.18	37.05	20.166		
5,400.00	5,367.58	5,318.85	5,300.48	19.27	18.82	155.44	-204.41	-326.69	768.54	730.77	37.77	20.348		
5,500.00	5,466.61	5,416.55	5,397.65	19.64	19.17	155.44	-210.33	-335.00	789.84	751.35	38.49	20.522		
5,600.00	5,565.64	5,514.26	5,494.82	20.01	19.53	155.44	-216.26	-343.32	811.14	771.93	39.20	20.691		
5,700.00	5,664.67	5,611.96	5,591.99	20.38	19.88	155.45	-222.18	-351.63	832.44	792.52	39.92	20.853		
5,800.00	5,763.69	5,709.67	5,689.16	20.75	20.24	155.45	-228.10	-359.95	853.74	813.10	40.64	21.009		
5,900.00	5,862.72	5,833.47	5,812.45	21.12	20.69	155.52	-234.55	-369.00	873.90	832.37	41.54	21.039		
6,000.00	5,961.75	5,966.13	5,944.96	21.48	21.16	155.80	-238.07	-373.94	890.38	847.94	42.45	20.977		
6,100.00	6,060.78	6,081.95	6,060.78	21.85	21.56	156.20	-238.50	-374.54	903.57	860.34	43.23	20.902		
6,200.00	6,159.80	6,180.97	6,159.80	22.22	21.90	156.55	-238.50	-374.54	916.33	872.40	43.93	20.858		
6,300.00	6,258.83	6,280.00	6,258.83	22.59	22.24	156.89	-238.50	-374.54	929.13	884.50	44.63	20.816		
6,400.00	6,358.09	6,379.26	6,358.09	22.96	22.57	157.27	-238.50	-374.54	940.29	894.95	45.34	20.740		
6,500.00	6,457.71	6,478.88	6,457.71	23.32	22.92	157.53	-238.50	-374.54	948.26	902.22	46.04	20.597		
6,600.00	6,557.58	6,578.75	6,557.58	23.68	23.26	157.68	-238.50	-374.54	953.01	906.28	46.74	20.392		
6,700.00	6,657.56	6,678.73	6,657.56	24.02	23.60	-90.21	-238.50	-374.54	954.55	907.12	47.42	20.129		
6,800.00	6,757.56	6,778.73	6,757.56	24.36	23.94	-90.21	-238.50	-374.54	954.55	906.44	48.10	19.844		
6,900.00	6,857.56	6,878.73	6,857.56	24.70	24.29	-90.21	-238.50	-374.54	954.55	905.76	48.78	19.568		
7,000.00	6,957.56	6,978.73	6,957.56	25.04	24.63	-90.21	-238.50	-374.54	954.55	905.08	49.46	19.298		
7,100.00	7,057.56	7,078.73	7,057.56	25.38	24.98	-90.21	-238.50	-374.54	954.55	904.40	50.15	19.035		
7,200.00	7,157.56	7,178.73	7,157.56	25.72	25.32	-90.21	-238.50	-374.54	954.55	903.72	50.83	18.779		
7,300.00	7,257.56	7,278.73	7,257.56	26.06	25.67	-90.21	-238.50	-374.54	954.55	903.03	51.51	18.530		
7,400.00	7,357.56	7,378.73	7,357.56	26.41	26.01	-90.21	-238.50	-374.54	954.55	902.35	52.20	18.287		
7,500.00	7,457.56	7,478.73	7,457.56	26.75	26.36	-90.21	-238.50	-374.54	954.55	901.66	52.88	18.050		
7,600.00	7,557.56	7,578.73	7,557.56	27.09	26.70	-90.21	-238.50	-374.54	954.55	900.98	53.57	17.818		
7,700.00	7,657.56	7,678.73	7,657.56	27.43	27.05	-90.21	-238.50	-374.54	954.55	900.29	54.26	17.592		
7,800.00	7,757.56	7,778.73	7,757.56	27.78	27.40	-90.21	-238.50	-374.54	954.55	899.60	54.95	17.372		
7,900.00	7,857.56	7,878.73	7,857.56	28.12	27.75	-90.21	-238.50	-374.54	954.55	898.91	55.64	17.157		
8,000.00	7,957.56	7,978.73	7,957.56	28.47	28.09	-90.21	-238.50	-374.54	954.55	898.22	56.33	16.947		
8,100.00	8,057.56	8,078.73	8,057.56	28.81	28.44	-90.21	-238.50	-374.54	954.55	897.53	57.02	16.742		
8,200.00	8,157.56	8,178.73	8,157.56	29.16	28.79	-90.21	-238.50	-374.54	954.55	896.84	57.71	16.541		
8,300.00	8,257.56	8,278.73	8,257.56	29.50	29.14	-90.21	-238.50	-374.54	954.55	896.15	58.40	16.345		
8,400.00	8,357.56	8,378.73	8,357.56	29.85	29.49	-90.21	-238.50	-374.54	954.55	895.46	59.09	16.154		
8,500.00	8,457.56	8,478.73	8,457.56	30.19	29.84	-90.21	-238.50	-374.54	954.55	894.76	59.78	15.967		
8,600.00	8,557.56	8,578.73	8,557.56	30.54	30.19	-90.21	-238.50	-374.54	954.55	894.07	60.48	15.783		
8,700.00	8,657.56	8,678.73	8,657.56	30.89	30.54	-90.21	-238.50	-374.54	954.55	893.37	61.17	15.604		
8,800.00	8,757.56	8,778.73	8,757.56	31.23	30.89	-90.21	-238.50	-374.54	954.55	892.68	61.87	15.429		
8,900.00	8,857.56	8,878.73	8,857.56	31.58	31.24	-90.21	-238.50	-374.54	954.55	891.99	62.56	15.258		
9,000.00	8,957.56	8,978.73	8,957.56	31.93	31.59	-90.21	-238.50	-374.54	954.55	891.29	63.26	15.090		
9,100.00	9,057.56	9,078.73	9,057.56	32.27	31.94	-90.21	-238.50	-374.54	954.55	890.59	63.95	14.926		
9,200.00	9,157.56	9,178.73	9,157.56	32.62	32.29	-90.21	-238.50	-374.54	954.55	889.90	64.65	14.765		
9,300.00	9,257.56	9,278.73	9,257.56	32.97	32.64	-90.21	-238.50	-374.54	954.55	889.20	65.35	14.608		
9,400.00	9,357.56	9,378.73	9,357.56	33.32	32.99	-90.21	-238.50	-374.54	954.55	888.50	66.04	14.453		
9,500.00	9,457.56	9,478.73	9,457.56	33.67	33.34	-90.21	-238.50	-374.54	954.55	887.81	66.74	14.302		
9,503.82	9,461.38	9,482.55	9,461.38	33.68	33.35	-93.38	-238.50	-374.54	954.55	887.78	66.77	14.297		
9,600.00	9,557.51	9,577.28	9,555.80	34.02	33.68	-93.09	-232.20	-374.61	954.70	887.28	67.43	14.159		
9,700.00	9,656.05	9,674.46	9,650.24	34.36	34.00	-92.56	-209.77	-374.85	955.89	887.80	68.08	14.040		
9,800.00	9,750.27	9,770.56	9,738.58	34.67	34.30	-91.96	-172.22	-375.26	958.23	889.53	68.69	13.949		
9,900.00	9,837.31	9,865.70	9,818.64	34.96	34.55	-91.30	-121.04	-375.81	961.63	892.38	69.25	13.887		
10,000.00	9,914.51	9,960.02	9,888.59	35.19	34.77	-90.60	-57.93	-376.49	965.98	896.25	69.73	13.853		
10,100.00	9,979.54	10,053.69	9,946.88	35.39	34.96	-89.89	15.25	-377.29	971.13	900.98	70.15	13.844		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Rope State Com Pad - Rope State Com 503H - OH - Plan #2

Survey Program:		0-MWD+IFR1+MS		Semi Major Axis		Highside	Offset Wellbore Centre		Distance		Minimum Separation	Separation Factor	Warning	Offset Site Error:
Reference	Offset	Reference	Offset	Reference	Offset		+N/-S	+E/-W	Between Centres	Between Ellipses				Offset Well Error:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	(usft)	(usft)	(")	(usft)	(usft)	(usft)	(usft)	(usft)			
10,200.00	10,030.42	10,146.87	9,992.29	35.54	35.12	-89.18	96.50	-378.17	976.91	906.43	70.49	13.859		
10,300.00	10,065.60	10,239.75	10,023.86	35.66	35.24	-88.49	183.74	-379.11	983.15	912.39	70.75	13.895		
10,400.00	10,087.79	10,335.83	10,045.01	35.75	35.35	-88.16	277.42	-380.12	989.59	918.61	70.98	13.942		
10,500.00	10,101.38	10,431.98	10,058.25	35.84	35.45	-87.85	372.63	-381.15	996.13	924.94	71.18	13.994		
10,600.00	10,106.28	10,528.17	10,063.46	35.92	35.54	-87.57	468.63	-382.18	1,002.70	931.33	71.37	14.050		
10,700.00	10,102.66	10,624.40	10,060.61	36.02	35.64	-87.36	564.79	-383.22	1,009.27	937.70	71.57	14.102		
10,800.00	10,096.33	10,723.78	10,052.62	36.15	35.77	-87.28	663.84	-384.28	1,015.93	944.11	71.82	14.145		
10,900.00	10,089.99	10,823.54	10,044.55	36.29	35.92	-87.20	763.28	-385.35	1,022.60	950.49	72.11	14.182		
11,000.00	10,083.66	10,923.31	10,036.49	36.45	36.08	-87.12	862.71	-386.42	1,029.27	956.85	72.42	14.212		
11,100.00	10,077.32	11,023.08	10,028.42	36.63	36.27	-87.04	962.15	-387.49	1,035.94	963.17	72.77	14.236		
11,200.00	10,070.98	11,122.85	10,020.35	36.82	36.46	-86.96	1,061.58	-388.56	1,042.61	969.47	73.14	14.254		
11,300.00	10,064.65	11,222.61	10,012.29	37.03	36.68	-86.88	1,161.02	-389.63	1,049.29	975.74	73.55	14.266		
11,400.00	10,058.31	11,322.38	10,004.22	37.25	36.90	-86.81	1,260.45	-390.69	1,055.97	981.98	73.99	14.273		
11,500.00	10,051.98	11,422.15	9,996.15	37.49	37.14	-86.73	1,359.89	-391.76	1,062.65	988.20	74.45	14.273		
11,600.00	10,045.64	11,521.91	9,988.08	37.74	37.40	-86.66	1,459.32	-392.83	1,069.33	994.38	74.94	14.268		
11,700.00	10,039.30	11,621.68	9,980.02	38.00	37.67	-86.58	1,558.75	-393.90	1,076.01	1,000.54	75.46	14.259		
11,800.00	10,032.97	11,721.45	9,971.95	38.28	37.95	-86.51	1,658.19	-394.97	1,082.69	1,006.68	76.01	14.244		
11,900.00	10,026.63	11,821.22	9,963.88	38.57	38.25	-86.44	1,757.62	-396.04	1,089.38	1,012.79	76.59	14.224		
12,000.00	10,020.30	11,920.98	9,955.82	38.88	38.56	-86.37	1,857.06	-397.10	1,096.07	1,018.88	77.19	14.200		
12,100.00	10,013.96	12,020.75	9,947.75	39.19	38.88	-86.30	1,956.49	-398.17	1,102.76	1,024.94	77.81	14.172		
12,200.00	10,007.62	12,120.52	9,939.68	39.52	39.22	-86.23	2,055.93	-399.24	1,109.45	1,030.98	78.47	14.139		
12,300.00	10,001.29	12,220.28	9,931.62	39.86	39.57	-86.16	2,155.36	-400.31	1,116.14	1,037.00	79.14	14.103		
12,400.00	9,994.95	12,320.05	9,923.55	40.21	39.93	-86.09	2,254.80	-401.38	1,122.83	1,042.99	79.84	14.064		
12,500.00	9,988.62	12,419.85	9,915.48	40.57	40.30	-86.10	2,354.26	-402.45	1,129.03	1,048.47	80.56	14.015		
12,600.00	9,982.28	12,519.78	9,907.40	40.95	40.68	-86.15	2,453.86	-403.52	1,132.14	1,050.83	81.31	13.924		
12,700.00	9,976.02	12,619.76	9,899.32	41.33	41.07	-86.10	2,553.51	-404.59	1,132.48	1,050.41	82.07	13.799		
12,800.00	9,969.81	12,719.75	9,891.23	41.72	41.48	-86.01	2,653.16	-405.66	1,132.61	1,049.75	82.86	13.669		
12,900.00	9,963.59	12,819.73	9,883.15	42.13	41.89	-85.91	2,752.81	-406.73	1,132.74	1,049.07	83.67	13.538		
13,000.00	9,957.38	12,919.71	9,875.06	42.54	42.31	-85.82	2,852.46	-407.80	1,132.88	1,048.38	84.50	13.407		
13,100.00	9,951.16	13,019.69	9,866.98	42.97	42.75	-85.73	2,952.11	-408.87	1,133.01	1,047.67	85.35	13.275		
13,200.00	9,944.94	13,119.68	9,858.89	43.40	43.19	-85.63	3,051.76	-409.94	1,133.15	1,046.94	86.21	13.144		
13,300.00	9,938.73	13,219.66	9,850.81	43.84	43.64	-85.54	3,151.41	-411.01	1,133.30	1,046.20	87.10	13.011		
13,400.00	9,932.51	13,319.64	9,842.72	44.29	44.10	-85.44	3,251.06	-412.08	1,133.45	1,045.44	88.00	12.879		
13,500.00	9,926.30	13,419.62	9,834.64	44.75	44.57	-85.35	3,350.71	-413.15	1,133.60	1,044.67	88.93	12.748		
13,600.00	9,920.08	13,519.61	9,826.56	45.22	45.05	-85.25	3,450.36	-414.22	1,133.75	1,043.89	89.86	12.616		
13,700.00	9,913.87	13,619.59	9,818.47	45.70	45.54	-85.16	3,550.00	-415.30	1,133.90	1,043.09	90.82	12.485		
13,800.00	9,907.65	13,719.57	9,810.39	46.18	46.03	-85.06	3,649.65	-416.37	1,134.06	1,042.28	91.79	12.355		
13,900.00	9,901.44	13,819.55	9,802.30	46.68	46.53	-84.97	3,749.30	-417.44	1,134.23	1,041.45	92.77	12.226		
14,000.00	9,895.22	13,919.54	9,794.22	47.18	47.04	-84.88	3,848.95	-418.51	1,134.39	1,040.62	93.77	12.097		
14,100.00	9,889.01	14,019.52	9,786.13	47.68	47.56	-84.78	3,948.60	-419.58	1,134.56	1,039.77	94.79	11.969		
14,200.00	9,882.79	14,119.50	9,778.05	48.20	48.08	-84.69	4,048.25	-420.65	1,134.73	1,038.92	95.82	11.843		
14,300.00	9,876.58	14,219.48	9,769.97	48.72	48.61	-84.59	4,147.90	-421.72	1,134.91	1,038.05	96.86	11.717		
14,400.00	9,870.36	14,319.47	9,761.88	49.24	49.14	-84.50	4,247.55	-422.79	1,135.08	1,037.17	97.91	11.593		
14,500.00	9,864.15	14,419.45	9,753.80	49.78	49.69	-84.40	4,347.20	-423.86	1,135.27	1,036.29	98.98	11.470		
14,600.00	9,857.93	14,519.43	9,745.71	50.32	50.23	-84.31	4,446.85	-424.93	1,135.45	1,035.39	100.06	11.348		
14,700.00	9,851.72	14,619.41	9,737.63	50.86	50.79	-84.22	4,546.50	-426.00	1,135.64	1,034.49	101.15	11.227		
14,800.00	9,845.50	14,719.39	9,729.54	51.41	51.35	-84.12	4,646.15	-427.07	1,135.83	1,033.57	102.25	11.108		
14,900.00	9,839.46	14,819.37	9,721.46	51.97	51.91	-84.02	4,745.79	-428.14	1,136.04	1,032.67	103.36	10.991		
15,000.00	9,833.56	14,919.35	9,713.38	52.53	52.48	-83.91	4,845.44	-429.22	1,136.26	1,031.78	104.49	10.875		
15,100.00	9,827.67	15,019.33	9,705.29	53.10	53.05	-83.80	4,945.08	-430.29	1,136.50	1,030.88	105.62	10.760		
15,200.00	9,821.77	15,119.30	9,697.21	53.67	53.63	-83.69	5,044.72	-431.36	1,136.73	1,029.97	106.76	10.647		
15,300.00	9,815.87	15,219.28	9,689.12	54.25	54.22	-83.58	5,144.36	-432.43	1,136.97	1,029.06	107.91	10.536		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Rope State Com Pad - Rope State Com 503H - OH - Plan #2

Survey Program: 0-MWD+IFR1+MS		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	Offset Site Error:
Reference	Vertical	Measured	Vertical	Reference	Offset		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				Offset Well Error:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	(usft)	(usft)									0.00 usft
15,400.00	9,809.98	15,319.25	9,681.04	54.83	54.81	-83.47	5,244.01	-433.50	1,137.22	1,028.14	109.08	10.426		
15,500.00	9,804.08	15,419.23	9,672.96	55.41	55.40	-83.36	5,343.65	-434.57	1,137.47	1,027.22	110.25	10.317		
15,600.00	9,798.18	15,519.21	9,664.87	56.00	56.00	-83.25	5,443.29	-435.64	1,137.72	1,026.29	111.43	10.211		
15,700.00	9,792.28	15,619.18	9,656.79	56.60	56.60	-83.14	5,542.94	-436.71	1,137.98	1,025.36	112.61	10.105		
15,800.00	9,786.39	15,719.16	9,648.71	57.20	57.21	-83.03	5,642.58	-437.78	1,138.24	1,024.43	113.81	10.001		
15,900.00	9,780.49	15,819.13	9,640.62	57.80	57.82	-82.92	5,742.22	-438.85	1,138.50	1,023.49	115.02	9.899		
16,000.00	9,774.01	15,919.12	9,632.54	58.41	58.43	-82.84	5,841.87	-439.92	1,138.70	1,022.47	116.23	9.797		
16,100.00	9,765.59	16,019.12	9,624.45	59.02	59.05	-82.86	5,941.54	-440.99	1,138.66	1,021.19	117.47	9.693		
16,200.00	9,757.12	16,119.12	9,616.37	59.64	59.67	-82.88	6,041.21	-442.06	1,138.61	1,019.90	118.71	9.591		
16,300.00	9,748.65	16,219.12	9,608.28	60.27	60.29	-82.89	6,140.87	-443.14	1,138.57	1,018.60	119.96	9.491		
16,400.00	9,740.19	16,319.11	9,600.19	60.89	60.92	-82.91	6,240.54	-444.21	1,138.52	1,017.30	121.22	9.392		
16,500.00	9,731.72	16,419.11	9,592.11	61.52	61.55	-82.93	6,340.20	-445.28	1,138.47	1,015.99	122.49	9.295		
16,600.00	9,723.26	16,519.11	9,584.02	62.16	62.19	-82.95	6,439.87	-446.35	1,138.42	1,014.67	123.76	9.199		
16,700.00	9,714.79	16,619.11	9,575.94	62.79	62.82	-82.97	6,539.54	-447.42	1,138.38	1,013.34	125.03	9.105		
16,800.00	9,706.32	16,719.11	9,567.85	63.43	63.46	-82.99	6,639.20	-448.49	1,138.33	1,012.01	126.32	9.012		
16,900.00	9,697.86	16,819.11	9,559.77	64.07	64.11	-83.01	6,738.87	-449.56	1,138.29	1,010.68	127.61	8.920		
17,000.00	9,689.39	16,919.11	9,551.68	64.72	64.75	-83.03	6,838.53	-450.63	1,138.24	1,009.34	128.90	8.830		
17,100.00	9,680.92	17,019.11	9,543.59	65.36	65.40	-83.05	6,938.20	-451.70	1,138.19	1,007.99	130.20	8.742		
17,200.00	9,672.46	17,119.11	9,535.51	66.01	66.05	-83.07	7,037.87	-452.77	1,138.15	1,006.64	131.51	8.655		
17,300.00	9,663.99	17,219.11	9,527.42	66.67	66.71	-83.09	7,137.53	-453.84	1,138.10	1,005.29	132.82	8.569		
17,400.00	9,655.56	17,319.11	9,519.34	67.32	67.36	-83.11	7,237.20	-454.92	1,138.04	1,003.91	134.13	8.485		
17,500.00	9,646.54	17,419.10	9,511.25	67.98	68.02	-83.15	7,336.86	-455.99	1,137.95	1,002.50	135.45	8.401		
17,600.00	9,637.72	17,519.10	9,503.17	68.64	68.68	-83.19	7,436.53	-457.06	1,137.86	1,001.08	136.78	8.319		
17,700.00	9,628.90	17,619.10	9,495.08	69.30	69.34	-83.22	7,536.19	-458.13	1,137.77	999.66	138.11	8.238		
17,800.00	9,620.09	17,719.10	9,487.00	69.97	70.01	-83.26	7,635.85	-459.20	1,137.69	998.24	139.44	8.159		
17,900.00	9,611.27	17,819.09	9,478.91	70.63	70.68	-83.30	7,735.52	-460.27	1,137.60	996.82	140.78	8.080		
18,000.00	9,602.45	17,919.09	9,470.82	71.30	71.35	-83.33	7,835.18	-461.34	1,137.52	995.39	142.13	8.003		
18,100.00	9,593.63	18,019.09	9,462.74	71.97	72.02	-83.37	7,934.85	-462.41	1,137.43	993.96	143.48	7.928		
18,200.00	9,584.81	18,119.09	9,454.65	72.65	72.69	-83.41	8,034.51	-463.48	1,137.35	992.52	144.83	7.853		
18,300.00	9,576.00	18,219.08	9,446.57	73.32	73.37	-83.44	8,134.17	-464.55	1,137.26	991.08	146.18	7.780		
18,400.00	9,567.18	18,319.08	9,438.48	74.00	74.05	-83.48	8,233.84	-465.63	1,137.18	989.64	147.54	7.708		
18,500.00	9,558.36	18,419.08	9,430.40	74.68	74.72	-83.52	8,333.50	-466.70	1,137.10	988.19	148.90	7.636		
18,600.00	9,549.54	18,519.07	9,422.31	75.36	75.41	-83.55	8,433.17	-467.77	1,137.01	986.74	150.27	7.566		
18,700.00	9,540.72	18,619.07	9,414.23	76.04	76.09	-83.59	8,532.83	-468.84	1,136.93	985.29	151.64	7.498		
18,800.00	9,531.91	18,719.07	9,406.14	76.72	76.77	-83.63	8,632.49	-469.91	1,136.85	983.84	153.01	7.430		
18,900.00	9,523.09	18,819.07	9,398.05	77.41	77.46	-83.66	8,732.16	-470.98	1,136.77	982.38	154.39	7.363		
19,000.00	9,514.27	18,919.06	9,389.97	78.10	78.15	-83.70	8,831.82	-472.05	1,136.69	980.92	155.77	7.297		
19,100.00	9,505.45	19,019.06	9,381.88	78.78	78.84	-83.74	8,931.49	-473.12	1,136.61	979.46	157.15	7.233		
19,200.00	9,496.63	19,119.06	9,373.80	79.47	79.53	-83.78	9,031.15	-474.19	1,136.53	977.99	158.53	7.169		
19,300.00	9,487.82	19,219.06	9,365.71	80.17	80.22	-83.81	9,130.82	-475.26	1,136.45	976.53	159.92	7.106		
19,400.00	9,479.00	19,319.05	9,357.63	80.86	80.91	-83.85	9,230.48	-476.33	1,136.37	975.06	161.31	7.045		
19,500.00	9,470.18	19,419.05	9,349.54	81.55	81.61	-83.89	9,330.14	-477.41	1,136.29	973.58	162.71	6.984		
19,600.00	9,461.36	19,519.05	9,341.46	82.25	82.30	-83.92	9,429.81	-478.48	1,136.21	972.11	164.10	6.924		
19,700.00	9,452.54	19,619.04	9,333.37	82.95	83.00	-83.96	9,529.47	-479.55	1,136.13	970.63	165.50	6.865		
19,800.00	9,443.72	19,719.04	9,325.28	83.64	83.70	-84.00	9,629.14	-480.62	1,136.06	969.15	166.90	6.807		
19,900.00	9,434.91	19,819.04	9,317.20	84.34	84.40	-84.03	9,728.80	-481.69	1,135.98	967.67	168.31	6.750		
20,000.00	9,426.09	19,919.04	9,309.11	85.04	85.10	-84.07	9,828.46	-482.76	1,135.90	966.19	169.71	6.693		
20,100.00	9,416.96	20,019.03	9,301.03	85.75	85.80	-84.12	9,928.12	-483.83	1,135.80	964.68	171.12	6.637		
20,200.00	9,406.70	20,119.01	9,292.94	86.45	86.51	-84.23	10,027.77	-484.90	1,135.70	963.04	172.54	6.582		
20,300.00	9,396.44	20,218.98	9,284.86	87.16	87.21	-84.34	10,127.41	-485.97	1,135.60	961.40	173.96	6.527		
20,400.00	9,386.18	20,318.96	9,276.78	87.86	87.92	-84.45	10,227.05	-487.04	1,135.50	959.77	175.38	6.473		
20,500.00	9,375.92	20,418.93	9,268.69	88.57	88.62	-84.56	10,326.70	-488.11	1,134.94	958.13	176.80	6.419		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Rope State Com Pad - Rope State Com 503H - OH - Plan #2

Survey Program:		0-MWD+IFR1+MS		Semi Major Axis		Highside		Offset Wellbore Centre		Distance		Minimum Separation		Separation		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Offset Site Error: 0.00 usft Offset Well Error: 0.00 usft				
20,600.00	9,365.66	20,518.91	9,260.61	89.28	89.33	-84.67	10,426.34	-489.18	1,134.73	956.50	178.23	6.367					
20,700.00	9,355.40	20,618.89	9,252.52	89.99	90.04	-84.78	10,525.98	-490.26	1,134.53	954.88	179.65	6.315					
20,800.00	9,345.14	20,718.86	9,244.44	90.70	90.75	-84.89	10,625.63	-491.33	1,134.34	953.25	181.08	6.264					
20,900.00	9,334.87	20,818.84	9,236.36	91.41	91.46	-85.00	10,725.27	-492.40	1,134.14	951.63	182.52	6.214					
21,000.00	9,324.61	20,918.82	9,228.27	92.13	92.17	-85.11	10,824.91	-493.47	1,133.96	950.01	183.95	6.165					
21,100.00	9,314.35	21,018.79	9,220.19	92.84	92.89	-85.22	10,924.56	-494.54	1,133.77	948.39	185.38	6.116					
21,200.00	9,304.09	21,118.77	9,212.11	93.55	93.60	-85.33	11,024.20	-495.61	1,133.59	946.77	186.82	6.068					
21,300.00	9,293.83	21,218.74	9,204.02	94.27	94.31	-85.44	11,123.84	-496.68	1,133.42	945.16	188.26	6.021					
21,400.00	9,283.57	21,318.72	9,195.94	94.99	95.03	-85.55	11,223.48	-497.75	1,133.25	943.55	189.70	5.974					
21,500.00	9,273.31	21,418.70	9,187.85	95.70	95.75	-85.66	11,323.13	-498.82	1,133.08	941.94	191.14	5.928					
21,600.00	9,263.05	21,518.67	9,179.77	96.42	96.46	-85.77	11,422.77	-499.89	1,132.92	940.34	192.58	5.883					
21,700.00	9,252.79	21,618.65	9,171.69	97.14	97.18	-85.88	11,522.41	-500.96	1,132.76	938.73	194.02	5.838					
21,800.00	9,242.53	21,718.62	9,163.60	97.86	97.90	-85.99	11,622.06	-502.03	1,132.60	937.13	195.47	5.794					
21,900.00	9,232.27	21,818.60	9,155.52	98.58	98.62	-86.10	11,721.70	-503.10	1,132.45	935.54	196.92	5.751					
22,000.00	9,222.01	21,918.58	9,147.43	99.30	99.34	-86.21	11,821.34	-504.17	1,132.31	933.94	198.37	5.708					
22,100.00	9,211.75	22,018.55	9,139.35	100.02	100.06	-86.33	11,920.98	-505.24	1,132.16	932.34	199.82	5.666					
22,200.00	9,198.53	22,118.42	9,131.28	100.75	100.78	-86.59	12,020.52	-506.31	1,131.85	930.57	201.28	5.623					
22,300.00	9,184.32	22,218.23	9,123.21	101.47	101.50	-86.90	12,120.00	-507.38	1,131.50	928.75	202.74	5.581					
22,400.00	9,170.11	22,318.04	9,115.14	102.20	102.23	-87.21	12,219.48	-508.45	1,131.18	926.97	204.21	5.539					
22,500.00	9,155.90	22,417.85	9,107.06	102.93	102.95	-87.52	12,318.95	-509.52	1,130.90	925.22	205.68	5.498					
22,600.00	9,141.69	22,517.66	9,098.99	103.66	103.67	-87.83	12,418.43	-510.59	1,130.65	923.50	207.15	5.458					
22,700.00	9,127.48	22,617.47	9,090.92	104.38	104.40	-88.14	12,517.91	-511.66	1,130.43	921.81	208.62	5.419					
22,800.00	9,113.27	22,717.28	9,082.85	105.11	105.12	-88.46	12,617.39	-512.73	1,130.25	920.16	210.09	5.380					
22,900.00	9,099.06	22,817.09	9,074.78	105.84	105.85	-88.77	12,716.86	-513.80	1,130.10	918.54	211.56	5.342					
23,000.00	9,084.85	22,916.90	9,066.71	106.57	106.57	-89.08	12,816.34	-514.87	1,129.98	916.95	213.03	5.304					
23,100.00	9,070.64	23,016.71	9,058.64	107.30	107.30	-89.39	12,915.82	-515.93	1,129.90	915.40	214.50	5.268					
23,200.00	9,056.43	23,116.52	9,050.57	108.03	108.03	-89.70	13,015.30	-517.00	1,129.85	913.87	215.98	5.231					
23,296.01	9,042.79	23,212.35	9,042.82	108.74	108.72	-90.00	13,110.80	-518.03	1,129.83	912.44	217.39	5.197					
23,300.00	9,042.22	23,216.33	9,042.50	108.77	108.75	-90.01	13,114.77	-518.07	1,129.83	912.38	217.45	5.196					
23,400.00	9,028.01	23,316.14	9,034.43	109.50	109.48	-90.33	13,214.25	-519.14	1,129.85	910.93	218.92	5.161					
23,500.00	9,013.80	23,415.95	9,026.36	110.23	110.21	-90.64	13,313.73	-520.21	1,129.90	909.50	220.40	5.127					
23,600.00	8,999.59	23,515.76	9,018.29	110.96	110.94	-90.95	13,413.21	-521.28	1,129.99	908.11	221.88	5.093					
23,700.00	8,985.38	23,615.57	9,010.22	111.70	111.67	-91.26	13,512.68	-522.35	1,130.11	906.75	223.36	5.060					
23,800.00	8,971.17	23,715.38	9,002.15	112.43	112.40	-91.57	13,612.16	-523.42	1,130.26	905.43	224.83	5.027					
23,900.00	8,956.96	23,815.19	8,994.08	113.17	113.13	-91.88	13,711.64	-524.49	1,130.44	904.13	226.31	4.995					
24,000.00	8,942.75	23,915.00	8,986.01	113.90	113.86	-92.20	13,811.12	-525.55	1,130.66	902.87	227.79	4.964					
24,100.00	8,928.54	24,014.81	8,977.94	114.64	114.59	-92.51	13,910.59	-526.62	1,130.92	901.65	229.27	4.933					
24,200.00	8,913.69	24,114.58	8,969.87	115.37	115.33	-92.85	14,010.03	-527.69	1,131.24	900.48	230.75	4.902					
24,300.00	8,895.66	24,214.07	8,961.83	116.11	116.06	-93.34	14,109.19	-528.76	1,131.78	899.54	232.24	4.873					
24,400.00	8,874.21	24,313.15	8,953.82	116.85	116.78	-94.00	14,207.94	-529.82	1,132.65	898.92	233.73	4.846					
24,500.00	8,849.36	24,411.70	8,945.85	117.58	117.51	-94.81	14,306.16	-530.87	1,133.97	898.75	235.22	4.821					
24,600.00	8,822.41	24,509.86	8,937.91	118.32	118.23	-95.75	14,404.00	-531.93	1,135.76	899.05	236.71	4.798					
24,700.00	8,795.42	24,608.02	8,929.97	119.05	118.95	-96.69	14,501.83	-532.98	1,137.87	899.67	238.20	4.777					
24,800.00	8,768.44	24,706.18	8,922.04	119.79	119.68	-97.63	14,599.66	-534.03	1,140.29	900.61	239.68	4.758					
24,900.00	8,741.46	24,804.34	8,914.10	120.53	120.40	-98.56	14,697.49	-535.08	1,143.03	901.87	241.16	4.740					
25,000.00	8,714.48	24,902.50	8,906.16	121.26	121.12	-99.48	14,795.32	-536.13	1,146.08	903.44	242.64	4.723					
25,100.00	8,687.50	25,000.65	8,898.23	122.00	121.85	-100.41	14,893.15	-537.18	1,149.44	905.32	244.12	4.708					
25,200.00	8,660.52	25,098.81	8,890.29	122.74	122.57	-101.32	14,990.98	-538.23	1,153.11	907.51	245.60	4.695					
25,300.00	8,633.54	25,196.97	8,882.35	123.47	123.30	-102.24	15,088.81	-539.28	1,157.08	910.01	247.07	4.683					
25,400.00	8,606.56	25,295.13	8,874.41	124.21	124.02	-103.14	15,186.64	-540.34	1,161.35	912.81	248.55	4.673					
25,500.00	8,579.58	25,393.29	8,866.48	124.95	124.75	-104.04	15,284.47	-541.39	1,165.92	915.90	250.02	4.663					
25,600.00	8,552.60	25,491.44	8,858.54	125.69	125.48	-104.93	15,382.30	-542.44	1,170.79	919.30	251.49	4.655					

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Rope State Com Pad - Rope State Com 503H - OH - Plan #2

Survey Program:		0-MWD+IFR1+MS		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
25,700.00	8,525.62	25,589.60	8,850.60	126.42	126.20	-105.82	15,480.13	-543.49	1,175.94	922.98	252.96	4.649	
25,800.00	8,498.64	25,687.76	8,842.67	127.16	126.93	-106.69	15,577.97	-544.54	1,181.38	926.96	254.42	4.643	
25,900.00	8,471.66	25,785.92	8,834.73	127.90	127.66	-107.56	15,675.80	-545.59	1,187.10	931.21	255.89	4.639	
26,000.00	8,445.09	25,884.15	8,826.79	128.64	128.38	-108.46	15,773.71	-546.64	1,192.97	935.62	257.35	4.636	
26,100.00	8,421.47	25,982.91	8,818.80	129.38	129.12	-109.26	15,872.13	-547.70	1,198.10	939.27	258.83	4.629	
26,200.00	8,401.25	26,082.15	8,810.78	130.12	129.85	-109.88	15,971.05	-548.76	1,202.22	941.92	260.31	4.619	
26,300.00	8,384.46	26,181.76	8,802.72	130.86	130.59	-110.33	16,070.32	-549.83	1,205.25	943.46	261.79	4.604	
26,400.00	8,371.12	26,281.62	8,794.65	131.61	131.33	-110.60	16,169.85	-550.90	1,207.10	943.82	263.28	4.585	
26,500.00	8,361.25	26,381.60	8,786.57	132.35	132.08	-110.69	16,269.49	-551.97	1,207.73	942.96	264.77	4.561	
26,600.00	8,353.42	26,481.60	8,778.48	133.09	132.82	-110.68	16,369.16	-553.04	1,207.64	941.37	266.26	4.535	
26,700.00	8,345.60	26,581.60	8,770.39	133.83	133.56	-110.67	16,468.83	-554.11	1,207.54	939.79	267.76	4.510	
26,800.00	8,337.78	26,681.60	8,762.31	134.57	134.31	-110.66	16,568.49	-555.18	1,207.45	938.20	269.25	4.484	
26,819.82	8,336.21	26,701.42	8,760.71	134.71	134.45	-110.65	16,588.25	-555.40	1,207.44	937.89	269.55	4.480	
26,900.00	8,329.70	26,781.60	8,754.22	135.31	135.05	-110.65	16,668.16	-556.25	1,207.45	936.70	270.74	4.460	
27,000.00	8,318.80	26,881.55	8,746.14	136.05	135.79	-110.76	16,767.78	-557.33	1,208.45	936.21	272.24	4.439	
27,100.00	8,304.68	26,981.36	8,738.07	136.79	136.54	-111.01	16,867.26	-558.39	1,210.61	936.88	273.73	4.423	
27,200.00	8,289.90	27,081.14	8,730.00	137.54	137.28	-111.30	16,966.70	-559.46	1,213.05	937.82	275.23	4.407	
27,300.00	8,275.12	27,180.91	8,721.93	138.28	138.02	-111.60	17,066.14	-560.53	1,215.52	938.80	276.72	4.393	
27,400.00	8,260.34	27,280.68	8,713.87	139.03	138.77	-111.89	17,165.58	-561.60	1,218.02	939.80	278.22	4.378	
27,500.00	8,245.56	27,380.46	8,705.80	139.77	139.51	-112.18	17,265.02	-562.67	1,220.55	940.84	279.71	4.364	
27,600.00	8,230.78	27,480.23	8,697.73	140.52	140.26	-112.48	17,364.46	-563.74	1,223.12	941.90	281.21	4.349	
27,700.00	8,216.00	27,580.00	8,689.67	141.27	141.00	-112.77	17,463.90	-564.81	1,225.71	943.00	282.71	4.336	
27,800.00	8,201.22	27,679.77	8,681.60	142.01	141.75	-113.05	17,563.34	-565.87	1,228.34	944.13	284.21	4.322	
27,900.00	8,186.44	27,779.55	8,673.53	142.76	142.49	-113.34	17,662.78	-566.94	1,231.00	945.29	285.71	4.309	
28,000.00	8,171.65	27,879.32	8,665.46	143.51	143.24	-113.63	17,762.23	-568.01	1,233.69	946.48	287.21	4.295	
28,100.00	8,156.87	27,979.09	8,657.40	144.25	143.98	-113.91	17,861.67	-569.08	1,236.41	947.70	288.71	4.283	
28,200.00	8,142.09	28,078.87	8,649.33	145.00	144.73	-114.20	17,961.11	-570.15	1,239.16	948.95	290.21	4.270	
28,300.00	8,127.31	28,178.64	8,641.26	145.75	145.47	-114.48	18,060.55	-571.22	1,241.94	950.23	291.71	4.257	
28,349.47	8,120.00	28,197.49	8,639.74	146.12	145.61	-114.54	18,079.34	-571.42	1,243.70	951.67	292.03	4.259	

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Rope State Com Pad - Rope State Com 603H - OH - Plan #2

Survey Program: 0-MWD+IFR1+MS		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Reference Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	0.30	0.00	0.00	0.00	-90.22	-0.23	-59.99	59.99	59.99	0.55	108.458	
100.00	100.00	100.30	100.00	0.28	0.28	-90.22	-0.23	-59.99	59.99	59.44	1.27	47.234	
200.00	200.00	200.30	200.00	0.63	0.64	-90.22	-0.23	-59.99	59.99	58.72	1.99	30.191	
300.00	300.00	300.30	300.00	0.99	0.99	-90.22	-0.23	-59.99	59.99	58.00	2.70	22.186	
400.00	400.00	400.30	400.00	1.35	1.35	-90.22	-0.23	-59.99	59.99	57.29	3.42	17.536	
500.00	500.00	500.30	500.00	1.71	1.71	-90.22	-0.23	-59.99	59.99	56.57	4.14	14.498	
600.00	600.00	600.30	600.00	2.07	2.07	-90.22	-0.23	-59.99	59.99	55.85	4.85	12.357	
700.00	700.00	700.30	700.00	2.43	2.43	-90.22	-0.23	-59.99	59.99	55.14	5.57	10.767	
800.00	800.00	800.30	800.00	2.79	2.79	-90.22	-0.23	-59.99	59.99	54.42	6.29	9.539	
900.00	900.00	900.30	900.00	3.14	3.14	-90.22	-0.23	-59.99	59.99	53.70	7.01	8.563	
1,000.00	1,000.00	1,000.30	1,000.00	3.50	3.50	-90.22	-0.23	-59.99	59.99	52.98	7.72	7.768	
1,100.00	1,100.00	1,100.30	1,100.00	4.22	4.22	-90.22	-0.23	-59.99	59.99	52.27	8.44	7.108	
1,200.00	1,200.00	1,200.30	1,200.00	4.58	4.58	-90.22	-0.23	-59.99	59.99	51.55	9.16	6.552	
1,300.00	1,300.00	1,300.30	1,300.00	4.94	4.94	-90.22	-0.23	-59.99	59.99	50.83	9.87	6.076	
1,400.00	1,400.00	1,400.30	1,400.00	5.29	5.30	-90.22	-0.23	-59.99	59.99	50.12	10.59	5.665	
1,500.00	1,500.00	1,500.30	1,500.00	5.65	5.36	-90.22	-0.23	-59.99	59.99	49.40	10.71	5.602	CC
1,516.57	1,516.57	1,516.87	1,516.57	5.65	5.65	-90.22	-0.23	-59.99	59.99	48.69	11.31	5.306	ES
1,600.00	1,600.00	1,600.00	1,599.70	6.01	5.99	-90.55	-0.59	-61.64	61.67	49.67	12.00	5.139	SF
1,700.00	1,700.00	1,698.25	1,697.93	6.37	6.33	-91.44	-1.67	-66.53	66.70	54.03	12.67	5.264	
1,800.00	1,800.00	1,795.98	1,795.52	6.72	6.66	155.74	-3.46	-74.62	76.67	63.35	13.32	5.757	
1,899.98	1,899.98	1,893.09	1,892.28	7.05	6.99	155.63	-5.91	-85.73	93.09	79.15	13.94	6.678	
2,000.00	1,999.84	1,988.94	1,987.44	7.39	7.33	156.01	-8.83	-98.94	114.61	100.00	14.60	7.848	
2,100.00	2,099.45	2,086.21	2,083.77	7.73	7.67	156.78	-11.74	-112.13	139.27	124.00	15.27	9.119	
2,200.00	2,198.70	2,183.09	2,179.71	8.08	8.01	157.70	-14.63	-125.25	165.52	149.58	15.94	10.382	
2,300.00	2,297.73	2,279.55	2,275.23	8.43	8.35	158.37	-17.53	-138.38	191.81	175.19	16.61	11.545	
2,400.00	2,396.76	2,376.02	2,370.75	8.77	8.69	158.88	-20.43	-151.50	218.10	200.81	17.29	12.615	
2,500.00	2,495.78	2,472.48	2,466.28	9.12	9.03	159.28	-23.32	-164.63	244.42	226.45	17.97	13.603	
2,600.00	2,594.81	2,568.95	2,561.80	9.48	9.38	159.60	-26.22	-177.75	270.74	252.09	18.65	14.516	
2,700.00	2,693.84	2,665.41	2,657.32	9.83	9.72	159.86	-29.12	-190.88	297.06	277.73	19.34	15.364	
2,800.00	2,792.87	2,761.87	2,752.84	10.19	10.07	160.08	-32.01	-204.00	323.39	303.37	20.02	16.151	
2,900.00	2,891.89	2,858.34	2,848.37	10.54	10.42	160.27	-34.91	-217.13	349.73	329.02	20.71	16.885	
3,000.00	2,990.92	2,954.80	2,943.89	10.90	10.76	160.43	-37.81	-230.25	376.07	354.66	21.40	17.570	
3,100.00	3,089.95	3,051.27	3,039.41	11.26	11.11	160.57	-40.71	-243.38	402.41	380.31	22.10	18.210	
3,200.00	3,188.98	3,147.73	3,134.94	11.62	11.46	160.70	-43.60	-256.50	428.75	405.96	22.79	18.810	
3,300.00	3,288.00	3,244.19	3,230.46	11.98	11.81	160.80	-46.50	-269.63	455.10	431.61	23.49	19.373	
3,400.00	3,387.03	3,340.66	3,325.98	12.34	12.16	160.90	-49.40	-282.75	481.44	457.25	24.19	19.903	
3,500.00	3,486.06	3,437.12	3,421.51	12.70	12.52	160.99	-52.29	-295.88	507.79	482.90	24.89	20.401	
3,600.00	3,585.09	3,533.59	3,517.03	13.06	12.87	161.07	-55.19	-309.00	534.14	508.55	25.59	20.872	
3,700.00	3,684.11	3,630.05	3,612.55	13.42	13.22	161.14	-58.09	-322.13	560.49	534.19	26.29	21.316	
3,800.00	3,783.14	3,726.51	3,708.07	13.78	13.57	161.20	-60.98	-335.25	586.84	559.84	27.00	21.737	
3,900.00	3,882.17	3,822.98	3,803.60	14.15	13.92	161.26	-63.88	-348.38	613.19	585.49	27.70	22.135	
4,000.00	3,981.20	3,919.44	3,899.12	14.51	14.28	161.32	-66.78	-361.51	639.54	611.13	28.41	22.513	
4,100.00	4,080.22	4,015.91	3,994.64	14.88	14.63	161.37	-69.67	-374.63	665.89	636.78	29.11	22.872	
4,200.00	4,179.25	4,112.37	4,090.17	15.24	14.99	161.41	-72.57	-387.76	692.24	662.42	29.82	23.213	
4,300.00	4,278.28	4,208.84	4,185.69	15.61	15.34	161.45	-75.47	-400.88	718.59	688.07	30.53	23.538	
4,400.00	4,377.31	4,305.30	4,281.21	15.97	15.69	161.49	-78.36	-414.01	744.95	713.71	31.24	23.848	
4,500.00	4,476.34	4,401.76	4,376.74	16.34	16.05	161.53	-81.26	-427.13	771.30	739.35	31.95	24.143	
4,600.00	4,575.36	4,498.23	4,472.26	16.70	16.40	161.56	-84.16	-440.26	797.65	765.00	32.66	24.426	
4,700.00	4,674.39	4,594.69	4,567.78	17.07	16.76	161.60	-87.06	-453.38	824.01	790.64	33.37	24.695	
4,800.00	4,773.42	4,691.16	4,663.30	17.44	17.11	161.63	-89.95	-466.51	850.36	816.28	34.08	24.953	
4,900.00	4,872.45	4,787.62	4,758.83	17.80	17.47	161.66	-92.85	-479.63	876.71	841.92	34.79	25.200	
5,000.00	4,971.47	4,884.08	4,854.35										

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Rope State Com Pad - Rope State Com 603H - OH - Plan #2

Survey Program:		0-MWD+IFR1+MS		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	Offset Site Error:
Reference	Offset	Reference	Offset	Reference	Offset		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				Offset Well Error:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	(usft)	(usft)									0.00 usft
5,100.00	5,070.50	4,980.55	4,949.87	18.17	17.82	161.68	-95.75	-492.76	903.07	867.56	35.50	25.437		
5,200.00	5,169.53	5,077.01	5,045.40	18.54	18.18	161.71	-98.64	-505.88	929.42	893.21	36.21	25.664		
5,300.00	5,268.56	5,173.48	5,140.92	18.91	18.54	161.73	-101.54	-519.01	955.78	918.85	36.93	25.882		
5,400.00	5,367.58	5,269.94	5,236.44	19.27	18.89	161.75	-104.44	-532.13	982.13	944.49	37.64	26.092		
5,500.00	5,466.61	5,366.40	5,331.97	19.64	19.25	161.78	-107.33	-545.26	1,008.48	970.13	38.36	26.293		
5,600.00	5,565.64	5,462.87	5,427.49	20.01	19.60	161.80	-110.23	-558.38	1,034.84	995.77	39.07	26.487		
5,700.00	5,664.67	5,559.33	5,523.01	20.38	19.96	161.82	-113.13	-571.51	1,061.19	1,021.41	39.78	26.674		
5,800.00	5,763.69	5,655.80	5,618.53	20.75	20.32	161.83	-116.02	-584.63	1,087.55	1,047.05	40.50	26.853		
5,900.00	5,862.72	5,752.26	5,714.06	21.12	20.67	161.85	-118.92	-597.76	1,113.90	1,072.69	41.21	27.027		
6,000.00	5,961.75	5,848.72	5,809.58	21.48	21.03	161.87	-121.82	-610.88	1,140.26	1,098.33	41.93	27.194		
6,100.00	6,060.78	5,945.19	5,905.10	21.85	21.39	161.88	-124.71	-624.01	1,166.61	1,123.97	42.65	27.355		
6,200.00	6,159.80	6,041.65	6,000.63	22.22	21.74	161.90	-127.61	-637.13	1,192.97	1,149.61	43.36	27.511		
6,300.00	6,258.83	6,138.12	6,096.15	22.59	22.10	161.92	-130.51	-650.26	1,219.32	1,175.24	44.08	27.662		
6,400.00	6,358.09	6,235.02	6,192.11	22.96	22.46	162.06	-133.42	-663.44	1,244.00	1,199.20	44.80	27.770		
6,500.00	6,457.71	6,332.68	6,288.81	23.32	22.82	162.14	-136.35	-676.73	1,265.44	1,219.92	45.51	27.804		
6,600.00	6,557.58	6,430.98	6,386.15	23.68	23.19	162.14	-139.30	-690.11	1,283.63	1,237.40	46.23	27.767		
6,700.00	6,657.56	6,529.79	6,484.00	24.02	23.55	-85.87	-142.27	-703.55	1,298.55	1,251.61	46.94	27.666		
6,800.00	6,757.56	6,628.82	6,582.06	24.36	23.92	-86.04	-145.24	-717.03	1,311.92	1,264.28	47.64	27.539		
6,900.00	6,857.56	6,727.84	6,680.12	24.70	24.29	-86.21	-148.22	-730.50	1,325.30	1,276.96	48.34	27.415		
7,000.00	6,957.56	6,826.87	6,778.18	25.04	24.65	-86.38	-151.19	-743.97	1,338.70	1,289.65	49.05	27.295		
7,100.00	7,057.56	6,925.89	6,876.24	25.38	25.02	-86.54	-154.17	-757.45	1,352.10	1,302.35	49.75	27.178		
7,200.00	7,157.56	7,024.91	6,974.30	25.72	25.39	-86.70	-157.14	-770.92	1,365.52	1,315.06	50.45	27.064		
7,300.00	7,257.56	7,123.94	7,072.36	26.06	25.76	-86.86	-160.11	-784.39	1,378.94	1,327.78	51.16	26.953		
7,400.00	7,357.56	7,222.96	7,170.41	26.41	26.12	-87.01	-163.09	-797.87	1,392.38	1,340.51	51.87	26.846		
7,500.00	7,457.56	7,321.99	7,268.47	26.75	26.49	-87.16	-166.06	-811.34	1,405.82	1,353.25	52.57	26.741		
7,600.00	7,557.56	7,421.01	7,366.53	27.09	26.86	-87.31	-169.03	-824.81	1,419.28	1,366.00	53.28	26.638		
7,700.00	7,657.56	7,520.04	7,464.59	27.43	27.23	-87.46	-172.01	-838.29	1,432.74	1,378.75	53.99	26.539		
7,800.00	7,757.56	7,619.06	7,562.65	27.78	27.59	-87.60	-174.98	-851.76	1,446.21	1,391.52	54.70	26.441		
7,900.00	7,857.56	7,718.09	7,660.71	28.12	27.96	-87.74	-177.96	-865.24	1,459.69	1,404.29	55.40	26.347		
8,000.00	7,957.56	7,817.11	7,758.77	28.47	28.33	-87.88	-180.93	-878.71	1,473.18	1,417.07	56.11	26.254		
8,100.00	8,057.56	7,916.13	7,856.82	28.81	28.70	-88.01	-183.90	-892.18	1,486.68	1,429.86	56.82	26.164		
8,200.00	8,157.56	8,015.16	7,954.88	29.16	29.06	-88.14	-186.88	-905.66	1,500.19	1,442.66	57.53	26.076		
8,300.00	8,257.56	8,114.18	8,052.94	29.50	29.43	-88.27	-189.85	-919.13	1,513.70	1,455.46	58.24	25.990		
8,400.00	8,357.56	8,213.21	8,151.00	29.85	29.80	-88.40	-192.82	-932.60	1,527.22	1,468.27	58.95	25.906		
8,500.00	8,457.56	8,312.23	8,249.06	30.19	30.17	-88.53	-195.80	-946.08	1,540.75	1,481.09	59.66	25.824		
8,600.00	8,557.56	8,411.26	8,347.12	30.54	30.54	-88.65	-198.77	-959.55	1,554.29	1,493.91	60.38	25.744		
8,700.00	8,657.56	8,510.28	8,445.17	30.89	30.90	-88.77	-201.75	-973.02	1,567.83	1,506.74	61.09	25.666		
8,800.00	8,757.56	8,609.31	8,543.23	31.23	31.27	-88.89	-204.72	-986.50	1,581.38	1,519.58	61.80	25.589		
8,900.00	8,857.56	8,708.33	8,641.29	31.58	31.64	-89.01	-207.69	-999.97	1,594.94	1,532.43	62.51	25.514		
9,000.00	8,957.56	8,807.36	8,739.35	31.93	32.01	-89.13	-210.67	-1,013.44	1,608.50	1,545.28	63.22	25.441		
9,100.00	9,057.56	8,906.38	8,837.41	32.27	32.38	-89.24	-213.64	-1,026.92	1,622.07	1,558.13	63.94	25.370		
9,200.00	9,157.56	9,005.40	8,935.47	32.62	32.75	-89.35	-216.61	-1,040.39	1,635.64	1,570.99	64.65	25.300		
9,300.00	9,257.56	9,104.43	9,033.53	32.97	33.11	-89.46	-219.59	-1,053.87	1,649.23	1,583.86	65.36	25.231		
9,400.00	9,357.56	9,203.45	9,131.58	33.32	33.48	-89.57	-222.56	-1,067.34	1,662.81	1,596.73	66.08	25.164		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Rope State Com Pad - Rope State Com 604H - OH - Plan #2

Survey Program: 0-MWD+IFR1+MS		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Reference Measured Depth (usft)	Vertical Depth (usft)	Reference Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	0.10	0.00	0.00	0.00	-90.23	-0.08	-19.99	19.99				
100.00	100.00	100.10	100.00	0.28	0.28	-90.23	-0.08	-19.99	19.99	19.44	0.55	36.187	
200.00	200.00	200.10	200.00	0.63	0.63	-90.23	-0.08	-19.99	19.99	18.72	1.27	15.748	
300.00	300.00	300.10	300.00	0.99	0.99	-90.23	-0.08	-19.99	19.99	18.00	1.99	10.064	
400.00	400.00	400.10	400.00	1.35	1.35	-90.23	-0.08	-19.99	19.99	17.29	2.70	7.395	
500.00	500.00	500.10	500.00	1.71	1.71	-90.23	-0.08	-19.99	19.99	16.57	3.42	5.845	
600.00	600.00	600.10	600.00	2.07	2.07	-90.23	-0.08	-19.99	19.99	15.85	4.14	4.832	
700.00	700.00	700.10	700.00	2.43	2.43	-90.23	-0.08	-19.99	19.99	15.14	4.85	4.118	
800.00	800.00	800.10	800.00	2.79	2.79	-90.23	-0.08	-19.99	19.99	14.42	5.57	3.588	
900.00	900.00	900.10	900.00	3.14	3.14	-90.23	-0.08	-19.99	19.99	13.70	6.29	3.179	
1,000.00	1,000.00	1,000.10	1,000.00	3.50	3.50	-90.23	-0.08	-19.99	19.99	12.99	7.00	2.854	
1,100.00	1,100.00	1,100.10	1,100.00	3.86	3.86	-90.23	-0.08	-19.99	19.99	12.27	7.72	2.589	
1,200.00	1,200.00	1,200.10	1,200.00	4.22	4.22	-90.23	-0.08	-19.99	19.99	11.55	8.44	2.369	
1,300.00	1,300.00	1,300.10	1,300.00	4.58	4.58	-90.23	-0.08	-19.99	19.99	10.83	9.16	2.183	
1,400.00	1,400.00	1,400.10	1,400.00	4.94	4.94	-90.23	-0.08	-19.99	19.99	10.12	9.87	2.025	
1,500.00	1,500.00	1,500.10	1,500.00	5.29	5.29	-90.23	-0.08	-19.99	19.99	9.40	10.59	1.888	
1,600.00	1,600.00	1,600.10	1,600.00	5.65	5.65	-90.23	-0.08	-19.99	19.99	8.68	11.31	1.768	
1,700.00	1,700.00	1,700.52	1,700.40	6.01	6.00	-94.25	-1.40	-18.82	18.88	6.87	12.01	1.572	
1,800.00	1,800.00	1,800.70	1,800.43	6.37	6.33	-109.20	-5.34	-15.33	16.24	3.54	12.69	1.279	Level 3
1,858.83	1,858.83	1,859.46	1,859.00	6.57	6.53	123.91	-8.85	-12.21	15.41	2.32	13.10	1.177	Level 2, CC, ES, SF
1,900.00	1,899.98	1,900.54	1,899.93	6.72	6.66	114.40	-11.53	-9.84	15.80	2.42	13.38	1.181	Level 2
2,000.00	1,999.84	2,000.43	1,999.44	7.05	7.00	102.15	-18.05	-4.06	18.68	4.63	14.05	1.330	Level 3
2,100.00	2,099.45	2,100.34	2,098.97	7.39	7.34	102.25	-24.56	1.72	22.66	7.93	14.72	1.539	
2,200.00	2,198.70	2,200.17	2,198.42	7.73	7.68	109.38	-31.07	7.49	27.59	12.18	15.41	1.791	
2,300.00	2,297.73	2,299.90	2,297.78	8.08	8.02	117.07	-37.57	13.25	33.58	17.49	16.09	2.087	
2,400.00	2,396.76	2,399.64	2,397.13	8.43	8.36	122.37	-44.08	19.02	40.00	23.22	16.78	2.384	
2,500.00	2,495.78	2,499.38	2,496.49	8.77	8.71	126.18	-50.58	24.79	46.65	29.19	17.47	2.671	
2,600.00	2,594.81	2,599.12	2,595.85	9.12	9.05	129.03	-57.08	30.55	53.46	35.30	18.16	2.944	
2,700.00	2,693.84	2,698.85	2,695.21	9.48	9.40	131.23	-63.59	36.32	60.38	41.52	18.86	3.202	
2,800.00	2,792.87	2,798.59	2,794.56	9.83	9.75	132.98	-70.09	42.09	67.36	47.80	19.56	3.444	
2,900.00	2,891.89	2,898.33	2,893.92	10.19	10.10	134.40	-76.60	47.85	74.40	54.13	20.26	3.672	
3,000.00	2,990.92	2,998.06	2,993.28	10.54	10.45	135.58	-83.10	53.62	81.47	60.50	20.97	3.886	
3,100.00	3,089.95	3,097.80	3,092.64	10.90	10.81	136.56	-89.60	59.39	88.57	66.89	21.67	4.086	
3,200.00	3,188.98	3,197.54	3,191.99	11.26	11.16	137.40	-96.11	65.15	95.69	73.31	22.38	4.275	
3,300.00	3,288.00	3,297.27	3,291.35	11.62	11.51	138.12	-102.61	70.92	102.83	79.74	23.09	4.453	
3,400.00	3,387.03	3,397.01	3,390.71	11.98	11.87	138.75	-109.11	76.69	109.99	86.18	23.81	4.620	
3,500.00	3,486.06	3,496.75	3,490.07	12.34	12.22	139.30	-115.62	82.45	117.15	92.63	24.52	4.777	
3,600.00	3,585.09	3,596.48	3,589.42	12.70	12.58	139.79	-122.12	88.22	124.33	99.09	25.24	4.926	
3,700.00	3,684.11	3,696.22	3,688.78	13.06	12.93	140.23	-128.62	93.99	131.51	105.56	25.95	5.067	
3,800.00	3,783.14	3,795.96	3,788.14	13.42	13.29	140.62	-135.13	99.75	138.70	112.03	26.67	5.200	
3,900.00	3,882.17	3,895.70	3,887.50	13.78	13.65	140.97	-141.63	105.52	145.90	118.51	27.39	5.326	
4,000.00	3,981.20	3,995.43	3,986.85	14.15	14.00	141.29	-148.13	111.29	153.10	124.99	28.11	5.446	
4,100.00	4,080.22	4,095.17	4,086.21	14.51	14.36	141.58	-154.64	117.05	160.31	131.47	28.83	5.560	
4,200.00	4,179.25	4,194.91	4,185.57	14.88	14.72	141.84	-161.14	122.82	167.52	137.96	29.56	5.668	
4,300.00	4,278.28	4,294.64	4,284.93	15.24	15.08	142.08	-167.65	128.58	174.73	144.45	30.28	5.771	
4,400.00	4,377.31	4,394.38	4,384.28	15.61	15.43	142.31	-174.15	134.35	181.94	150.94	31.00	5.869	
4,500.00	4,476.34	4,494.12	4,483.64	15.97	15.79	142.52	-180.65	140.12	189.16	157.44	31.73	5.963	
4,600.00	4,575.36	4,593.85	4,583.00	16.34	16.15	142.71	-187.16	145.88	196.38	163.93	32.45	6.052	
4,700.00	4,674.39	4,693.59	4,682.35	16.70	16.51	142.88	-193.66	151.65	203.61	170.43	33.18	6.137	
4,800.00	4,773.42	4,793.33	4,781.71	17.07	16.87	143.05	-200.16	157.42	210.83	176.93	33.90	6.219	
4,900.00	4,872.45	4,893.06	4,881.07	17.44	17.23	143.21	-206.67	163.18	218.06	183.43	34.63	6.297	
5,000.00	4,971.47	4,992.80	4,980.43	17.80	17.59	143.35	-213.17	168.95	225.28	189.93	35.35	6.372	

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Rope State Com Pad - Rope State Com 604H - OH - Plan #2

Survey Program:		0-MWD+IFR1+MS		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Reference	Offset	Reference	Offset	Reference	Offset		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	(usft)	(usft)								
5,100.00	5,070.50	5,092.54	5,079.78	18.17	17.95	143.49	-219.67	174.72	232.51	196.43	36.08	6.444	
5,200.00	5,169.53	5,192.28	5,179.14	18.54	18.31	143.61	-226.18	180.48	239.74	202.93	36.81	6.513	
5,300.00	5,268.56	5,289.96	5,276.49	18.91	18.66	143.83	-232.20	185.83	247.19	209.67	37.53	6.587	
5,400.00	5,367.58	5,385.56	5,371.96	19.27	19.01	144.59	-235.97	189.16	256.05	217.83	38.22	6.699	
5,500.00	5,466.61	5,480.60	5,466.98	19.64	19.34	145.90	-237.34	190.38	266.58	227.69	38.89	6.854	
5,600.00	5,565.64	5,579.26	5,565.64	20.01	19.67	147.49	-237.35	190.39	278.24	238.65	39.59	7.029	
5,700.00	5,664.67	5,678.29	5,664.67	20.38	20.01	148.97	-237.35	190.39	290.10	249.81	40.28	7.202	
5,800.00	5,763.69	5,777.32	5,763.69	20.75	20.35	150.32	-237.35	190.39	302.13	261.15	40.98	7.373	
5,900.00	5,862.72	5,876.35	5,862.72	21.12	20.68	151.58	-237.35	190.39	314.32	272.64	41.68	7.541	
6,000.00	5,961.75	5,975.37	5,961.75	21.48	21.02	152.74	-237.35	190.39	326.65	284.27	42.38	7.708	
6,100.00	6,060.78	6,074.40	6,060.78	21.85	21.36	153.81	-237.35	190.39	339.10	296.02	43.08	7.871	
6,200.00	6,159.80	6,173.43	6,159.80	22.22	21.70	154.81	-237.35	190.39	351.66	307.88	43.78	8.032	
6,300.00	6,258.83	6,272.46	6,258.83	22.59	22.04	155.74	-237.35	190.39	364.32	319.84	44.48	8.190	
6,400.00	6,358.09	6,371.72	6,358.09	22.96	22.38	156.59	-237.35	190.39	375.40	330.21	45.19	8.308	
6,500.00	6,457.71	6,471.34	6,457.71	23.32	22.72	157.16	-237.35	190.39	383.34	337.45	45.89	8.354	
6,600.00	6,557.58	6,571.20	6,557.58	23.68	23.07	157.49	-237.35	190.39	388.09	341.50	46.59	8.330	
6,700.00	6,657.56	6,671.18	6,657.56	24.02	23.41	-90.35	-237.35	190.39	389.62	342.34	47.28	8.241	
6,800.00	6,757.56	6,771.18	6,757.56	24.36	23.76	-90.35	-237.35	190.39	389.62	341.66	47.96	8.124	
6,900.00	6,857.56	6,871.18	6,857.56	24.70	24.11	-90.35	-237.35	190.39	389.62	340.98	48.64	8.010	
7,000.00	6,957.56	6,971.18	6,957.56	25.04	24.45	-90.35	-237.35	190.39	389.62	340.29	49.32	7.899	
7,100.00	7,057.56	7,071.18	7,057.56	25.38	24.80	-90.35	-237.35	190.39	389.62	339.61	50.01	7.791	
7,200.00	7,157.56	7,171.18	7,157.56	25.72	25.15	-90.35	-237.35	190.39	389.62	338.92	50.69	7.686	
7,300.00	7,257.56	7,271.18	7,257.56	26.06	25.49	-90.35	-237.35	190.39	389.62	338.24	51.38	7.583	
7,400.00	7,357.56	7,371.18	7,357.56	26.41	25.84	-90.35	-237.35	190.39	389.62	337.55	52.07	7.483	
7,500.00	7,457.56	7,471.18	7,457.56	26.75	26.19	-90.35	-237.35	190.39	389.62	336.86	52.75	7.385	
7,600.00	7,557.56	7,571.18	7,557.56	27.09	26.54	-90.35	-237.35	190.39	389.62	336.17	53.44	7.290	
7,700.00	7,657.56	7,671.18	7,657.56	27.43	26.89	-90.35	-237.35	190.39	389.62	335.48	54.13	7.197	
7,800.00	7,757.56	7,771.18	7,757.56	27.78	27.23	-90.35	-237.35	190.39	389.62	334.79	54.82	7.107	
7,900.00	7,857.56	7,871.18	7,857.56	28.12	27.58	-90.35	-237.35	190.39	389.62	334.10	55.51	7.018	
8,000.00	7,957.56	7,971.18	7,957.56	28.47	27.93	-90.35	-237.35	190.39	389.62	333.41	56.21	6.932	
8,100.00	8,057.56	8,071.18	8,057.56	28.81	28.28	-90.35	-237.35	190.39	389.62	332.72	56.90	6.848	
8,200.00	8,157.56	8,171.18	8,157.56	29.16	28.63	-90.35	-237.35	190.39	389.62	332.03	57.59	6.765	
8,300.00	8,257.56	8,271.18	8,257.56	29.50	28.98	-90.35	-237.35	190.39	389.62	331.33	58.28	6.685	
8,400.00	8,357.56	8,371.18	8,357.56	29.85	29.33	-90.35	-237.35	190.39	389.62	330.64	58.98	6.606	
8,500.00	8,457.56	8,471.18	8,457.56	30.19	29.68	-90.35	-237.35	190.39	389.62	329.95	59.67	6.529	
8,600.00	8,557.56	8,571.18	8,557.56	30.54	30.03	-90.35	-237.35	190.39	389.62	329.25	60.37	6.454	
8,700.00	8,657.56	8,671.18	8,657.56	30.89	30.38	-90.35	-237.35	190.39	389.62	328.56	61.06	6.381	
8,800.00	8,757.56	8,771.18	8,757.56	31.23	30.73	-90.35	-237.35	190.39	389.62	327.86	61.76	6.309	
8,900.00	8,857.56	8,871.18	8,857.56	31.58	31.09	-90.35	-237.35	190.39	389.62	327.16	62.45	6.238	
9,000.00	8,957.56	8,971.18	8,957.56	31.93	31.44	-90.35	-237.35	190.39	389.62	326.47	63.15	6.170	
9,100.00	9,057.56	9,071.18	9,057.56	32.27	31.79	-90.35	-237.35	190.39	389.62	325.77	63.85	6.102	
9,200.00	9,157.56	9,171.18	9,157.56	32.62	32.14	-90.35	-237.35	190.39	389.62	325.07	64.55	6.036	
9,300.00	9,257.56	9,271.18	9,257.56	32.97	32.49	-90.35	-237.35	190.39	389.62	324.37	65.24	5.972	
9,400.00	9,357.56	9,371.18	9,357.56	33.32	32.84	-90.35	-237.35	190.39	389.62	323.67	65.94	5.908	
9,500.00	9,457.56	9,471.18	9,457.56	33.67	33.20	-90.35	-237.35	190.39	389.62	322.98	66.64	5.846	
9,500.04	9,457.60	9,471.23	9,457.60	33.67	33.20	-90.35	-237.35	190.39	389.62	322.98	66.64	5.846	
9,600.00	9,557.51	9,571.14	9,557.51	34.02	33.55	-93.75	-237.35	190.39	389.72	322.38	67.34	5.787	
9,700.00	9,656.05	9,669.68	9,656.05	34.36	33.90	-95.95	-237.35	190.39	391.13	323.09	68.04	5.749	
9,800.00	9,750.27	9,763.90	9,750.27	34.67	34.23	-99.96	-237.35	190.39	396.04	323.33	68.71	5.764	
9,900.00	9,837.31	9,850.93	9,837.31	34.96	34.53	-104.74	-237.35	190.39	408.16	338.81	69.35	5.885	
10,000.00	9,914.51	9,955.27	9,914.51	35.19	34.90	-110.61	-228.82	190.30	429.36	359.33	70.02	6.131	
10,100.00	9,979.54	10,077.86	10,058.75	35.39	35.30	-116.24	-195.04	189.93	456.59	386.40	70.19	6.505	

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Rope State Com Pad - Rope State Com 604H - OH - Plan #2

Survey Program:		0-MWD+IFR1+MS		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	Offset Site Error:
Reference	Offset	Reference	Offset	Reference	Offset		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				Offset Well Error:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	(usft)	(usft)									0.00 usft
10,200.00	10,030.42	10,224.95	10,186.40	35.54	35.72	-121.42	-122.79	189.15	486.42	417.22	69.20	7.029		
10,300.00	10,065.60	10,404.55	10,311.00	35.66	36.14	-125.63	5.54	187.76	514.06	447.28	66.78	7.697		
10,400.00	10,087.79	10,614.11	10,398.09	35.75	36.47	-127.88	194.85	185.71	531.39	466.95	64.45	8.246		
10,500.00	10,101.38	10,752.98	10,424.90	35.84	36.63	-127.63	331.01	184.24	540.09	475.74	64.35	8.393		
10,600.00	10,106.28	10,892.73	10,435.06	35.92	36.76	-127.06	470.30	182.74	546.78	482.14	64.64	8.459		
10,700.00	10,102.66	11,023.69	10,429.35	36.02	36.90	-126.26	601.07	181.33	551.49	486.18	65.31	8.445		
10,800.00	10,096.33	11,123.45	10,421.08	36.15	37.03	-125.69	700.48	180.27	555.66	489.74	65.92	8.430		
10,900.00	10,089.99	11,223.21	10,412.80	36.29	37.18	-125.14	799.89	179.20	559.89	493.34	66.55	8.413		
11,000.00	10,083.66	11,322.98	10,404.53	36.45	37.35	-124.59	899.31	178.13	564.18	496.96	67.21	8.394		
11,100.00	10,077.32	11,422.74	10,396.26	36.63	37.53	-124.05	998.72	177.06	568.51	500.62	67.89	8.374		
11,200.00	10,070.98	11,522.50	10,387.98	36.82	37.73	-123.52	1,098.13	175.99	572.89	504.30	68.59	8.352		
11,300.00	10,064.65	11,622.27	10,379.71	37.03	37.94	-122.99	1,197.55	174.92	577.32	508.01	69.31	8.329		
11,400.00	10,058.31	11,722.03	10,371.44	37.25	38.17	-122.48	1,296.96	173.86	581.80	511.75	70.06	8.305		
11,500.00	10,051.98	11,821.79	10,363.17	37.49	38.41	-121.97	1,396.38	172.79	586.33	515.51	70.82	8.279		
11,600.00	10,045.64	11,921.56	10,354.89	37.74	38.66	-121.47	1,495.79	171.72	590.90	519.30	71.60	8.253		
11,700.00	10,039.30	12,021.32	10,346.62	38.00	38.93	-120.98	1,595.20	170.65	595.52	523.12	72.40	8.226		
11,800.00	10,032.97	12,121.08	10,338.35	38.28	39.21	-120.49	1,694.62	169.58	600.18	526.96	73.21	8.198		
11,900.00	10,026.63	12,220.85	10,330.08	38.57	39.50	-120.02	1,794.03	168.52	604.88	530.83	74.04	8.169		
12,000.00	10,020.30	12,320.61	10,321.80	38.88	39.81	-119.55	1,893.45	167.45	609.62	534.73	74.89	8.140		
12,100.00	10,013.96	12,420.37	10,313.53	39.19	40.13	-119.08	1,992.86	166.38	614.40	538.64	75.76	8.110		
12,200.00	10,007.62	12,520.14	10,305.26	39.52	40.46	-118.63	2,092.27	165.31	619.23	542.58	76.64	8.080		
12,300.00	10,001.29	12,619.90	10,296.98	39.86	40.80	-118.18	2,191.69	164.24	624.09	546.55	77.54	8.049		
12,400.00	9,994.95	12,719.66	10,288.71	40.21	41.16	-117.74	2,291.10	163.17	628.98	550.54	78.45	8.018		
12,500.00	9,988.62	12,819.45	10,280.44	40.57	41.52	-117.37	2,390.54	162.11	633.48	554.11	79.37	7.982		
12,600.00	9,982.28	12,919.39	10,272.15	40.95	41.90	-117.20	2,490.13	161.04	635.24	554.97	80.27	7.914		
12,700.00	9,976.02	13,019.36	10,263.86	41.33	42.29	-117.07	2,589.75	159.97	634.51	553.34	81.16	7.818		
12,800.00	9,969.81	13,119.34	10,255.57	41.72	42.68	-116.91	2,689.38	158.89	633.56	551.48	82.08	7.719		
12,900.00	9,963.59	13,219.32	10,247.28	42.13	43.09	-116.74	2,789.01	157.82	632.62	549.61	83.01	7.621		
13,000.00	9,957.38	13,319.30	10,238.99	42.54	43.51	-116.57	2,888.64	156.75	631.68	547.73	83.96	7.524		
13,100.00	9,951.16	13,419.28	10,230.70	42.97	43.94	-116.40	2,988.27	155.68	630.75	545.83	84.92	7.427		
13,200.00	9,944.94	13,519.26	10,222.41	43.40	44.38	-116.23	3,087.90	154.61	629.83	543.93	85.90	7.332		
13,300.00	9,938.73	13,619.23	10,214.12	43.84	44.82	-116.06	3,187.52	153.54	628.91	542.01	86.90	7.237		
13,400.00	9,932.51	13,719.21	10,205.83	44.29	45.28	-115.89	3,287.15	152.47	628.00	540.09	87.91	7.143		
13,500.00	9,926.30	13,819.19	10,197.53	44.75	45.74	-115.72	3,386.78	151.40	627.09	538.15	88.94	7.051		
13,600.00	9,920.08	13,919.17	10,189.24	45.22	46.21	-115.55	3,486.41	150.33	626.19	536.21	89.98	6.959		
13,700.00	9,913.87	14,019.15	10,180.95	45.70	46.69	-115.37	3,586.04	149.26	625.29	534.26	91.04	6.869		
13,800.00	9,907.65	14,119.12	10,172.66	46.18	47.18	-115.20	3,685.66	148.19	624.40	532.30	92.11	6.779		
13,900.00	9,901.44	14,219.10	10,164.37	46.68	47.67	-115.03	3,785.29	147.12	623.52	530.33	93.19	6.691		
14,000.00	9,895.22	14,319.08	10,156.08	47.18	48.17	-114.86	3,884.92	146.05	622.64	528.36	94.28	6.604		
14,100.00	9,889.01	14,419.06	10,147.79	47.68	48.68	-114.68	3,984.55	144.98	621.77	526.38	95.38	6.519		
14,200.00	9,882.79	14,519.04	10,139.50	48.20	49.20	-114.51	4,084.18	143.91	620.90	524.40	96.50	6.434		
14,300.00	9,876.58	14,619.02	10,131.21	48.72	49.72	-114.33	4,183.81	142.84	620.04	522.41	97.63	6.351		
14,400.00	9,870.36	14,718.99	10,122.92	49.24	50.25	-114.16	4,283.43	141.77	619.18	520.42	98.76	6.269		
14,500.00	9,864.15	14,818.97	10,114.63	49.78	50.78	-113.98	4,383.06	140.70	618.33	518.42	99.91	6.189		
14,600.00	9,857.93	14,918.95	10,106.34	50.32	51.32	-113.80	4,482.69	139.63	617.49	516.42	101.07	6.110		
14,700.00	9,851.72	15,018.93	10,098.05	50.86	51.87	-113.63	4,582.32	138.56	616.65	514.41	102.24	6.032		
14,800.00	9,845.50	15,118.91	10,089.76	51.41	52.42	-113.45	4,681.95	137.48	615.82	512.41	103.41	5.955		
14,900.00	9,839.46	15,218.88	10,081.47	51.97	52.98	-113.25	4,781.57	136.41	614.92	510.32	104.60	5.879		
15,000.00	9,833.56	15,318.85	10,073.18	52.53	53.54	-113.05	4,881.19	135.34	613.97	508.18	105.79	5.803		
15,100.00	9,827.67	15,418.82	10,064.89	53.10	54.11	-112.84	4,980.81	134.27	613.04	506.04	107.00	5.729		
15,200.00	9,821.77	15,518.80	10,056.60	53.67	54.68	-112.64	5,080.43	133.20	612.11	503.89	108.21	5.657		
15,300.00	9,815.87	15,618.77	10,048.31	54.25	55.26	-112.43	5,180.06	132.13	611.18	501.75	109.43	5.585		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Rope State Com Pad - Rope State Com 604H - OH - Plan #2

Survey Program:		0-MWD+IFR1+MS		Semi Major Axis		Highside		Offset Wellbore Centre		Distance		Minimum Separation		Separation		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor					
15,400.00	9,809.98	15,718.74	10,040.02	54.83	55.84	-112.22	5,279.68	131.06	610.27	499.61	110.66	5.515					
15,500.00	9,804.08	15,818.71	10,031.73	55.41	56.43	-112.01	5,379.30	129.99	609.36	497.47	111.89	5.446					
15,600.00	9,798.18	15,918.68	10,023.44	56.00	57.02	-111.80	5,478.92	128.92	608.46	495.33	113.13	5.378					
15,700.00	9,792.28	16,018.65	10,015.15	56.60	57.62	-111.59	5,578.54	127.85	607.57	493.20	114.38	5.312					
15,800.00	9,786.39	16,118.62	10,006.86	57.20	58.22	-111.38	5,678.16	126.78	606.69	491.06	115.63	5.247					
15,900.00	9,780.49	16,218.59	9,998.57	57.80	58.82	-111.17	5,777.78	125.71	605.82	488.93	116.89	5.183					
16,000.00	9,774.01	16,318.58	9,990.28	58.41	59.43	-111.01	5,877.41	124.64	605.16	487.01	118.15	5.122					
16,072.89	9,768.09	16,391.46	9,984.23	58.86	59.87	-111.00	5,950.05	123.86	605.11	486.05	119.06	5.082					
16,100.00	9,765.59	16,418.58	9,981.98	59.02	60.04	-111.03	5,977.06	123.57	605.21	485.80	119.40	5.069					
16,200.00	9,757.12	16,518.58	9,973.69	59.64	60.65	-111.04	6,076.71	122.50	605.27	484.60	120.67	5.016					
16,300.00	9,748.65	16,618.58	9,965.40	60.27	61.27	-111.06	6,176.36	121.43	605.33	483.39	121.94	4.964					
16,400.00	9,740.19	16,718.57	9,957.11	60.89	61.89	-111.07	6,276.01	120.36	605.40	482.18	123.22	4.913					
16,500.00	9,731.72	16,818.57	9,948.81	61.52	62.52	-111.09	6,375.66	119.29	605.46	480.96	124.50	4.863					
16,600.00	9,723.26	16,918.57	9,940.52	62.16	63.15	-111.10	6,475.31	118.21	605.52	479.73	125.79	4.814					
16,700.00	9,714.79	17,018.57	9,932.23	62.79	63.78	-111.12	6,574.96	117.14	605.58	478.50	127.08	4.765					
16,800.00	9,706.32	17,118.57	9,923.94	63.43	64.41	-111.13	6,674.61	116.07	605.65	477.27	128.38	4.718					
16,900.00	9,697.86	17,218.57	9,915.65	64.07	65.05	-111.15	6,774.26	115.00	605.71	476.02	129.69	4.671					
17,000.00	9,689.39	17,318.57	9,907.35	64.72	65.69	-111.16	6,873.91	113.93	605.77	474.77	131.00	4.624					
17,100.00	9,680.92	17,418.57	9,899.06	65.36	66.34	-111.18	6,973.56	112.86	605.84	473.52	132.31	4.579					
17,200.00	9,672.46	17,518.57	9,890.77	66.01	66.98	-111.20	7,073.21	111.79	605.90	472.26	133.64	4.534					
17,300.00	9,663.99	17,618.57	9,882.48	66.67	67.63	-111.21	7,172.86	110.72	605.96	471.00	134.96	4.490					
17,400.00	9,655.36	17,718.57	9,874.18	67.32	68.28	-111.24	7,272.51	109.65	606.09	469.80	136.29	4.447					
17,500.00	9,646.54	17,818.57	9,865.89	67.98	68.93	-111.29	7,372.16	108.58	606.28	468.65	137.62	4.405					
17,600.00	9,637.72	17,918.57	9,857.60	68.64	69.59	-111.33	7,471.81	107.51	606.47	467.51	138.96	4.364					
17,700.00	9,628.90	18,018.57	9,849.31	69.30	70.25	-111.38	7,571.45	106.44	606.66	466.36	140.31	4.324					
17,800.00	9,620.09	18,118.57	9,841.01	69.97	70.91	-111.43	7,671.10	105.37	606.86	465.20	141.65	4.284					
17,900.00	9,611.27	18,218.57	9,832.72	70.63	71.57	-111.47	7,770.75	104.30	607.05	464.04	143.00	4.245					
18,000.00	9,602.45	18,318.56	9,824.43	71.30	72.24	-111.52	7,870.40	103.22	607.24	462.88	144.36	4.206					
18,100.00	9,593.63	18,418.56	9,816.14	71.97	72.90	-111.57	7,970.05	102.15	607.44	461.72	145.72	4.169					
18,200.00	9,584.81	18,518.56	9,807.85	72.65	73.57	-111.61	8,069.70	101.08	607.63	460.55	147.08	4.131					
18,300.00	9,576.00	18,618.56	9,799.55	73.32	74.24	-111.66	8,169.34	100.01	607.82	459.38	148.45	4.095					
18,400.00	9,567.18	18,718.56	9,791.26	74.00	74.92	-111.70	8,268.99	98.94	608.02	458.20	149.82	4.058					
18,500.00	9,558.36	18,818.56	9,782.97	74.68	75.59	-111.75	8,368.64	97.87	608.21	457.02	151.19	4.023					
18,600.00	9,549.54	18,918.56	9,774.68	75.36	76.27	-111.80	8,468.29	96.80	608.41	455.84	152.57	3.988					
18,700.00	9,540.72	19,018.55	9,766.38	76.04	76.95	-111.84	8,567.94	95.73	608.61	454.66	153.95	3.953					
18,800.00	9,531.91	19,118.55	9,758.09	76.72	77.63	-111.89	8,667.59	94.66	608.80	453.47	155.33	3.919					
18,900.00	9,523.09	19,218.55	9,749.80	77.41	78.31	-111.93	8,767.24	93.59	609.00	452.28	156.72	3.886					
19,000.00	9,514.27	19,318.55	9,741.51	78.10	78.99	-111.98	8,866.88	92.52	609.20	451.09	158.11	3.853					
19,100.00	9,505.45	19,418.55	9,733.21	78.78	79.68	-112.03	8,966.53	91.45	609.39	449.89	159.50	3.821					
19,200.00	9,496.63	19,518.55	9,724.92	79.47	80.36	-112.07	9,066.18	90.38	609.59	448.69	160.90	3.789					
19,300.00	9,487.82	19,618.55	9,716.63	80.17	81.05	-112.12	9,165.83	89.31	609.79	447.49	162.30	3.757					
19,400.00	9,479.00	19,718.55	9,708.34	80.86	81.74	-112.16	9,265.48	88.23	609.99	446.29	163.70	3.726					
19,500.00	9,470.18	19,818.54	9,700.05	81.55	82.43	-112.21	9,365.13	87.16	610.19	445.09	165.10	3.696					
19,600.00	9,461.36	19,918.54	9,691.75	82.25	83.12	-112.26	9,464.77	86.09	610.39	443.88	166.51	3.666					
19,700.00	9,452.54	20,018.54	9,683.46	82.95	83.82	-112.30	9,564.42	85.02	610.59	442.67	167.92	3.636					
19,800.00	9,443.72	20,118.54	9,675.17	83.64	84.51	-112.35	9,664.07	83.95	610.79	441.46	169.33	3.607					
19,900.00	9,434.91	20,218.54	9,666.88	84.34	85.21	-112.39	9,763.72	82.88	610.99	440.25	170.74	3.578					
20,000.00	9,426.09	20,318.54	9,658.58	85.04	85.91	-112.44	9,863.37	81.81	611.19	439.03	172.16	3.550					
20,100.00	9,416.96	20,418.53	9,650.29	85.75	86.60	-112.51	9,963.01	80.74	611.51	437.93	173.58	3.523					
20,200.00	9,406.70	20,518.51	9,642.00	86.45	87.30	-112.68	10,062.64	79.67	612.27	437.27	175.00	3.499					
20,300.00	9,396.44	20,618.49	9,633.71	87.16	88.01	-112.85	10,162.27	78.60	613.04	436.62	176.42	3.475					
20,400.00	9,386.18	20,718.47	9,625.42	87.86	88.71	-113.02	10,261.90	77.53	613.81	435.96	177.85	3.451					

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Rope State Com Pad - Rope State Com 604H - OH - Plan #2

Survey Program:		0-MWD+IFR1+MS		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	Offset Site Error:
Reference	Offset	Reference	Offset	Reference	Offset		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				Offset Well Error:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	(usft)	(usft)									0.00 usft
20,500.00	9,375.92	20,818.45	9,617.13	88.57	89.41	-113.19	10,361.53	76.46	614.58	435.31	179.27	3.428		
20,600.00	9,365.66	20,918.43	9,608.84	89.28	90.12	-113.36	10,461.17	75.39	615.37	434.66	180.70	3.405		
20,700.00	9,355.40	21,018.41	9,600.55	89.99	90.82	-113.53	10,560.80	74.32	616.15	434.02	182.13	3.383		
20,800.00	9,345.14	21,118.40	9,592.26	90.70	91.53	-113.70	10,660.43	73.25	616.95	433.38	183.57	3.361		
20,900.00	9,334.87	21,218.38	9,583.97	91.41	92.24	-113.86	10,760.06	72.18	617.74	432.74	185.00	3.339		
21,000.00	9,324.61	21,318.36	9,575.68	92.13	92.94	-114.03	10,859.69	71.10	618.55	432.10	186.44	3.318		
21,100.00	9,314.35	21,418.34	9,567.39	92.84	93.65	-114.20	10,959.32	70.03	619.35	431.47	187.88	3.297		
21,200.00	9,304.09	21,518.32	9,559.09	93.55	94.36	-114.36	11,058.95	68.96	620.17	430.85	189.32	3.276		
21,300.00	9,293.83	21,618.30	9,550.80	94.27	95.08	-114.53	11,158.58	67.89	620.99	430.22	190.77	3.255		
21,400.00	9,283.57	21,718.28	9,542.51	94.99	95.79	-114.70	11,258.21	66.82	621.81	429.60	192.21	3.235		
21,500.00	9,273.31	21,818.26	9,534.22	95.70	96.50	-114.86	11,357.84	65.75	622.64	428.98	193.66	3.215		
21,600.00	9,263.05	21,918.24	9,525.93	96.42	97.22	-115.03	11,457.47	64.68	623.47	428.37	195.11	3.196		
21,700.00	9,252.79	22,018.22	9,517.64	97.14	97.93	-115.19	11,557.10	63.61	624.31	427.76	196.56	3.176		
21,800.00	9,242.53	22,118.20	9,509.35	97.86	98.65	-115.35	11,656.73	62.54	625.16	427.15	198.01	3.157		
21,900.00	9,232.27	22,218.18	9,501.06	98.58	99.36	-115.52	11,756.36	61.47	626.01	426.54	199.46	3.138		
22,000.00	9,222.01	22,318.16	9,492.77	99.30	100.08	-115.68	11,855.99	60.40	626.86	425.94	200.92	3.120		
22,100.00	9,211.75	22,418.14	9,484.48	100.02	100.80	-115.85	11,955.62	59.33	627.80	425.42	202.37	3.102		
22,200.00	9,198.53	22,518.02	9,476.20	100.75	101.52	-116.21	12,055.15	58.26	629.89	426.06	203.83	3.090		
22,300.00	9,184.32	22,617.84	9,467.92	101.47	102.24	-116.70	12,154.62	57.19	632.55	427.26	205.28	3.081		
22,400.00	9,170.11	22,717.66	9,459.64	102.20	102.96	-117.17	12,254.10	56.12	635.25	428.51	206.74	3.073		
22,500.00	9,155.90	22,817.49	9,451.36	102.93	103.68	-117.65	12,353.57	55.05	637.99	429.79	208.20	3.064		
22,600.00	9,141.69	22,917.31	9,443.08	103.66	104.40	-118.12	12,453.04	53.98	640.78	431.12	209.66	3.056		
22,700.00	9,127.48	23,017.13	9,434.81	104.38	105.12	-118.59	12,552.51	52.91	643.61	432.49	211.12	3.049		
22,800.00	9,113.27	23,116.96	9,426.53	105.11	105.84	-119.05	12,651.99	51.85	646.49	433.91	212.58	3.041		
22,900.00	9,099.06	23,216.78	9,418.25	105.84	106.56	-119.51	12,751.46	50.78	649.40	435.36	214.04	3.034		
23,000.00	9,084.85	23,316.60	9,409.97	106.57	107.29	-119.96	12,850.93	49.71	652.36	436.86	215.50	3.027		
23,100.00	9,070.64	23,416.42	9,401.70	107.30	108.01	-120.41	12,950.41	48.64	655.35	438.39	216.96	3.021		
23,200.00	9,056.43	23,516.25	9,393.42	108.03	108.74	-120.86	13,049.88	47.57	658.39	439.96	218.43	3.014		
23,300.00	9,042.22	23,616.07	9,385.14	108.77	109.46	-121.30	13,149.35	46.50	661.47	441.57	219.89	3.008		
23,400.00	9,028.01	23,715.89	9,376.86	109.50	110.19	-121.74	13,248.83	45.43	664.58	443.22	221.36	3.002		
23,500.00	9,013.80	23,815.71	9,368.59	110.23	110.91	-122.17	13,348.30	44.36	667.74	444.91	222.83	2.997		
23,600.00	8,999.59	23,915.54	9,360.31	110.96	111.64	-122.60	13,447.77	43.30	670.93	446.64	224.29	2.991		
23,700.00	8,985.38	24,015.36	9,352.03	111.70	112.37	-123.03	13,547.25	42.23	674.16	448.40	225.76	2.986		
23,800.00	8,971.17	24,115.18	9,343.75	112.43	113.10	-123.45	13,646.72	41.16	677.43	450.20	227.23	2.981		
23,900.00	8,956.96	24,215.00	9,335.48	113.17	113.83	-123.87	13,746.19	40.09	680.73	452.03	228.70	2.976		
24,000.00	8,942.75	24,314.83	9,327.20	113.90	114.55	-124.28	13,845.66	39.02	684.07	453.90	230.17	2.972		
24,100.00	8,928.54	24,414.65	9,318.92	114.64	115.28	-124.69	13,945.14	37.95	687.44	455.80	231.65	2.968		
24,200.00	8,913.69	24,514.43	9,310.65	115.37	116.01	-125.10	14,044.57	36.88	691.23	458.11	233.12	2.965		
24,300.00	8,898.66	24,613.94	9,302.39	116.11	116.74	-125.66	14,143.73	35.82	696.93	462.35	234.58	2.971		
24,400.00	8,874.21	24,713.05	9,294.18	116.85	117.47	-126.41	14,242.49	34.76	704.79	468.77	236.02	2.986		
24,500.00	8,849.36	24,811.64	9,286.00	117.58	118.19	-127.32	14,340.73	33.70	714.92	477.48	237.44	3.011		
24,600.00	8,822.41	24,909.84	9,277.86	118.32	118.91	-128.46	14,438.59	32.65	726.64	487.79	238.85	3.042		
24,700.00	8,795.42	25,008.04	9,269.71	119.05	119.63	-129.60	14,536.45	31.60	738.67	498.42	240.25	3.075		
24,800.00	8,768.44	25,106.23	9,261.57	119.79	120.35	-130.70	14,634.30	30.55	750.99	509.34	241.65	3.108		
24,900.00	8,741.46	25,204.43	9,253.43	120.53	121.08	-131.76	14,732.15	29.49	763.58	520.53	243.05	3.142		
25,000.00	8,714.48	25,302.63	9,245.29	121.26	121.80	-132.80	14,830.01	28.44	776.42	531.97	244.45	3.176		
25,100.00	8,687.50	25,400.82	9,237.14	122.00	122.52	-133.79	14,927.86	27.39	789.51	543.66	245.85	3.211		
25,200.00	8,660.52	25,499.02	9,229.00	122.74	123.24	-134.76	15,025.71	26.34	802.83	555.58	247.25	3.247		
25,300.00	8,633.54	25,597.22	9,220.86	123.47	123.97	-135.69	15,123.57	25.29	816.37	567.73	248.64	3.283		
25,400.00	8,606.56	25,695.42	9,212.71	124.21	124.69	-136.59	15,221.42	24.24	830.12	580.08	250.04	3.320		
25,500.00	8,579.58	25,793.61	9,204.57	124.95	125.41	-137.47	15,319.27	23.19	844.07	592.63	251.44	3.357		
25,600.00	8,552.60	25,891.81	9,196.43	125.69	126.14	-138.32	15,417.13	22.13	858.20	605.36	252.84	3.394		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Rope State Com Pad - Rope State Com 604H - OH - Plan #2

Survey Program:		0-MWD+IFR1+MS		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
25,700.00	8,525.62	25,990.01	9,188.29	126.42	126.86	-139.13	15,514.98	21.08	872.52	618.28	254.24	3.432	
25,800.00	8,498.64	26,088.21	9,180.14	127.16	127.59	-139.93	15,612.83	20.03	887.01	631.37	255.64	3.470	
25,900.00	8,471.66	26,186.40	9,172.00	127.90	128.31	-140.70	15,710.69	18.98	901.67	644.62	257.05	3.508	
26,000.00	8,445.09	26,284.68	9,163.85	128.64	129.04	-141.51	15,808.62	17.93	916.15	657.69	258.45	3.545	
26,100.00	8,421.47	26,383.47	9,155.66	129.38	129.77	-142.25	15,907.06	16.87	928.39	668.50	259.88	3.572	
26,200.00	8,401.25	26,482.74	9,147.43	130.12	130.51	-142.82	16,005.98	15.81	937.96	676.62	261.34	3.589	
26,300.00	8,384.46	26,582.36	9,139.17	130.86	131.24	-143.21	16,105.26	14.74	944.80	681.98	262.82	3.595	
26,400.00	8,371.12	26,682.23	9,130.88	131.61	131.98	-143.45	16,204.78	13.67	948.88	684.55	264.32	3.590	
26,500.00	8,361.25	26,782.21	9,122.59	132.35	132.73	-143.52	16,304.41	12.60	950.15	684.31	265.84	3.574	
26,600.00	8,353.42	26,882.21	9,114.30	133.09	133.47	-143.50	16,404.06	11.53	949.78	682.41	267.37	3.552	
26,700.00	8,345.60	26,982.21	9,106.01	133.83	134.21	-143.48	16,503.71	10.46	949.40	680.50	268.89	3.531	
26,800.00	8,337.78	27,082.21	9,097.72	134.57	134.95	-143.47	16,603.36	9.39	949.02	678.59	270.42	3.509	
26,872.07	8,331.80	27,154.27	9,091.74	135.10	135.49	-143.47	16,675.17	8.62	949.02	677.50	271.52	3.495	
26,900.00	8,329.70	27,182.21	9,089.42	135.31	135.69	-143.46	16,703.00	8.32	948.84	676.90	271.95	3.489	
27,000.00	8,318.80	27,282.17	9,081.13	136.05	136.44	-143.53	16,802.62	7.25	950.95	677.49	273.46	3.477	
27,100.00	8,304.68	27,381.99	9,072.86	136.79	137.18	-143.70	16,902.09	6.18	955.67	680.71	274.96	3.476	
27,200.00	8,289.90	27,481.78	9,064.58	137.54	137.92	-143.94	17,001.53	5.11	960.95	684.49	276.46	3.476	
27,300.00	8,275.12	27,581.57	9,056.31	138.28	138.66	-144.16	17,100.97	4.04	966.24	688.28	277.96	3.476	
27,400.00	8,260.34	27,681.35	9,048.03	139.03	139.40	-144.39	17,200.40	2.97	971.54	692.08	279.46	3.476	
27,500.00	8,245.56	27,781.14	9,039.76	139.77	140.15	-144.61	17,299.84	1.90	976.86	695.90	280.96	3.477	
27,600.00	8,230.78	27,880.93	9,031.48	140.52	140.89	-144.83	17,399.28	0.84	982.19	699.73	282.46	3.477	
27,700.00	8,216.00	27,980.71	9,023.21	141.27	141.63	-145.05	17,498.71	-0.23	987.54	703.58	283.97	3.478	
27,800.00	8,201.22	28,080.50	9,014.93	142.01	142.37	-145.26	17,598.15	-1.30	992.90	707.44	285.47	3.478	
27,900.00	8,186.44	28,180.29	9,006.66	142.76	143.12	-145.48	17,697.59	-2.37	998.28	711.31	286.97	3.479	
28,000.00	8,171.65	28,280.07	8,998.38	143.51	143.86	-145.69	17,797.03	-3.44	1,003.67	715.19	288.48	3.479	
28,100.00	8,156.87	28,379.86	8,990.11	144.25	144.61	-145.90	17,896.46	-4.51	1,009.07	719.09	289.98	3.480	
28,200.00	8,142.09	28,479.65	8,981.84	145.00	145.35	-146.10	17,995.90	-5.57	1,014.49	723.00	291.49	3.480	
28,300.00	8,127.31	28,563.28	8,974.90	145.75	145.98	-146.28	18,079.24	-6.47	1,020.05	727.35	292.70	3.485	
28,349.47	8,120.00	28,563.28	8,974.90	146.12	145.98	-146.28	18,079.24	-6.47	1,024.71	732.56	292.15	3.508	

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

Reference Depths are relative to GE 3939' + KB 23' @ 3962.00usft  
 Offset Depths are relative to Offset Datum  
 Central Meridian is -104.3333333

Coordinates are relative to: Rope State Com 504H  
 Coordinate System is US State Plane 1983, New Mexico Eastern Zone  
 Grid Convergence at Surface is: 0.45°



#### LEGEND

- |  |   |   |
|--|---|---|
| STATE COM 134H, Horizontal - PRODUCING, Surveys V0 | (O) LEO STATE #1, OH, OH V0   | (O) STATE AN 012 P & A, ST01, ST01 V0           |
| STATE COM 114H, Horizontal - PRODUCING, Surveys V0 | (O) BLACK JACK STATE 001, Verticals, Surveys V0                     | (O) STATE AN 012 P & A, OH, Surveys V0          |
| STATE COM 124H, Horizontal - PRODUCING, Surveys V0 | Rope State Com 604H, OH, Plan #2 V0                                 | (O) BLACK JACK STATE 003, Verticals, Surveys V0 |
| Plan #2 V0   | (O) IRONHOUSE 19 STATE COM 002H, Horizontal - PRODUCING, Surveys V0 | (O) LEO STATE 007, Verticals, Surveys V0        |
| Vertical, Surveys V0                               | (O) LEA SOUTHEAST STATE 1 P & A, Vertical, Surveys V0               | (O) IRONHOUSE 19 STATE COM 003H, Horizontal -   |
| Plan #2 V0   | (O) ALBATROSS STATE COM 002H, Horizontal - PRODUCING, Surveys V0    | (O) STATE AN 008 P & A, Vertical, Surveys V0    |
| Vertical, Surveys V0                               | (O) STATE AN 009 P & A, Vertical, Surveys V0                        |   |
| STATE 001 P & A, Vertical, Surveys V0              | (O) ALBATROSS STATE COM 001H, Horizontal - PRODUCING, Surveys V0    |   |

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Rope State Com 504H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Reference Site:</b>	Rope State Com Pad	<b>MD Reference:</b>	GE 3939' + KB 23' @ 3962.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Rope State Com 504H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Reference Datum

Reference Depths are relative to GE 3939' + KB 23' @ 3962.00usft

Coordinates are relative to: Rope State Com 504H

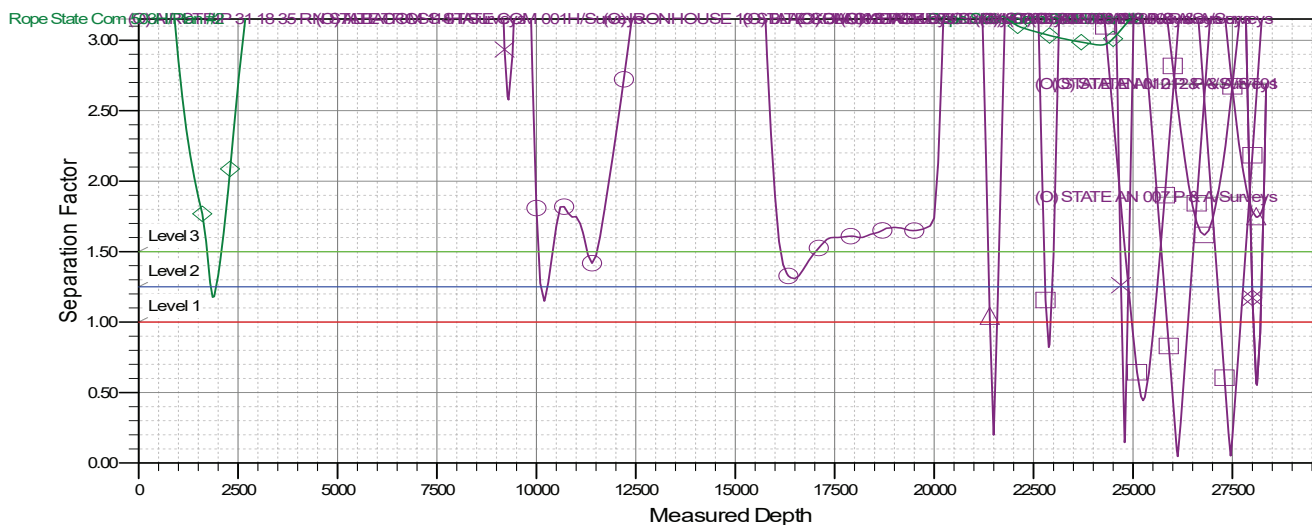
Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, New Mexico Eastern Zone

Central Meridian is -104.3333333

Grid Convergence at Surface is: 0.45°

## Separation Factor Plot



### LEGEND

STATE COM 134H, Horizontal - PRODUCING, Surveys V0	✕ (O) LEO STATE #1, OH, OH V0	◇ (O) STATE AN 012 P & A, ST01, ST01 V0
STATE COM 114H, Horizontal - PRODUCING, Surveys V0	□ (O) BLACK JACK STATE 001, Verticals, Surveys V0	✕ (O) STATE AN 012 P & A, OH, Surveys V0
STATE COM 124H, Horizontal - PRODUCING, Surveys V0	◇ (O) Rope State Com 604H, OH, Plan #2 V0	△ (O) BLACK JACK STATE 003, Verticals, Surveys V0
I, Plan #2 V0	◇ (O) IRONHOUSE 19 STATE COM 002H, Horizontal - PRODUCING, Surveys V0	✕ (O) LEO STATE 007, Verticals, Surveys V0
/vertical, Surveys V0	✕ (O) LEA SOUTHEAST STATE 1 P & A, Vertical, Surveys V0	✕ (O) IRONHOUSE 19 STATE COM 003H, Horizontal
I, Plan #2 V0	◇ (O) ALBATROSS STATE COM 002H, Horizontal - PRODUCING, Surveys V0	□ (O) STATE AN 008 P & A, Vertical, Surveys V0
/vertical, Surveys V0	□ (O) STATE AN 009 P & A, Vertical, Surveys V0	
TE 001 P & A, Vertical, Surveys V0	◇ (O) ALBATROSS STATE COM 001H, Horizontal - PRODUCING, Surveys V0	

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



Coterra Energy Inc.  
Permian Business Unit  
6001 Deauville Blvd.  
Suite 300N  
Midland, TX 79706

T 432.571.7800  
coterra.com

April 24, 2026

State of New Mexico  
Energy, Minerals, and Natural  
Resources Department  
Attn: Matthew Gomez

Via E-Mail

**Re: Rope State 503H, 504H, 603H, 604H  
Mack Energy Corporation's Consent to Overlap (Case No. 24459)**

Dear Mr. Gomez,

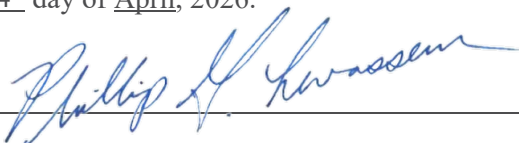
On November 13, 2024, Mack Energy Corporation, operator of their vertical wells located in Section 18, Township 18 South, Range 35 East, waived their objection of the overlapping spacing units of Case No. 24459. Case No. 24459 covered the Bone Spring Formation in the E/2 of Sections 18, 19, and 30, Township 18 South, Range 35 East, Lea County, New Mexico and included the application of Rope State Com 303H, Rope State Com 304H, and Rope State Com 604H.

Coterra is requesting sundries on all three wells listed in Case No. 24459:

**Rope State Com 504H (FKA Rope State Com 304H)  
Rope State Com 603H (FKA Rope State Com 603H)  
Rope State Com 604H**

including an additional well, **Rope State Com 503H**, all within the proposed unit of SE/4 of Section 7 and the E/2 of Sections 18, 19, and 30, Township 18 South, Range 35 East, Lea County, New Mexico, which includes all lands and the Bone Spring Formation under Case No. 24459.

Dated this 24<sup>th</sup> day of April, 2026.

Signature: 

Name: Phillip G. Levasseur

Title: Regulatory Compliance Manager, Attorney-in-Fact



Coterra Energy Inc.  
Permian Business Unit  
6001 Deauville Blvd.  
Suite 300N  
Midland, TX 79706

T 432.571.7800  
coterra.com

April 24, 2026

State of New Mexico  
Energy, Minerals, and Natural  
Resources Department  
Attn: Matthew Gomez

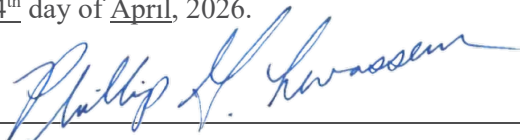
Via E-Mail

**Re:      Rope State 503H, 504H, 603H, 604H  
          Rope State JOA Statement  
          Consent to Overlap**

Dear Mr. Gomez,

MorningStar Operating LLC (“MorningStar”), operator of the State AN 005 (API No. 30-025-03105), located in the NW/4 SE/4 of Section 7, Township 18 South, Range 35 East, Lea County, New Mexico, hereby waived any objection to the drilling of the **Rope State Com 503H, Rope State Com 504H, Rope State Com 603H, and the Rope State Com 604H**, within the proposed unit (SE/4 of Section 7 and the E/2 of Sections 18, 19, and 30, Township 18 South, Range 35 East, Lea County, New Mexico, whose completed interval will partially overlap the existing spacing unit of the State AN 005, when MorningStar executed the Rope State JOA covering the Bone Spring Formation on February 20, 2026 as a participating partner in the aforementioned Rope State wells.

Dated this 24<sup>th</sup> day of April, 2026.

Signature: 

Name: Phillip G. Levasseur

Title: Regulatory Compliance Manager, Attorney-in-Fact



**WAIVER**

Mack Energy Corporation, operator of certain existing vertical wells located in Section 18, Township 18 South, Range 35 East, hereby waives any requirement to receive notice by certified mail of Franklin Mountain Energy 3's application seeking approval, to the extent necessary, of overlapping spacing units in Case No. 24459. Mack Energy Corporation also does not object to Franklin Mountain Energy 3's application in Case No. 24459.

Dated: 11/13/2024

Staci D. Sanders  
(signature)

Name: Staci D. Sanders  
Title: Vice President



Coterra Energy Inc.  
Permian Business Unit  
6001 Deauville Blvd.  
Suite 300N  
Midland, TX 79706

T 432.571.7800  
coterra.com

February 12, 2026

MorningStar Operating, LLC  
400 W 7<sup>th</sup> Street  
Fort Worth, TX 76102

**RECEIVED**

**FEB 26 2026**

**COTERRA ENERGY-PBU**

Re: **Revised Exhibit "A"**  
Rope State Com 501H, 502H & 604H  
Sections 7, 18 19 & 30-T18S-R35E  
Lea County, New Mexico

To Whom It May Concern,

Enclosed for your execution are signature pages for the above-referenced Operating Agreement associated with the above described lands and wells.

We have revised the Rope State JOA's Exhibit A to include the below OGL which was unintentionally left off the original Exhibit A:

- 2. Lessor: State of New Mexico VB-1313  
Lessee: Chase Oil Corporation  
Date: January 1, 2008  
Description: T18S, R35E, N.M.P.M., Lea County, NM  
Section 18: SE4  
Recorded: Book 2232, Page 544

Please review and execute the enclosed signature pages at your convenience. Should you have any questions, please contact Landman Blair Nutter at [blair.nutter@coterra.com](mailto:blair.nutter@coterra.com)

Respectfully,

Gena Hale  
Coterra Energy Inc.  
Land Department  
[Gena.Hale@Coterra.com](mailto:Gena.Hale@Coterra.com)

A.A.P.L. FORM 610-E - GAS BALANCING AGREEMENT - 1992

1 15. COUNTERPARTS

2 This Agreement may be executed in counterparts, each of which when taken with all other counterparts shall constitute  
3 a binding agreement between the Parties hereto; provided, however, that if a Party or Parties owning a Percentage Interest in  
4 the Balancing Area equal to or greater than a one hundred percent (100 %) therein fail(s) to execute this  
5 Agreement on or before \_\_\_\_\_, this Agreement shall not be binding upon any Party and shall be of  
6 no further force and effect.

7 IN WITNESS WHEREOF, this Agreement shall be effective as of the 1<sup>st</sup> day of January, 2026.

10 ATTEST OR WITNESS:

OPERATOR

11 Coterra Energy Operating Co.

12 \_\_\_\_\_ By \_\_\_\_\_

13 Bradley Cantrell  
Type or print name

14 Title Attorney-In-Fact

15 Date \_\_\_\_\_

16 Tax ID or S.S. No. \_\_\_\_\_

18 NON-OPERATORS

19 \_\_\_\_\_  
20 MRC Permian Company

21 \_\_\_\_\_ By \_\_\_\_\_

22 \_\_\_\_\_  
Type or print name

23 Title \_\_\_\_\_

24 Date \_\_\_\_\_

25 Tax ID or S.S. No. \_\_\_\_\_

26 Axis Energy Corporation

27 \_\_\_\_\_ By \_\_\_\_\_


28 \_\_\_\_\_  
Type or print name

29 Title \_\_\_\_\_

30 Date \_\_\_\_\_

31 Tax ID or S.S. No. \_\_\_\_\_

32 MorningStar Operating LLC

33 \_\_\_\_\_ By 

34 Allen L. Armstrong, Jr.  
Type or print name

35 Title Vice President - Land

36 Date 2-20-2026

37 Tax ID or S.S. No. \_\_\_\_\_

A.A.P.L. FORM 610-E - GAS BALANCING AGREEMENT - 1992

AMERICAN ASSOCIATION OF PETROLEUM LANDMEN APPROVED FORM A.A.P.L. NO. 610-E

ACKNOWLEDGMENTS

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Acknowledgment in representative capacity:

State of TEXAS §

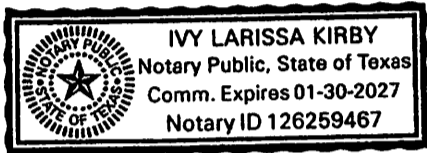
§ ss.

County of TARRANT §

This instrument was acknowledged before me on 20th DAY OF FEBRUARY, 2026

by ALLEN L. ARMSTRONG, JR AS VICE PRESIDENT-LAND, OF MORNING STAR OPERATING LLC

(Seal, if any)



Ivy Kirby

Title (and Rank) \_\_\_\_\_

My commission expires: 1.30.2027

State of \_\_\_\_\_ §

§ ss.

County of \_\_\_\_\_ §

This instrument was acknowledged before me on \_\_\_\_\_

by \_\_\_\_\_

(Seal, if any)

Title (and Rank) \_\_\_\_\_

My commission expires: \_\_\_\_\_

State of \_\_\_\_\_ §

§ ss.

County of \_\_\_\_\_ §

This instrument was acknowledged before me on \_\_\_\_\_

by \_\_\_\_\_

(Seal, if any)

Title (and Rank) \_\_\_\_\_

My commission expires: \_\_\_\_\_

A.A.P.L. FORM 610 - MODEL FORM OPERATING AGREEMENT - 1989

1 IN WITNESS WHEREOF, this agreement shall be effective as of the 1 day of January, 2026.

2 \_\_\_\_\_, who has prepared and circulated this form for execution, represents and warrants

3 that the form was printed from and, with the exception(s) listed below, is identical to the AAPL Form 610-1989 Model Form

4 Operating Agreement, as published in computerized form by Forms On A Disk, Inc. No changes, alterations, or

modifications, other than those made by strikethrough and/or insertion and that are clearly recognizable as changes in

Articles \_\_\_\_\_, have been made to the form.

ATTEST OR WITNESS:

OPERATOR

Coterra Energy Operating Co.

6 \_\_\_\_\_

7 \_\_\_\_\_

By: \_\_\_\_\_

Bradley Cantrell

Type or print name

Title Attorney-in-Fact

Date \_\_\_\_\_

Tax ID or S.S. No. \_\_\_\_\_

NON-OPERATORS

MRC Permian Company

15 \_\_\_\_\_

16 \_\_\_\_\_

17 \_\_\_\_\_

By: \_\_\_\_\_

Type or print name

Title \_\_\_\_\_

Date \_\_\_\_\_

Tax ID or S.S. No. \_\_\_\_\_

Axis Energy Corporation

23 \_\_\_\_\_

24 \_\_\_\_\_

25 \_\_\_\_\_

By: \_\_\_\_\_

Type or print name

Title \_\_\_\_\_

Date \_\_\_\_\_

Tax ID or S.S. No. \_\_\_\_\_

MorningStar Operating LLC

30 \_\_\_\_\_

31 \_\_\_\_\_

32 \_\_\_\_\_

By: 

Allen L. Armstrong, Jr.

Type or print name

Title Vice President - Land

Date 2-20-2024

Tax ID or S.S. No. \_\_\_\_\_

A.A.P.L. FORM 610 - MODEL FORM OPERATING AGREEMENT - 1989

ACKNOWLEDGMENTS

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Note: The following forms of acknowledgment are the short forms approved by the Uniform Law on Notarial Acts.  
The validity and effect of these forms in any state will depend upon the statutes of that state.

Individual acknowledgment:

State of \_\_\_\_\_ )

\_\_\_\_\_ ) ss.

County of \_\_\_\_\_ )

— This instrument was acknowledged before me on

\_\_\_\_\_ by \_\_\_\_\_

(Seal, if any) \_\_\_\_\_

\_\_\_\_\_ Title (and Rank) \_\_\_\_\_

\_\_\_\_\_ My commission expires: \_\_\_\_\_

Acknowledgment in representative capacity:

STATE OF TEXAS §  
§  
COUNTY OF MIDLAND §

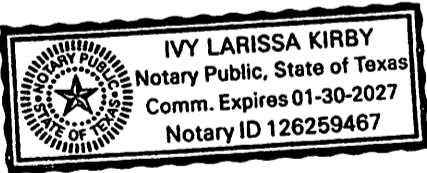
This instrument was acknowledged before me on this \_\_\_\_\_ day of \_\_\_\_\_, 2026, by Bradley Cantrell, acting as Attorney-in-Fact for Coterra Energy Operating Co., a Delaware corporation, on behalf of said corporation.

\_\_\_\_\_  
Notary Public in and for the State of Texas

My Commission Expires: \_\_\_\_\_

STATE OF TEXAS §  
§  
COUNTY OF TARRANT §

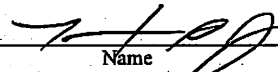
This instrument was acknowledged before me on this 20<sup>TH</sup> day of FEBRUARY, 2026 by ALEX L. ARMSTRONG, JR., as VICE PRESIDENT - LAND of MIDLAND SUB OPERATING LLC, a DELAWARE LLC, on behalf of said company.



Ivy Kirby  
Notary Public in and for the State of TX

My Commission Expires: 1.30.2027

**Axis Energy Corporation**

By:   
Name

Print Name: KENNETH BARBE JR

Title: PRESIDENT

Date: 2/3/2024

Tax ID or S.S. NO. 76-0359824

**MorningStar Operating LLC**

By: \_\_\_\_\_  
Name

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Tax ID or S.S. NO. \_\_\_\_\_

ACKNOWLEDGEMENTS

STATE OF \_\_\_\_\_ )  
COUNTY OF \_\_\_\_\_ )

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 2025, by Brad Cantrell as Attorney-in-Fact of Coterra Energy Operating Co. on behalf of said corporations.

\_\_\_\_\_  
Notary Public in and for the State of Texas

My commission expires: \_\_\_\_\_

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) ss.

This instrument was acknowledged before me on \_\_\_\_\_ day of \_\_\_\_\_, 2025 by \_\_\_\_\_ as \_\_\_\_\_ of MRC Permian Company, a \_\_\_\_\_.

(Seal, if any)

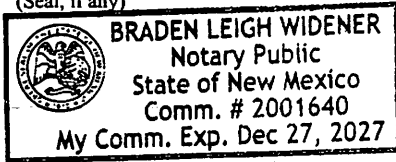
\_\_\_\_\_  
Notary Public in and for the State of Texas

My commission expires: \_\_\_\_\_

State of New Mexico )  
County of Chaves ) ss.

This instrument was acknowledged before me on 3rd day of February, 2025 by Verneth Barc, Jr as President of Axis Energy Corporation, a Texas Corp.

(Seal, if any)



Braden Widener  
Notary Public in and for the State of Texas New Mexico

My commission expires: 12-27-2027

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) ss.

This instrument was acknowledged before me on \_\_\_\_\_ day of \_\_\_\_\_, 2025 by \_\_\_\_\_ as \_\_\_\_\_ of MorningStar Operating LLC, a \_\_\_\_\_.

(Seal, if any)

\_\_\_\_\_  
Notary Public in and for the State of Texas

My commission expires: \_\_\_\_\_

A.A.P.L. FORM 610 - MODEL FORM OPERATING AGREEMENT - 1989

1 IN WITNESS WHEREOF, this agreement shall be effective as of the 1 day of January, 2026.

2 \_\_\_\_\_, who has prepared and circulated this form for execution, represents and warrants  
 3 that the form was printed from and, with the exception(s) listed below, is identical to the A.A.P.L. Form 610-1989 Model Form  
 4 Operating Agreement, as published in computerized form by Forms On A Disk, Inc. No changes, alterations, or  
 5 modifications, other than those made by strikethrough and/or insertion and that are clearly recognizable as changes in  
 6 Articles \_\_\_\_\_, have been made to the form.

ATTEST OR WITNESS:

OPERATOR

Coterra Energy Operating Co.

By: \_\_\_\_\_

Bradley Cantrell

Type or print name

Title Attorney-in-Fact

Date \_\_\_\_\_

Tax ID or S.S. No. \_\_\_\_\_

NON-OPERATORS

MRC Permian Company

By: \_\_\_\_\_

Type or print name

Title \_\_\_\_\_

Date \_\_\_\_\_

Tax ID or S.S. No. \_\_\_\_\_

Axis Energy Corporation

By: Kenneth Barbe Jr

KENNETH BARBE JR  
Type or print name

Title PRESIDENT

Date 2/3/2026

Tax ID or S.S. No. 76-0359826

MorningStar Operating LLC

By: \_\_\_\_\_

Type or print name

Title \_\_\_\_\_

Date \_\_\_\_\_

Tax ID or S.S. No. \_\_\_\_\_

## A.A.P.L. FORM 610 - MODEL FORM OPERATING AGREEMENT - 1989

1 services necessary to secure regulatory permits and approvals for drilling wells, laying pipelines, collecting and discharging  
2 water and any other matters related to the Contract Area

3 **W. PRODUCED WATER**

4 It is hereby expressly agreed that, for the disposal of produced water from the Contract Area, the Parties shall be charged a rate  
5 at or below the then currently prevailing rate in the area.

6 **X. FORCE MAJEURE (NM)**

7 The Parties recognize that due to environmental concerns relating to the Contract Area, there may be limited drilling windows  
8 during which Operator will be permitted to drill, and that consequently a force majeure preventing drilling during one window may require  
9 that Operator defer drilling until the next available window, even though the force majeure that originally prevented the drilling terminates  
10 earlier. In that event, the force majeure shall be considered to continue until Operator, with reasonable diligence, is able to commence or  
11 resume drilling in the next available drilling window. If the force majeure ends while the drilling window is open but without sufficient time  
12 within that window to allow the well to be drilled to the authorized depth. Operator may defer commencement or resumption of drilling until  
13 the next available window.

14 **Y. DE-SPACED AND RE-SPACED UNIT(S)**

15 If a proration or spacing unit comprising all or part of the Contract Area is reduced in size by a governmental agency, or by court  
16 order, or by the terms of the applicable Oil and Gas Lease(s) which have been contributed to the unit, or by agreement of the parties hereto,  
17 or by completion of a unit well in a formation different than that originally contemplated by the Consenting Parties when the well was  
18 commenced, then the parties' interests in the Contract Area, as shown on Exhibit "A", will remain unchanged, subject to the payment of  
19 royalties as follows: The parties agree to pay their share of all royalties, overriding royalties, production payments and all other burdens not  
20 excepted by Article III.C herein, in proportion to their interests as shown in Exhibit "A", regardless of which party(s) contributed the Oil and  
21 Gas Lease(s) on which the royalty and other burdens are due.

22 **Z. MISCELLANEOUS**

23 *Conflict of Terms.* In the event of a conflict between the typewritten portions and printed portions of this agreement, the typewritten  
24 portions shall prevail. In the event of a conflict between the terms of this Article XVI and any other portion of this agreement, the terms of  
25 Article XVI shall govern, control and prevail.

26 *Invalid Provisions.* In the event any provision contained in this agreement is contrary to any law, rule, regulation or order and is  
27 held to be invalid, void, illegal or unenforceable in any respect, the parties shall either modify the provision to properly conform with such  
28 law, rule, regulation or order or delete such provision from this agreement, and in either case the remaining provisions hereof shall remain  
29 unaffected and will continue in full force and effect. Furthermore, in lieu of such invalid, void, illegal or unenforceable provision there  
30 automatically shall be added as part of this agreement a provision as closely resembling such provision as shall then be valid, legal and  
31 enforceable so long as such provision does not have a material adverse effect on the rights of any party to this agreement.

32 *COPAS Interpretation.* The provisions of Exhibit "C" attached hereto shall be interpreted as recommended by the Council of  
33 Petroleum Accountants Societies of North America, Accounting Procedure for Joint Operations, after giving effect to special changes and  
34 provisions noted herein and in the provisions of Exhibit "C", if any.

35 *JOA Preparation.* Each party acknowledges and agrees that such party has been represented or had the opportunity to be  
36 represented by attorneys of its own choosing and therefore, for the purposes of construing this agreement, each party shall be deemed to have  
37 participated equally in the preparation and drafting of this agreement. If any ambiguity is contained in this agreement, no weight shall be  
38 given in favor or against any party in resolving that ambiguity on account of that party's drafting of this agreement.

39 **AA. PRODUCTION SHARING AGREEMENT**

40 ~~This JOA is being executed concurrently with two Production Sharing Agreements, both dated April 1, 2024, with Cimarex Energy  
41 Co. as Operator. Non-Operator(s) acknowledge that they have reviewed the terms of such Production Sharing Agreements, and in the event  
42 of a conflict of the provisions of this Operating Agreement and the Production Sharing Agreements, the provisions of the Production Sharing  
43 Agreements shall control and prevail. Furthermore, additional Production Sharing Agreements, containing substantially the same terms, may  
44 be executed in the future covering alternative depths and Sharing Areas located within the Contract Area.~~

45 **BB. RENEWAL OR EXTENSION OF LEASES**

46 Notwithstanding anything herein to the contrary, each party committing any Lease or Leases or any undivided interest therein or  
47 portion thereof to this agreement shall have the sole option prior to the expiration of each such Lease to renew or extend such Lease with  
48 respect to all of such party's interest therein and to bear the renewal or extension costs and expenses incurred in connection therewith and  
49 thereby retain its interest and title in said Lease. If any such party does not timely exercise its option and procure a renewal or extension of its  
50 interest in such Lease, then any replacement Lease taken covering such interest will thereafter be subject to the terms of Article VIII.B. The  
51 provisions of this section shall only apply to Leases or portions of Leases located in the Contract Area.

52 **CC. HEADINGS**

53 All headings in this agreement are for reference purposes only and have no binding effect on the terms, conditions, or provisions  
54 of this agreement.

55 **DD. ADDITIONAL LANGUAGE TO ARTICLE V.A - OPERATOR**

56 THE FOLLOWING PROVISIONS SHALL BE DEEMED CLEAR AND CONSPICUOUS AND SATISFY THE EXPRESS  
57 NEGLIGENCE RULE. ANYTHING TO THE CONTRARY NOTWITHSTANDING, OPERATOR SHALL HAVE NO LIABILITY FOR  
58 ORDINARY NEGLIGENCE ARISING UNDER OR IN CONNECTION WITH THIS AGREEMENT (INCLUDING WITHOUT  
59 LIMITATION THE ADMINISTRATION OF THIS AGREEMENT OR OPERATIONS HEREUNDER), EXCEPT FOR THE GROSS  
60 NEGLIGENCE OR WILLFUL MISCONDUCT OF OPERATOR.

61 **EE. ADDITIONAL LANGUAGE TO ARTICLE VII.A - LIABILITIES OF PARTIES**

62 NO PARTY SHALL BE LIABLE TO ANY OTHER PARTY HERETO FOR ANY LOST OR PROSPECTIVE PROFITS OR  
63 ANY OTHER SPECIAL, PUNITIVE, EXEMPLARY, CONSEQUENTIAL, INCIDENTAL OR INDIRECT LOSSES OR DAMAGES (IN  
64 TORT, CONTRACT OR OTHERWISE) UNDER OR IN RESPECT OF THIS AGREEMENT OR FOR ANY FAILURE OF  
65 PERFORMANCE RELATED HERETO HOWSOEVER CAUSED, WHETHER OR NOT ARISING FROM SUCH PARTY'S SOLE,  
66 JOINT OR CONCURRENT NEGLIGENCE, STRICT LIABILITY, BREACH OF CONTRACT OR OTHER FAULT OR  
67 RESPONSIBILITY. For purposes of the foregoing, actual damages may, however, include indirect, special, consequential, incidental or  
68 indirect losses or exemplary or punitive damages to the extent (i) the injuries or losses resulting in or giving rise to such damages are incurred  
69 or suffered by a third party which is not a party to this agreement and (ii) such damages are recovered against such party by a third party  
70 which is not a party hereto. This Article XVI.I shall operate only to limit a party's liability and shall not operate to increase or expand any  
71 contractual obligation of a party hereunder.

A.A.P.L. FORM 610 - MODEL FORM OPERATING AGREEMENT - 1989

1 IN WITNESS WHEREOF, this agreement shall be effective as of the 1 day of January, 2026.

2 \_\_\_\_\_, who has prepared and circulated this form for execution, represents and warrants

3 that the form was printed from and, with the exception(s) listed below, is identical to the A.A.P.L. Form 610-1989 Model Form

4 Operating Agreement, as published in computerized form by FormS On A Disk. No changes, alterations, or

5 modifications, other than those made by ~~strike through and/or insertion~~ and that are clearly recognizable as changes in

6 Articles \_\_\_\_\_, have been made to the form.

ATTEST OR WITNESS:

OPERATOR

Coterra Energy Operating Co.

By: \_\_\_\_\_

Bradley Cantrell

Type or print name

Title Attorney-in-Fact

Date \_\_\_\_\_

Tax ID or S.S. No. \_\_\_\_\_

NON-OPERATORS

MRC Pennian Company

By: \_\_\_\_\_

Type or print name

Title \_\_\_\_\_

Date \_\_\_\_\_

Tax ID or S.S. No. \_\_\_\_\_

Axis Energy Corporation

By: [Signature]

KENNETH BARBE JR

Type or print name

Title PRESIDENT

Date 2/3/2026

Tax ID or S.S. No. 76-0359826

MorningStar Operating LLC

By: \_\_\_\_\_

Type or print name

Title \_\_\_\_\_

Date \_\_\_\_\_

Tax ID or S.S. No. \_\_\_\_\_

A.A.P.L. FORM 610 - MODEL FORM OPERATING AGREEMENT - 1989

ACKNOWLEDGMENTS

Note: The following forms of acknowledgment are the short forms approved by the Uniform Law on Notarial Acts. The validity and effect of these forms in any state will depend upon the statutes of that state.

Individual acknowledgment:

State of \_\_\_\_\_

\_\_\_\_\_

County of \_\_\_\_\_

This instrument was acknowledged before me on

\_\_\_\_\_ by \_\_\_\_\_

(Seal, if any) \_\_\_\_\_

\_\_\_\_\_ Title (and Rank) \_\_\_\_\_

\_\_\_\_\_ My commission expires: \_\_\_\_\_

Acknowledgment in representative capacity:

STATE OF TEXAS §

COUNTY OF MIDLAND §

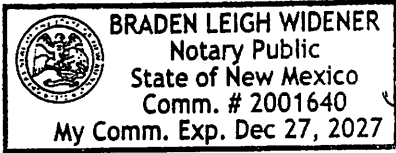
This instrument was acknowledged before me on this \_\_\_\_\_ day of \_\_\_\_\_, 2026, by Bradley Cantrell, acting as Attorney-in-Fact for Coterra Energy Operating Co., a Delaware corporation, on behalf of said corporation.

\_\_\_\_\_  
Notary Public in and for the State of Texas

My Commission Expires: \_\_\_\_\_

STATE OF New Mexico §  
COUNTY OF Chaves §

This instrument was acknowledged before me on this 3rd day of February, 2026, by Kenneth Bate, Jr., as President of Axis Energy Corporation, on behalf of said company.



Braden Widener  
Notary Public in and for the State of New Mexico  
My Commission Expires: 12-27-2027

A.A.P.L. FORM 610-E - GAS BALANCING AGREEMENT - 1992

1 15. COUNTERPARTS

2 This Agreement may be executed in counterparts, each of which when taken with all other counterparts shall constitute  
3 a binding agreement between the Parties hereto; provided, however, that if a Party or Parties owning a Percentage Interest in  
4 the Balancing Area equal to or greater than a one hundred percent (100%) therein fail(s) to execute this  
5 Agreement on or before \_\_\_\_\_, this Agreement shall not be binding upon any Party and shall be of  
6 no further force and effect.  
7 IN WITNESS WHEREOF, this Agreement shall be effective as of the 1<sup>st</sup> day of January, 2026.

10 ATTEST OR WITNESS:

OPERATOR

Coterra Energy Operating Co.

By \_\_\_\_\_

Bradley Cantrell  
Type or print name

Title Attorney-In-Fact

Date \_\_\_\_\_

Tax ID or S.S. No. \_\_\_\_\_

NON-OPERATORS

MRC Permian Company

By \_\_\_\_\_

\_\_\_\_\_  
Type or print name

Title \_\_\_\_\_

Date \_\_\_\_\_

Tax ID or S.S. No. \_\_\_\_\_

Axis Energy Corporation

By [Signature]

KENNETH BARBE JR  
Type or print name

Title PRESIDENT

Date 2/3/2026

Tax ID or S.S. No. 76-0359826

MorningStar Operating LLC

By \_\_\_\_\_

\_\_\_\_\_  
Type or print name

Title \_\_\_\_\_

Date \_\_\_\_\_

Tax ID or S.S. No. \_\_\_\_\_

A.A.P.L. FORM 610-E - GAS BALANCING AGREEMENT - 1992

AMERICAN ASSOCIATION OF PETROLEUM LANDMEN  
APPROVED FORM A.A.P.L. NO. 610-E

ACKNOWLEDGMENTS

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Acknowledgment in representative capacity:

State of \_\_\_\_\_ §  
§ ss.  
County of \_\_\_\_\_ §

This instrument was acknowledged before me on \_\_\_\_\_

by \_\_\_\_\_

(Seal, if any)

Title (and Rank) \_\_\_\_\_

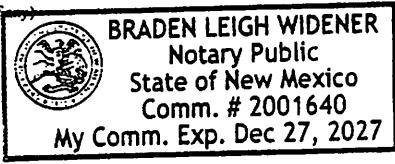
My commission expires: \_\_\_\_\_

State of New Mexico §  
§ ss.  
County of Chaves §

This instrument was acknowledged before me on February 3, 2026

by Kenneth Barbe, III, President Axis Energy Corporation

(Seal, if any)



Braden Widener  
Title (and Rank) Notary Public

My commission expires: 12-27-2027

State of \_\_\_\_\_ §  
§ ss.  
County of \_\_\_\_\_ §

This instrument was acknowledged before me on \_\_\_\_\_

by \_\_\_\_\_

(Seal, if any)

Title (and Rank) \_\_\_\_\_

My commission expires: \_\_\_\_\_

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

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/oecd/contact-us>

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

CONDITIONS

Action 572969

**CONDITIONS**

Operator: Coterra Energy Operating Co. 6001 Deauville Blvd Midland, TX 79706	OGRID: 215099
	Action Number: 572969
	Action Type: [C-103A] NOI Change of Plans (C-103A)

**CONDITIONS**

Created By	Condition	Condition Date
jeffrey.harrison	No additives containing PFAS chemicals will be added to the drilling fluids or completion fluids used during drilling, completions, or recompletions operations.	4/27/2026
jeffrey.harrison	All previous COA's not addressed within the updated COA's still apply.	4/27/2026
jeffrey.harrison	All conducted logs must be submitted to the OCD.	4/27/2026
jeffrey.harrison	If cement does not circulate to surface on any string, a Cement Bond Log (CBL) is required for that string of casing. If strata isolation is not achieved, remediation will be required before further operations may commence.	4/27/2026
jeffrey.harrison	Cement must be in place for at least eight hours AND achieve a minimum compressive strength of 500 PSI before performing any further operations on the well.	4/27/2026