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

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

State of New Mexico
Energy, Minerals and Natural Resources

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

Form C-103
Revised July 18, 2013

WELL API NO. 30-025-53338

5. Indicate Type of Lease STATE [X] FEE [ ]

6. State Oil & Gas Lease No. VB2312002

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.)

7. Lease Name or Unit Agreement Name: Rope State Com

1. Type of Well: Oil Well [X] Gas Well [ ] Other

8. Well Number: 303H

2. Name of Operator: Coterra Energy Operating Co.

9. OGRID Number: 215099

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

10. Pool name or Wildcat: Airstrip; Bone Spring,WC-025 G-06 S183518A; Bone Spring

4. Well Location
Unit Letter M : 338 feet from the S line and 1193 feet from the E line
Section 30 Township 18S Range 35E NMPM SESE County Lea

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* 3939.3

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	[ ]	PLUG AND ABANDON	[ ]	REMEDIAL WORK	[ ]	ALTERING CASING	[ ]
TEMPORARILY ABANDON	[ ]	CHANGE PLANS	[X]	COMMENCE DRILLING OPNS.	[ ]	P AND A	[ ]
PULL OR ALTER CASING	[ ]	MULTIPLE COMPL	[ ]	CASING/CEMENT JOB	[ ]		
DOWNHOLE COMMINGLE	[ ]						
CLOSED-LOOP SYSTEM	[ ]						
OTHER:	[ ]			OTHER:			[ ]

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 303H:

Well number change from 303H to 603H
SHL from 338 FSL 1193 FEL to 338 FSL 1173 FEL
BHL from 100 FNL 1490 FEL to 2546 FSL 2305 FEL
MD from 24694' to 28660'
TVD from 9194' to 10465'
Update Airstrip; Bone Spring spacing to 320 acres
Update WC-025 G-06 S183518A; Bone Spring spacing to 800 acres

Spud Date: 4/9/2026 Rig Release Date: 5/9/2026

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):

C-102

Submit Electronically
Via OCD Permitting

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

Revised July 9, 2024

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

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name
30-025-53338	960	Airstrip; Bone Spring

Property Code	Property Name	Well Number
338213	ROPE STATE COM	603H

OGRID No.	Operator Name	Ground Level Elevation
215099	COTERRA ENERGY OPERATING CO.	3939.3'

Surface Owner: ☒ State ☐ Fee ☐ Tribal ☐ Federal Mineral Owner: ☒ State ☐ Fee ☐ Tribal ☐ Federal

Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
P	30	18S	35E		338 SOUTH	1,173 EAST	32.712397°	-103.492015°	LEA

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
J	7	18S	35E		2,546 SOUTH	2,305 EAST	32.762111°	-103.495862°	LEA

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
320	Infill	30-025-53337	Y	C

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

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
O	30	18S	35E		100 SOUTH	2,305 EAST	32.711763°	-103.495693°	LEA

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
O	30	18S	35E		100 SOUTH	2,305 EAST	32.711763°	-103.495693°	LEA

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
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Unitized Area or Area of Uniform Interest	Spacing Unit Type	Ground Floor Elevation:
E2 Sec 30,19,18,7	☒ Horizontal ☐ Vertical	3939.3

OPERATOR CERTIFICATIONS

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

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

Shelly Bowen 04/08/2026

Signature Date

Shelly Bowen

Printed Name

Shelly.Bowen@coterra.com

Email Address

SURVEYOR CERTIFICATIONS

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

PAUL BUCHELE NEW MEXICO 23782 02-19-26 PROFESSIONAL SURVEYOR

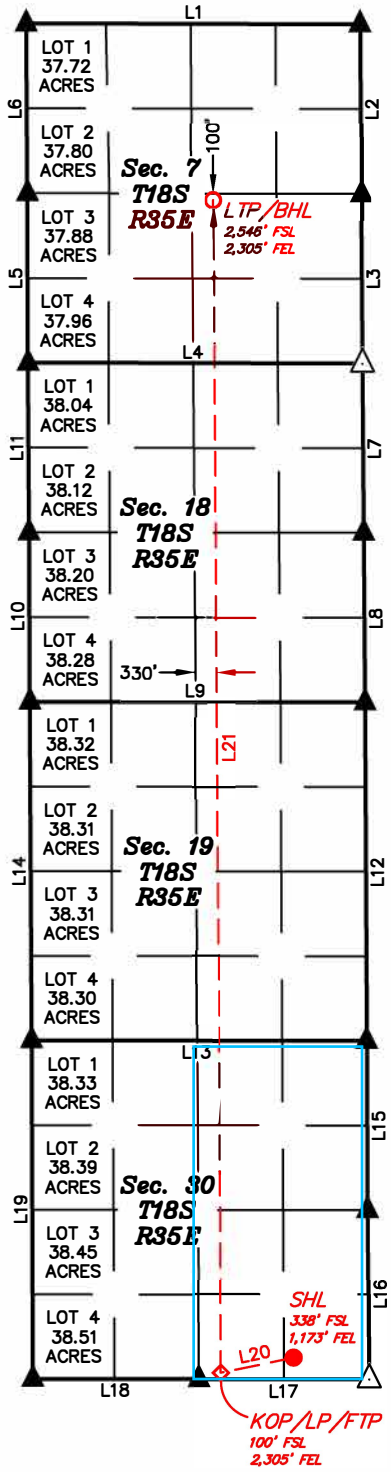
Signature and Seal of Professional Surveyor

23782 February 21, 2024

Certificate Number Date of Survey

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

Property Name	Well Number	Drawn By	Revised By
ROPE STATE COM	603H	E. C. 11-12-25	REV. 2 N. R. 02-19-26 (UPDATE KOP/LP/FTP & LTP/BHL)



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'
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L19	N00°14'14"W	5287.20'
L20	S78°14'54"W	1154.68'
L21	N00°22'21"W	18321.76'

NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°42'44.63" (32.712397°)
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NOTE:
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- Section breakdown information for this plan may be obtained from Uintah Engineering and Land Surveying.

● = SURFACE HOLE LOCATION
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3000' 1500' 0' 3000'
SCALE

Sheet 2 of 2

C-102

Submit Electronically
Via OCD Permitting

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

Revised July 9, 2024

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

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name
30-025-53338	97930	WC-025 G-06 S183518A; Bone Spring

Property Code	Property Name	Well Number
338213	ROPE STATE COM	603H

OGRID No.	Operator Name	Ground Level Elevation
215099	COTERRA ENERGY OPERATING CO.	3939.3'

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800	Infill	30-025-53337	Y	C

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Shelly Bowen 04/08/2026

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Shelly Bowen

Printed Name

Shelly.Bowen@coterra.com

Email Address

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Sheet 1 of 2

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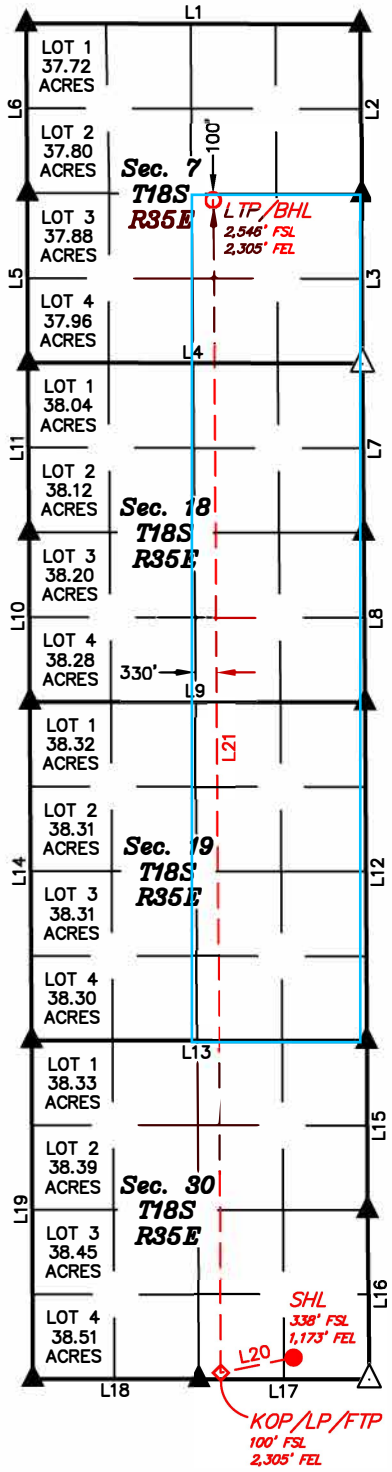

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▲ = SECTION CORNER LOCATED
△ = SECTION CORNER RE-ESTABLISHED. (Not Set on Ground.)

SCALE

Sheet 2 of 2

1. Geological Formations

TVD of target
MD at TD

Pilot Hole TD N/A
Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	1896	N/A	
Top of Salt	2164	N/A	
Base of Salt/Lamar	5742	N/A	
Top Delaware Sands/Bell Canyon	5850	N/A	
Cherry Canyon	6120	N/A	
Brushy Canyon	6578	N/A	
Basal Brushy Canyon	7409	N/A	
Bone Spring Lime	7594	N/A	
leonard/Avalon Sand	7765	N/A	
1st Bone Spring Sand	9085	Hydrocarbons	
2nd Bone Spring Sand	9632	Hydrocarbons	
3rd Bone Spring Carb	10159	Hydrocarbons	
3rd Bone Spring Sand	10288	Hydrocarbons	
3rd Bone Spring Sand - Target	10451	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	2007	2007	13-3/8"	54.50	J-55	BT&C	1.30	3.16	7.80
12 1/4	0	5767	5767	9-5/8"	40.00	HCK-55	LT&C	1.23	1.28	2.43
8 1/2	0	10035	10035	7"	29.00	P-110	BT&C	1.82	2.39	5.22
8 1/2	10035	28660	8890	5-1/2"	20.00	P-110	BT&C	2.67	2.97	(27.99)
					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.

Cimarex Energy Co., Rope State Com 603H

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

3. Cementing Program

Casing	# Sks	Wt. lb/gal	Yld ft3/sack	H2O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	973	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	261	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate	1078	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	232	10.30	3.64	22.18		Lead: Tuned Light + LCM
	4924	14.20	1.30	5.86	14:30	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS

Casing String	TOC	% Excess
Surface	0	45
Intermediate	0	52
Production	5567	

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 2007'	Fresh Water	7.80 - 8.30	28	N/C
2007' to 5767'	Brine Water	9.80 - 10.30	30-32	N/C
5767' to 28660'	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

6. Logging and Testing Procedures

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

Additional Logs Planned	Interval

7. Drilling Conditions

Condition	
BH Pressure at deepest TVD	4160 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 603H
Wellbore: OH
Design: Plan #2
Rig:

SHL

338' FSL, 1173' FEL
RKB Elevation: KB 3939.3' + KB 23' @ 3962.30usft

+N/-S	+E/-W	Northing	Easting	Latittude	Longitude	Slot
0.00	0.00	623928.37	800103.29	32.7123975	-103.4920155	

Formations

TVDPath	MDPath	Formation
1896.00	1896.53	Rustler
1982.00	1983.14	A3 Top
2080.00	2082.10	A3 Base (Tamarisk)
2164.00	2166.93	Top Salt/Salado
5742.00	5780.17	Base Salt/Lamar/CTRA_BASE_ANHYDRITE
5850.00	5889.24	Top Delaware Sands/Bell Canyon
6120.00	6161.90	Cherry Canyon
6578.00	6624.41	Brushy Canyon
7409.00	7463.60	Basal Brushy Canyon
7594.00	7650.42	Bone Spring Lime
7765.00	7823.10	Leonard/Avalon Sand
9085.00	9156.11	1st Bone Spring Sand
9632.00	9708.50	2nd Bone Spring Sand
10159.00	10250.03	3rd Bone Spring Carb
10288.00	10413.50	3rd Bone Spring Sand
10451.00	10798.49	3rd Bone Spring Sand 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	
1600.00	0.00	0.00	1600.00	0.00	0.00	0.00	0.00	0.00	Nudge, Build 2.00°/100'
2000.48	8.01	257.55	1999.17	-6.02	-27.29	2.00	257.55	-5.73	Hold - 2000.48' MD/1999.18' TVD
9725.10	8.01	257.55	9648.44	-238.00	-1078.33	0.00	0.00	-226.31	Start DLS 4.00 TFO 140.67
10035.35	8.00	359.38	9956.88	-221.00	-1099.75	4.00	140.67	-209.09	KOP - Start 10.00°/100' DLS
10705.35	75.00	359.38	10430.57	198.06	-1104.28	10.00	0.00	210.00	75° Inc - 10705.35' MD/10430.57' TVD
11108.32	95.15	359.38	10465.00	597.45	-1108.59	5.00	0.01	609.41	LP - 11108.32' MD
28660.79	95.15	359.38	8890.00	18078.11	-1296.37	0.00	0.00	18091.08	TD - 28660.79' MD

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LTP/PBHL - 2546' FSL, 2275' FEL (RSC 603H)	8890.00	18077.82	-1296.35	642006.19	798806.94	32.7621106	-103.4957652
KOP/LP/FTP (RSC 603H)	9956.88	-239.87	-1099.45	623688.50	799003.84	32.7117622	-103.4955959

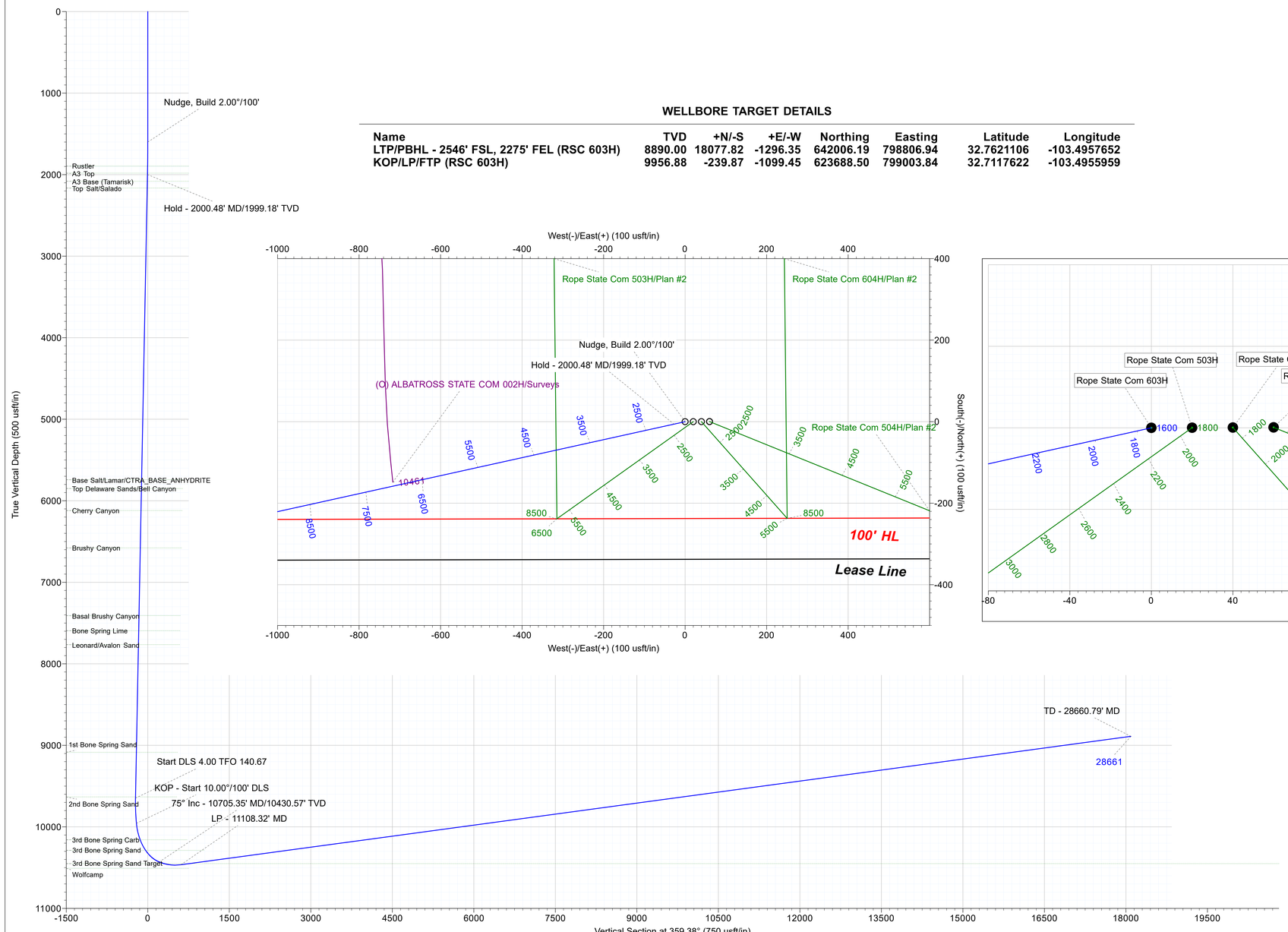
Azimuths to Grid North
True North: -0.45°
Magnetic North: 5.53°

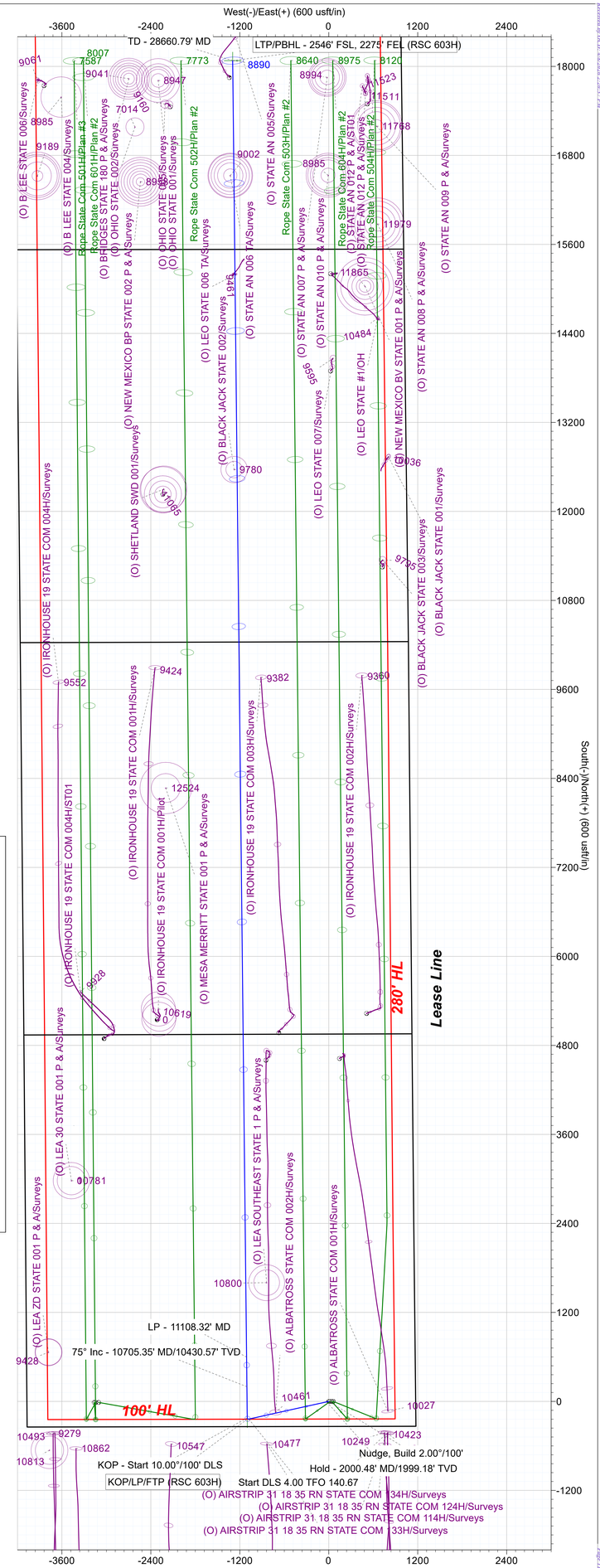
Magnetic Field
Strength: 47286.3nT
Dip Angle: 60.42°
Date: 3/11/2026
Model: HDGM2026

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





Coterra Energy

Lea County, NM (NAD 83)
Rope State Com Pad
Rope State Com 603H

338' FSL, 1173' FEL

OH

Plan: Plan #2

Total Directional
"Driven by TOTAL performance"

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

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Well:	Rope State Com 603H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #2	**Database:**	.Total Directional Production DB

Project Lea County, NM (NAD 83)

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

Site Rope State Com Pad

Site Position:		**Northing:**	623,928.44 usft	**Latitude:**	32.7123973
From:	Map	**Easting:**	800,123.29 usft	**Longitude:**	-103.4919504
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "		

Well Rope State Com 603H

Well Position	**+N/-S**	0.00 usft	**Northing:**	623,928.37 usft	**Latitude:**	32.7123975
	+E/-W	0.00 usft	**Easting:**	800,103.29 usft	**Longitude:**	-103.4920155
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,939.30 usft
Grid Convergence:		0.45 °				

Wellbore OH

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

Design Plan #2

Audit Notes:

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

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	359.38

Survey Tool Program **Date** 3/18/2026

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	28,660.79	Plan #2 (OH)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction

Plan Summary

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.48	8.01	257.55	1,999.17	-6.02	-27.29	2.00	2.00	0.00	257.55	
9,725.10	8.01	257.55	9,648.44	-238.00	-1,078.33	0.00	0.00	0.00	0.00	
10,035.35	8.00	359.38	9,956.88	-221.00	-1,099.75	4.00	0.00	32.82	140.67	
10,705.35	75.00	359.38	10,430.57	198.06	-1,104.28	10.00	10.00	0.00	0.00	
11,108.32	95.15	359.38	10,465.00	597.45	-1,108.59	5.00	5.00	0.00	0.01	
28,660.79	95.15	359.38	8,890.00	18,078.11	-1,296.37	0.00	0.00	0.00	0.00	

Total Directional

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Well:	Rope State Com 603H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #2	**Database:**	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	623,928.37	800,103.29	32.7123975	-103.4920155	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	623,928.37	800,103.29	32.7123975	-103.4920155	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	623,928.37	800,103.29	32.7123975	-103.4920155	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	623,928.37	800,103.29	32.7123975	-103.4920155	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	623,928.37	800,103.29	32.7123975	-103.4920155	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	623,928.37	800,103.29	32.7123975	-103.4920155	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	623,928.37	800,103.29	32.7123975	-103.4920155	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	623,928.37	800,103.29	32.7123975	-103.4920155	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	623,928.37	800,103.29	32.7123975	-103.4920155	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	623,928.37	800,103.29	32.7123975	-103.4920155	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	623,928.37	800,103.29	32.7123975	-103.4920155	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	623,928.37	800,103.29	32.7123975	-103.4920155	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	623,928.37	800,103.29	32.7123975	-103.4920155	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	623,928.37	800,103.29	32.7123975	-103.4920155	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	623,928.37	800,103.29	32.7123975	-103.4920155	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	623,928.37	800,103.29	32.7123975	-103.4920155	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	623,928.37	800,103.29	32.7123975	-103.4920155	0.00	0.00	0.00	0.00
Nudge, Build 2.00°/100'													
1,700.00	2.00	257.55	1,699.98	-0.38	-1.70	623,927.99	800,101.59	32.7123965	-103.4920210	-0.36	2.00	2.00	0.00
1,800.00	4.00	257.55	1,799.84	-1.50	-6.81	623,926.87	800,096.48	32.7123935	-103.4920377	-1.43	2.00	2.00	0.00
1,896.53	5.93	257.55	1,896.00	-3.30	-14.97	623,925.07	800,088.32	32.7123887	-103.4920642	-3.14	2.00	2.00	0.00
Rustler													
1,900.00	6.00	257.55	1,899.45	-3.38	-15.32	623,924.99	800,087.97	32.7123885	-103.4920654	-3.22	2.00	2.00	0.00
1,983.14	7.66	257.55	1,982.00	-5.51	-24.98	623,922.86	800,078.31	32.7123829	-103.4920968	-5.24	2.00	2.00	0.00
A3 Top													
2,000.48	8.01	257.55	1,999.17	-6.02	-27.29	623,922.35	800,076.00	32.7123815	-103.4921043	-5.73	2.00	2.00	0.00
Hold - 2000.48' MD/1999.18' TVD													
2,082.10	8.01	257.55	2,080.00	-8.47	-38.40	623,919.90	800,064.89	32.7123751	-103.4921405	-8.06	0.00	0.00	0.00
A3 Base (Tamarisk)													
2,100.00	8.01	257.55	2,097.73	-9.01	-40.83	623,919.36	800,062.46	32.7123736	-103.4921484	-8.57	0.00	0.00	0.00
2,166.93	8.01	257.55	2,164.00	-11.02	-49.94	623,917.35	800,053.35	32.7123683	-103.4921781	-10.48	0.00	0.00	0.00
Top Salt/Salado													
2,200.00	8.01	257.55	2,196.75	-12.01	-54.44	623,916.36	800,048.85	32.7123657	-103.4921927	-11.43	0.00	0.00	0.00
2,300.00	8.01	257.55	2,295.78	-15.02	-68.04	623,913.35	800,035.25	32.7123577	-103.4922371	-14.28	0.00	0.00	0.00
2,400.00	8.01	257.55	2,394.80	-18.02	-81.65	623,910.35	800,021.64	32.7123498	-103.4922814	-17.14	0.00	0.00	0.00
2,500.00	8.01	257.55	2,493.82	-21.02	-95.26	623,907.35	800,008.03	32.7123418	-103.4923257	-19.99	0.00	0.00	0.00
2,600.00	8.01	257.55	2,592.85	-24.03	-108.86	623,904.34	799,994.43	32.7123338	-103.4923700	-22.85	0.00	0.00	0.00
2,700.00	8.01	257.55	2,691.87	-27.03	-122.47	623,901.34	799,980.82	32.7123259	-103.4924143	-25.70	0.00	0.00	0.00

Total Directional

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Well:	Rope State Com 603H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #2	**Database:**	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,800.00	8.01	257.55	2,790.90	-30.03	-136.08	623,898.34	799,967.21	32.7123179	-103.4924586	-28.56	0.00	0.00	0.00
2,900.00	8.01	257.55	2,889.92	-33.04	-149.68	623,895.33	799,953.61	32.7123100	-103.4925029	-31.41	0.00	0.00	0.00
3,000.00	8.01	257.55	2,988.95	-36.04	-163.29	623,892.33	799,940.00	32.7123020	-103.4925472	-34.27	0.00	0.00	0.00
3,100.00	8.01	257.55	3,087.97	-39.04	-176.89	623,889.33	799,926.40	32.7122941	-103.4925915	-37.13	0.00	0.00	0.00
3,200.00	8.01	257.55	3,187.00	-42.05	-190.50	623,886.32	799,912.79	32.7122861	-103.4926359	-39.98	0.00	0.00	0.00
3,300.00	8.01	257.55	3,286.02	-45.05	-204.11	623,883.32	799,899.18	32.7122781	-103.4926802	-42.84	0.00	0.00	0.00
3,400.00	8.01	257.55	3,385.04	-48.05	-217.71	623,880.32	799,885.58	32.7122702	-103.4927245	-45.69	0.00	0.00	0.00
3,500.00	8.01	257.55	3,484.07	-51.05	-231.32	623,877.32	799,871.97	32.7122622	-103.4927688	-48.55	0.00	0.00	0.00
3,600.00	8.01	257.55	3,583.09	-54.06	-244.93	623,874.31	799,858.36	32.7122543	-103.4928131	-51.40	0.00	0.00	0.00
3,700.00	8.01	257.55	3,682.12	-57.06	-258.53	623,871.31	799,844.76	32.7122463	-103.4928574	-54.26	0.00	0.00	0.00
3,800.00	8.01	257.55	3,781.14	-60.06	-272.14	623,868.31	799,831.15	32.7122384	-103.4929017	-57.12	0.00	0.00	0.00
3,900.00	8.01	257.55	3,880.17	-63.07	-285.74	623,865.30	799,817.55	32.7122304	-103.4929460	-59.97	0.00	0.00	0.00
4,000.00	8.01	257.55	3,979.19	-66.07	-299.35	623,862.30	799,803.94	32.7122224	-103.4929903	-62.83	0.00	0.00	0.00
4,100.00	8.01	257.55	4,078.22	-69.07	-312.96	623,859.30	799,790.33	32.7122145	-103.4930347	-65.68	0.00	0.00	0.00
4,200.00	8.01	257.55	4,177.24	-72.08	-326.56	623,856.29	799,776.73	32.7122065	-103.4930790	-68.54	0.00	0.00	0.00
4,300.00	8.01	257.55	4,276.26	-75.08	-340.17	623,853.29	799,763.12	32.7121986	-103.4931233	-71.39	0.00	0.00	0.00
4,400.00	8.01	257.55	4,375.29	-78.08	-353.78	623,850.29	799,749.51	32.7121906	-103.4931676	-74.25	0.00	0.00	0.00
4,500.00	8.01	257.55	4,474.31	-81.08	-367.38	623,847.29	799,735.91	32.7121827	-103.4932119	-77.10	0.00	0.00	0.00
4,600.00	8.01	257.55	4,573.34	-84.09	-380.99	623,844.28	799,722.30	32.7121747	-103.4932562	-79.96	0.00	0.00	0.00
4,700.00	8.01	257.55	4,672.36	-87.09	-394.60	623,841.28	799,708.69	32.7121667	-103.4933005	-82.82	0.00	0.00	0.00
4,800.00	8.01	257.55	4,771.39	-90.09	-408.20	623,838.28	799,695.09	32.7121588	-103.4933448	-85.67	0.00	0.00	0.00
4,900.00	8.01	257.55	4,870.41	-93.10	-421.81	623,835.27	799,681.48	32.7121508	-103.4933891	-88.53	0.00	0.00	0.00
5,000.00	8.01	257.55	4,969.44	-96.10	-435.41	623,832.27	799,667.88	32.7121429	-103.4934335	-91.38	0.00	0.00	0.00
5,100.00	8.01	257.55	5,068.46	-99.10	-449.02	623,829.27	799,654.27	32.7121349	-103.4934778	-94.24	0.00	0.00	0.00
5,200.00	8.01	257.55	5,167.49	-102.11	-462.63	623,826.26	799,640.66	32.7121270	-103.4935221	-97.09	0.00	0.00	0.00
5,300.00	8.01	257.55	5,266.51	-105.11	-476.23	623,823.26	799,627.06	32.7121190	-103.4935664	-99.95	0.00	0.00	0.00
5,400.00	8.01	257.55	5,365.53	-108.11	-489.84	623,820.26	799,613.45	32.7121110	-103.4936107	-102.81	0.00	0.00	0.00
5,500.00	8.01	257.55	5,464.56	-111.12	-503.45	623,817.25	799,599.84	32.7121031	-103.4936550	-105.66	0.00	0.00	0.00
5,600.00	8.01	257.55	5,563.58	-114.12	-517.05	623,814.25	799,586.24	32.7120951	-103.4936993	-108.52	0.00	0.00	0.00
5,700.00	8.01	257.55	5,662.61	-117.12	-530.66	623,811.25	799,572.63	32.7120872	-103.4937436	-111.37	0.00	0.00	0.00
5,780.17	8.01	257.55	5,742.00	-119.53	-541.57	623,808.84	799,561.72	32.7120808	-103.4937792	-113.66	0.00	0.00	0.00
Base Salt/Lamar/CTRA_BASE_ANHYDRITE													
5,800.00	8.01	257.55	5,761.63	-120.12	-544.26	623,808.25	799,559.03	32.7120792	-103.4937879	-114.23	0.00	0.00	0.00
5,889.24	8.01	257.55	5,850.00	-122.80	-556.41	623,805.57	799,546.88	32.7120721	-103.4938275	-116.78	0.00	0.00	0.00
Top Delaware Sands/Bell Canyon													
5,900.00	8.01	257.55	5,860.66	-123.13	-557.87	623,805.24	799,545.42	32.7120713	-103.4938323	-117.08	0.00	0.00	0.00
6,000.00	8.01	257.55	5,959.68	-126.13	-571.48	623,802.24	799,531.81	32.7120633	-103.4938766	-119.94	0.00	0.00	0.00
6,100.00	8.01	257.55	6,058.71	-129.13	-585.08	623,799.24	799,518.21	32.7120553	-103.4939209	-122.79	0.00	0.00	0.00

Total Directional

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Well:	Rope State Com 603H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #2	**Database:**	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,161.90	8.01	257.55	6,120.00	-130.99	-593.51	623,797.38	799,509.78	32.7120504	-103.4939483	-124.56	0.00	0.00	0.00
Cherry Canyon													
6,200.00	8.01	257.55	6,157.73	-132.14	-598.69	623,796.23	799,504.60	32.7120474	-103.4939652	-125.65	0.00	0.00	0.00
6,300.00	8.01	257.55	6,256.75	-135.14	-612.30	623,793.23	799,490.99	32.7120394	-103.4940095	-128.51	0.00	0.00	0.00
6,400.00	8.01	257.55	6,355.78	-138.14	-625.90	623,790.23	799,477.39	32.7120315	-103.4940538	-131.36	0.00	0.00	0.00
6,500.00	8.01	257.55	6,454.80	-141.15	-639.51	623,787.22	799,463.78	32.7120235	-103.4940981	-134.22	0.00	0.00	0.00
6,600.00	8.01	257.55	6,553.83	-144.15	-653.11	623,784.22	799,450.18	32.7120156	-103.4941424	-137.07	0.00	0.00	0.00
6,624.41	8.01	257.55	6,578.00	-144.88	-656.44	623,783.49	799,446.85	32.7120136	-103.4941532	-137.77	0.00	0.00	0.00
Brushy Canyon													
6,700.00	8.01	257.55	6,652.85	-147.15	-666.72	623,781.22	799,436.57	32.7120076	-103.4941867	-139.93	0.00	0.00	0.00
6,800.00	8.01	257.55	6,751.88	-150.15	-680.33	623,778.22	799,422.96	32.7119996	-103.4942310	-142.78	0.00	0.00	0.00
6,900.00	8.01	257.55	6,850.90	-153.16	-693.93	623,775.21	799,409.36	32.7119917	-103.4942754	-145.64	0.00	0.00	0.00
7,000.00	8.01	257.55	6,949.93	-156.16	-707.54	623,772.21	799,395.75	32.7119837	-103.4943197	-148.50	0.00	0.00	0.00
7,100.00	8.01	257.55	7,048.95	-159.16	-721.15	623,769.21	799,382.14	32.7119758	-103.4943640	-151.35	0.00	0.00	0.00
7,200.00	8.01	257.55	7,147.98	-162.17	-734.75	623,766.20	799,368.54	32.7119678	-103.4944083	-154.21	0.00	0.00	0.00
7,300.00	8.01	257.55	7,247.00	-165.17	-748.36	623,763.20	799,354.93	32.7119599	-103.4944526	-157.06	0.00	0.00	0.00
7,400.00	8.01	257.55	7,346.02	-168.17	-761.97	623,760.20	799,341.32	32.7119519	-103.4944969	-159.92	0.00	0.00	0.00
7,463.60	8.01	257.55	7,409.00	-170.08	-770.62	623,758.29	799,332.67	32.7119468	-103.4945251	-161.73	0.00	0.00	0.00
Basal Brushy Canyon													
7,500.00	8.01	257.55	7,445.05	-171.18	-775.57	623,757.19	799,327.72	32.7119439	-103.4945412	-162.77	0.00	0.00	0.00
7,600.00	8.01	257.55	7,544.07	-174.18	-789.18	623,754.19	799,314.11	32.7119360	-103.4945855	-165.63	0.00	0.00	0.00
7,650.42	8.01	257.55	7,594.00	-175.69	-796.04	623,752.68	799,307.25	32.7119320	-103.4946079	-167.07	0.00	0.00	0.00
Bone Spring Lime													
7,700.00	8.01	257.55	7,643.10	-177.18	-802.78	623,751.19	799,300.51	32.7119280	-103.4946298	-168.48	0.00	0.00	0.00
7,800.00	8.01	257.55	7,742.12	-180.19	-816.39	623,748.18	799,286.90	32.7119201	-103.4946742	-171.34	0.00	0.00	0.00
7,823.10	8.01	257.55	7,765.00	-180.88	-819.53	623,747.49	799,283.76	32.7119182	-103.4946844	-172.00	0.00	0.00	0.00
Leonard/Avalon Sand													
7,900.00	8.01	257.55	7,841.15	-183.19	-830.00	623,745.18	799,273.29	32.7119121	-103.4947185	-174.20	0.00	0.00	0.00
8,000.00	8.01	257.55	7,940.17	-186.19	-843.60	623,742.18	799,259.69	32.7119041	-103.4947628	-177.05	0.00	0.00	0.00
8,100.00	8.01	257.55	8,039.20	-189.19	-857.21	623,739.18	799,246.08	32.7118962	-103.4948071	-179.91	0.00	0.00	0.00
8,200.00	8.01	257.55	8,138.22	-192.20	-870.82	623,736.17	799,232.47	32.7118882	-103.4948514	-182.76	0.00	0.00	0.00
8,300.00	8.01	257.55	8,237.24	-195.20	-884.42	623,733.17	799,218.87	32.7118803	-103.4948957	-185.62	0.00	0.00	0.00
8,400.00	8.01	257.55	8,336.27	-198.20	-898.03	623,730.17	799,205.26	32.7118723	-103.4949400	-188.47	0.00	0.00	0.00
8,500.00	8.01	257.55	8,435.29	-201.21	-911.63	623,727.16	799,191.66	32.7118644	-103.4949843	-191.33	0.00	0.00	0.00
8,600.00	8.01	257.55	8,534.32	-204.21	-925.24	623,724.16	799,178.05	32.7118564	-103.4950286	-194.19	0.00	0.00	0.00
8,700.00	8.01	257.55	8,633.34	-207.21	-938.85	623,721.16	799,164.44	32.7118484	-103.4950730	-197.04	0.00	0.00	0.00
8,800.00	8.01	257.55	8,732.37	-210.22	-952.45	623,718.15	799,150.84	32.7118405	-103.4951173	-199.90	0.00	0.00	0.00
8,900.00	8.01	257.55	8,831.39	-213.22	-966.06	623,715.15	799,137.23	32.7118325	-103.4951616	-202.75	0.00	0.00	0.00

Total Directional

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Well:	Rope State Com 603H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #2	**Database:**	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,000.00	8.01	257.55	8,930.42	-216.22	-979.67	623,712.15	799,123.62	32.7118246	-103.4952059	-205.61	0.00	0.00	0.00
9,100.00	8.01	257.55	9,029.44	-219.22	-993.27	623,709.15	799,110.02	32.7118166	-103.4952502	-208.46	0.00	0.00	0.00
9,156.11	8.01	257.55	9,085.00	-220.91	-1,000.91	623,707.46	799,102.38	32.7118121	-103.4952751	-210.07	0.00	0.00	0.00
1st Bone Spring Sand													
9,200.00	8.01	257.55	9,128.47	-222.23	-1,006.88	623,706.14	799,096.41	32.7118087	-103.4952945	-211.32	0.00	0.00	0.00
9,300.00	8.01	257.55	9,227.49	-225.23	-1,020.49	623,703.14	799,082.80	32.7118007	-103.4953388	-214.17	0.00	0.00	0.00
9,400.00	8.01	257.55	9,326.51	-228.23	-1,034.09	623,700.14	799,069.20	32.7117927	-103.4953831	-217.03	0.00	0.00	0.00
9,500.00	8.01	257.55	9,425.54	-231.24	-1,047.70	623,697.13	799,055.59	32.7117848	-103.4954274	-219.89	0.00	0.00	0.00
9,600.00	8.01	257.55	9,524.56	-234.24	-1,061.30	623,694.13	799,041.99	32.7117768	-103.4954717	-222.74	0.00	0.00	0.00
9,700.00	8.01	257.55	9,623.59	-237.24	-1,074.91	623,691.13	799,028.38	32.7117689	-103.4955161	-225.60	0.00	0.00	0.00
9,708.50	8.01	257.55	9,632.00	-237.50	-1,076.07	623,690.87	799,027.22	32.7117682	-103.4955198	-225.84	0.00	0.00	0.00
2nd Bone Spring Sand													
9,725.10	8.01	257.55	9,648.44	-238.00	-1,078.33	623,690.37	799,024.96	32.7117669	-103.4955272	-226.31	0.00	0.00	0.00
Start DLS 4.00 TFO 140.67													
9,800.00	6.00	276.04	9,722.79	-238.71	-1,087.32	623,689.66	799,015.97	32.7117651	-103.4955564	-226.93	4.00	-2.68	24.68
9,900.00	5.13	317.31	9,822.36	-234.87	-1,095.54	623,693.50	799,007.75	32.7117758	-103.4955831	-223.01	4.00	-0.87	41.28
10,000.00	6.96	351.96	9,921.83	-225.58	-1,099.42	623,702.79	799,003.87	32.7118014	-103.4955954	-213.67	4.00	1.84	34.65
10,032.90	7.92	358.93	9,954.45	-221.34	-1,099.75	623,707.03	799,003.54	32.7118131	-103.4955964	-209.43	4.00	2.92	21.18
KOP/LP/FTP (RSC 603H)													
10,035.35	8.00	359.38	9,956.88	-221.00	-1,099.75	623,707.37	799,003.54	32.7118140	-103.4955964	-209.09	4.00	3.08	18.41
KOP - Start 10.00°/100' DLS													
10,050.00	9.46	359.38	9,971.36	-218.78	-1,099.77	623,709.59	799,003.52	32.7118202	-103.4955964	-206.86	10.00	10.00	0.00
10,100.00	14.46	359.38	10,020.25	-208.42	-1,099.89	623,719.95	799,003.40	32.7118486	-103.4955965	-196.50	10.00	10.00	0.00
10,150.00	19.46	359.38	10,068.06	-193.83	-1,100.04	623,734.54	799,003.25	32.7118887	-103.4955967	-181.92	10.00	10.00	0.00
10,200.00	24.46	359.38	10,114.42	-175.14	-1,100.25	623,753.23	799,003.04	32.7119401	-103.4955968	-163.22	10.00	10.00	0.00
10,250.00	29.46	359.38	10,158.97	-152.47	-1,100.49	623,775.90	799,002.80	32.7120024	-103.4955970	-140.56	10.00	10.00	0.00
10,250.03	29.46	359.38	10,159.00	-152.46	-1,100.49	623,775.91	799,002.80	32.7120024	-103.4955970	-140.54	0.00	0.00	0.00
3rd Bone Spring Carb													
10,300.00	34.46	359.38	10,201.38	-126.01	-1,100.78	623,802.36	799,002.51	32.7120751	-103.4955973	-114.09	10.01	10.01	0.00
10,350.00	39.46	359.38	10,241.31	-95.96	-1,101.10	623,832.41	799,002.19	32.7121577	-103.4955976	-84.04	10.00	10.00	0.00
10,400.00	44.46	359.38	10,278.48	-62.54	-1,101.46	623,865.83	799,001.83	32.7122496	-103.4955979	-50.62	10.00	10.00	0.00
10,413.50	45.81	359.38	10,288.00	-52.97	-1,101.57	623,875.40	799,001.72	32.7122759	-103.4955980	-41.05	10.00	10.00	0.00
3rd Bone Spring Sand													
10,450.00	49.46	359.38	10,312.59	-26.00	-1,101.86	623,902.37	799,001.43	32.7123500	-103.4955982	-14.08	10.00	10.00	0.00
10,500.00	54.46	359.38	10,343.39	13.36	-1,102.29	623,941.73	799,001.00	32.7124582	-103.4955986	25.29	10.00	10.00	0.00
10,550.00	59.46	359.38	10,370.64	55.26	-1,102.74	623,983.63	799,000.55	32.7125734	-103.4955990	67.19	10.00	10.00	0.00
10,600.00	64.46	359.38	10,394.13	99.38	-1,103.22	624,027.75	799,000.07	32.7126946	-103.4955994	111.31	10.00	10.00	0.00
10,650.00	69.46	359.38	10,413.69	145.38	-1,103.71	624,073.75	798,999.58	32.7128211	-103.4955999	157.31	10.00	10.00	0.00
10,700.00	74.46	359.38	10,429.16	192.90	-1,104.23	624,121.27	798,999.06	32.7129517	-103.4956003	204.84	10.00	10.00	0.00

Total Directional

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Well:	Rope State Com 603H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #2	**Database:**	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,705.35	75.00	359.38	10,430.57	198.06	-1,104.28	624,126.43	798,999.01	32.7129659	-103.4956004	210.00	10.00	10.00	0.00
75° Inc - 10705.35' MD/10430.57' TVD													
10,798.49	79.66	359.38	10,451.00	288.91	-1,105.27	624,217.28	798,998.02	32.7132156	-103.4956012	300.85	5.00	5.00	0.00
3rd Bone Spring Sand Target													
10,800.00	79.73	359.38	10,451.27	290.39	-1,105.28	624,218.76	798,998.01	32.7132197	-103.4956012	302.33	5.00	5.00	0.00
10,900.00	84.73	359.38	10,464.78	389.43	-1,106.35	624,317.80	798,996.94	32.7134919	-103.4956022	401.38	5.00	5.00	0.00
11,000.00	89.73	359.38	10,469.61	489.28	-1,107.43	624,417.65	798,995.86	32.7137663	-103.4956031	501.23	5.00	5.00	0.00
11,108.32	95.15	359.38	10,465.00	597.45	-1,108.59	624,525.82	798,994.70	32.7140637	-103.4956041	609.41	5.00	5.00	0.00
LP - 11108.32' MD													
11,200.00	95.15	359.38	10,456.77	688.76	-1,109.57	624,617.13	798,993.72	32.7143146	-103.4956050	700.73	0.00	0.00	0.00
11,300.00	95.15	359.38	10,447.80	788.35	-1,110.64	624,716.72	798,992.65	32.7145884	-103.4956059	800.32	0.00	0.00	0.00
11,400.00	95.15	359.38	10,438.83	887.94	-1,111.71	624,816.31	798,991.58	32.7148621	-103.4956068	899.92	0.00	0.00	0.00
11,500.00	95.15	359.38	10,429.85	987.53	-1,112.78	624,915.90	798,990.51	32.7151359	-103.4956077	999.52	0.00	0.00	0.00
11,600.00	95.15	359.38	10,420.88	1,087.12	-1,113.85	625,015.49	798,989.44	32.7154096	-103.4956086	1,099.11	0.00	0.00	0.00
11,700.00	95.15	359.38	10,411.91	1,186.71	-1,114.92	625,115.08	798,988.37	32.7156833	-103.4956095	1,198.71	0.00	0.00	0.00
11,800.00	95.15	359.38	10,402.93	1,286.30	-1,115.99	625,214.67	798,987.30	32.7159571	-103.4956105	1,298.31	0.00	0.00	0.00
11,900.00	95.15	359.38	10,393.96	1,385.90	-1,117.06	625,314.27	798,986.23	32.7162308	-103.4956114	1,397.90	0.00	0.00	0.00
12,000.00	95.15	359.38	10,384.99	1,485.49	-1,118.13	625,413.86	798,985.16	32.7165045	-103.4956123	1,497.50	0.00	0.00	0.00
12,100.00	95.15	359.38	10,376.01	1,585.08	-1,119.20	625,513.45	798,984.09	32.7167783	-103.4956132	1,597.09	0.00	0.00	0.00
12,200.00	95.15	359.38	10,367.04	1,684.67	-1,120.27	625,613.04	798,983.02	32.7170520	-103.4956141	1,696.69	0.00	0.00	0.00
12,300.00	95.15	359.38	10,358.07	1,784.26	-1,121.34	625,712.63	798,981.95	32.7173258	-103.4956151	1,796.29	0.00	0.00	0.00
12,400.00	95.15	359.38	10,349.09	1,883.85	-1,122.41	625,812.22	798,980.88	32.7175995	-103.4956160	1,895.88	0.00	0.00	0.00
12,500.00	95.15	359.38	10,340.12	1,983.44	-1,123.48	625,911.81	798,979.81	32.7178732	-103.4956169	1,995.48	0.00	0.00	0.00
12,600.00	95.15	359.38	10,331.15	2,083.03	-1,124.55	626,011.40	798,978.74	32.7181470	-103.4956178	2,095.08	0.00	0.00	0.00
12,700.00	95.15	359.38	10,322.18	2,182.62	-1,125.62	626,110.99	798,977.67	32.7184207	-103.4956187	2,194.67	0.00	0.00	0.00
12,800.00	95.15	359.38	10,313.20	2,282.21	-1,126.69	626,210.58	798,976.60	32.7186945	-103.4956197	2,294.27	0.00	0.00	0.00
12,900.00	95.15	359.38	10,304.23	2,381.80	-1,127.76	626,310.17	798,975.53	32.7189682	-103.4956206	2,393.87	0.00	0.00	0.00
13,000.00	95.15	359.38	10,295.26	2,481.39	-1,128.83	626,409.76	798,974.46	32.7192419	-103.4956215	2,493.46	0.00	0.00	0.00
13,100.00	95.15	359.38	10,286.28	2,580.99	-1,129.90	626,509.36	798,973.39	32.7195157	-103.4956224	2,593.06	0.00	0.00	0.00
13,200.00	95.15	359.38	10,277.31	2,680.58	-1,130.97	626,608.95	798,972.32	32.7197894	-103.4956233	2,692.66	0.00	0.00	0.00
13,300.00	95.15	359.38	10,268.34	2,780.17	-1,132.04	626,708.54	798,971.25	32.7200631	-103.4956243	2,792.25	0.00	0.00	0.00
13,400.00	95.15	359.38	10,259.36	2,879.76	-1,133.11	626,808.13	798,970.18	32.7203369	-103.4956252	2,891.85	0.00	0.00	0.00
13,500.00	95.15	359.38	10,250.39	2,979.35	-1,134.18	626,907.72	798,969.11	32.7206106	-103.4956261	2,991.45	0.00	0.00	0.00
13,600.00	95.15	359.38	10,241.42	3,078.94	-1,135.25	627,007.31	798,968.04	32.7208844	-103.4956270	3,091.04	0.00	0.00	0.00
13,700.00	95.15	359.38	10,232.44	3,178.53	-1,136.32	627,106.90	798,966.97	32.7211581	-103.4956279	3,190.64	0.00	0.00	0.00
13,800.00	95.15	359.38	10,223.47	3,278.12	-1,137.39	627,206.49	798,965.90	32.7214318	-103.4956288	3,290.24	0.00	0.00	0.00
13,900.00	95.15	359.38	10,214.50	3,377.71	-1,138.46	627,306.08	798,964.83	32.7217056	-103.4956298	3,389.83	0.00	0.00	0.00
14,000.00	95.15	359.38	10,205.53	3,477.30	-1,139.53	627,405.67	798,963.76	32.7219793	-103.4956307	3,489.43	0.00	0.00	0.00

Total Directional

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Well:	Rope State Com 603H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #2	**Database:**	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,100.00	95.15	359.38	10,196.55	3,576.89	-1,140.60	627,505.26	798,962.69	32.7222531	-103.4956316	3,589.03	0.00	0.00	0.00
14,200.00	95.15	359.38	10,187.58	3,676.49	-1,141.67	627,604.86	798,961.62	32.7225268	-103.4956325	3,688.62	0.00	0.00	0.00
14,300.00	95.15	359.38	10,178.61	3,776.08	-1,142.74	627,704.45	798,960.55	32.7228005	-103.4956334	3,788.22	0.00	0.00	0.00
14,400.00	95.15	359.38	10,169.63	3,875.67	-1,143.81	627,804.04	798,959.48	32.7230743	-103.4956344	3,887.82	0.00	0.00	0.00
14,500.00	95.15	359.38	10,160.66	3,975.26	-1,144.88	627,903.63	798,958.41	32.7233480	-103.4956353	3,987.41	0.00	0.00	0.00
14,600.00	95.15	359.38	10,151.69	4,074.85	-1,145.95	628,003.22	798,957.34	32.7236217	-103.4956362	4,087.01	0.00	0.00	0.00
14,700.00	95.15	359.38	10,142.71	4,174.44	-1,147.02	628,102.81	798,956.27	32.7238955	-103.4956371	4,186.61	0.00	0.00	0.00
14,800.00	95.15	359.38	10,133.74	4,274.03	-1,148.09	628,202.40	798,955.21	32.7241692	-103.4956380	4,286.20	0.00	0.00	0.00
14,900.00	95.15	359.38	10,124.77	4,373.62	-1,149.15	628,301.99	798,954.14	32.7244430	-103.4956390	4,385.80	0.00	0.00	0.00
15,000.00	95.15	359.38	10,115.79	4,473.21	-1,150.22	628,401.58	798,953.07	32.7247167	-103.4956399	4,485.40	0.00	0.00	0.00
15,100.00	95.15	359.38	10,106.82	4,572.80	-1,151.29	628,501.17	798,952.00	32.7249904	-103.4956408	4,584.99	0.00	0.00	0.00
15,200.00	95.15	359.38	10,097.85	4,672.39	-1,152.36	628,600.76	798,950.93	32.7252642	-103.4956417	4,684.59	0.00	0.00	0.00
15,300.00	95.15	359.38	10,088.87	4,771.98	-1,153.43	628,700.35	798,949.86	32.7255379	-103.4956426	4,784.19	0.00	0.00	0.00
15,400.00	95.15	359.38	10,079.90	4,871.58	-1,154.50	628,799.95	798,948.79	32.7258116	-103.4956436	4,883.78	0.00	0.00	0.00
15,500.00	95.15	359.38	10,070.93	4,971.17	-1,155.57	628,899.54	798,947.72	32.7260854	-103.4956445	4,983.38	0.00	0.00	0.00
15,600.00	95.15	359.38	10,061.96	5,070.76	-1,156.64	628,999.13	798,946.65	32.7263591	-103.4956454	5,082.98	0.00	0.00	0.00
15,700.00	95.15	359.38	10,052.98	5,170.35	-1,157.71	629,098.72	798,945.58	32.7266329	-103.4956463	5,182.57	0.00	0.00	0.00
15,800.00	95.15	359.38	10,044.01	5,269.94	-1,158.78	629,198.31	798,944.51	32.7269066	-103.4956472	5,282.17	0.00	0.00	0.00
15,900.00	95.15	359.38	10,035.04	5,369.53	-1,159.85	629,297.90	798,943.44	32.7271803	-103.4956481	5,381.77	0.00	0.00	0.00
16,000.00	95.15	359.38	10,026.06	5,469.12	-1,160.92	629,397.49	798,942.37	32.7274541	-103.4956491	5,481.36	0.00	0.00	0.00
16,100.00	95.15	359.38	10,017.09	5,568.71	-1,161.99	629,497.08	798,941.30	32.7277278	-103.4956500	5,580.96	0.00	0.00	0.00
16,200.00	95.15	359.38	10,008.12	5,668.30	-1,163.06	629,596.67	798,940.23	32.7280015	-103.4956509	5,680.56	0.00	0.00	0.00
16,300.00	95.15	359.38	9,999.14	5,767.89	-1,164.13	629,696.26	798,939.16	32.7282753	-103.4956518	5,780.15	0.00	0.00	0.00
16,400.00	95.15	359.38	9,990.17	5,867.48	-1,165.20	629,795.85	798,938.09	32.7285490	-103.4956527	5,879.75	0.00	0.00	0.00
16,500.00	95.15	359.38	9,981.20	5,967.08	-1,166.27	629,895.44	798,937.02	32.7288228	-103.4956537	5,979.35	0.00	0.00	0.00
16,600.00	95.15	359.38	9,972.22	6,066.67	-1,167.34	629,995.04	798,935.95	32.7290965	-103.4956546	6,078.94	0.00	0.00	0.00
16,700.00	95.15	359.38	9,963.25	6,166.26	-1,168.41	630,094.63	798,934.88	32.7293702	-103.4956555	6,178.54	0.00	0.00	0.00
16,800.00	95.15	359.38	9,954.28	6,265.85	-1,169.48	630,194.22	798,933.81	32.7296440	-103.4956564	6,278.14	0.00	0.00	0.00
16,900.00	95.15	359.38	9,945.31	6,365.44	-1,170.55	630,293.81	798,932.74	32.7299177	-103.4956573	6,377.73	0.00	0.00	0.00
17,000.00	95.15	359.38	9,936.33	6,465.03	-1,171.62	630,393.40	798,931.67	32.7301915	-103.4956583	6,477.33	0.00	0.00	0.00
17,100.00	95.15	359.38	9,927.36	6,564.62	-1,172.69	630,492.99	798,930.60	32.7304652	-103.4956592	6,576.93	0.00	0.00	0.00
17,200.00	95.15	359.38	9,918.39	6,664.21	-1,173.76	630,592.58	798,929.53	32.7307389	-103.4956601	6,676.52	0.00	0.00	0.00
17,300.00	95.15	359.38	9,909.41	6,763.80	-1,174.83	630,692.17	798,928.46	32.7310127	-103.4956610	6,776.12	0.00	0.00	0.00
17,400.00	95.15	359.38	9,900.44	6,863.39	-1,175.90	630,791.76	798,927.39	32.7312864	-103.4956619	6,875.72	0.00	0.00	0.00
17,500.00	95.15	359.38	9,891.47	6,962.98	-1,176.97	630,891.35	798,926.32	32.7315601	-103.4956628	6,975.31	0.00	0.00	0.00
17,600.00	95.15	359.38	9,882.49	7,062.57	-1,178.04	630,990.94	798,925.25	32.7318339	-103.4956638	7,074.91	0.00	0.00	0.00
17,700.00	95.15	359.38	9,873.52	7,162.17	-1,179.11	631,090.54	798,924.18	32.7321076	-103.4956647	7,174.50	0.00	0.00	0.00

Total Directional

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Well:	Rope State Com 603H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #2	**Database:**	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
17,800.00	95.15	359.38	9,864.55	7,261.76	-1,180.18	631,190.13	798,923.11	32.7323814	-103.4956656	7,274.10	0.00	0.00	0.00
17,900.00	95.15	359.38	9,855.57	7,361.35	-1,181.25	631,289.72	798,922.04	32.7326551	-103.4956665	7,373.70	0.00	0.00	0.00
18,000.00	95.15	359.38	9,846.60	7,460.94	-1,182.32	631,389.31	798,920.97	32.7329288	-103.4956674	7,473.29	0.00	0.00	0.00
18,100.00	95.15	359.38	9,837.63	7,560.53	-1,183.39	631,488.90	798,919.90	32.7332026	-103.4956684	7,572.89	0.00	0.00	0.00
18,200.00	95.15	359.38	9,828.66	7,660.12	-1,184.46	631,588.49	798,918.83	32.7334763	-103.4956693	7,672.49	0.00	0.00	0.00
18,300.00	95.15	359.38	9,819.68	7,759.71	-1,185.53	631,688.08	798,917.76	32.7337500	-103.4956702	7,772.08	0.00	0.00	0.00
18,400.00	95.15	359.38	9,810.71	7,859.30	-1,186.60	631,787.67	798,916.69	32.7340238	-103.4956711	7,871.68	0.00	0.00	0.00
18,500.00	95.15	359.38	9,801.74	7,958.89	-1,187.67	631,887.26	798,915.62	32.7342975	-103.4956720	7,971.28	0.00	0.00	0.00
18,600.00	95.15	359.38	9,792.76	8,058.48	-1,188.74	631,986.85	798,914.55	32.7345713	-103.4956729	8,070.87	0.00	0.00	0.00
18,700.00	95.15	359.38	9,783.79	8,158.07	-1,189.81	632,086.44	798,913.48	32.7348450	-103.4956739	8,170.47	0.00	0.00	0.00
18,800.00	95.15	359.38	9,774.82	8,257.66	-1,190.88	632,186.03	798,912.41	32.7351187	-103.4956748	8,270.07	0.00	0.00	0.00
18,900.00	95.15	359.38	9,765.84	8,357.26	-1,191.95	632,285.63	798,911.34	32.7353925	-103.4956757	8,369.66	0.00	0.00	0.00
19,000.00	95.15	359.38	9,756.87	8,456.85	-1,193.02	632,385.22	798,910.27	32.7356662	-103.4956766	8,469.26	0.00	0.00	0.00
19,100.00	95.15	359.38	9,747.90	8,556.44	-1,194.09	632,484.81	798,909.20	32.7359399	-103.4956775	8,568.86	0.00	0.00	0.00
19,200.00	95.15	359.38	9,738.92	8,656.03	-1,195.16	632,584.40	798,908.13	32.7362137	-103.4956785	8,668.45	0.00	0.00	0.00
19,300.00	95.15	359.38	9,729.95	8,755.62	-1,196.23	632,683.99	798,907.06	32.7364874	-103.4956794	8,768.05	0.00	0.00	0.00
19,400.00	95.15	359.38	9,720.98	8,855.21	-1,197.30	632,783.58	798,905.99	32.7367612	-103.4956803	8,867.65	0.00	0.00	0.00
19,500.00	95.15	359.38	9,712.01	8,954.80	-1,198.37	632,883.17	798,904.92	32.7370349	-103.4956812	8,967.24	0.00	0.00	0.00
19,600.00	95.15	359.38	9,703.03	9,054.39	-1,199.44	632,982.76	798,903.85	32.7373086	-103.4956821	9,066.84	0.00	0.00	0.00
19,700.00	95.15	359.38	9,694.06	9,153.98	-1,200.51	633,082.35	798,902.78	32.7375824	-103.4956830	9,166.44	0.00	0.00	0.00
19,800.00	95.15	359.38	9,685.09	9,253.57	-1,201.58	633,181.94	798,901.71	32.7378561	-103.4956840	9,266.03	0.00	0.00	0.00
19,900.00	95.15	359.38	9,676.11	9,353.16	-1,202.65	633,281.53	798,900.64	32.7381298	-103.4956849	9,365.63	0.00	0.00	0.00
20,000.00	95.15	359.38	9,667.14	9,452.76	-1,203.72	633,381.12	798,899.57	32.7384036	-103.4956858	9,465.23	0.00	0.00	0.00
20,100.00	95.15	359.38	9,658.17	9,552.35	-1,204.79	633,480.72	798,898.50	32.7386773	-103.4956867	9,564.82	0.00	0.00	0.00
20,200.00	95.15	359.38	9,649.19	9,651.94	-1,205.86	633,580.31	798,897.43	32.7389511	-103.4956876	9,664.42	0.00	0.00	0.00
20,300.00	95.15	359.38	9,640.22	9,751.53	-1,206.92	633,679.90	798,896.37	32.7392248	-103.4956886	9,764.02	0.00	0.00	0.00
20,400.00	95.15	359.38	9,631.25	9,851.12	-1,207.99	633,779.49	798,895.30	32.7394985	-103.4956895	9,863.61	0.00	0.00	0.00
20,500.00	95.15	359.38	9,622.27	9,950.71	-1,209.06	633,879.08	798,894.23	32.7397723	-103.4956904	9,963.21	0.00	0.00	0.00
20,600.00	95.15	359.38	9,613.30	10,050.30	-1,210.13	633,978.67	798,893.16	32.7400460	-103.4956913	10,062.81	0.00	0.00	0.00
20,700.00	95.15	359.38	9,604.33	10,149.89	-1,211.20	634,078.26	798,892.09	32.7403197	-103.4956922	10,162.40	0.00	0.00	0.00
20,800.00	95.15	359.38	9,595.36	10,249.48	-1,212.27	634,177.85	798,891.02	32.7405935	-103.4956931	10,262.00	0.00	0.00	0.00
20,900.00	95.15	359.38	9,586.38	10,349.07	-1,213.34	634,277.44	798,889.95	32.7408672	-103.4956941	10,361.60	0.00	0.00	0.00
21,000.00	95.15	359.38	9,577.41	10,448.66	-1,214.41	634,377.03	798,888.88	32.7411410	-103.4956950	10,461.19	0.00	0.00	0.00
21,100.00	95.15	359.38	9,568.44	10,548.25	-1,215.48	634,476.62	798,887.81	32.7414147	-103.4956959	10,560.79	0.00	0.00	0.00
21,200.00	95.15	359.38	9,559.46	10,647.85	-1,216.55	634,576.22	798,886.74	32.7416884	-103.4956968	10,660.39	0.00	0.00	0.00
21,300.00	95.15	359.38	9,550.49	10,747.44	-1,217.62	634,675.81	798,885.67	32.7419622	-103.4956977	10,759.98	0.00	0.00	0.00
21,400.00	95.15	359.38	9,541.52	10,847.03	-1,218.69	634,775.40	798,884.60	32.7422359	-103.4956987	10,859.58	0.00	0.00	0.00
21,500.00	95.15	359.38	9,532.54	10,946.62	-1,219.76	634,874.99	798,883.53	32.7425096	-103.4956996	10,959.18	0.00	0.00	0.00

Total Directional

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Well:	Rope State Com 603H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #2	**Database:**	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
21,600.00	95.15	359.38	9,523.57	11,046.21	-1,220.83	634,974.58	798,882.46	32.7427834	-103.4957005	11,058.77	0.00	0.00	0.00
21,700.00	95.15	359.38	9,514.60	11,145.80	-1,221.90	635,074.17	798,881.39	32.7430571	-103.4957014	11,158.37	0.00	0.00	0.00
21,800.00	95.15	359.38	9,505.62	11,245.39	-1,222.97	635,173.76	798,880.32	32.7433309	-103.4957023	11,257.97	0.00	0.00	0.00
21,900.00	95.15	359.38	9,496.65	11,344.98	-1,224.04	635,273.35	798,879.25	32.7436046	-103.4957032	11,357.56	0.00	0.00	0.00
22,000.00	95.15	359.38	9,487.68	11,444.57	-1,225.11	635,372.94	798,878.18	32.7438783	-103.4957042	11,457.16	0.00	0.00	0.00
22,100.00	95.15	359.38	9,478.71	11,544.16	-1,226.18	635,472.53	798,877.11	32.7441521	-103.4957051	11,556.76	0.00	0.00	0.00
22,200.00	95.15	359.38	9,469.73	11,643.75	-1,227.25	635,572.12	798,876.04	32.7444258	-103.4957060	11,656.35	0.00	0.00	0.00
22,300.00	95.15	359.38	9,460.76	11,743.34	-1,228.32	635,671.71	798,874.97	32.7446995	-103.4957069	11,755.95	0.00	0.00	0.00
22,400.00	95.15	359.38	9,451.79	11,842.94	-1,229.39	635,771.31	798,873.90	32.7449733	-103.4957078	11,855.55	0.00	0.00	0.00
22,500.00	95.15	359.38	9,442.81	11,942.53	-1,230.46	635,870.90	798,872.83	32.7452470	-103.4957088	11,955.14	0.00	0.00	0.00
22,600.00	95.15	359.38	9,433.84	12,042.12	-1,231.53	635,970.49	798,871.76	32.7455208	-103.4957097	12,054.74	0.00	0.00	0.00
22,700.00	95.15	359.38	9,424.87	12,141.71	-1,232.60	636,070.08	798,870.69	32.7457945	-103.4957106	12,154.34	0.00	0.00	0.00
22,800.00	95.15	359.38	9,415.89	12,241.30	-1,233.67	636,169.67	798,869.62	32.7460682	-103.4957115	12,253.93	0.00	0.00	0.00
22,900.00	95.15	359.38	9,406.92	12,340.89	-1,234.74	636,269.26	798,868.55	32.7463420	-103.4957124	12,353.53	0.00	0.00	0.00
23,000.00	95.15	359.38	9,397.95	12,440.48	-1,235.81	636,368.85	798,867.48	32.7466157	-103.4957133	12,453.13	0.00	0.00	0.00
23,100.00	95.15	359.38	9,388.97	12,540.07	-1,236.88	636,468.44	798,866.41	32.7468894	-103.4957143	12,552.72	0.00	0.00	0.00
23,200.00	95.15	359.38	9,380.00	12,639.66	-1,237.95	636,568.03	798,865.34	32.7471632	-103.4957152	12,652.32	0.00	0.00	0.00
23,300.00	95.15	359.38	9,371.03	12,739.25	-1,239.02	636,667.62	798,864.27	32.7474369	-103.4957161	12,751.91	0.00	0.00	0.00
23,400.00	95.15	359.38	9,362.06	12,838.84	-1,240.09	636,767.21	798,863.20	32.7477107	-103.4957170	12,851.51	0.00	0.00	0.00
23,500.00	95.15	359.38	9,353.08	12,938.44	-1,241.16	636,866.81	798,862.13	32.7479844	-103.4957179	12,951.11	0.00	0.00	0.00
23,600.00	95.15	359.38	9,344.11	13,038.03	-1,242.23	636,966.40	798,861.06	32.7482581	-103.4957188	13,050.70	0.00	0.00	0.00
23,700.00	95.15	359.38	9,335.14	13,137.62	-1,243.30	637,065.99	798,859.99	32.7485319	-103.4957198	13,150.30	0.00	0.00	0.00
23,800.00	95.15	359.38	9,326.16	13,237.21	-1,244.37	637,165.58	798,858.92	32.7488056	-103.4957207	13,249.90	0.00	0.00	0.00
23,900.00	95.15	359.38	9,317.19	13,336.80	-1,245.44	637,265.17	798,857.85	32.7490793	-103.4957216	13,349.49	0.00	0.00	0.00
24,000.00	95.15	359.38	9,308.22	13,436.39	-1,246.51	637,364.76	798,856.78	32.7493531	-103.4957225	13,449.09	0.00	0.00	0.00
24,100.00	95.15	359.38	9,299.24	13,535.98	-1,247.58	637,464.35	798,855.71	32.7496268	-103.4957234	13,548.69	0.00	0.00	0.00
24,200.00	95.15	359.38	9,290.27	13,635.57	-1,248.65	637,563.94	798,854.64	32.7499005	-103.4957244	13,648.28	0.00	0.00	0.00
24,300.00	95.15	359.38	9,281.30	13,735.16	-1,249.72	637,663.53	798,853.57	32.7501743	-103.4957253	13,747.88	0.00	0.00	0.00
24,400.00	95.15	359.38	9,272.32	13,834.75	-1,250.79	637,763.12	798,852.50	32.7504480	-103.4957262	13,847.48	0.00	0.00	0.00
24,500.00	95.15	359.38	9,263.35	13,934.34	-1,251.86	637,862.71	798,851.43	32.7507218	-103.4957271	13,947.07	0.00	0.00	0.00
24,600.00	95.15	359.38	9,254.38	14,033.93	-1,252.93	637,962.30	798,850.36	32.7509955	-103.4957280	14,046.67	0.00	0.00	0.00
24,700.00	95.15	359.38	9,245.41	14,133.53	-1,254.00	638,061.90	798,849.29	32.7512692	-103.4957289	14,146.27	0.00	0.00	0.00
24,800.00	95.15	359.38	9,236.43	14,233.12	-1,255.07	638,161.49	798,848.22	32.7515430	-103.4957299	14,245.86	0.00	0.00	0.00
24,900.00	95.15	359.38	9,227.46	14,332.71	-1,256.14	638,261.08	798,847.15	32.7518167	-103.4957308	14,345.46	0.00	0.00	0.00
25,000.00	95.15	359.38	9,218.49	14,432.30	-1,257.21	638,360.67	798,846.08	32.7520904	-103.4957317	14,445.06	0.00	0.00	0.00
25,100.00	95.15	359.38	9,209.51	14,531.89	-1,258.28	638,460.26	798,845.01	32.7523642	-103.4957326	14,544.65	0.00	0.00	0.00
25,200.00	95.15	359.38	9,200.54	14,631.48	-1,259.35	638,559.85	798,843.94	32.7526379	-103.4957335	14,644.25	0.00	0.00	0.00

Total Directional

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Well:	Rope State Com 603H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #2	**Database:**	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
25,300.00	95.15	359.38	9,191.57	14,731.07	-1,260.42	638,659.44	798,842.87	32.7529117	-103.4957344	14,743.85	0.00	0.00	0.00
25,400.00	95.15	359.38	9,182.59	14,830.66	-1,261.49	638,759.03	798,841.80	32.7531854	-103.4957354	14,843.44	0.00	0.00	0.00
25,500.00	95.15	359.38	9,173.62	14,930.25	-1,262.56	638,858.62	798,840.73	32.7534591	-103.4957363	14,943.04	0.00	0.00	0.00
25,600.00	95.15	359.38	9,164.65	15,029.84	-1,263.63	638,958.21	798,839.66	32.7537329	-103.4957372	15,042.64	0.00	0.00	0.00
25,700.00	95.15	359.38	9,155.67	15,129.43	-1,264.70	639,057.80	798,838.60	32.7540066	-103.4957381	15,142.23	0.00	0.00	0.00
25,800.00	95.15	359.38	9,146.70	15,229.03	-1,265.76	639,157.39	798,837.53	32.7542803	-103.4957390	15,241.83	0.00	0.00	0.00
25,900.00	95.15	359.38	9,137.73	15,328.62	-1,266.83	639,256.99	798,836.46	32.7545541	-103.4957400	15,341.43	0.00	0.00	0.00
26,000.00	95.15	359.38	9,128.76	15,428.21	-1,267.90	639,356.58	798,835.39	32.7548278	-103.4957409	15,441.02	0.00	0.00	0.00
26,100.00	95.15	359.38	9,119.78	15,527.80	-1,268.97	639,456.17	798,834.32	32.7551015	-103.4957418	15,540.62	0.00	0.00	0.00
26,200.00	95.15	359.38	9,110.81	15,627.39	-1,270.04	639,555.76	798,833.25	32.7553753	-103.4957427	15,640.22	0.00	0.00	0.00
26,300.00	95.15	359.38	9,101.84	15,726.98	-1,271.11	639,655.35	798,832.18	32.7556490	-103.4957436	15,739.81	0.00	0.00	0.00
26,400.00	95.15	359.38	9,092.86	15,826.57	-1,272.18	639,754.94	798,831.11	32.7559228	-103.4957445	15,839.41	0.00	0.00	0.00
26,500.00	95.15	359.38	9,083.89	15,926.16	-1,273.25	639,854.53	798,830.04	32.7561965	-103.4957455	15,939.01	0.00	0.00	0.00
26,600.00	95.15	359.38	9,074.92	16,025.75	-1,274.32	639,954.12	798,828.97	32.7564702	-103.4957464	16,038.60	0.00	0.00	0.00
26,700.00	95.15	359.38	9,065.94	16,125.34	-1,275.39	640,053.71	798,827.90	32.7567440	-103.4957473	16,138.20	0.00	0.00	0.00
26,800.00	95.15	359.38	9,056.97	16,224.93	-1,276.46	640,153.30	798,826.83	32.7570177	-103.4957482	16,237.80	0.00	0.00	0.00
26,900.00	95.15	359.38	9,048.00	16,324.52	-1,277.53	640,252.89	798,825.76	32.7572914	-103.4957491	16,337.39	0.00	0.00	0.00
27,000.00	95.15	359.38	9,039.02	16,424.12	-1,278.60	640,352.49	798,824.69	32.7575652	-103.4957500	16,436.99	0.00	0.00	0.00
27,100.00	95.15	359.38	9,030.05	16,523.71	-1,279.67	640,452.08	798,823.62	32.7578389	-103.4957510	16,536.59	0.00	0.00	0.00
27,200.00	95.15	359.38	9,021.08	16,623.30	-1,280.74	640,551.67	798,822.55	32.7581127	-103.4957519	16,636.18	0.00	0.00	0.00
27,300.00	95.15	359.38	9,012.10	16,722.89	-1,281.81	640,651.26	798,821.48	32.7583864	-103.4957528	16,735.78	0.00	0.00	0.00
27,400.00	95.15	359.38	9,003.13	16,822.48	-1,282.88	640,750.85	798,820.41	32.7586601	-103.4957537	16,835.38	0.00	0.00	0.00
27,500.00	95.15	359.38	8,994.16	16,922.07	-1,283.95	640,850.44	798,819.34	32.7589339	-103.4957546	16,934.97	0.00	0.00	0.00
27,600.00	95.15	359.38	8,985.19	17,021.66	-1,285.02	640,950.03	798,818.27	32.7592076	-103.4957555	17,034.57	0.00	0.00	0.00
27,700.00	95.15	359.38	8,976.21	17,121.25	-1,286.09	641,049.62	798,817.20	32.7594813	-103.4957565	17,134.17	0.00	0.00	0.00
27,800.00	95.15	359.38	8,967.24	17,220.84	-1,287.16	641,149.21	798,816.13	32.7597551	-103.4957574	17,233.76	0.00	0.00	0.00
27,900.00	95.15	359.38	8,958.27	17,320.43	-1,288.23	641,248.80	798,815.06	32.7600288	-103.4957583	17,333.36	0.00	0.00	0.00
28,000.00	95.15	359.38	8,949.29	17,420.02	-1,289.30	641,348.39	798,813.99	32.7603025	-103.4957592	17,432.96	0.00	0.00	0.00
28,100.00	95.15	359.38	8,940.32	17,519.61	-1,290.37	641,447.98	798,812.92	32.7605763	-103.4957601	17,532.55	0.00	0.00	0.00
28,200.00	95.15	359.38	8,931.35	17,619.21	-1,291.44	641,547.58	798,811.85	32.7608500	-103.4957611	17,632.15	0.00	0.00	0.00
28,300.00	95.15	359.38	8,922.37	17,718.80	-1,292.51	641,647.17	798,810.78	32.7611238	-103.4957620	17,731.75	0.00	0.00	0.00
28,400.00	95.15	359.38	8,913.40	17,818.39	-1,293.58	641,746.76	798,809.71	32.7613975	-103.4957629	17,831.34	0.00	0.00	0.00
28,500.00	95.15	359.38	8,904.43	17,917.98	-1,294.65	641,846.35	798,808.64	32.7616712	-103.4957638	17,930.94	0.00	0.00	0.00
28,600.00	95.15	359.38	8,895.45	18,017.57	-1,295.72	641,945.94	798,807.57	32.7619450	-103.4957647	18,030.54	0.00	0.00	0.00
28,660.50	95.15	359.38	8,890.03	18,077.82	-1,296.37	642,006.19	798,806.92	32.7621106	-103.4957653	18,090.79	0.00	0.00	0.00
LTP/PBHL - 2546' FSL, 2275' FEL (RSC 603H)													
28,660.79	95.15	359.38	8,890.00	18,078.11	-1,296.37	642,006.48	798,806.92	32.7621114	-103.4957653	18,091.08	0.00	0.00	0.00
TD - 28660.79' MD													

Total Directional

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Well:	Rope State Com 603H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #2	**Database:**	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longituge (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LTP/PBHL - 2546' FSI	0.00	0.00	8,890.00	18,077.82	-1,296.35	642,006.19	798,806.94	32.7621106	-103.4957652
- plan misses target center by 0.03usft at 28660.50usft MD (8890.03 TVD, 18077.82 N, -1296.37 E)									
- Point									
KOP/LP/FTP (RSC 6(	0.00	0.00	9,956.88	-239.87	-1,099.45	623,688.50	799,003.84	32.7117622	-103.4955959
- plan misses target center by 18.69usft at 10032.90usft MD (9954.45 TVD, -221.34 N, -1099.75 E)									
- Point									

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,896.53	1,896.00	Rustler			
1,983.14	1,982.00	A3 Top			
2,082.10	2,080.00	A3 Base (Tamarisk)			
2,166.93	2,164.00	Top Salt/Salado			
5,780.17	5,742.00	Base Salt/Lamar/CTRA_BASE_ANI			
5,889.24	5,850.00	Top Delaware Sands/Bell Canyon			
6,161.90	6,120.00	Cherry Canyon			
6,624.41	6,578.00	Brushy Canyon			
7,463.60	7,409.00	Basal Brushy Canyon			
7,650.42	7,594.00	Bone Spring Lime			
7,823.10	7,765.00	Leonard/Avalon Sand			
9,156.11	9,085.00	1st Bone Spring Sand			
9,708.50	9,632.00	2nd Bone Spring Sand			
10,250.03	10,159.00	3rd Bone Spring Carb			
10,413.50	10,288.00	3rd Bone Spring Sand			
10,798.49	10,451.00	3rd Bone Spring Sand Target			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
1600	1600	0	0	Nudge, Build 2.00°/100'
2000	1999	-6	-27	Hold - 2000.48' MD/1999.18' TVD
9725	9648	-238	-1078	Start DLS 4.00 TFO 140.67
10,035	9957	-221	-1100	KOP - Start 10.00°/100' DLS
10,705	10,431	198	-1104	75° Inc - 10705.35' MD/10430.57' TVD
11,108	10,465	597	-1109	LP - 11108.32' MD
28,661	8890	18,078	-1296	TD - 28660.79' MD

Total Directional

Planned Survey Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Well:	Rope State Com 603H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #2	**Database:**	.Total Directional Production DB

Checked By: _____ Approved By: _____ Date: _____

COMPANY	Coterra Energy
FIELD	Lea County, NM (NAD 83)
SITE	Rope State Com Pad
WELL	Rope State Com 603H
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	-103.492015
WELL EW MAI	800103.29
WELL NS MAP	623928.37
CONVERGENC	0.45
MAGMODEL	HDGM2026
DECLINATION	5.98
NORTH REF	Grid
GROUND ELE\	3939.3
KB ELEVN	3962.3
VS AZI	359.38

SURVEY PROGRAM

1 0.00 - 28660.79 PLAN #2 : MWD+IFR1+MS

SURVEY LIST

Measured De	Inclination	Azimuth	Course Length	True Vertical I	SubSea TVD	Local N/-S
MD	INC	AZI	CL	TVD	SSTVD	NS
0.00	0.00	0.00	0.00	0.00	3962.30	0.00
100.00	0.00	0.00	100.00	100.00	3862.30	0.00
200.00	0.00	0.00	100.00	200.00	3762.30	0.00
300.00	0.00	0.00	100.00	300.00	3662.30	0.00
400.00	0.00	0.00	100.00	400.00	3562.30	0.00
500.00	0.00	0.00	100.00	500.00	3462.30	0.00
600.00	0.00	0.00	100.00	600.00	3362.30	0.00
700.00	0.00	0.00	100.00	700.00	3262.30	0.00
800.00	0.00	0.00	100.00	800.00	3162.30	0.00
900.00	0.00	0.00	100.00	900.00	3062.30	0.00
1000.00	0.00	0.00	100.00	1000.00	2962.30	0.00
1100.00	0.00	0.00	100.00	1100.00	2862.30	0.00
1200.00	0.00	0.00	100.00	1200.00	2762.30	0.00
1300.00	0.00	0.00	100.00	1300.00	2662.30	0.00

1400.00	0.00	0.00	100.00	1400.00	2562.30	0.00
1500.00	0.00	0.00	100.00	1500.00	2462.30	0.00
1600.00	0.00	0.00	100.00	1600.00	2362.30	0.00
1700.00	2.00	257.55	100.00	1699.98	2262.32	-0.38
1800.00	4.00	257.55	100.00	1799.84	2162.46	-1.50
1900.00	6.00	257.55	100.00	1899.45	2062.85	-3.38
2000.48	8.01	257.55	100.48	1999.17	1963.13	-6.02
2100.00	8.01	257.55	99.52	2097.73	1864.57	-9.01
2200.00	8.01	257.55	100.00	2196.75	1765.55	-12.02
2300.00	8.01	257.55	100.00	2295.78	1666.53	-15.02
2400.00	8.01	257.55	100.00	2394.80	1567.50	-18.02
2500.00	8.01	257.55	100.00	2493.82	1468.48	-21.02
2600.00	8.01	257.55	100.00	2592.85	1369.45	-24.03
2700.00	8.01	257.55	100.00	2691.87	1270.43	-27.03
2800.00	8.01	257.55	100.00	2790.90	1171.40	-30.03
2900.00	8.01	257.55	100.00	2889.92	1072.38	-33.04
3000.00	8.01	257.55	100.00	2988.95	973.35	-36.04
3100.00	8.01	257.55	100.00	3087.97	874.33	-39.04
3200.00	8.01	257.55	100.00	3187.00	775.31	-42.05
3300.00	8.01	257.55	100.00	3286.02	676.28	-45.05
3400.00	8.01	257.55	100.00	3385.04	577.26	-48.05
3500.00	8.01	257.55	100.00	3484.07	478.23	-51.05
3600.00	8.01	257.55	100.00	3583.09	379.21	-54.06
3700.00	8.01	257.55	100.00	3682.12	280.18	-57.06
3800.00	8.01	257.55	100.00	3781.14	181.16	-60.06
3900.00	8.01	257.55	100.00	3880.17	82.13	-63.07
4000.00	8.01	257.55	100.00	3979.19	-16.89	-66.07
4100.00	8.01	257.55	100.00	4078.22	-115.92	-69.07
4200.00	8.01	257.55	100.00	4177.24	-214.94	-72.08
4300.00	8.01	257.55	100.00	4276.27	-313.97	-75.08
4400.00	8.01	257.55	100.00	4375.29	-412.99	-78.08
4500.00	8.01	257.55	100.00	4474.31	-512.01	-81.09
4600.00	8.01	257.55	100.00	4573.34	-611.04	-84.09
4700.00	8.01	257.55	100.00	4672.36	-710.06	-87.09
4800.00	8.01	257.55	100.00	4771.39	-809.09	-90.09
4900.00	8.01	257.55	100.00	4870.41	-908.11	-93.10
5000.00	8.01	257.55	100.00	4969.44	-1007.14	-96.10
5100.00	8.01	257.55	100.00	5068.46	-1106.16	-99.10
5200.00	8.01	257.55	100.00	5167.49	-1205.19	-102.11
5300.00	8.01	257.55	100.00	5266.51	-1304.21	-105.11
5400.00	8.01	257.55	100.00	5365.53	-1403.23	-108.11
5500.00	8.01	257.55	100.00	5464.56	-1502.26	-111.12
5600.00	8.01	257.55	100.00	5563.58	-1601.28	-114.12
5700.00	8.01	257.55	100.00	5662.61	-1700.31	-117.12

5800.00	8.01	257.55	100.00	5761.63	-1799.33	-120.12
5900.00	8.01	257.55	100.00	5860.66	-1898.36	-123.13
6000.00	8.01	257.55	100.00	5959.68	-1997.38	-126.13
6100.00	8.01	257.55	100.00	6058.71	-2096.41	-129.13
6200.00	8.01	257.55	100.00	6157.73	-2195.43	-132.14
6300.00	8.01	257.55	100.00	6256.76	-2294.46	-135.14
6400.00	8.01	257.55	100.00	6355.78	-2393.48	-138.14
6500.00	8.01	257.55	100.00	6454.80	-2492.50	-141.15
6600.00	8.01	257.55	100.00	6553.83	-2591.53	-144.15
6700.00	8.01	257.55	100.00	6652.85	-2690.55	-147.15
6800.00	8.01	257.55	100.00	6751.88	-2789.58	-150.16
6900.00	8.01	257.55	100.00	6850.90	-2888.60	-153.16
7000.00	8.01	257.55	100.00	6949.93	-2987.63	-156.16
7100.00	8.01	257.55	100.00	7048.95	-3086.65	-159.16
7200.00	8.01	257.55	100.00	7147.98	-3185.68	-162.17
7300.00	8.01	257.55	100.00	7247.00	-3284.70	-165.17
7400.00	8.01	257.55	100.00	7346.02	-3383.72	-168.17
7500.00	8.01	257.55	100.00	7445.05	-3482.75	-171.18
7600.00	8.01	257.55	100.00	7544.07	-3581.77	-174.18
7700.00	8.01	257.55	100.00	7643.10	-3680.80	-177.18
7800.00	8.01	257.55	100.00	7742.12	-3779.82	-180.19
7900.00	8.01	257.55	100.00	7841.15	-3878.85	-183.19
8000.00	8.01	257.55	100.00	7940.17	-3977.87	-186.19
8100.00	8.01	257.55	100.00	8039.20	-4076.90	-189.19
8200.00	8.01	257.55	100.00	8138.22	-4175.92	-192.20
8300.00	8.01	257.55	100.00	8237.25	-4274.95	-195.20
8400.00	8.01	257.55	100.00	8336.27	-4373.97	-198.20
8500.00	8.01	257.55	100.00	8435.29	-4472.99	-201.21
8600.00	8.01	257.55	100.00	8534.32	-4572.02	-204.21
8700.00	8.01	257.55	100.00	8633.34	-4671.04	-207.21
8800.00	8.01	257.55	100.00	8732.37	-4770.07	-210.22
8900.00	8.01	257.55	100.00	8831.39	-4869.09	-213.22
9000.00	8.01	257.55	100.00	8930.42	-4968.12	-216.22
9100.00	8.01	257.55	100.00	9029.44	-5067.14	-219.23
9200.00	8.01	257.55	100.00	9128.47	-5166.17	-222.23
9300.00	8.01	257.55	100.00	9227.49	-5265.19	-225.23
9400.00	8.01	257.55	100.00	9326.51	-5364.21	-228.23
9500.00	8.01	257.55	100.00	9425.54	-5463.24	-231.24
9600.00	8.01	257.55	100.00	9524.56	-5562.26	-234.24
9700.00	8.01	257.55	100.00	9623.59	-5661.29	-237.24
9725.10	8.01	257.55	25.10	9648.44	-5686.14	-238.00
9800.00	6.00	276.04	74.90	9722.79	-5760.49	-238.71
9900.00	5.13	317.31	100.00	9822.36	-5860.06	-234.87
10000.00	6.97	351.96	100.00	9921.83	-5959.53	-225.58

10035.35	8.00	359.38	35.35	9956.88	-5994.58	-221.00
10050.00	9.47	359.38	14.65	9971.36	-6009.06	-218.78
10100.00	14.47	359.38	50.00	10020.26	-6057.96	-208.42
10150.00	19.47	359.38	50.00	10068.06	-6105.76	-193.83
10200.00	24.47	359.38	50.00	10114.42	-6152.12	-175.14
10250.00	29.47	359.38	50.00	10158.97	-6196.67	-152.47
10300.00	34.47	359.38	50.00	10201.38	-6239.08	-126.01
10350.00	39.47	359.38	50.00	10241.31	-6279.01	-95.96
10400.00	44.47	359.38	50.00	10278.48	-6316.18	-62.54
10450.00	49.47	359.38	50.00	10312.59	-6350.29	-26.01
10500.00	54.47	359.38	50.00	10343.39	-6381.09	13.36
10550.00	59.47	359.38	50.00	10370.64	-6408.34	55.26
10600.00	64.47	359.38	50.00	10394.13	-6431.83	99.38
10650.00	69.47	359.38	50.00	10413.69	-6451.39	145.38
10700.00	74.47	359.38	50.00	10429.17	-6466.87	192.90
10705.35	75.00	359.38	5.35	10430.57	-6468.27	198.07
10800.00	79.73	359.38	94.65	10451.27	-6488.97	290.39
10900.00	84.73	359.38	100.00	10464.78	-6502.48	389.43
11000.00	89.73	359.38	100.00	10469.61	-6507.31	489.28
11108.32	95.15	359.39	108.32	10465.00	-6502.70	597.45
11200.00	95.15	359.39	91.68	10456.77	-6494.47	688.76
11300.00	95.15	359.39	100.00	10447.80	-6485.50	788.35
11400.00	95.15	359.39	100.00	10438.83	-6476.53	887.94
11500.00	95.15	359.39	100.00	10429.85	-6467.55	987.53
11600.00	95.15	359.39	100.00	10420.88	-6458.58	1087.12
11700.00	95.15	359.39	100.00	10411.91	-6449.61	1186.71
11800.00	95.15	359.39	100.00	10402.93	-6440.63	1286.30
11900.00	95.15	359.39	100.00	10393.96	-6431.66	1385.90
12000.00	95.15	359.39	100.00	10384.99	-6422.69	1485.49
12100.00	95.15	359.39	100.00	10376.01	-6413.71	1585.08
12200.00	95.15	359.39	100.00	10367.04	-6404.74	1684.67
12300.00	95.15	359.39	100.00	10358.07	-6395.77	1784.26
12400.00	95.15	359.39	100.00	10349.09	-6386.79	1883.85
12500.00	95.15	359.39	100.00	10340.12	-6377.82	1983.44
12600.00	95.15	359.39	100.00	10331.15	-6368.85	2083.03
12700.00	95.15	359.39	100.00	10322.18	-6359.88	2182.62
12800.00	95.15	359.39	100.00	10313.20	-6350.90	2282.21
12900.00	95.15	359.39	100.00	10304.23	-6341.93	2381.80
13000.00	95.15	359.39	100.00	10295.26	-6332.96	2481.40
13100.00	95.15	359.39	100.00	10286.28	-6323.98	2580.99
13200.00	95.15	359.39	100.00	10277.31	-6315.01	2680.58
13300.00	95.15	359.39	100.00	10268.34	-6306.04	2780.17
13400.00	95.15	359.39	100.00	10259.36	-6297.06	2879.76
13500.00	95.15	359.39	100.00	10250.39	-6288.09	2979.35

13600.00	95.15	359.39	100.00	10241.42	-6279.12	3078.94
13700.00	95.15	359.39	100.00	10232.44	-6270.14	3178.53
13800.00	95.15	359.39	100.00	10223.47	-6261.17	3278.12
13900.00	95.15	359.39	100.00	10214.50	-6252.20	3377.71
14000.00	95.15	359.39	100.00	10205.53	-6243.23	3477.30
14100.00	95.15	359.39	100.00	10196.55	-6234.25	3576.89
14200.00	95.15	359.39	100.00	10187.58	-6225.28	3676.49
14300.00	95.15	359.39	100.00	10178.61	-6216.31	3776.08
14400.00	95.15	359.39	100.00	10169.63	-6207.33	3875.67
14500.00	95.15	359.39	100.00	10160.66	-6198.36	3975.26
14600.00	95.15	359.39	100.00	10151.69	-6189.39	4074.85
14700.00	95.15	359.39	100.00	10142.71	-6180.41	4174.44
14800.00	95.15	359.39	100.00	10133.74	-6171.44	4274.03
14900.00	95.15	359.39	100.00	10124.77	-6162.47	4373.62
15000.00	95.15	359.39	100.00	10115.79	-6153.49	4473.21
15100.00	95.15	359.39	100.00	10106.82	-6144.52	4572.80
15200.00	95.15	359.39	100.00	10097.85	-6135.55	4672.39
15300.00	95.15	359.39	100.00	10088.88	-6126.58	4771.99
15400.00	95.15	359.39	100.00	10079.90	-6117.60	4871.58
15500.00	95.15	359.39	100.00	10070.93	-6108.63	4971.17
15600.00	95.15	359.39	100.00	10061.96	-6099.66	5070.76
15700.00	95.15	359.39	100.00	10052.98	-6090.68	5170.35
15800.00	95.15	359.39	100.00	10044.01	-6081.71	5269.94
15900.00	95.15	359.39	100.00	10035.04	-6072.74	5369.53
16000.00	95.15	359.39	100.00	10026.06	-6063.76	5469.12
16100.00	95.15	359.39	100.00	10017.09	-6054.79	5568.71
16200.00	95.15	359.39	100.00	10008.12	-6045.82	5668.30
16300.00	95.15	359.39	100.00	9999.14	-6036.84	5767.89
16400.00	95.15	359.39	100.00	9990.17	-6027.87	5867.48
16500.00	95.15	359.39	100.00	9981.20	-6018.90	5967.08
16600.00	95.15	359.39	100.00	9972.23	-6009.93	6066.67
16700.00	95.15	359.39	100.00	9963.25	-6000.95	6166.26
16800.00	95.15	359.39	100.00	9954.28	-5991.98	6265.85
16900.00	95.15	359.39	100.00	9945.31	-5983.01	6365.44
17000.00	95.15	359.39	100.00	9936.33	-5974.03	6465.03
17100.00	95.15	359.39	100.00	9927.36	-5965.06	6564.62
17200.00	95.15	359.39	100.00	9918.39	-5956.09	6664.21
17300.00	95.15	359.39	100.00	9909.41	-5947.11	6763.80
17400.00	95.15	359.39	100.00	9900.44	-5938.14	6863.39
17500.00	95.15	359.39	100.00	9891.47	-5929.17	6962.98
17600.00	95.15	359.39	100.00	9882.49	-5920.19	7062.57
17700.00	95.15	359.39	100.00	9873.52	-5911.22	7162.17
17800.00	95.15	359.39	100.00	9864.55	-5902.25	7261.76
17900.00	95.15	359.39	100.00	9855.58	-5893.28	7361.35

18000.00	95.15	359.39	100.00	9846.60	-5884.30	7460.94
18100.00	95.15	359.39	100.00	9837.63	-5875.33	7560.53
18200.00	95.15	359.39	100.00	9828.66	-5866.36	7660.12
18300.00	95.15	359.39	100.00	9819.68	-5857.38	7759.71
18400.00	95.15	359.39	100.00	9810.71	-5848.41	7859.30
18500.00	95.15	359.39	100.00	9801.74	-5839.44	7958.89
18600.00	95.15	359.39	100.00	9792.76	-5830.46	8058.48
18700.00	95.15	359.39	100.00	9783.79	-5821.49	8158.07
18800.00	95.15	359.39	100.00	9774.82	-5812.52	8257.67
18900.00	95.15	359.39	100.00	9765.84	-5803.54	8357.26
19000.00	95.15	359.39	100.00	9756.87	-5794.57	8456.85
19100.00	95.15	359.39	100.00	9747.90	-5785.60	8556.44
19200.00	95.15	359.39	100.00	9738.92	-5776.62	8656.03
19300.00	95.15	359.39	100.00	9729.95	-5767.65	8755.62
19400.00	95.15	359.39	100.00	9720.98	-5758.68	8855.21
19500.00	95.15	359.39	100.00	9712.01	-5749.71	8954.80
19600.00	95.15	359.39	100.00	9703.03	-5740.73	9054.39
19700.00	95.15	359.39	100.00	9694.06	-5731.76	9153.98
19800.00	95.15	359.39	100.00	9685.09	-5722.79	9253.57
19900.00	95.15	359.39	100.00	9676.11	-5713.81	9353.16
20000.00	95.15	359.39	100.00	9667.14	-5704.84	9452.76
20100.00	95.15	359.39	100.00	9658.17	-5695.87	9552.35
20200.00	95.15	359.39	100.00	9649.19	-5686.89	9651.94
20300.00	95.15	359.39	100.00	9640.22	-5677.92	9751.53
20400.00	95.15	359.39	100.00	9631.25	-5668.95	9851.12
20500.00	95.15	359.39	100.00	9622.27	-5659.97	9950.71
20600.00	95.15	359.39	100.00	9613.30	-5651.00	10050.30
20700.00	95.15	359.39	100.00	9604.33	-5642.03	10149.89
20800.00	95.15	359.39	100.00	9595.36	-5633.06	10249.48
20900.00	95.15	359.39	100.00	9586.38	-5624.08	10349.07
21000.00	95.15	359.39	100.00	9577.41	-5615.11	10448.66
21100.00	95.15	359.39	100.00	9568.44	-5606.14	10548.25
21200.00	95.15	359.39	100.00	9559.46	-5597.16	10647.85
21300.00	95.15	359.39	100.00	9550.49	-5588.19	10747.44
21400.00	95.15	359.39	100.00	9541.52	-5579.22	10847.03
21500.00	95.15	359.39	100.00	9532.54	-5570.24	10946.62
21600.00	95.15	359.39	100.00	9523.57	-5561.27	11046.21
21700.00	95.15	359.39	100.00	9514.60	-5552.30	11145.80
21800.00	95.15	359.39	100.00	9505.62	-5543.32	11245.39
21900.00	95.15	359.39	100.00	9496.65	-5534.35	11344.98
22000.00	95.15	359.39	100.00	9487.68	-5525.38	11444.57
22100.00	95.15	359.39	100.00	9478.71	-5516.41	11544.16
22200.00	95.15	359.39	100.00	9469.73	-5507.43	11643.75
22300.00	95.15	359.39	100.00	9460.76	-5498.46	11743.35

22400.00	95.15	359.39	100.00	9451.79	-5489.49	11842.94
22500.00	95.15	359.39	100.00	9442.81	-5480.51	11942.53
22600.00	95.15	359.39	100.00	9433.84	-5471.54	12042.12
22700.00	95.15	359.39	100.00	9424.87	-5462.57	12141.71
22800.00	95.15	359.39	100.00	9415.89	-5453.59	12241.30
22900.00	95.15	359.39	100.00	9406.92	-5444.62	12340.89
23000.00	95.15	359.39	100.00	9397.95	-5435.65	12440.48
23100.00	95.15	359.39	100.00	9388.97	-5426.67	12540.07
23200.00	95.15	359.39	100.00	9380.00	-5417.70	12639.66
23300.00	95.15	359.39	100.00	9371.03	-5408.73	12739.25
23400.00	95.15	359.39	100.00	9362.06	-5399.76	12838.84
23500.00	95.15	359.39	100.00	9353.08	-5390.78	12938.44
23600.00	95.15	359.39	100.00	9344.11	-5381.81	13038.03
23700.00	95.15	359.39	100.00	9335.14	-5372.84	13137.62
23800.00	95.15	359.39	100.00	9326.16	-5363.86	13237.21
23900.00	95.15	359.39	100.00	9317.19	-5354.89	13336.80
24000.00	95.15	359.39	100.00	9308.22	-5345.92	13436.39
24100.00	95.15	359.39	100.00	9299.24	-5336.94	13535.98
24200.00	95.15	359.39	100.00	9290.27	-5327.97	13635.57
24300.00	95.15	359.39	100.00	9281.30	-5319.00	13735.16
24400.00	95.15	359.39	100.00	9272.32	-5310.02	13834.75
24500.00	95.15	359.39	100.00	9263.35	-5301.05	13934.34
24600.00	95.15	359.39	100.00	9254.38	-5292.08	14033.93
24700.00	95.15	359.39	100.00	9245.41	-5283.11	14133.53
24800.00	95.15	359.39	100.00	9236.43	-5274.13	14233.12
24900.00	95.15	359.39	100.00	9227.46	-5265.16	14332.71
25000.00	95.15	359.39	100.00	9218.49	-5256.19	14432.30
25100.00	95.15	359.39	100.00	9209.51	-5247.21	14531.89
25200.00	95.15	359.39	100.00	9200.54	-5238.24	14631.48
25300.00	95.15	359.39	100.00	9191.57	-5229.27	14731.07
25400.00	95.15	359.39	100.00	9182.59	-5220.29	14830.66
25500.00	95.15	359.39	100.00	9173.62	-5211.32	14930.25
25600.00	95.15	359.39	100.00	9164.65	-5202.35	15029.84
25700.00	95.15	359.39	100.00	9155.67	-5193.37	15129.43
25800.00	95.15	359.39	100.00	9146.70	-5184.40	15229.03
25900.00	95.15	359.39	100.00	9137.73	-5175.43	15328.62
26000.00	95.15	359.39	100.00	9128.76	-5166.46	15428.21
26100.00	95.15	359.39	100.00	9119.78	-5157.48	15527.80
26200.00	95.15	359.39	100.00	9110.81	-5148.51	15627.39
26300.00	95.15	359.39	100.00	9101.84	-5139.54	15726.98
26400.00	95.15	359.39	100.00	9092.86	-5130.56	15826.57
26500.00	95.15	359.39	100.00	9083.89	-5121.59	15926.16
26600.00	95.15	359.39	100.00	9074.92	-5112.62	16025.75
26700.00	95.15	359.39	100.00	9065.94	-5103.64	16125.34

26800.00	95.15	359.39	100.00	9056.97	-5094.67	16224.93
26900.00	95.15	359.39	100.00	9048.00	-5085.70	16324.52
27000.00	95.15	359.39	100.00	9039.02	-5076.72	16424.12
27100.00	95.15	359.39	100.00	9030.05	-5067.75	16523.71
27200.00	95.15	359.39	100.00	9021.08	-5058.78	16623.30
27300.00	95.15	359.39	100.00	9012.11	-5049.81	16722.89
27400.00	95.15	359.39	100.00	9003.13	-5040.83	16822.48
27500.00	95.15	359.39	100.00	8994.16	-5031.86	16922.07
27600.00	95.15	359.39	100.00	8985.19	-5022.89	17021.66
27700.00	95.15	359.39	100.00	8976.21	-5013.91	17121.25
27800.00	95.15	359.39	100.00	8967.24	-5004.94	17220.84
27900.00	95.15	359.39	100.00	8958.27	-4995.97	17320.43
28000.00	95.15	359.39	100.00	8949.29	-4986.99	17420.02
28100.00	95.15	359.39	100.00	8940.32	-4978.02	17519.62
28200.00	95.15	359.39	100.00	8931.35	-4969.05	17619.21
28300.00	95.15	359.39	100.00	8922.37	-4960.07	17718.80
28400.00	95.15	359.39	100.00	8913.40	-4951.10	17818.39
28500.00	95.15	359.39	100.00	8904.43	-4942.13	17917.98
28600.00	95.15	359.39	100.00	8895.46	-4933.16	18017.57
28660.79	95.15	359.39	60.79	8890.00	-4927.70	18078.11

Local E/-W	Easting	Northing	Latitude	Longitude	Dogleg Severi	Build Rate
EW	X	Y	LAT	LON	DLS	BLD
0.00	800103.29	623928.37	32.712397	-103.492015	0.00	0.00
0.00	800103.29	623928.37	32.712397	-103.492015	0.00	0.00
0.00	800103.29	623928.37	32.712397	-103.492015	0.00	0.00
0.00	800103.29	623928.37	32.712397	-103.492015	0.00	0.00
0.00	800103.29	623928.37	32.712397	-103.492015	0.00	0.00
0.00	800103.29	623928.37	32.712397	-103.492015	0.00	0.00
0.00	800103.29	623928.37	32.712397	-103.492015	0.00	0.00
0.00	800103.29	623928.37	32.712397	-103.492015	0.00	0.00
0.00	800103.29	623928.37	32.712397	-103.492015	0.00	0.00
0.00	800103.29	623928.37	32.712397	-103.492015	0.00	0.00
0.00	800103.29	623928.37	32.712397	-103.492015	0.00	0.00
0.00	800103.29	623928.37	32.712397	-103.492015	0.00	0.00
0.00	800103.29	623928.37	32.712397	-103.492015	0.00	0.00
0.00	800103.29	623928.37	32.712397	-103.492015	0.00	0.00

0.00	800103.29	623928.37	32.712397	-103.492015	0.00	0.00
0.00	800103.29	623928.37	32.712397	-103.492015	0.00	0.00
0.00	800103.29	623928.37	32.712397	-103.492015	0.00	0.00
-1.70	800101.59	623927.99	32.712396	-103.492021	2.00	2.00
-6.81	800096.48	623926.87	32.712394	-103.492038	2.00	2.00
-15.33	800087.97	623924.99	32.712389	-103.492065	2.00	2.00
-27.29	800076.00	623922.35	32.712382	-103.492104	2.00	2.00
-40.83	800062.46	623919.36	32.712374	-103.492148	0.00	0.00
-54.44	800048.85	623916.36	32.712366	-103.492193	0.00	0.00
-68.04	800035.25	623913.35	32.712358	-103.492237	0.00	0.00
-81.65	800021.64	623910.35	32.712350	-103.492281	0.00	0.00
-95.26	800008.03	623907.35	32.712342	-103.492326	0.00	0.00
-108.86	799994.43	623904.34	32.712334	-103.492370	0.00	0.00
-122.47	799980.82	623901.34	32.712326	-103.492414	0.00	0.00
-136.08	799967.22	623898.34	32.712318	-103.492459	0.00	0.00
-149.68	799953.61	623895.33	32.712310	-103.492503	0.00	0.00
-163.29	799940.00	623892.33	32.712302	-103.492547	0.00	0.00
-176.89	799926.40	623889.33	32.712294	-103.492592	0.00	0.00
-190.50	799912.79	623886.33	32.712286	-103.492636	0.00	0.00
-204.11	799899.18	623883.32	32.712278	-103.492680	0.00	0.00
-217.71	799885.58	623880.32	32.712270	-103.492724	0.00	0.00
-231.32	799871.97	623877.32	32.712262	-103.492769	0.00	0.00
-244.93	799858.36	623874.31	32.712254	-103.492813	0.00	0.00
-258.53	799844.76	623871.31	32.712246	-103.492857	0.00	0.00
-272.14	799831.15	623868.31	32.712238	-103.492902	0.00	0.00
-285.75	799817.55	623865.30	32.712230	-103.492946	0.00	0.00
-299.35	799803.94	623862.30	32.712222	-103.492990	0.00	0.00
-312.96	799790.33	623859.30	32.712214	-103.493035	0.00	0.00
-326.56	799776.73	623856.29	32.712207	-103.493079	0.00	0.00
-340.17	799763.12	623853.29	32.712199	-103.493123	0.00	0.00
-353.78	799749.51	623850.29	32.712191	-103.493168	0.00	0.00
-367.38	799735.91	623847.29	32.712183	-103.493212	0.00	0.00
-380.99	799722.30	623844.28	32.712175	-103.493256	0.00	0.00
-394.60	799708.70	623841.28	32.712167	-103.493301	0.00	0.00
-408.20	799695.09	623838.28	32.712159	-103.493345	0.00	0.00
-421.81	799681.48	623835.27	32.712151	-103.493389	0.00	0.00
-435.41	799667.88	623832.27	32.712143	-103.493433	0.00	0.00
-449.02	799654.27	623829.27	32.712135	-103.493478	0.00	0.00
-462.63	799640.66	623826.26	32.712127	-103.493522	0.00	0.00
-476.23	799627.06	623823.26	32.712119	-103.493566	0.00	0.00
-489.84	799613.45	623820.26	32.712111	-103.493611	0.00	0.00
-503.45	799599.84	623817.26	32.712103	-103.493655	0.00	0.00
-517.05	799586.24	623814.25	32.712095	-103.493699	0.00	0.00
-530.66	799572.63	623811.25	32.712087	-103.493744	0.00	0.00

-544.26	799559.03	623808.25	32.712079	-103.493788	0.00	0.00
-557.87	799545.42	623805.24	32.712071	-103.493832	0.00	0.00
-571.48	799531.81	623802.24	32.712063	-103.493877	0.00	0.00
-585.08	799518.21	623799.24	32.712055	-103.493921	0.00	0.00
-598.69	799504.60	623796.23	32.712047	-103.493965	0.00	0.00
-612.30	799490.99	623793.23	32.712039	-103.494010	0.00	0.00
-625.90	799477.39	623790.23	32.712031	-103.494054	0.00	0.00
-639.51	799463.78	623787.22	32.712023	-103.494098	0.00	0.00
-653.12	799450.18	623784.22	32.712016	-103.494142	0.00	0.00
-666.72	799436.57	623781.22	32.712008	-103.494187	0.00	0.00
-680.33	799422.96	623778.22	32.712000	-103.494231	0.00	0.00
-693.93	799409.36	623775.21	32.711992	-103.494275	0.00	0.00
-707.54	799395.75	623772.21	32.711984	-103.494320	0.00	0.00
-721.15	799382.14	623769.21	32.711976	-103.494364	0.00	0.00
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-775.57	799327.72	623757.19	32.711944	-103.494541	0.00	0.00
-789.18	799314.11	623754.19	32.711936	-103.494586	0.00	0.00
-802.78	799300.51	623751.19	32.711928	-103.494630	0.00	0.00
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-830.00	799273.29	623745.18	32.711912	-103.494718	0.00	0.00
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-857.21	799246.08	623739.18	32.711896	-103.494807	0.00	0.00
-870.82	799232.47	623736.17	32.711888	-103.494851	0.00	0.00
-884.42	799218.87	623733.17	32.711880	-103.494896	0.00	0.00
-898.03	799205.26	623730.17	32.711872	-103.494940	0.00	0.00
-911.64	799191.66	623727.16	32.711864	-103.494984	0.00	0.00
-925.24	799178.05	623724.16	32.711856	-103.495029	0.00	0.00
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-1078.33	799024.97	623690.37	32.711767	-103.495527	0.00	0.00
-1087.32	799015.98	623689.66	32.711765	-103.495556	4.00	-2.68
-1095.54	799007.75	623693.50	32.711776	-103.495583	4.00	-0.87
-1099.42	799003.87	623702.79	32.711801	-103.495595	4.00	1.84

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-1100.04	799003.25	623734.54	32.711889	-103.495597	10.00	10.00
-1100.25	799003.04	623753.23	32.711940	-103.495597	10.00	10.00
-1100.49	799002.80	623775.90	32.712002	-103.495597	10.00	10.00
-1100.78	799002.51	623802.36	32.712075	-103.495597	10.00	10.00
-1101.10	799002.19	623832.41	32.712158	-103.495598	10.00	10.00
-1101.47	799001.83	623865.83	32.712250	-103.495598	10.00	10.00
-1101.86	799001.43	623902.37	32.712350	-103.495598	10.00	10.00
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-1103.22	799000.07	624027.75	32.712695	-103.495599	10.00	10.00
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-1104.23	798999.06	624121.27	32.712952	-103.495600	10.00	10.00
-1104.29	798999.01	624126.44	32.712966	-103.495600	10.00	10.00
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-1120.27	798983.02	625613.04	32.717052	-103.495614	0.00	0.00
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-1123.48	798979.81	625911.81	32.717873	-103.495617	0.00	0.00
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-1125.62	798977.67	626110.99	32.718421	-103.495619	0.00	0.00
-1126.69	798976.60	626210.58	32.718694	-103.495620	0.00	0.00
-1127.76	798975.53	626310.17	32.718968	-103.495621	0.00	0.00
-1128.83	798974.46	626409.77	32.719242	-103.495622	0.00	0.00
-1129.90	798973.39	626509.36	32.719516	-103.495622	0.00	0.00
-1130.97	798972.32	626608.95	32.719789	-103.495623	0.00	0.00
-1132.04	798971.25	626708.54	32.720063	-103.495624	0.00	0.00
-1133.11	798970.18	626808.13	32.720337	-103.495625	0.00	0.00
-1134.18	798969.11	626907.72	32.720611	-103.495626	0.00	0.00

-1135.25	798968.04	627007.31	32.720884	-103.495627	0.00	0.00
-1136.32	798966.97	627106.90	32.721158	-103.495628	0.00	0.00
-1137.39	798965.90	627206.49	32.721432	-103.495629	0.00	0.00
-1138.46	798964.83	627306.08	32.721706	-103.495630	0.00	0.00
-1139.53	798963.76	627405.67	32.721979	-103.495631	0.00	0.00
-1140.60	798962.69	627505.26	32.722253	-103.495632	0.00	0.00
-1141.67	798961.62	627604.86	32.722527	-103.495633	0.00	0.00
-1142.74	798960.55	627704.45	32.722801	-103.495633	0.00	0.00
-1143.81	798959.48	627804.04	32.723074	-103.495634	0.00	0.00
-1144.88	798958.41	627903.63	32.723348	-103.495635	0.00	0.00
-1145.95	798957.35	628003.22	32.723622	-103.495636	0.00	0.00
-1147.02	798956.28	628102.81	32.723895	-103.495637	0.00	0.00
-1148.09	798955.21	628202.40	32.724169	-103.495638	0.00	0.00
-1149.16	798954.14	628301.99	32.724443	-103.495639	0.00	0.00
-1150.23	798953.07	628401.58	32.724717	-103.495640	0.00	0.00
-1151.29	798952.00	628501.17	32.724990	-103.495641	0.00	0.00
-1152.36	798950.93	628600.76	32.725264	-103.495642	0.00	0.00
-1153.43	798949.86	628700.36	32.725538	-103.495643	0.00	0.00
-1154.50	798948.79	628799.95	32.725812	-103.495644	0.00	0.00
-1155.57	798947.72	628899.54	32.726085	-103.495644	0.00	0.00
-1156.64	798946.65	628999.13	32.726359	-103.495645	0.00	0.00
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-1158.78	798944.51	629198.31	32.726907	-103.495647	0.00	0.00
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Turn Rate TRN	Vertical Section VS
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0.00	18091.08

Coterra Energy

Lea County, NM (NAD 83)
Rope State Com Pad
Rope State Com 603H

338' FSL, 1173' 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

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

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

Well	Rope State Com 603H						
Well Position	**+N/-S**	0.00 usft	**Northing:**	623,928.37 usft	**Latitude:**	32.7123975	
	+E/-W	0.00 usft	**Easting:**	800,103.29 usft	**Longitude:**	-103.4920155	
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,939.30	usft
Grid Convergence:		0.45 °					

Survey Tool Program **Date** 3/18/2026

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	28,660.79	Plan #2 (OH)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction

Expierimental: Summary Highlights: Rope State Com 603H

- At 1,600.00 MD, Rope State Com 503H - OH - Plan #2 is 20.00 usft away with a 1.77 SF.
- At 12,112.98 MD, (O) LEA SOUTHEAST STATE 1 P & A - Vertical - Surveys is 281.54 usft away with a 1.04 SF.
- At 23,124.64 MD, (O) BLACK JACK STATE 002 - Verticals - Surveys is 39.20 usft away with a 0.14 SF.
- At 25,767.80 MD, (O) LEO STATE 006 TA - Verticals - Surveys is 4.52 usft away with a 0.03 SF.
- At 27,108.48 MD, (O) STATE AN 006 TA - Vertical - Surveys is 56.26 usft away with a 0.14 SF.

Offset Listing

Offset Customer - Project - Site Name / Offset Well	Ground Level	KB Height	Map Coordinates Northing	Map Coordinates Easting	Geographical Coordinates Latitude	Geographical Coordinates Longitude	Surface Uncertainty Site	Surface Uncertainty Well
- - 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
(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

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

Offset Listing

Offset Customer - Project - Site Name / Offset Well	Ground Level	KB Height	Map Coordinates Northing	Map Coordinates Easting	Geographical Coordinates Latitude	Geographical Coordinates Longitude	Surface Uncertainty Site	Surface Uncertainty Well
- - Rope State Com Pad								
(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 504H -	3,939.00	3,962.00	623,928.60	800,163.28	32.7123968	-103.4918204	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 604H -	3,939.10	3,962.10	623,928.52	800,143.29	32.7123970	-103.4918854	0.00	0.00

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Rope State Com Pad						
(O) AIRSTRIP 31 18 35 RN STATE COM 111H - Horizonta						Out of range
(O) AIRSTRIP 31 18 35 RN STATE COM 114H - Horizonta						Out of range
(O) AIRSTRIP 31 18 35 RN STATE COM 124H - Horizont						Out of range
(O) AIRSTRIP 31 18 35 RN STATE COM 131H - Horizont						Out of range
(O) AIRSTRIP 31 18 35 RN STATE COM 132H - Horizont	10,319.07	15,406.00	1,170.81	1,068.03	11.39	CC, ES, SF
(O) AIRSTRIP 31 18 35 RN STATE COM 133H - Horizont	10,286.13	15,366.00	586.62	509.67	7.62	CC, ES

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

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Rope State Com Pad						
(O) AIRSTRIP 31 18 35 RN STATE COM 133H - Horizont	10,300.00	15,366.00	586.93	509.74	7.60	SF
(O) AIRSTRIP 31 18 35 RN STATE COM 134H - Horizont						Out of range
(O) AIRSTRIP 31 18 35 RN STATE COM 201H - Horizont						Out of range
(O) AIRSTRIP STATE 001 P & A - Vertical - Surveys						Out of range
(O) ALBATROSS STATE COM 001H - Horizontal - PROD	12,900.00	11,708.13	1,662.42	1,582.40	20.78	SF
(O) ALBATROSS STATE COM 001H - Horizontal - PROD	14,861.25	9,967.71	1,422.56	1,354.53	20.91	CC, ES
(O) ALBATROSS STATE COM 002H - Horizontal - PROD	11,700.00	13,606.56	307.93	206.70	3.04	SF
(O) ALBATROSS STATE COM 002H - Horizontal - PROD	11,800.00	13,514.76	305.72	205.28	3.04	ES
(O) ALBATROSS STATE COM 002H - Horizontal - PROD	11,829.54	13,487.71	305.60	205.40	3.05	CC
(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						Out of range
(O) BLACK JACK STATE 002 - Verticals - Surveys	23,124.64	9,405.72	39.20	-235.07	0.14	Level 1, CC, ES, SF
(O) BLACK JACK STATE 003 - Verticals - Surveys						Out of range
(O) BRIDGES STATE 180 P & A - Vertical - Surveys	28,430.88	8,939.32	1,403.33	986.40	3.37	CC, ES, SF
(O) IRONHOUSE 19 STATE COM 001H - Horizontal - PR	20,473.08	14,214.00	1,153.04	982.28	6.75	CC, ES
(O) IRONHOUSE 19 STATE COM 001H - Horizontal - PR	20,500.00	14,214.00	1,153.35	982.38	6.75	SF
(O) IRONHOUSE 19 STATE COM 001H - Pilot - Pilot	15,802.63	10,047.88	1,141.30	853.89	3.97	CC, ES, SF
(O) IRONHOUSE 19 STATE COM 002H - Horizontal - PR						Out of range
(O) IRONHOUSE 19 STATE COM 003H - Horizontal - PR	20,155.47	13,859.45	385.55	246.64	2.78	CC
(O) IRONHOUSE 19 STATE COM 003H - Horizontal - PR	20,200.00	13,901.14	385.73	246.46	2.77	ES, 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	12,112.98	10,374.03	281.54	10.65	1.04	Level 2, CC, ES, SF
(O) LEA ZD STATE 001 P & A - Vertical - Surveys						Out of range
(O) LEO STATE #1 - OH - OH						Out of range
(O) LEO STATE 006 TA - Verticals - Surveys	25,767.80	9,183.14	4.52	-134.15	0.03	Level 1, CC, ES, SF
(O) LEO STATE 007 - Verticals - Surveys	24,607.56	9,239.35	1,298.11	1,140.43	8.23	CC, ES, SF
(O) MESA MERRITT STATE 001 P & A - Vertical - Surveys	18,839.60	9,788.23	1,008.47	682.30	3.09	CC, ES, SF
(O) NEW MEXICO BP STATE 002 P & A - Vertical - Surve	27,041.28	8,995.00	1,264.33	800.44	2.73	CC, ES
(O) NEW MEXICO BP STATE 002 P & A - Vertical - Surve	27,100.00	8,995.00	1,265.69	801.23	2.73	SF
(O) NEW MEXICO BV STATE 001 P & A - Vertical - Surve						Out of range
(O) OHIO STATE 001 - Verticals - Surveys	28,403.07	8,945.75	1,007.14	569.54	2.30	CC, ES, SF
(O) OHIO STATE 002 - Verticals - Surveys						Out of range
(O) OHIO STATE 005 - Verticals - Surveys	28,089.91	8,931.65	909.78	710.91	4.57	CC
(O) OHIO STATE 005 - Verticals - Surveys	28,100.00	8,930.58	909.83	710.85	4.57	ES, SF
(O) SHETLAND SWD 001 - Vertical - Surveys	22,800.42	9,437.43	1,004.36	604.83	2.51	CC, ES, SF
(O) STATE AN 005 - Verticals - Surveys	28,660.79	8,685.19	364.90	211.29	2.38	CC, ES, SF
(O) STATE AN 006 TA - Vertical - Surveys	27,108.48	9,023.00	56.26	-347.29	0.14	Level 1, CC, ES, SF
(O) STATE AN 007 P & A - Vertical - Surveys	28,420.35	8,939.22	1,272.76	875.08	3.20	CC, ES, SF
(O) STATE AN 008 P & A - Vertical - Surveys						Out of range
(O) STATE AN 009 P & A - Vertical - Surveys						Out of range
(O) STATE AN 010 P & A - Vertical - Surveys	27,099.09	9,012.00	1,272.35	840.27	2.94	CC
(O) STATE AN 010 P & A - Vertical - Surveys	27,100.00	9,012.00	1,272.35	840.27	2.94	ES, SF
(O) STATE AN 012 P & A - OH - Surveys						Out of range
(O) STATE AN 012 P & A - ST01 - ST01						Out of range
Rope State Com 501H - OH - Plan #3						Out of range

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

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Rope State Com Pad						
Rope State Com 502H - OH - Plan #2	19,631.23	19,227.90	704.91	543.61	4.37	CC
Rope State Com 502H - OH - Plan #2	22,500.00	22,088.46	720.64	519.46	3.58	ES
Rope State Com 502H - OH - Plan #2	24,400.00	23,973.72	770.40	542.77	3.38	SF
Rope State Com 503H - OH - Plan #2	1,600.00	1,599.90	20.00	8.69	1.77	CC, ES, SF
Rope State Com 504H - OH - Plan #2	1,600.00	1,599.70	59.99	48.69	5.31	CC, ES
Rope State Com 504H - OH - Plan #2	1,700.00	1,699.68	61.70	49.69	5.14	SF
Rope State Com 601H - OH - Plan #2						Out of range
Rope State Com 604H - OH - Plan #2	1,600.00	1,599.80	40.00	28.69	3.54	CC, ES, SF

Offset Design: Rope State Com Pad - (O) AIRSTRIP 31 18 35 RN STATE COM 132H - Horizontal - PRODUCING - Surveys

Offset Site Error: 0.00 usft

Survey Program: 0-MWD OWSG Rev5 **Rule Assigned:** **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,500.00	9,425.54	15,406.00	10,546.70	34.58	78.01	-6.07	-573.86	-2,126.30	1,593.04	1,505.46	87.58	18.190	
9,600.00	9,524.56	15,406.00	10,546.70	34.96	78.01	-6.07	-573.86	-2,126.30	1,514.70	1,425.19	89.51	16.923	
9,700.00	9,623.59	15,406.00	10,546.70	35.33	78.01	-6.07	-573.86	-2,126.30	1,439.05	1,347.47	91.58	15.714	
9,800.00	9,722.79	15,406.00	10,546.70	35.70	78.01	-26.02	-573.86	-2,126.30	1,367.71	1,273.93	93.78	14.584	
9,900.00	9,822.36	15,406.00	10,546.70	36.06	78.01	-68.79	-573.86	-2,126.30	1,304.62	1,208.52	96.10	13.576	
10,000.00	9,921.83	15,406.00	10,546.70	36.40	78.01	-104.50	-573.86	-2,126.30	1,251.49	1,153.06	98.44	12.714	
10,100.00	10,020.25	15,406.00	10,546.70	36.73	78.01	-114.73	-573.86	-2,126.30	1,210.05	1,109.46	100.59	12.030	
10,200.00	10,114.42	15,406.00	10,546.70	37.04	78.01	-117.30	-573.86	-2,126.30	1,182.64	1,080.55	102.08	11.585	
10,300.00	10,201.38	15,406.00	10,546.70	37.32	78.01	-118.33	-573.86	-2,126.30	1,171.11	1,068.36	102.75	11.398	
10,319.07	10,216.92	15,406.00	10,546.70	37.37	78.01	-118.36	-573.86	-2,126.30	1,170.81	1,068.03	102.77	11.392	CC, ES, SF
10,400.00	10,278.48	15,406.00	10,546.70	37.56	78.01	-117.87	-573.86	-2,126.30	1,176.30	1,073.76	102.53	11.472	
10,500.00	10,343.39	15,406.00	10,546.70	37.75	78.01	-115.90	-573.86	-2,126.30	1,197.82	1,096.30	101.51	11.800	
10,600.00	10,394.13	15,406.00	10,546.70	37.90	78.01	-112.32	-573.86	-2,126.30	1,234.19	1,134.33	99.86	12.359	
10,700.00	10,429.16	15,406.00	10,546.70	38.00	78.01	-107.03	-573.86	-2,126.30	1,283.11	1,185.33	97.78	13.123	
10,800.00	10,451.27	15,406.00	10,546.70	38.07	78.01	-103.43	-573.86	-2,126.30	1,341.08	1,245.56	95.52	14.039	
10,900.00	10,464.78	15,406.00	10,546.70	38.14	78.01	-99.32	-573.86	-2,126.30	1,405.32	1,312.05	93.28	15.066	
11,000.00	10,469.61	15,406.00	10,546.70	38.20	78.01	-94.55	-573.86	-2,126.30	1,474.55	1,383.46	91.09	16.188	
11,100.00	10,465.71	15,406.00	10,546.70	38.28	78.01	-89.20	-573.86	-2,126.30	1,547.61	1,458.61	89.00	17.390	
11,200.00	10,456.77	15,406.00	10,546.70	38.41	78.01	-88.74	-573.86	-2,126.30	1,623.58	1,536.54	87.04	18.654	

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

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

Offset Design: Rope State Com Pad - (O) AIRSTRIP 31 18 35 RN STATE COM 133H - Horizontal - PRODUCING - Surveys

Offset Site Error: 0.00 usft

Survey Program: 0-MWD OWSG Rev5

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,000.00	8,930.42	15,366.00	10,476.79	32.73	86.59	-126.43	-571.42	-835.72	1,593.16	1,534.26	58.90	27.049	
9,100.00	9,029.44	15,366.00	10,476.79	33.10	86.59	-126.43	-571.42	-835.72	1,497.89	1,438.75	59.14	25.328	
9,200.00	9,128.47	15,366.00	10,476.79	33.47	86.59	-126.43	-571.42	-835.72	1,403.28	1,343.85	59.43	23.610	
9,300.00	9,227.49	15,366.00	10,476.79	33.84	86.59	-126.43	-571.42	-835.72	1,309.48	1,249.67	59.80	21.896	
9,400.00	9,326.51	15,366.00	10,476.79	34.21	86.59	-126.43	-571.42	-835.72	1,216.66	1,156.37	60.28	20.183	
9,500.00	9,425.54	15,366.00	10,476.79	34.58	86.59	-126.43	-571.42	-835.72	1,125.07	1,064.15	60.92	18.468	
9,600.00	9,524.56	15,366.00	10,476.79	34.96	86.59	-126.43	-571.42	-835.72	1,035.04	973.25	61.79	16.750	
9,700.00	9,623.59	15,366.00	10,476.79	35.33	86.59	-126.43	-571.42	-835.72	947.01	884.00	63.01	15.029	
9,800.00	9,722.79	15,366.00	10,476.79	35.70	86.59	-139.97	-571.42	-835.72	861.69	797.02	64.67	13.324	
9,900.00	9,822.36	15,366.00	10,476.79	36.06	86.59	-175.57	-571.42	-835.72	780.42	713.70	66.72	11.697	
10,000.00	9,921.83	15,366.00	10,476.79	36.40	86.59	154.39	-571.42	-835.72	705.07	635.90	69.17	10.193	
10,100.00	10,020.25	15,366.00	10,476.79	36.73	86.59	150.94	-571.42	-835.72	640.29	568.30	71.99	8.894	
10,200.00	10,114.42	15,366.00	10,476.79	37.04	86.59	153.12	-571.42	-835.72	598.60	523.68	74.92	7.990	
10,286.13	10,189.85	15,366.00	10,476.79	37.28	86.59	153.67	-571.42	-835.72	586.62	509.67	76.95	7.624	CC, ES
10,300.00	10,201.38	15,366.00	10,476.79	37.32	86.59	153.65	-571.42	-835.72	586.93	509.74	77.20	7.603	SF
10,400.00	10,278.48	15,366.00	10,476.79	37.56	86.59	152.70	-571.42	-835.72	607.38	529.23	78.14	7.773	
10,500.00	10,343.39	15,366.00	10,476.79	37.75	86.59	149.97	-571.42	-835.72	656.37	578.64	77.73	8.444	
10,600.00	10,394.13	15,366.00	10,476.79	37.90	86.59	144.51	-571.42	-835.72	726.88	650.45	76.43	9.510	
10,700.00	10,429.16	15,366.00	10,476.79	38.00	86.59	134.01	-571.42	-835.72	811.51	736.78	74.73	10.860	
10,800.00	10,451.27	15,366.00	10,476.79	38.07	86.59	124.56	-571.42	-835.72	903.34	830.35	72.99	12.376	
10,900.00	10,464.78	15,366.00	10,476.79	38.14	86.59	111.10	-571.42	-835.72	998.31	926.90	71.42	13.979	
11,000.00	10,469.61	15,366.00	10,476.79	38.20	86.59	92.67	-571.42	-835.72	1,094.97	1,025.00	69.97	15.648	
11,100.00	10,465.71	15,366.00	10,476.79	38.28	86.59	71.93	-571.42	-835.72	1,192.26	1,123.62	68.64	17.370	
11,200.00	10,456.77	15,366.00	10,476.79	38.41	86.59	70.26	-571.42	-835.72	1,289.75	1,222.30	67.45	19.123	
11,300.00	10,447.80	15,366.00	10,476.79	38.56	86.59	70.26	-571.42	-835.72	1,387.59	1,321.15	66.44	20.886	
11,400.00	10,438.83	15,366.00	10,476.79	38.74	86.59	70.26	-571.42	-835.72	1,485.71	1,420.14	65.57	22.658	
11,500.00	10,429.85	15,366.00	10,476.79	38.93	86.59	70.26	-571.42	-835.72	1,584.08	1,519.25	64.83	24.435	

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

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,900.00	10,304.23	11,708.13	9,928.31	43.00	39.79	77.51	2,604.78	476.18	1,662.42	1,582.40	80.02	20.775	SF
13,000.00	10,295.26	11,612.68	9,925.39	43.37	38.33	77.60	2,699.20	462.49	1,648.19	1,569.21	78.98	20.868	
13,100.00	10,286.28	11,511.45	9,919.22	43.76	36.79	77.59	2,799.09	447.28	1,633.95	1,556.10	77.85	20.988	
13,200.00	10,277.31	11,345.61	9,907.89	44.16	34.30	77.50	2,962.03	418.69	1,617.76	1,542.04	75.72	21.365	
13,300.00	10,268.34	11,239.65	9,902.84	44.56	32.74	77.50	3,065.84	398.02	1,598.84	1,524.26	74.58	21.439	
13,400.00	10,259.36	11,147.47	9,899.13	44.98	31.41	77.53	3,156.25	380.44	1,580.20	1,506.51	73.69	21.443	
13,500.00	10,250.39	11,060.71	9,896.02	45.40	30.18	77.57	3,241.46	364.43	1,562.08	1,489.14	72.94	21.417	
13,600.00	10,241.42	10,980.99	9,893.36	45.84	29.07	77.63	3,319.91	350.52	1,544.90	1,472.57	72.32	21.362	
13,700.00	10,232.44	10,897.76	9,890.45	46.28	27.94	77.69	3,402.00	337.06	1,528.97	1,457.28	71.69	21.328	
13,800.00	10,223.47	10,810.09	9,886.34	46.73	26.79	77.72	3,488.47	323.27	1,513.75	1,442.72	71.03	21.312	
13,900.00	10,214.50	10,724.79	9,882.74	47.19	25.70	77.78	3,572.77	310.74	1,499.43	1,428.98	70.45	21.285	
14,000.00	10,205.53	10,638.83	9,879.67	47.66	24.64	77.86	3,657.86	298.88	1,485.87	1,415.96	69.91	21.254	
14,100.00	10,196.55	10,559.00	9,875.82	48.13	23.70	77.91	3,736.96	288.87	1,473.72	1,404.24	69.48	21.210	
14,200.00	10,187.58	10,492.99	9,871.66	48.61	22.96	77.93	3,802.43	281.58	1,463.32	1,394.06	69.25	21.130	
14,300.00	10,178.61	10,410.37	9,866.41	49.10	22.08	77.95	3,884.52	273.79	1,454.57	1,385.68	68.89	21.115	
14,400.00	10,169.63	10,319.72	9,862.93	49.60	21.15	78.08	3,974.79	266.43	1,446.60	1,378.09	68.51	21.115	
14,500.00	10,160.66	10,224.27	9,858.86	50.10	20.29	78.20	4,069.86	259.00	1,439.06	1,370.86	68.19	21.102	
14,600.00	10,151.69	10,144.00	9,851.03	50.61	19.62	78.13	4,149.44	252.09	1,431.94	1,363.92	68.03	21.050	
14,700.00	10,142.71	10,054.00	9,838.20	51.13	18.98	77.88	4,238.22	244.88	1,426.24	1,358.39	67.85	21.019	
14,800.00	10,133.74	10,006.67	9,829.00	51.65	18.69	77.67	4,284.54	241.91	1,423.05	1,355.05	68.00	20.926	
14,861.25	10,128.24	9,967.71	9,818.79	51.97	18.48	77.38	4,322.06	239.69	1,422.56	1,354.53	68.03	20.910	CC, ES
14,900.00	10,124.77	9,938.09	9,809.42	52.18	18.34	77.10	4,350.10	237.98	1,422.72	1,354.70	68.02	20.916	
15,000.00	10,115.79	9,862.00	9,775.19	52.71	18.03	75.96	4,417.60	231.75	1,424.42	1,356.45	67.96	20.959	
15,100.00	10,106.82	9,813.79	9,747.06	53.25	17.90	74.96	4,456.45	227.14	1,429.35	1,361.32	68.03	21.009	
15,200.00	10,097.85	9,757.97	9,710.51	53.80	17.78	73.64	4,498.25	221.57	1,438.07	1,370.04	68.04	21.137	
15,300.00	10,088.87	9,720.00	9,683.65	54.35	17.72	72.67	4,524.82	217.80	1,451.06	1,382.97	68.09	21.311	
15,400.00	10,079.90	9,690.39	9,661.60	54.90	17.68	71.87	4,544.42	215.26	1,469.10	1,400.97	68.13	21.563	
15,500.00	10,070.93	9,673.00	9,648.19	55.46	17.66	71.39	4,555.40	213.96	1,492.38	1,424.22	68.15	21.898	
15,600.00	10,061.96	9,641.00	9,622.58	56.03	17.63	70.47	4,574.48	211.98	1,520.68	1,452.60	68.08	22.338	
15,700.00	10,052.98	9,619.17	9,604.49	56.60	17.61	69.83	4,586.64	210.92	1,554.03	1,486.05	67.98	22.859	
15,800.00	10,044.01	9,596.45	9,585.19	57.18	17.60	69.15	4,598.59	210.01	1,592.11	1,524.26	67.85	23.467	
15,900.00	10,035.04	9,577.00	9,568.35	57.76	17.59	68.56	4,608.30	209.32	1,634.60	1,566.92	67.68	24.153	

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,900.00	8,831.39	14,943.55	10,460.34	32.35	78.87	176.69	-130.05	-719.11	1,649.65	1,588.82	60.84	27.117	
9,000.00	8,930.42	14,948.57	10,460.51	32.73	78.94	177.27	-135.04	-718.59	1,554.33	1,492.66	61.67	25.206	
9,100.00	9,029.44	14,953.58	10,460.69	33.10	79.01	177.86	-140.03	-718.06	1,459.61	1,397.00	62.62	23.310	
9,200.00	9,128.47	14,958.60	10,460.86	33.47	79.07	178.45	-145.01	-717.54	1,365.63	1,301.91	63.72	21.431	
9,300.00	9,227.49	14,962.00	10,460.98	33.84	79.12	178.85	-148.39	-717.18	1,272.55	1,207.55	65.01	19.576	
9,400.00	9,326.51	14,962.00	10,460.98	34.21	79.12	178.85	-148.39	-717.18	1,180.60	1,114.10	66.50	17.752	
9,500.00	9,425.54	14,962.00	10,460.98	34.58	79.12	178.85	-148.39	-717.18	1,090.06	1,021.75	68.32	15.956	
9,600.00	9,524.56	14,962.00	10,460.98	34.96	79.12	178.85	-148.39	-717.18	1,001.33	930.79	70.54	14.195	
9,700.00	9,623.59	14,962.00	10,460.98	35.33	79.12	178.85	-148.39	-717.18	914.93	841.63	73.29	12.483	
9,800.00	9,722.79	14,962.00	10,460.98	35.70	79.12	163.47	-148.39	-717.18	830.71	754.05	76.66	10.837	
9,900.00	9,822.36	14,962.00	10,460.98	36.06	79.12	126.51	-148.39	-717.18	747.31	666.71	80.60	9.271	
10,000.00	9,921.83	14,962.00	10,460.98	36.40	79.12	96.24	-148.39	-717.18	665.40	580.15	85.24	7.806	
10,100.00	10,020.25	14,962.00	10,460.98	36.73	79.12	98.31	-148.39	-717.18	586.77	496.03	90.75	6.466	
10,200.00	10,114.42	14,936.45	10,460.09	37.04	78.78	104.63	-123.00	-719.85	516.63	419.92	96.70	5.342	
10,300.00	10,201.38	14,896.04	10,458.78	37.32	78.25	106.74	-82.82	-724.02	458.33	355.57	102.76	4.460	
10,400.00	10,278.48	14,846.86	10,458.45	37.56	77.60	106.20	-33.84	-728.44	415.17	307.11	108.05	3.842	
10,500.00	10,343.39	14,783.16	10,460.17	37.75	76.76	103.38	29.67	-732.86	387.79	276.38	111.41	3.481	
10,600.00	10,394.13	14,706.29	10,464.06	37.90	75.76	99.55	106.38	-736.00	373.88	261.24	112.64	3.319	
10,700.00	10,429.16	14,612.79	10,469.57	38.00	74.55	95.96	199.68	-738.50	368.02	255.74	112.28	3.278	
10,800.00	10,451.27	14,513.44	10,471.74	38.07	73.28	93.03	298.97	-740.82	365.14	253.84	111.30	3.281	
10,900.00	10,464.78	14,406.44	10,468.16	38.14	71.90	90.35	405.85	-743.73	363.01	253.05	109.96	3.301	
11,000.00	10,469.61	14,291.86	10,464.04	38.20	70.43	89.08	520.04	-752.11	356.69	248.33	108.36	3.292	
11,100.00	10,465.71	14,189.94	10,458.12	38.28	69.13	89.14	621.36	-761.36	348.71	241.60	107.11	3.256	
11,200.00	10,456.77	14,090.52	10,449.41	38.41	67.86	89.18	719.95	-770.75	340.33	234.34	105.99	3.211	
11,300.00	10,447.80	13,994.41	10,441.65	38.56	66.65	89.31	815.36	-779.30	332.50	227.50	105.00	3.167	
11,400.00	10,438.83	13,896.45	10,434.19	38.74	65.43	89.52	912.74	-786.98	325.71	221.73	103.98	3.132	
11,500.00	10,429.85	13,795.90	10,426.93	38.93	64.18	89.83	1,012.72	-794.79	319.00	216.06	102.94	3.099	
11,600.00	10,420.88	13,699.88	10,421.79	39.14	62.99	90.46	1,108.33	-802.00	312.57	210.53	102.05	3.063	
11,700.00	10,411.91	13,606.56	10,417.59	39.36	61.85	91.24	1,201.40	-807.39	307.93	206.70	101.23	3.042	SF
11,800.00	10,402.93	13,514.76	10,413.83	39.59	60.74	92.09	1,293.06	-810.54	305.72	205.28	100.43	3.044	ES
11,829.54	10,400.28	13,487.71	10,413.06	39.67	60.42	92.41	1,320.10	-811.00	305.60	205.40	100.20	3.050	CC
11,900.00	10,393.96	13,422.21	10,411.43	39.84	59.64	93.20	1,385.57	-811.36	306.20	206.59	99.61	3.074	
12,000.00	10,384.99	13,324.04	10,408.67	40.10	58.48	94.30	1,483.70	-810.59	308.46	209.72	98.73	3.124	
12,100.00	10,376.01	13,221.19	10,404.83	40.38	57.29	95.27	1,586.48	-810.11	310.43	212.62	97.82	3.174	
12,200.00	10,367.04	13,118.93	10,401.92	40.66	56.10	96.41	1,688.69	-810.74	311.52	214.60	96.92	3.214	
12,300.00	10,358.07	13,019.61	10,398.21	40.96	54.97	97.36	1,787.94	-811.54	312.41	216.35	96.06	3.252	
12,400.00	10,349.09	12,922.72	10,392.47	41.27	53.88	97.87	1,884.66	-811.47	313.95	218.68	95.26	3.296	
12,500.00	10,340.12	12,820.69	10,386.10	41.60	52.75	98.33	1,986.49	-811.06	315.80	221.34	94.46	3.343	
12,600.00	10,331.15	12,708.16	10,379.33	41.93	51.52	98.98	2,098.77	-813.97	314.69	221.11	93.57	3.363	
12,700.00	10,322.18	12,610.34	10,375.15	42.28	50.46	99.90	2,196.41	-818.03	312.43	219.60	92.83	3.366	
12,800.00	10,313.20	12,513.61	10,371.49	42.63	49.44	100.88	2,293.02	-821.17	311.21	219.11	92.11	3.379	
12,892.32	10,304.92	12,423.45	10,367.63	42.97	48.50	101.69	2,383.07	-823.37	310.83	219.37	91.46	3.398	
12,900.00	10,304.23	12,416.04	10,367.34	43.00	48.43	101.76	2,390.47	-823.52	310.84	219.43	91.41	3.400	
13,000.00	10,295.26	12,319.43	10,364.64	43.37	47.45	102.86	2,487.03	-825.17	311.53	220.82	90.71	3.434	
13,100.00	10,286.28	12,221.46	10,363.81	43.76	46.48	104.29	2,584.99	-826.44	313.23	223.25	89.99	3.481	
13,200.00	10,277.31	12,121.11	10,362.59	44.16	45.51	105.66	2,685.32	-827.48	315.27	226.00	89.27	3.532	
13,300.00	10,268.34	12,021.72	10,358.33	44.56	44.58	106.44	2,784.61	-827.94	317.16	228.49	88.68	3.577	
13,400.00	10,259.36	11,926.36	10,352.69	44.98	43.71	106.85	2,879.80	-827.08	319.94	231.76	88.18	3.628	
13,500.00	10,250.39	11,831.21	10,347.25	45.40	42.87	107.19	2,974.76	-824.57	324.44	236.72	87.72	3.698	
13,600.00	10,241.42	11,731.75	10,344.36	45.84	42.03	108.00	3,074.14	-821.93	329.83	242.60	87.23	3.781	
13,700.00	10,232.44	11,624.39	10,342.97	46.28	41.15	109.22	3,181.48	-820.78	334.35	247.62	86.73	3.855	
13,800.00	10,223.47	11,512.38	10,341.46	46.73	40.27	110.68	3,293.45	-823.46	335.72	249.52	86.20	3.895	

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

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
13,900.00	10,214.50	11,408.64	10,337.82	47.19	39.50	111.80	3,397.02	-827.99	334.63	248.86	85.77	3.902	
14,000.00	10,205.53	11,309.93	10,331.68	47.66	38.81	112.39	3,495.47	-831.51	333.34	247.86	85.49	3.899	
14,100.00	10,196.55	11,212.16	10,323.79	48.13	38.16	112.61	3,592.89	-833.67	332.63	247.30	85.33	3.898	
14,154.13	10,191.69	11,159.26	10,319.42	48.39	37.84	112.68	3,645.60	-834.51	332.53	247.25	85.28	3.899	
14,200.00	10,187.58	11,115.00	10,316.15	48.61	37.57	112.81	3,689.74	-835.20	332.61	247.38	85.23	3.903	
14,300.00	10,178.61	11,018.08	10,310.77	49.10	37.02	113.37	3,786.50	-836.73	333.49	248.40	85.09	3.919	
14,400.00	10,169.63	10,915.70	10,306.49	49.60	36.49	114.21	3,888.76	-838.84	334.52	249.54	84.98	3.936	
14,500.00	10,160.66	10,816.38	10,302.84	50.10	36.02	115.13	3,987.99	-841.27	335.49	250.60	84.89	3.952	
14,600.00	10,151.69	10,713.59	10,298.40	50.61	35.60	116.00	4,090.64	-844.24	335.86	250.98	84.88	3.957	
14,700.00	10,142.71	10,616.46	10,294.24	51.13	35.24	116.81	4,187.65	-846.67	336.67	251.77	84.90	3.965	
14,800.00	10,133.74	10,493.30	10,279.37	51.65	34.88	116.19	4,309.69	-847.67	335.75	250.27	85.48	3.928	
14,900.00	10,124.77	10,377.67	10,242.22	52.18	34.63	111.74	4,419.02	-846.82	327.51	240.82	86.69	3.778	
15,000.00	10,115.79	10,258.25	10,182.19	52.71	34.48	102.95	4,521.87	-845.51	315.64	227.78	87.86	3.592	
15,100.00	10,106.82	10,166.55	10,120.72	53.25	34.45	92.82	4,589.82	-845.19	306.90	219.02	87.88	3.492	
15,130.62	10,104.07	10,142.28	10,103.09	53.42	34.44	89.81	4,606.50	-845.39	306.25	218.67	87.58	3.497	
15,200.00	10,097.85	10,095.52	10,067.08	53.80	34.42	83.63	4,636.30	-845.85	310.16	223.74	86.42	3.589	
15,300.00	10,088.87	10,043.36	10,024.15	54.35	34.41	76.37	4,665.91	-846.07	331.53	247.56	83.97	3.948	
15,400.00	10,079.90	10,005.00	9,990.89	54.90	34.40	70.99	4,684.99	-845.70	371.61	290.21	81.40	4.565	
15,500.00	10,070.93	9,974.00	9,962.77	55.46	34.39	66.68	4,698.01	-845.25	427.34	348.07	79.26	5.391	
15,600.00	10,061.96	9,953.30	9,943.39	56.03	34.38	63.84	4,705.27	-844.88	494.81	417.05	77.76	6.364	
15,700.00	10,052.98	9,943.00	9,933.61	56.60	34.38	62.46	4,708.46	-844.66	570.60	493.86	76.74	7.435	
15,800.00	10,044.01	9,919.37	9,910.86	57.18	34.38	59.38	4,714.86	-844.14	651.79	575.81	75.98	8.578	
15,900.00	10,035.04	9,909.00	9,900.79	57.76	34.38	58.07	4,717.29	-843.92	737.06	661.57	75.49	9.764	
16,000.00	10,026.06	9,895.15	9,887.24	58.34	34.37	56.36	4,720.16	-843.59	825.18	750.04	75.14	10.982	
16,100.00	10,017.09	9,878.00	9,870.36	58.93	34.37	54.33	4,723.14	-843.13	915.53	840.62	74.91	12.222	
16,200.00	10,008.12	9,878.00	9,870.36	59.52	34.37	54.33	4,723.14	-843.13	1,007.31	932.60	74.71	13.483	
16,300.00	9,999.14	9,878.00	9,870.36	60.12	34.37	54.33	4,723.14	-843.13	1,100.52	1,025.96	74.56	14.761	
16,400.00	9,990.17	9,861.06	9,853.60	60.72	34.37	52.42	4,725.54	-842.61	1,194.47	1,119.98	74.49	16.036	
16,500.00	9,981.20	9,846.00	9,838.65	61.32	34.37	50.80	4,727.27	-842.12	1,289.38	1,214.94	74.44	17.321	
16,600.00	9,972.22	9,846.00	9,838.65	61.93	34.37	50.80	4,727.27	-842.12	1,384.77	1,310.40	74.37	18.620	
16,700.00	9,963.25	9,846.00	9,838.65	62.54	34.37	50.80	4,727.27	-842.12	1,480.77	1,406.45	74.31	19.926	
16,800.00	9,954.28	9,833.65	9,826.37	63.16	34.37	49.52	4,728.45	-841.72	1,577.14	1,502.82	74.31	21.222	

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

Offset Design: Rope State Com Pad - (O) BLACK JACK STATE 002 - Verticals - Surveys

Offset Site Error: 0.00 usft

Survey Program: 0-3_INC-Only

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Rule Assigned: Minimum Separation (usft)	Separation Factor	Warning
21,500.00	9,532.54	9,568.62	9,549.56	94.66	172.18	-166.41	12,564.78	-1,276.34	1,619.24	1,404.43	214.80	7.538	
21,600.00	9,523.57	9,553.20	9,534.15	95.37	171.79	-165.06	12,564.91	-1,276.34	1,519.76	1,305.33	214.42	7.088	
21,700.00	9,514.60	9,538.84	9,519.79	96.07	171.43	-163.53	12,564.99	-1,276.34	1,420.24	1,206.17	214.07	6.634	
21,800.00	9,505.62	9,525.42	9,506.37	96.78	171.09	-161.80	12,565.02	-1,276.34	1,320.71	1,106.96	213.74	6.179	
21,900.00	9,496.65	9,515.67	9,496.65	97.49	170.84	-160.29	12,563.98	-1,276.34	1,220.12	1,006.57	213.56	5.713	
22,000.00	9,487.68	9,506.70	9,487.68	98.20	170.61	-158.69	12,563.98	-1,276.34	1,120.58	907.18	213.40	5.251	
22,100.00	9,478.71	9,497.73	9,478.71	98.91	170.39	-156.82	12,563.98	-1,276.34	1,021.05	807.81	213.25	4.788	
22,200.00	9,469.73	9,488.76	9,469.73	99.63	170.16	-154.61	12,563.98	-1,276.34	921.54	708.45	213.09	4.325	
22,300.00	9,460.76	9,479.78	9,460.76	100.34	169.93	-151.98	12,563.98	-1,276.34	822.04	609.10	212.94	3.860	
22,400.00	9,451.79	9,470.81	9,451.79	101.05	169.71	-148.80	12,563.98	-1,276.34	722.58	509.78	212.80	3.396	
22,500.00	9,442.81	9,461.84	9,442.81	101.77	169.48	-144.91	12,563.98	-1,276.34	623.15	410.48	212.67	2.930	
22,600.00	9,433.84	9,452.86	9,433.84	102.48	169.25	-140.09	12,563.98	-1,276.34	523.79	311.22	212.57	2.464	
22,700.00	9,424.87	9,443.89	9,424.87	103.20	169.02	-134.05	12,563.98	-1,276.34	424.54	211.99	212.55	1.997	
22,800.00	9,415.89	9,434.92	9,415.89	103.92	168.80	-126.49	12,563.98	-1,276.34	325.49	112.76	212.73	1.530	
22,900.00	9,406.92	9,428.45	9,409.49	104.63	168.63	-119.98	12,563.98	-1,276.34	226.95	13.04	213.91	1.061	Level 2
23,000.00	9,397.95	9,418.11	9,399.15	105.35	168.40	-107.45	12,564.09	-1,276.34	130.09	-88.36	218.45	0.596	Level 1
23,100.00	9,388.97	9,408.13	9,389.17	106.07	168.18	-93.50	12,564.17	-1,276.34	46.24	-212.47	258.71	0.179	Level 1
23,124.64	9,386.76	9,405.72	9,386.77	106.25	168.13	-90.01	12,564.19	-1,276.34	39.20	-235.07	274.27	0.143	Level 1, CC, ES, SF
23,200.00	9,380.00	9,398.50	9,379.54	106.79	167.97	-79.61	12,564.24	-1,276.34	84.63	-149.40	234.03	0.362	Level 1
23,300.00	9,371.03	9,389.19	9,370.24	107.51	167.76	-67.24	12,564.29	-1,276.34	178.90	-40.05	218.96	0.817	Level 1
23,400.00	9,362.06	9,380.20	9,361.25	108.23	167.57	-57.06	12,564.32	-1,276.34	276.90	61.47	215.43	1.285	Level 3
23,500.00	9,353.08	9,371.50	9,352.55	108.96	167.37	-49.01	12,564.34	-1,276.34	375.74	161.74	214.00	1.756	
23,600.00	9,344.11	9,363.06	9,344.11	109.68	167.19	-42.69	12,563.98	-1,276.34	475.27	262.05	213.22	2.229	
23,700.00	9,335.14	9,354.09	9,335.14	110.40	166.99	-37.31	12,563.98	-1,276.34	574.58	361.84	212.74	2.701	
23,800.00	9,326.16	9,345.11	9,326.16	111.13	166.79	-33.00	12,563.98	-1,276.34	673.98	461.59	212.39	3.173	
23,900.00	9,317.19	9,336.14	9,317.19	111.85	166.59	-29.49	12,563.98	-1,276.34	773.43	561.31	212.12	3.646	
24,000.00	9,308.22	9,327.17	9,308.22	112.58	166.39	-26.61	12,563.98	-1,276.34	872.92	661.02	211.89	4.120	
24,100.00	9,299.24	9,318.19	9,299.24	113.30	166.20	-24.21	12,563.98	-1,276.34	972.42	760.73	211.70	4.593	
24,200.00	9,290.27	9,309.22	9,290.27	114.03	166.00	-22.19	12,563.98	-1,276.34	1,071.95	860.43	211.52	5.068	
24,300.00	9,281.30	9,300.25	9,281.30	114.75	165.80	-20.46	12,563.98	-1,276.34	1,171.48	960.13	211.36	5.543	
24,400.00	9,272.32	9,279.62	9,260.70	115.48	165.38	-17.34	12,564.18	-1,276.34	1,270.88	1,059.65	211.23	6.016	
24,500.00	9,263.35	9,271.05	9,252.14	116.21	165.20	-16.30	12,564.26	-1,276.34	1,370.35	1,159.26	211.09	6.492	
24,600.00	9,254.38	9,262.65	9,243.74	116.94	165.03	-15.39	12,564.32	-1,276.34	1,469.84	1,258.88	210.95	6.968	
24,700.00	9,245.41	9,254.41	9,235.50	117.67	164.86	-14.59	12,564.38	-1,276.34	1,569.34	1,358.51	210.83	7.444	

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

Offset Design: Rope State Com Pad - (O) BRIDGES STATE 180 P & A - Vertical - Surveys

Offset Site Error: 0.00 usft

Survey Program: 0-3_INC-Only

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
27,600.00	8,985.19	9,013.87	8,985.19	139.01	274.63	-93.03	17,834.07	-2,697.16	1,629.15	1,234.69	394.47	4.130	
27,700.00	8,976.21	9,004.90	8,976.21	139.75	274.30	-92.66	17,834.07	-2,697.16	1,580.89	1,182.75	398.15	3.971	
27,800.00	8,967.24	8,995.93	8,967.24	140.49	273.96	-92.30	17,834.07	-2,697.16	1,537.58	1,135.83	401.75	3.827	
27,900.00	8,958.27	8,986.95	8,958.27	141.23	273.62	-91.94	17,834.07	-2,697.16	1,499.64	1,094.45	405.19	3.701	
28,000.00	8,949.29	8,977.98	8,949.29	141.97	273.29	-91.57	17,834.07	-2,697.16	1,467.48	1,059.11	408.37	3.594	
28,100.00	8,940.32	8,969.01	8,940.32	142.72	272.95	-91.21	17,834.07	-2,697.16	1,441.51	1,030.31	411.20	3.506	
28,200.00	8,931.35	8,960.04	8,931.35	143.46	272.62	-90.84	17,834.07	-2,697.16	1,422.05	1,008.47	413.58	3.438	
28,300.00	8,922.37	8,951.06	8,922.37	144.20	272.28	-90.48	17,834.07	-2,697.16	1,409.37	993.95	415.42	3.393	
28,400.00	8,913.40	8,942.09	8,913.40	144.95	271.94	-90.11	17,834.07	-2,697.16	1,403.67	987.00	416.67	3.369	
28,430.88	8,910.63	8,939.32	8,910.63	145.18	271.84	-90.00	17,834.07	-2,697.16	1,403.33	986.40	416.93	3.366	CC, ES, SF
28,500.00	8,904.43	8,933.12	8,904.43	145.69	271.61	-89.75	17,834.07	-2,697.16	1,405.02	987.73	417.29	3.367	
28,600.00	8,895.45	8,924.14	8,895.45	146.43	271.27	-89.38	17,834.07	-2,697.16	1,413.41	996.15	417.25	3.387	
28,660.79	8,890.00	8,918.69	8,890.00	146.89	271.07	-89.16	17,834.07	-2,697.16	1,421.89	1,004.97	416.92	3.410	

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

Offset Design: Rope State Com Pad - (O) IRONHOUSE 19 STATE COM 001H - Horizontal - PRODUCING - Surveys

Offset Site Error: 0.00 usft

Survey Program: 100-r.5 GYRO-NS, 7583-MWD OWSG Rev5

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,000.00	10,115.79	9,494.00	9,464.58	52.71	27.72	-64.79	5,325.92	-2,372.26	1,626.21	1,552.14	74.07	21.955	
15,100.00	10,106.82	9,526.00	9,491.80	53.25	27.76	-65.96	5,342.43	-2,375.42	1,571.33	1,496.05	75.28	20.872	
15,200.00	10,097.85	9,536.94	9,500.83	53.80	27.77	-66.35	5,348.52	-2,376.41	1,520.48	1,443.95	76.53	19.867	
15,300.00	10,088.87	9,566.50	9,524.51	54.35	27.81	-67.39	5,366.06	-2,378.65	1,473.97	1,396.12	77.84	18.935	
15,400.00	10,079.90	9,611.39	9,559.01	54.90	27.85	-68.91	5,394.70	-2,380.80	1,431.36	1,352.19	79.17	18.080	
15,500.00	10,070.93	9,652.00	9,588.97	55.46	27.90	-70.26	5,422.06	-2,382.32	1,393.02	1,312.52	80.50	17.305	
15,600.00	10,061.96	9,683.00	9,610.78	56.03	27.94	-71.27	5,444.06	-2,383.44	1,359.39	1,277.55	81.84	16.610	
15,700.00	10,052.98	9,724.66	9,638.81	56.60	28.00	-72.58	5,474.85	-2,384.96	1,330.56	1,247.41	83.15	16.002	
15,800.00	10,044.01	9,769.71	9,667.80	57.18	28.07	-73.97	5,509.28	-2,386.62	1,306.30	1,221.89	84.41	15.476	
15,900.00	10,035.04	9,810.00	9,692.15	57.76	28.15	-75.16	5,541.32	-2,388.32	1,286.94	1,201.31	85.62	15.030	
16,000.00	10,026.06	9,856.07	9,717.72	58.34	28.26	-76.45	5,579.57	-2,390.61	1,272.56	1,185.79	86.76	14.667	
16,100.00	10,017.09	9,904.00	9,741.43	58.93	28.41	-77.69	5,621.10	-2,393.65	1,263.22	1,175.39	87.83	14.383	
16,200.00	10,008.12	9,952.08	9,762.16	59.52	28.58	-78.81	5,664.32	-2,397.30	1,258.51	1,169.68	88.83	14.168	
16,257.06	10,003.00	9,981.15	9,773.08	59.86	28.70	-79.42	5,691.13	-2,399.83	1,257.81	1,168.44	89.37	14.074	
16,300.00	9,999.14	9,999.00	9,778.99	60.12	28.78	-79.77	5,707.90	-2,401.47	1,258.21	1,168.45	89.76	14.018	
16,400.00	9,990.17	10,062.00	9,795.61	60.72	29.09	-80.80	5,768.28	-2,408.10	1,261.94	1,171.24	90.70	13.914	
16,500.00	9,981.20	10,125.00	9,807.30	61.32	29.45	-81.62	5,829.70	-2,415.64	1,268.87	1,177.24	91.63	13.848	
16,600.00	9,972.22	10,259.07	9,809.36	61.93	30.33	-82.32	5,962.92	-2,428.66	1,276.02	1,182.93	93.09	13.708	
16,700.00	9,963.25	10,426.17	9,802.10	62.54	31.62	-82.71	6,129.53	-2,438.48	1,280.77	1,185.91	94.86	13.501	
16,800.00	9,954.28	10,533.53	9,795.65	63.16	32.55	-82.85	6,236.67	-2,440.45	1,281.16	1,184.79	96.38	13.293	
16,900.00	9,945.31	10,641.26	9,788.43	63.78	33.54	-82.96	6,344.16	-2,441.69	1,280.96	1,182.99	97.97	13.075	
17,000.00	9,936.33	10,746.63	9,780.63	64.40	34.58	-83.03	6,449.23	-2,442.19	1,280.17	1,180.57	99.61	12.852	
17,100.00	9,927.36	10,844.74	9,771.94	65.02	35.59	-83.03	6,546.97	-2,442.44	1,279.35	1,178.10	101.25	12.635	
17,200.00	9,918.39	10,944.77	9,761.03	65.65	36.66	-82.94	6,646.39	-2,442.47	1,278.55	1,175.59	102.96	12.418	
17,300.00	9,909.41	11,042.89	9,749.52	66.28	37.76	-82.82	6,743.83	-2,442.47	1,277.84	1,173.13	104.71	12.204	
17,400.00	9,900.44	11,141.72	9,740.87	66.92	38.90	-82.82	6,842.28	-2,443.01	1,277.30	1,170.81	106.49	11.995	
17,500.00	9,891.47	11,245.08	9,732.39	67.55	40.13	-82.85	6,945.28	-2,443.56	1,276.67	1,168.32	108.34	11.784	
17,600.00	9,882.49	11,348.46	9,723.45	68.19	41.40	-82.86	7,048.28	-2,443.70	1,275.70	1,165.46	110.23	11.573	
17,700.00	9,873.52	11,450.02	9,714.80	68.83	42.67	-82.88	7,149.47	-2,443.70	1,274.57	1,162.43	112.14	11.366	
17,800.00	9,864.55	11,548.61	9,707.85	69.48	43.93	-82.96	7,247.82	-2,443.83	1,273.40	1,159.35	114.05	11.165	
17,900.00	9,855.57	11,653.14	9,700.07	70.13	45.30	-83.02	7,352.06	-2,443.91	1,272.24	1,156.20	116.04	10.964	
18,000.00	9,846.60	11,757.17	9,691.63	70.78	46.68	-83.06	7,455.74	-2,443.44	1,270.62	1,152.57	118.05	10.764	
18,100.00	9,837.63	11,863.87	9,682.10	71.43	48.11	-83.05	7,562.01	-2,442.44	1,268.62	1,148.52	120.10	10.563	
18,200.00	9,828.66	11,945.21	9,674.95	72.08	49.23	-83.05	7,643.03	-2,442.09	1,267.10	1,145.15	121.95	10.390	
18,300.00	9,819.68	12,060.34	9,666.63	72.74	50.82	-83.13	7,757.86	-2,442.11	1,265.87	1,141.74	124.13	10.198	
18,400.00	9,810.71	12,159.34	9,659.94	73.40	52.21	-83.22	7,856.63	-2,441.61	1,264.04	1,137.86	126.17	10.018	
18,500.00	9,801.74	12,269.11	9,651.53	74.06	53.76	-83.27	7,966.07	-2,440.34	1,261.67	1,133.33	128.33	9.831	
18,600.00	9,792.76	12,376.65	9,641.86	74.72	55.29	-83.25	8,073.16	-2,438.33	1,258.75	1,128.27	130.48	9.647	
18,700.00	9,783.79	12,472.23	9,632.14	75.39	56.67	-83.18	8,168.21	-2,435.87	1,255.30	1,122.75	132.55	9.470	
18,800.00	9,774.82	12,559.57	9,624.44	76.05	57.93	-83.18	8,255.20	-2,434.85	1,253.03	1,118.49	134.55	9.313	
18,900.00	9,765.84	12,660.70	9,615.14	76.72	59.41	-83.16	8,355.89	-2,433.91	1,251.08	1,114.39	136.69	9.153	
19,000.00	9,756.87	12,763.85	9,606.64	77.39	60.93	-83.18	8,458.69	-2,432.86	1,248.92	1,110.06	138.85	8.994	
19,100.00	9,747.90	12,869.21	9,596.31	78.07	62.49	-83.13	8,563.52	-2,431.26	1,246.45	1,105.39	141.05	8.837	
19,200.00	9,738.92	13,011.42	9,581.68	78.74	64.60	-83.00	8,704.89	-2,426.68	1,242.48	1,098.95	143.54	8.656	
19,300.00	9,729.95	13,109.71	9,572.31	79.42	66.06	-82.95	8,802.62	-2,421.95	1,236.71	1,091.02	145.69	8.489	
19,400.00	9,720.98	13,216.73	9,560.27	80.10	67.66	-82.79	8,908.79	-2,415.88	1,230.30	1,082.40	147.90	8.319	
19,500.00	9,712.01	13,308.92	9,548.23	80.78	69.04	-82.57	9,000.03	-2,410.44	1,223.92	1,073.89	150.03	8.158	
19,600.00	9,703.03	13,397.79	9,535.41	81.46	70.37	-82.31	9,087.85	-2,406.02	1,218.63	1,066.49	152.14	8.010	
19,700.00	9,694.06	13,515.42	9,520.19	82.14	72.14	-82.05	9,204.33	-2,399.91	1,212.98	1,058.54	154.44	7.854	
19,800.00	9,685.09	13,625.24	9,507.66	82.82	73.81	-81.86	9,313.20	-2,392.81	1,205.85	1,049.17	156.68	7.696	
19,900.00	9,676.11	13,729.33	9,495.67	83.51	75.39	-81.68	9,416.35	-2,385.73	1,198.43	1,039.54	158.89	7.542	
20,000.00	9,667.14	13,833.96	9,483.94	84.20	76.98	-81.51	9,520.05	-2,378.16	1,190.55	1,029.44	161.11	7.390	

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

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

Offset Design: Rope State Com Pad - (O) IRONHOUSE 19 STATE COM 001H - Horizontal - PRODUCING - Surveys

Offset Site Error: 0.00 usft

Survey Program: 100-r.5 GYRO-NS, 7583-MWD OWSG Rev5

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
20,100.00	9,658.17	13,942.80	9,469.63	84.89	78.64	-81.21	9,627.58	-2,369.36	1,182.14	1,018.80	163.33	7.238	
20,200.00	9,649.19	14,043.63	9,454.09	85.58	80.17	-80.82	9,726.80	-2,360.37	1,173.28	1,007.75	165.53	7.088	
20,300.00	9,640.22	14,148.73	9,435.60	86.27	81.76	-80.28	9,829.76	-2,350.25	1,164.13	996.41	167.72	6.941	
20,400.00	9,631.25	14,214.00	9,423.59	86.96	82.75	-79.91	9,893.58	-2,343.74	1,155.35	985.56	169.79	6.805	
20,473.08	9,624.69	14,214.00	9,423.59	87.47	82.75	-79.91	9,893.58	-2,343.74	1,153.04	982.28	170.75	6.753	CC, ES
20,500.00	9,622.27	14,214.00	9,423.59	87.65	82.75	-79.91	9,893.58	-2,343.74	1,153.35	982.38	170.97	6.746	SF
20,600.00	9,613.30	14,214.00	9,423.59	88.35	82.75	-79.91	9,893.58	-2,343.74	1,160.00	988.91	171.09	6.780	
20,700.00	9,604.33	14,214.00	9,423.59	89.05	82.75	-79.91	9,893.58	-2,343.74	1,175.16	1,004.98	170.18	6.905	
20,800.00	9,595.36	14,214.00	9,423.59	89.74	82.75	-79.91	9,893.58	-2,343.74	1,198.49	1,030.15	168.34	7.119	
20,900.00	9,586.38	14,214.00	9,423.59	90.44	82.75	-79.91	9,893.58	-2,343.74	1,229.54	1,063.82	165.72	7.419	
21,000.00	9,577.41	14,214.00	9,423.59	91.14	82.75	-79.91	9,893.58	-2,343.74	1,267.73	1,105.24	162.49	7.802	
21,100.00	9,568.44	14,214.00	9,423.59	91.85	82.75	-79.91	9,893.58	-2,343.74	1,312.45	1,153.62	158.83	8.263	
21,200.00	9,559.46	14,214.00	9,423.59	92.55	82.75	-79.91	9,893.58	-2,343.74	1,363.05	1,208.16	154.90	8.800	
21,300.00	9,550.49	14,214.00	9,423.59	93.25	82.75	-79.91	9,893.58	-2,343.74	1,418.91	1,268.07	150.84	9.407	
21,400.00	9,541.52	14,214.00	9,423.59	93.96	82.75	-79.91	9,893.58	-2,343.74	1,479.42	1,332.66	146.76	10.081	
21,500.00	9,532.54	14,214.00	9,423.59	94.66	82.75	-79.91	9,893.58	-2,343.74	1,544.04	1,401.30	142.74	10.817	
21,600.00	9,523.57	14,214.00	9,423.59	95.37	82.75	-79.91	9,893.58	-2,343.74	1,612.28	1,473.43	138.86	11.611	

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

Offset Design: Rope State Com Pad - (O) IRONHOUSE 19 STATE COM 001H - Pilot - Pilot

Offset Site Error: 0.00 usft

Survey Program: 1966-MWD OWSG Rev5

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,600.00	10,151.69	10,106.38	10,096.44	50.61	230.59	-92.64	5,262.33	-2,300.25	1,656.98	1,383.59	273.39	6.061	
14,700.00	10,142.71	10,101.65	10,091.71	51.13	230.59	-92.40	5,262.12	-2,300.24	1,586.06	1,311.84	274.22	5.784	
14,800.00	10,133.74	10,096.90	10,086.96	51.65	230.58	-92.17	5,261.91	-2,300.22	1,518.39	1,243.25	275.14	5.519	
14,900.00	10,124.77	10,092.12	10,082.19	52.18	230.58	-91.93	5,261.70	-2,300.21	1,454.45	1,178.27	276.18	5.266	
15,000.00	10,115.79	10,087.31	10,077.39	52.71	230.58	-91.69	5,261.49	-2,300.20	1,394.74	1,117.42	277.32	5.029	
15,100.00	10,106.82	10,082.48	10,072.57	53.25	230.58	-91.44	5,261.28	-2,300.18	1,339.82	1,061.26	278.55	4.810	
15,200.00	10,097.85	10,077.63	10,067.72	53.80	230.58	-91.20	5,261.06	-2,300.16	1,290.30	1,010.43	279.87	4.610	
15,300.00	10,088.87	10,072.76	10,062.85	54.35	230.58	-90.96	5,260.85	-2,300.14	1,246.84	965.59	281.25	4.433	
15,400.00	10,079.90	10,067.86	10,057.95	54.90	230.57	-90.71	5,260.64	-2,300.12	1,210.08	927.43	282.64	4.281	
15,500.00	10,070.93	10,062.93	10,053.03	55.46	230.57	-90.46	5,260.42	-2,300.10	1,180.65	896.64	284.01	4.157	
15,600.00	10,061.96	10,057.98	10,048.09	56.03	230.57	-90.22	5,260.21	-2,300.08	1,159.10	873.81	285.29	4.063	
15,700.00	10,052.98	10,053.01	10,043.12	56.60	230.57	-89.97	5,260.00	-2,300.05	1,145.89	859.46	286.43	4.001	
15,800.00	10,044.01	10,048.01	10,038.12	57.18	230.57	-89.72	5,259.78	-2,300.02	1,141.30	853.91	287.39	3.971	
15,802.63	10,043.77	10,047.88	10,037.99	57.19	230.57	-89.71	5,259.77	-2,300.02	1,141.30	853.89	287.41	3.971	CC, ES, SF
15,900.00	10,035.04	10,042.98	10,033.10	57.76	230.56	-89.46	5,259.56	-2,299.99	1,145.43	857.32	288.11	3.976	
16,000.00	10,026.06	10,037.93	10,028.06	58.34	230.56	-89.21	5,259.35	-2,299.96	1,158.20	869.60	288.60	4.013	
16,100.00	10,017.09	10,032.86	10,022.98	58.93	230.56	-88.96	5,259.13	-2,299.93	1,179.31	890.47	288.84	4.083	
16,200.00	10,008.12	10,027.75	10,017.89	59.52	230.56	-88.70	5,258.91	-2,299.90	1,208.34	919.48	288.86	4.183	
16,300.00	9,999.14	10,022.63	10,012.76	60.12	230.56	-88.44	5,258.70	-2,299.86	1,244.73	956.04	288.69	4.312	
16,400.00	9,990.17	10,017.47	10,007.61	60.72	230.56	-88.18	5,258.48	-2,299.83	1,287.85	999.49	288.36	4.466	
16,500.00	9,981.20	10,012.29	10,002.44	61.32	230.55	-87.92	5,258.26	-2,299.79	1,337.06	1,049.14	287.92	4.644	
16,600.00	9,972.22	10,007.08	9,997.23	61.93	230.55	-87.66	5,258.04	-2,299.75	1,391.71	1,104.32	287.39	4.843	
16,700.00	9,963.25	10,001.85	9,992.00	62.54	230.55	-87.40	5,257.82	-2,299.70	1,451.17	1,164.37	286.81	5.060	
16,800.00	9,954.28	9,996.59	9,986.75	63.16	230.55	-87.14	5,257.60	-2,299.66	1,514.90	1,228.70	286.20	5.293	
16,900.00	9,945.31	9,991.30	9,981.46	63.78	230.55	-86.87	5,257.38	-2,299.61	1,582.37	1,296.78	285.59	5.541	
17,000.00	9,936.33	9,985.98	9,976.15	64.40	230.54	-86.61	5,257.16	-2,299.57	1,653.12	1,368.13	284.98	5.801	

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,500.00	10,160.66	9,422.00	9,394.23	50.10	29.60	44.35	5,313.05	-529.74	1,659.97	1,594.17	65.80	25.229	
14,600.00	10,151.69	9,438.73	9,408.43	50.61	29.61	44.97	5,321.81	-530.96	1,576.57	1,510.52	66.04	23.872	
14,700.00	10,142.71	9,453.00	9,420.34	51.13	29.62	45.51	5,329.61	-531.94	1,494.85	1,428.54	66.31	22.543	
14,800.00	10,133.74	9,468.72	9,433.26	51.65	29.63	46.11	5,338.49	-532.94	1,414.97	1,348.33	66.64	21.233	
14,900.00	10,124.77	9,485.00	9,446.48	52.18	29.65	46.74	5,347.96	-533.90	1,337.15	1,270.11	67.04	19.946	
15,000.00	10,115.79	9,503.75	9,461.40	52.71	29.66	47.48	5,359.27	-534.90	1,261.72	1,194.19	67.53	18.683	
15,100.00	10,106.82	9,517.00	9,471.72	53.25	29.67	48.01	5,367.55	-535.55	1,189.16	1,121.10	68.06	17.472	
15,200.00	10,097.85	9,548.00	9,495.14	53.80	29.70	49.26	5,387.80	-537.01	1,119.70	1,050.84	68.86	16.260	
15,300.00	10,088.87	9,580.00	9,518.38	54.35	29.74	50.55	5,409.75	-538.54	1,053.71	983.92	69.79	15.099	
15,400.00	10,079.90	9,634.62	9,557.07	54.90	29.82	52.82	5,448.18	-541.56	990.72	919.66	71.07	13.941	
15,500.00	10,070.93	9,675.00	9,584.73	55.46	29.88	54.51	5,477.41	-544.73	930.49	858.15	72.34	12.863	
15,600.00	10,061.96	9,707.00	9,604.94	56.03	29.94	55.79	5,502.02	-547.84	874.92	801.27	73.65	11.879	
15,700.00	10,052.98	9,739.00	9,623.57	56.60	30.01	57.01	5,527.82	-551.15	824.69	749.61	75.08	10.984	
15,800.00	10,044.01	9,784.36	9,648.13	57.18	30.11	58.74	5,565.75	-555.07	780.19	703.47	76.72	10.170	
15,900.00	10,035.04	9,834.00	9,672.92	57.76	30.23	60.65	5,608.63	-558.23	741.78	663.30	78.48	9.452	
16,000.00	10,026.06	9,878.99	9,692.18	58.34	30.36	62.22	5,649.17	-561.03	709.77	629.57	80.19	8.851	
16,100.00	10,017.09	9,933.87	9,709.80	58.93	30.54	63.78	5,700.98	-564.77	684.54	602.70	81.84	8.364	
16,200.00	10,008.12	10,005.27	9,726.59	59.52	30.80	65.41	5,770.14	-570.24	664.12	580.68	83.44	7.959	
16,300.00	9,999.14	10,078.56	9,737.36	60.12	31.11	66.62	5,842.38	-576.07	647.99	563.10	84.89	7.633	
16,400.00	9,990.17	10,154.27	9,741.73	60.72	31.45	67.35	5,917.70	-582.05	635.85	549.69	86.17	7.379	
16,500.00	9,981.20	10,251.05	9,742.67	61.32	31.95	67.93	6,014.16	-589.78	625.66	538.22	87.44	7.155	
16,600.00	9,972.22	10,342.53	9,739.67	61.93	32.47	68.14	6,105.23	-597.79	616.41	527.78	88.63	6.955	
16,700.00	9,963.25	10,442.46	9,731.84	62.54	33.09	67.92	6,204.35	-607.74	607.75	518.00	89.75	6.772	
16,800.00	9,954.28	10,541.46	9,722.53	63.16	33.77	67.54	6,302.36	-618.17	599.15	508.29	90.86	6.594	
16,900.00	9,945.31	10,641.96	9,712.91	63.78	34.50	67.12	6,401.82	-628.87	590.55	498.53	92.01	6.418	
17,000.00	9,936.33	10,737.71	9,703.97	64.40	35.25	66.73	6,496.59	-639.14	581.83	488.63	93.20	6.243	
17,100.00	9,927.36	10,817.12	9,695.04	65.02	35.89	66.32	6,575.20	-646.10	575.66	481.37	94.29	6.105	
17,200.00	9,918.39	10,913.02	9,682.91	65.65	36.70	65.76	6,670.07	-653.01	571.55	476.09	95.46	5.987	
17,300.00	9,909.41	11,008.26	9,670.02	66.28	37.54	65.13	6,764.21	-659.50	568.22	471.61	96.62	5.881	
17,400.00	9,900.44	11,102.52	9,657.73	66.92	38.39	64.59	6,857.52	-664.75	565.88	468.06	97.82	5.785	
17,500.00	9,891.47	11,199.08	9,645.06	67.55	39.30	64.07	6,953.13	-669.35	564.35	465.27	99.08	5.696	
17,600.00	9,882.49	11,297.85	9,633.49	68.19	40.25	63.71	7,051.15	-672.83	563.36	462.91	100.45	5.608	
17,700.00	9,873.52	11,404.70	9,624.37	68.83	41.31	63.67	7,157.56	-675.79	561.63	459.55	102.07	5.502	
17,800.00	9,864.55	11,506.80	9,615.58	69.48	42.36	63.59	7,259.22	-679.33	559.32	455.66	103.66	5.396	
17,900.00	9,855.57	11,610.52	9,605.28	70.13	43.45	63.32	7,362.31	-684.41	556.32	451.12	105.20	5.288	
18,000.00	9,846.60	11,710.02	9,596.96	70.78	44.52	63.22	7,461.35	-688.86	553.01	446.21	106.79	5.178	
18,100.00	9,837.63	11,806.58	9,588.77	71.43	45.58	63.12	7,557.49	-692.78	550.12	441.74	108.38	5.076	
18,200.00	9,828.66	11,909.36	9,580.09	72.08	46.72	63.05	7,659.82	-696.51	547.61	437.55	110.06	4.975	
18,300.00	9,819.68	12,016.22	9,573.65	72.74	47.93	63.21	7,766.42	-700.57	543.84	431.92	111.91	4.859	
18,400.00	9,810.71	12,131.25	9,568.18	73.40	49.26	63.45	7,881.16	-706.49	538.33	424.45	113.88	4.727	
18,500.00	9,801.74	12,237.04	9,562.92	74.06	50.51	63.51	7,986.49	-714.76	530.51	414.80	115.70	4.585	
18,600.00	9,792.76	12,329.49	9,557.06	74.72	51.62	63.42	8,078.44	-722.36	522.93	405.54	117.39	4.455	
18,700.00	9,783.79	12,425.35	9,549.82	75.39	52.78	63.25	8,173.75	-729.61	516.50	397.44	119.06	4.338	
18,800.00	9,774.82	12,546.96	9,540.93	76.05	54.28	62.94	8,294.51	-740.78	508.58	387.75	120.83	4.209	
18,900.00	9,765.84	12,664.96	9,534.63	76.72	55.76	62.58	8,411.21	-757.05	495.49	373.05	122.44	4.047	
19,000.00	9,756.87	12,764.54	9,528.03	77.39	57.03	62.01	8,509.29	-772.89	481.27	357.29	123.98	3.882	
19,100.00	9,747.90	12,861.98	9,520.27	78.07	58.28	61.23	8,605.09	-788.96	467.24	341.81	125.43	3.725	
19,200.00	9,738.92	12,961.41	9,511.45	78.74	59.57	60.27	8,702.70	-805.63	453.50	326.73	126.77	3.577	
19,300.00	9,729.95	13,059.46	9,501.79	79.42	60.86	59.10	8,798.76	-822.79	439.75	311.75	128.00	3.436	
19,400.00	9,720.98	13,147.08	9,492.65	80.10	62.01	58.00	8,884.68	-837.29	427.33	298.04	129.28	3.305	
19,500.00	9,712.01	13,240.81	9,483.09	80.78	63.24	57.02	8,977.09	-849.75	417.66	287.08	130.58	3.199	
19,600.00	9,703.03	13,335.73	9,475.23	81.46	64.49	56.35	9,071.06	-860.47	408.74	276.72	132.02	3.096	

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

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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 Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,700.00	9,694.06	13,430.33	9,467.39	82.14	65.74	55.78	9,164.89	-869.58	401.26	267.75	133.51	3.005	
19,800.00	9,685.09	13,525.06	9,457.87	82.82	66.99	55.01	9,258.72	-878.52	394.99	260.13	134.85	2.929	
19,900.00	9,676.11	13,618.75	9,446.72	83.51	68.23	54.04	9,351.36	-887.01	390.19	254.16	136.04	2.868	
20,000.00	9,667.14	13,711.82	9,435.89	84.20	69.46	53.27	9,443.57	-893.39	387.12	249.83	137.29	2.820	
20,100.00	9,658.17	13,806.64	9,422.91	84.89	70.71	52.29	9,537.30	-899.41	385.78	247.38	138.40	2.787	
20,155.47	9,653.19	13,859.45	9,414.68	85.27	71.41	51.60	9,589.34	-903.00	385.55	246.64	138.92	2.775	CC
20,200.00	9,649.19	13,901.14	9,407.68	85.58	71.96	50.99	9,630.34	-905.87	385.73	246.46	139.26	2.770	ES, SF
20,300.00	9,640.22	13,994.34	9,390.29	86.27	73.20	49.44	9,721.68	-912.26	387.54	247.67	139.87	2.771	
20,400.00	9,631.25	14,036.00	9,382.06	86.96	73.75	48.70	9,762.42	-915.11	394.64	256.30	138.34	2.853	
20,500.00	9,622.27	14,036.00	9,382.06	87.65	73.75	48.70	9,762.42	-915.11	423.75	292.65	131.10	3.232	
20,600.00	9,613.30	14,036.00	9,382.06	88.35	73.75	48.70	9,762.42	-915.11	472.64	351.17	121.47	3.891	
20,700.00	9,604.33	14,036.00	9,382.06	89.05	73.75	48.70	9,762.42	-915.11	535.92	423.81	112.11	4.780	
20,800.00	9,595.36	14,036.00	9,382.06	89.74	73.75	48.70	9,762.42	-915.11	609.12	504.92	104.21	5.845	
20,900.00	9,586.38	14,036.00	9,382.06	90.44	73.75	48.70	9,762.42	-915.11	689.10	591.16	97.93	7.037	
21,000.00	9,577.41	14,036.00	9,382.06	91.14	73.75	48.70	9,762.42	-915.11	773.74	680.67	93.07	8.313	
21,100.00	9,568.44	14,036.00	9,382.06	91.85	73.75	48.70	9,762.42	-915.11	861.68	772.36	89.33	9.646	
21,200.00	9,559.46	14,036.00	9,382.06	92.55	73.75	48.70	9,762.42	-915.11	952.01	865.57	86.44	11.014	
21,300.00	9,550.49	14,036.00	9,382.06	93.25	73.75	48.70	9,762.42	-915.11	1,044.10	959.91	84.19	12.402	
21,400.00	9,541.52	14,036.00	9,382.06	93.96	73.75	48.70	9,762.42	-915.11	1,137.53	1,055.10	82.42	13.801	
21,500.00	9,532.54	14,036.00	9,382.06	94.66	73.75	48.70	9,762.42	-915.11	1,231.98	1,150.96	81.03	15.205	
21,600.00	9,523.57	14,036.00	9,382.06	95.37	73.75	48.70	9,762.42	-915.11	1,327.26	1,247.35	79.91	16.610	
21,700.00	9,514.60	14,036.00	9,382.06	96.07	73.75	48.70	9,762.42	-915.11	1,423.18	1,344.17	79.01	18.013	
21,800.00	9,505.62	14,036.00	9,382.06	96.78	73.75	48.70	9,762.42	-915.11	1,519.62	1,441.34	78.28	19.413	
21,900.00	9,496.65	14,036.00	9,382.06	97.49	73.75	48.70	9,762.42	-915.11	1,616.50	1,538.82	77.68	20.809	

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

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

Offset Site Error: 0.00 usft

Survey Program: 0-3_INC-Only

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,500.00	10,343.39	10,342.57	10,343.39	37.75	229.67	17.00	1,601.03	-837.81	1,609.55	1,342.45	267.10	6.026	
10,600.00	10,394.13	10,393.31	10,394.13	37.90	231.08	23.55	1,601.03	-837.81	1,524.93	1,256.31	268.61	5.677	
10,700.00	10,429.16	10,428.35	10,429.16	38.00	232.06	36.81	1,601.03	-837.81	1,433.11	1,163.46	269.65	5.315	
10,800.00	10,451.27	10,450.45	10,451.27	38.07	232.68	50.39	1,601.03	-837.81	1,337.66	1,067.36	270.30	4.949	
10,900.00	10,464.78	10,463.96	10,464.78	38.14	233.05	68.49	1,601.03	-837.81	1,241.00	970.29	270.71	4.584	
11,000.00	10,469.61	10,468.79	10,469.61	38.20	233.19	88.95	1,601.03	-837.81	1,143.98	873.10	270.88	4.223	
11,100.00	10,465.71	10,464.90	10,465.71	38.28	233.08	106.47	1,601.03	-837.81	1,047.45	776.64	270.81	3.868	
11,200.00	10,456.77	10,455.95	10,456.77	38.41	232.83	106.16	1,601.03	-837.81	951.89	681.28	270.60	3.518	
11,300.00	10,447.80	10,446.98	10,447.80	38.56	232.58	104.47	1,601.03	-837.81	857.25	586.84	270.42	3.170	
11,400.00	10,438.83	10,438.01	10,438.83	38.74	232.33	102.75	1,601.03	-837.81	763.88	493.63	270.26	2.826	
11,500.00	10,429.85	10,429.03	10,429.85	38.93	232.08	101.01	1,601.03	-837.81	672.30	402.17	270.13	2.489	
11,600.00	10,420.88	10,420.06	10,420.88	39.14	231.83	99.25	1,601.03	-837.81	583.35	313.30	270.05	2.160	
11,700.00	10,411.91	10,411.09	10,411.91	39.36	231.58	97.47	1,601.03	-837.81	498.45	228.39	270.06	1.846	
11,800.00	10,402.93	10,402.11	10,402.93	39.59	231.33	95.67	1,601.03	-837.81	420.04	149.86	270.18	1.555	
11,900.00	10,393.96	10,393.14	10,393.96	39.84	231.08	93.87	1,601.03	-837.81	352.51	82.05	270.46	1.303	Level 3
12,000.00	10,384.99	10,384.17	10,384.99	40.10	230.83	92.05	1,601.03	-837.81	303.20	32.38	270.82	1.120	Level 2
12,100.00	10,376.01	10,375.20	10,376.01	40.38	230.58	90.24	1,601.03	-837.81	281.84	10.92	270.92	1.040	Level 2
12,112.98	10,374.85	10,374.03	10,374.85	40.41	230.55	90.00	1,601.03	-837.81	281.54	10.65	270.89	1.039	Level 2, CC, ES, SF
12,200.00	10,367.04	10,366.22	10,367.04	40.66	230.33	88.42	1,601.03	-837.81	294.58	24.15	270.43	1.089	Level 2
12,300.00	10,358.07	10,357.25	10,358.07	40.96	230.08	86.60	1,601.03	-837.81	337.58	67.99	269.59	1.252	Level 3
12,400.00	10,349.09	10,348.28	10,349.09	41.27	229.83	84.79	1,601.03	-837.81	401.22	132.43	268.80	1.493	Level 3
12,500.00	10,340.12	10,339.30	10,340.12	41.60	229.58	83.00	1,601.03	-837.81	477.33	209.16	268.16	1.780	
12,600.00	10,331.15	10,330.33	10,331.15	41.93	229.33	81.21	1,601.03	-837.81	560.84	293.17	267.66	2.095	
12,700.00	10,322.18	10,321.36	10,322.18	42.28	229.08	79.44	1,601.03	-837.81	648.91	381.65	267.26	2.428	
12,800.00	10,313.20	10,312.38	10,313.20	42.63	228.83	77.70	1,601.03	-837.81	739.90	473.00	266.91	2.772	
12,900.00	10,304.23	10,303.41	10,304.23	43.00	228.58	75.97	1,601.03	-837.81	832.87	566.28	266.59	3.124	
13,000.00	10,295.26	10,294.44	10,295.26	43.37	228.33	74.27	1,601.03	-837.81	927.22	660.91	266.30	3.482	
13,100.00	10,286.28	10,285.46	10,286.28	43.76	228.08	72.60	1,601.03	-837.81	1,022.56	756.53	266.03	3.844	
13,200.00	10,277.31	10,276.49	10,277.31	44.16	227.83	70.96	1,601.03	-837.81	1,118.64	852.87	265.77	4.209	
13,300.00	10,268.34	10,267.52	10,268.34	44.56	227.58	69.35	1,601.03	-837.81	1,215.29	949.77	265.52	4.577	
13,400.00	10,259.36	10,258.55	10,259.36	44.98	227.33	67.78	1,601.03	-837.81	1,312.38	1,047.11	265.27	4.947	
13,500.00	10,250.39	10,249.57	10,250.39	45.40	227.08	66.24	1,601.03	-837.81	1,409.82	1,144.79	265.03	5.319	
13,600.00	10,241.42	10,240.60	10,241.42	45.84	226.83	64.73	1,601.03	-837.81	1,507.54	1,242.75	264.80	5.693	
13,700.00	10,232.44	10,231.63	10,232.44	46.28	226.58	63.26	1,601.03	-837.81	1,605.49	1,340.93	264.56	6.068	

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

Offset Design: Rope State Com Pad - (O) LEO STATE 006 TA - Verticals - Surveys

Offset Site Error: 0.00 usft

Survey Program: 0-MWD OWSG Rev5

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
24,100.00	9,299.24	9,315.39	9,281.68	113.30	13.55	176.40	15,198.78	-1,257.15	1,662.92	1,604.81	58.10	28.620	
24,200.00	9,290.27	9,306.94	9,273.23	114.03	13.55	176.29	15,198.68	-1,257.44	1,563.23	1,505.05	58.18	26.867	
24,300.00	9,281.30	9,298.56	9,264.86	114.75	13.55	176.16	15,198.59	-1,257.72	1,463.54	1,405.28	58.27	25.119	
24,400.00	9,272.32	9,290.25	9,256.55	115.48	13.56	176.00	15,198.49	-1,257.99	1,363.85	1,305.50	58.35	23.375	
24,500.00	9,263.35	9,282.02	9,248.32	116.21	13.56	175.83	15,198.40	-1,258.25	1,264.16	1,205.73	58.43	21.635	
24,600.00	9,254.38	9,273.80	9,240.11	116.94	13.56	175.61	15,198.30	-1,258.50	1,164.46	1,105.95	58.51	19.901	
24,700.00	9,245.41	9,265.66	9,231.97	117.67	13.56	175.35	15,198.19	-1,258.75	1,064.76	1,006.17	58.60	18.171	
24,800.00	9,236.43	9,257.59	9,223.91	118.40	13.56	175.03	15,198.09	-1,258.99	965.06	906.38	58.68	16.445	
24,900.00	9,227.46	9,249.59	9,215.92	119.13	13.57	174.64	15,197.98	-1,259.22	865.36	806.59	58.77	14.724	
25,000.00	9,218.49	9,241.67	9,208.00	119.86	13.57	174.13	15,197.88	-1,259.44	765.65	706.79	58.86	13.008	
25,100.00	9,209.51	9,233.82	9,200.15	120.59	13.57	173.47	15,197.77	-1,259.66	665.94	606.99	58.95	11.296	
25,200.00	9,200.54	9,226.04	9,192.37	121.32	13.57	172.57	15,197.66	-1,259.86	566.23	507.18	59.05	9.589	
25,300.00	9,191.57	9,218.32	9,184.66	122.05	13.58	171.28	15,197.54	-1,260.06	466.52	407.37	59.16	7.886	
25,400.00	9,182.59	9,210.68	9,177.02	122.79	13.58	169.30	15,197.43	-1,260.25	366.81	307.53	59.28	6.188	
25,500.00	9,173.62	9,203.10	9,169.45	123.52	13.58	165.87	15,197.31	-1,260.44	267.10	207.67	59.43	4.494	
25,600.00	9,164.65	9,195.59	9,161.94	124.25	13.58	158.68	15,197.20	-1,260.62	167.40	107.70	59.70	2.804	
25,700.00	9,155.67	9,188.15	9,154.50	124.99	13.58	136.56	15,197.08	-1,260.79	67.77	6.98	60.79	1.115	Level 2
25,767.80	9,149.59	9,183.14	9,149.49	125.48	13.59	88.71	15,197.00	-1,260.90	4.52	-134.15	138.68	0.033	Level 1, CC, ES, SF
25,800.00	9,146.70	9,180.72	9,147.08	125.72	13.59	60.69	15,196.96	-1,260.95	32.43	-28.24	60.66	0.535	Level 1
25,900.00	9,137.73	9,173.00	9,139.36	126.46	13.59	22.83	15,196.85	-1,261.12	131.90	72.53	59.37	2.222	
26,000.00	9,128.76	9,164.92	9,131.28	127.19	13.59	12.72	15,196.75	-1,261.30	231.56	171.99	59.57	3.887	
26,100.00	9,119.78	9,156.45	9,122.81	127.93	13.59	8.40	15,196.66	-1,261.47	331.23	271.47	59.76	5.543	
26,200.00	9,110.81	9,147.58	9,113.94	128.66	13.59	6.04	15,196.59	-1,261.66	430.90	370.96	59.94	7.189	
26,300.00	9,101.84	9,138.26	9,104.62	129.40	13.59	4.55	15,196.52	-1,261.85	530.54	470.43	60.11	8.826	
26,400.00	9,092.86	9,128.46	9,094.83	130.14	13.59	3.54	15,196.48	-1,262.04	630.18	569.89	60.29	10.453	
26,500.00	9,083.89	9,118.16	9,084.53	130.87	13.59	2.80	15,196.46	-1,262.24	729.79	669.32	60.47	12.069	
26,600.00	9,074.92	9,107.29	9,073.67	131.61	13.60	2.25	15,196.46	-1,262.45	829.38	768.73	60.65	13.675	
26,700.00	9,065.94	9,095.83	9,062.21	132.35	13.60	1.81	15,196.48	-1,262.66	928.95	868.11	60.84	15.269	
26,800.00	9,056.97	9,085.25	9,051.62	133.09	13.60	1.51	15,196.53	-1,262.85	1,028.50	967.52	60.98	16.865	
26,900.00	9,048.00	9,075.98	9,042.36	133.83	13.60	1.29	15,196.58	-1,263.02	1,128.05	1,066.98	61.08	18.469	
27,000.00	9,039.02	9,066.76	9,033.14	134.56	13.60	1.10	15,196.62	-1,263.19	1,227.60	1,166.43	61.17	20.069	
27,100.00	9,030.05	9,057.57	9,023.95	135.30	13.60	0.93	15,196.66	-1,263.37	1,327.16	1,265.89	61.26	21.663	
27,200.00	9,021.08	9,048.42	9,014.81	136.04	13.60	0.79	15,196.70	-1,263.56	1,426.71	1,365.36	61.36	23.253	
27,300.00	9,012.10	9,039.31	9,005.70	136.78	13.60	0.67	15,196.74	-1,263.75	1,526.27	1,464.82	61.45	24.838	
27,400.00	9,003.13	9,030.24	8,996.63	137.52	13.60	0.55	15,196.77	-1,263.95	1,625.83	1,564.29	61.54	26.419	

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

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

Offset Site Error: 0.00 usft

Survey Program: 305-3_INC-Only, 1741-OWSG (Rev2) MWD

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
23,600.00	9,344.11	9,295.98	9,277.76	109.68	41.17	91.05	14,054.04	46.17	1,642.15	1,508.19	133.96	12.259	
23,700.00	9,335.14	9,290.50	9,272.29	110.40	41.15	90.81	14,053.88	46.01	1,582.98	1,445.97	137.01	11.554	
23,800.00	9,326.16	9,284.99	9,266.78	111.13	41.14	90.57	14,053.73	45.86	1,528.04	1,387.95	140.10	10.907	
23,900.00	9,317.19	9,279.45	9,261.25	111.85	41.13	90.32	14,053.57	45.70	1,477.81	1,334.65	143.17	10.322	
24,000.00	9,308.22	9,273.88	9,255.68	112.58	41.12	90.08	14,053.42	45.55	1,432.79	1,286.63	146.16	9.803	
24,100.00	9,299.24	9,268.27	9,250.08	113.30	41.10	89.83	14,053.26	45.40	1,393.48	1,244.49	148.99	9.353	
24,200.00	9,290.27	9,262.64	9,244.45	114.03	41.09	89.58	14,053.11	45.25	1,360.37	1,208.80	151.57	8.975	
24,300.00	9,281.30	9,256.97	9,238.79	114.75	41.08	89.34	14,052.95	45.10	1,333.92	1,180.11	153.81	8.673	
24,400.00	9,272.32	9,251.28	9,233.10	115.48	41.06	89.08	14,052.79	44.95	1,314.54	1,158.93	155.61	8.447	
24,500.00	9,263.35	9,245.55	9,227.37	116.21	41.05	88.83	14,052.64	44.80	1,302.54	1,145.63	156.91	8.301	
24,600.00	9,254.38	9,239.79	9,221.62	116.94	41.03	88.58	14,052.48	44.66	1,298.13	1,140.48	157.65	8.234	
24,607.56	9,253.70	9,239.35	9,221.18	116.99	41.03	88.56	14,052.47	44.65	1,298.11	1,140.43	157.68	8.233	CC, ES, SF
24,700.00	9,245.41	9,233.99	9,215.83	117.67	41.02	88.32	14,052.33	44.52	1,301.39	1,143.59	157.80	8.247	
24,800.00	9,236.43	9,228.17	9,210.00	118.40	41.01	88.07	14,052.17	44.38	1,312.25	1,154.88	157.37	8.339	
24,900.00	9,227.46	9,222.31	9,204.15	119.13	40.99	87.81	14,052.02	44.24	1,330.52	1,174.13	156.39	8.508	
25,000.00	9,218.49	9,216.41	9,198.26	119.86	40.98	87.55	14,051.87	44.10	1,355.92	1,200.99	154.94	8.751	
25,100.00	9,209.51	9,210.48	9,192.33	120.59	40.97	87.29	14,051.71	43.96	1,388.05	1,234.97	153.08	9.067	
25,200.00	9,200.54	9,204.52	9,186.37	121.32	40.95	87.02	14,051.56	43.83	1,426.45	1,275.54	150.91	9.452	
25,300.00	9,191.57	9,198.52	9,180.38	122.05	40.94	86.76	14,051.40	43.70	1,470.64	1,322.13	148.51	9.902	
25,400.00	9,182.59	9,192.49	9,174.35	122.79	40.92	86.50	14,051.25	43.56	1,520.10	1,374.13	145.97	10.414	
25,500.00	9,173.62	9,186.43	9,168.29	123.52	40.91	86.23	14,051.10	43.44	1,574.34	1,430.99	143.35	10.982	
25,600.00	9,164.65	9,180.33	9,162.19	124.25	40.89	85.96	14,050.94	43.31	1,632.89	1,492.17	140.71	11.604	

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

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

Offset Design: Rope State Com Pad - (O) MESA MERRITT 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 Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
17,600.00	9,882.49	9,911.34	9,894.14	68.19	254.17	-96.91	8,285.24	-2,199.72	1,593.39	1,288.59	304.80	5.228	
17,700.00	9,873.52	9,901.17	9,883.97	68.83	253.83	-96.35	8,285.34	-2,199.72	1,517.65	1,211.65	306.00	4.960	
17,800.00	9,864.55	9,891.05	9,873.85	69.48	253.48	-95.78	8,285.43	-2,199.72	1,444.80	1,137.43	307.38	4.700	
17,900.00	9,855.57	9,880.97	9,863.78	70.13	253.14	-95.22	8,285.52	-2,199.72	1,375.30	1,066.36	308.94	4.452	
18,000.00	9,846.60	9,870.93	9,853.74	70.78	252.80	-94.65	8,285.61	-2,199.72	1,309.67	998.98	310.69	4.215	
18,100.00	9,837.63	9,860.93	9,843.75	71.43	252.46	-94.09	8,285.70	-2,199.72	1,248.53	935.91	312.62	3.994	
18,200.00	9,828.66	9,850.97	9,833.79	72.08	252.12	-93.53	8,285.78	-2,199.72	1,192.57	877.88	314.69	3.790	
18,300.00	9,819.68	9,841.05	9,823.88	72.74	251.78	-92.97	8,285.86	-2,199.72	1,142.55	825.70	316.85	3.606	
18,400.00	9,810.71	9,831.17	9,814.00	73.40	251.44	-92.42	8,285.94	-2,199.72	1,099.29	780.25	319.04	3.446	
18,500.00	9,801.74	9,821.34	9,804.17	74.06	251.11	-91.86	8,286.02	-2,199.72	1,063.60	742.46	321.15	3.312	
18,600.00	9,792.76	9,811.54	9,794.38	74.72	250.78	-91.31	8,286.09	-2,199.72	1,036.28	713.22	323.06	3.208	
18,700.00	9,783.79	9,801.78	9,784.63	75.39	250.44	-90.76	8,286.16	-2,199.72	1,018.00	693.34	324.66	3.136	
18,800.00	9,774.82	9,792.06	9,774.91	76.05	250.11	-90.21	8,286.23	-2,199.72	1,009.24	683.40	325.84	3.097	
18,839.60	9,771.26	9,788.23	9,771.08	76.32	249.98	-89.99	8,286.26	-2,199.72	1,008.47	682.30	326.17	3.092	CC, ES, SF
18,900.00	9,765.84	9,782.39	9,765.24	76.72	249.78	-89.66	8,286.30	-2,199.72	1,010.26	683.75	326.51	3.094	
19,000.00	9,756.87	9,772.75	9,755.60	77.39	249.46	-89.11	8,286.36	-2,199.72	1,021.03	694.38	326.65	3.126	
19,100.00	9,747.90	9,763.15	9,746.01	78.07	249.13	-88.57	8,286.43	-2,199.72	1,041.25	714.98	326.27	3.191	
19,200.00	9,738.92	9,753.58	9,736.45	78.74	248.81	-88.03	8,286.49	-2,199.72	1,070.38	744.94	325.44	3.289	
19,300.00	9,729.95	9,744.06	9,726.93	79.42	248.48	-87.49	8,286.55	-2,199.72	1,107.71	783.48	324.23	3.416	
19,400.00	9,720.98	9,734.57	9,717.45	80.10	248.16	-86.96	8,286.60	-2,199.72	1,152.46	829.71	322.76	3.571	
19,500.00	9,712.01	9,725.13	9,708.00	80.78	247.84	-86.43	8,286.66	-2,199.72	1,203.80	882.70	321.10	3.749	
19,600.00	9,703.03	9,715.72	9,698.60	81.46	247.52	-85.90	8,286.71	-2,199.72	1,260.92	941.57	319.35	3.948	
19,700.00	9,694.06	9,706.34	9,689.23	82.14	247.20	-85.37	8,286.76	-2,199.72	1,323.07	1,005.51	317.56	4.166	
19,800.00	9,685.09	9,697.01	9,679.90	82.82	246.88	-84.85	8,286.81	-2,199.72	1,389.58	1,073.79	315.79	4.400	
19,900.00	9,676.11	9,687.71	9,670.60	83.51	246.56	-84.33	8,286.86	-2,199.72	1,459.86	1,145.79	314.07	4.648	
20,000.00	9,667.14	9,678.45	9,661.34	84.20	246.25	-83.81	8,286.90	-2,199.72	1,533.38	1,220.97	312.41	4.908	
20,100.00	9,658.17	9,669.22	9,652.12	84.89	245.93	-83.29	8,286.95	-2,199.72	1,609.71	1,298.88	310.83	5.179	

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

Offset Design: Rope State Com Pad - (O) NEW MEXICO BP STATE 002 P & A - Vertical - Surveys

Offset Site Error: 0.00 usft

Survey Program: 0-3_INC-Only

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
26,000.00	9,128.76	8,995.00	8,957.53	127.19	329.17	-86.46	16,444.66	-2,540.81	1,637.92	1,210.31	427.61	3.830	
26,100.00	9,119.78	8,995.00	8,957.53	127.93	329.17	-86.46	16,444.66	-2,540.81	1,576.24	1,144.61	431.63	3.652	
26,200.00	9,110.81	8,995.00	8,957.53	128.66	329.17	-86.46	16,444.66	-2,540.81	1,518.64	1,082.86	435.78	3.485	
26,300.00	9,101.84	8,995.00	8,957.53	129.40	329.17	-86.46	16,444.66	-2,540.81	1,465.61	1,025.61	440.00	3.331	
26,400.00	9,092.86	8,995.00	8,957.53	130.14	329.17	-86.46	16,444.66	-2,540.81	1,417.66	973.45	444.21	3.191	
26,500.00	9,083.89	8,995.00	8,957.53	130.87	329.17	-86.46	16,444.66	-2,540.81	1,375.32	926.99	448.33	3.068	
26,600.00	9,074.92	8,995.00	8,957.53	131.61	329.17	-86.46	16,444.66	-2,540.81	1,339.12	886.88	452.24	2.961	
26,700.00	9,065.94	8,995.00	8,957.53	132.35	329.17	-86.46	16,444.66	-2,540.81	1,309.58	853.76	455.82	2.873	
26,800.00	9,056.97	8,995.00	8,957.53	133.09	329.17	-86.46	16,444.66	-2,540.81	1,287.14	828.21	458.94	2.805	
26,900.00	9,048.00	8,995.00	8,957.53	133.83	329.17	-86.46	16,444.66	-2,540.81	1,272.20	810.72	461.47	2.757	
27,000.00	9,039.02	8,995.00	8,957.53	134.56	329.17	-86.46	16,444.66	-2,540.81	1,265.00	801.67	463.34	2.730	
27,041.28	9,035.32	8,995.00	8,957.53	134.87	329.17	-86.46	16,444.66	-2,540.81	1,264.33	800.44	463.89	2.725	CC, ES
27,100.00	9,030.05	8,995.00	8,957.53	135.30	329.17	-86.46	16,444.66	-2,540.81	1,265.69	801.23	464.46	2.725	SF
27,200.00	9,021.08	8,995.00	8,957.53	136.04	329.17	-86.46	16,444.66	-2,540.81	1,274.25	809.43	464.82	2.741	
27,300.00	9,012.10	8,995.00	8,957.53	136.78	329.17	-86.46	16,444.66	-2,540.81	1,290.53	826.09	464.44	2.779	
27,400.00	9,003.13	8,995.00	8,957.53	137.52	329.17	-86.46	16,444.66	-2,540.81	1,314.23	850.86	463.38	2.836	
27,500.00	8,994.16	8,995.00	8,957.53	138.27	329.17	-86.46	16,444.66	-2,540.81	1,344.97	883.25	461.73	2.913	
27,600.00	8,985.19	8,995.00	8,957.53	139.01	329.17	-86.46	16,444.66	-2,540.81	1,382.28	922.68	459.60	3.008	
27,700.00	8,976.21	8,995.00	8,957.53	139.75	329.17	-86.46	16,444.66	-2,540.81	1,425.64	968.55	457.09	3.119	
27,800.00	8,967.24	8,995.00	8,957.53	140.49	329.17	-86.46	16,444.66	-2,540.81	1,474.51	1,020.18	454.33	3.245	
27,900.00	8,958.27	8,995.00	8,957.53	141.23	329.17	-86.46	16,444.66	-2,540.81	1,528.38	1,076.98	451.40	3.386	
28,000.00	8,949.29	8,986.49	8,949.29	141.97	328.66	-86.09	16,444.66	-2,540.81	1,586.70	1,138.72	447.98	3.542	
28,100.00	8,940.32	8,977.52	8,940.32	142.72	328.13	-85.68	16,444.66	-2,540.81	1,648.98	1,204.44	444.53	3.709	

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

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

Offset Design: Rope State Com Pad - (O) OHIO STATE 001 - Verticals - Surveys

Offset Site Error: 0.00 usft

Survey Program: 0-3_INC-Only

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
27,100.00	9,030.05	8,980.00	8,946.62	135.30	295.01	-91.90	17,810.63	-2,300.70	1,644.88	1,262.72	382.16	4.304	
27,200.00	9,021.08	8,980.00	8,946.62	136.04	295.01	-91.90	17,810.63	-2,300.70	1,567.04	1,180.97	386.07	4.059	
27,300.00	9,012.10	8,980.00	8,946.62	136.78	295.01	-91.90	17,810.63	-2,300.70	1,491.84	1,101.54	390.30	3.822	
27,400.00	9,003.13	8,980.00	8,946.62	137.52	295.01	-91.90	17,810.63	-2,300.70	1,419.71	1,024.84	394.87	3.595	
27,500.00	8,994.16	8,980.00	8,946.62	138.27	295.01	-91.90	17,810.63	-2,300.70	1,351.14	951.38	399.76	3.380	
27,600.00	8,985.19	8,980.00	8,946.62	139.01	295.01	-91.90	17,810.63	-2,300.70	1,286.68	881.76	404.92	3.178	
27,700.00	8,976.21	8,980.00	8,946.62	139.75	295.01	-91.90	17,810.63	-2,300.70	1,227.01	816.71	410.30	2.991	
27,800.00	8,967.24	8,980.00	8,946.62	140.49	295.01	-91.90	17,810.63	-2,300.70	1,172.83	757.06	415.77	2.821	
27,900.00	8,958.27	8,980.00	8,946.62	141.23	295.01	-91.90	17,810.63	-2,300.70	1,124.95	703.76	421.19	2.671	
28,000.00	8,949.29	8,980.00	8,946.62	141.97	295.01	-91.90	17,810.63	-2,300.70	1,084.21	657.86	426.34	2.543	
28,100.00	8,940.32	8,972.94	8,940.32	142.72	294.54	-91.54	17,810.63	-2,300.70	1,051.40	620.85	430.55	2.442	
28,200.00	8,931.35	8,963.97	8,931.35	143.46	293.94	-91.03	17,810.63	-2,300.70	1,027.25	593.33	433.92	2.367	
28,300.00	8,922.37	8,955.00	8,922.37	144.20	293.33	-90.52	17,810.63	-2,300.70	1,012.36	576.04	436.33	2.320	
28,400.00	8,913.40	8,946.02	8,913.40	144.95	292.73	-90.02	17,810.63	-2,300.70	1,007.15	569.57	437.58	2.302	
28,403.07	8,913.13	8,945.75	8,913.13	144.97	292.71	-90.00	17,810.63	-2,300.70	1,007.14	569.54	437.60	2.302	CC, ES, SF
28,500.00	8,904.43	8,937.05	8,904.43	145.69	292.13	-89.51	17,810.63	-2,300.70	1,011.76	574.17	437.59	2.312	
28,600.00	8,895.45	8,928.08	8,895.45	146.43	291.53	-89.00	17,810.63	-2,300.70	1,026.06	589.69	436.37	2.351	
28,660.79	8,890.00	8,922.62	8,890.00	146.89	291.16	-88.69	17,810.63	-2,300.70	1,039.34	604.26	435.08	2.389	

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

Offset Design: Rope State Com Pad - (O) OHIO STATE 005 - Verticals - Surveys

Offset Site Error: 0.00 usft

Survey Program: 197-3_INC-Only, 2196-MWD OWSG Rev5

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
26,700.00	9,065.94	9,083.01	9,057.15	132.35	56.16	-97.16	17,493.82	-2,205.15	1,654.47	1,518.95	135.52	12.208	
26,800.00	9,056.97	9,071.76	9,045.90	133.09	56.16	-96.47	17,494.05	-2,204.71	1,572.39	1,433.50	138.89	11.321	
26,900.00	9,048.00	9,060.54	9,034.70	133.83	56.15	-95.78	17,494.27	-2,204.28	1,492.42	1,349.80	142.62	10.464	
27,000.00	9,039.02	9,049.36	9,023.53	134.56	56.14	-95.10	17,494.48	-2,203.84	1,414.92	1,268.18	146.73	9.643	
27,100.00	9,030.05	9,038.31	9,012.49	135.30	56.13	-94.42	17,494.70	-2,203.41	1,340.30	1,189.07	151.23	8.863	
27,200.00	9,021.08	9,027.35	9,001.54	136.04	56.12	-93.74	17,494.90	-2,202.98	1,269.09	1,112.97	156.12	8.129	
27,300.00	9,012.10	9,016.43	8,990.63	136.78	56.10	-93.06	17,495.11	-2,202.55	1,201.89	1,040.50	161.39	7.447	
27,400.00	9,003.13	9,005.55	8,979.76	137.52	56.08	-92.38	17,495.31	-2,202.13	1,139.41	972.43	166.99	6.823	
27,500.00	8,994.16	8,994.72	8,968.94	138.27	56.07	-91.71	17,495.51	-2,201.71	1,082.47	909.68	172.80	6.264	
27,600.00	8,985.19	8,983.93	8,958.16	139.01	56.05	-91.04	17,495.71	-2,201.29	1,031.99	853.33	178.66	5.776	
27,700.00	8,976.21	8,973.18	8,947.42	139.75	56.04	-90.37	17,495.90	-2,200.87	988.95	804.61	184.34	5.365	
27,800.00	8,967.24	8,962.47	8,936.72	140.49	56.03	-89.70	17,496.09	-2,200.46	954.36	764.82	189.54	5.035	
27,900.00	8,958.27	8,951.80	8,926.06	141.23	56.01	-89.03	17,496.28	-2,200.04	929.17	735.26	193.91	4.792	
28,000.00	8,949.29	8,941.17	8,915.44	141.97	56.00	-88.36	17,496.46	-2,199.63	914.16	717.02	197.15	4.637	
28,089.91	8,941.23	8,931.65	8,905.92	142.64	55.98	-87.77	17,496.63	-2,199.26	909.78	710.91	198.87	4.575	CC
28,100.00	8,940.32	8,930.58	8,904.86	142.72	55.98	-87.70	17,496.64	-2,199.22	909.83	710.85	198.99	4.572	ES, SF
28,200.00	8,931.35	8,920.03	8,894.32	143.46	55.97	-87.04	17,496.82	-2,198.82	916.34	717.02	199.33	4.597	
28,300.00	8,922.37	8,909.53	8,883.82	144.20	55.95	-86.38	17,497.00	-2,198.41	933.46	735.24	198.21	4.709	
28,400.00	8,913.40	8,899.06	8,873.36	144.95	55.94	-85.73	17,497.17	-2,198.01	960.61	764.77	195.84	4.905	
28,500.00	8,904.43	8,888.63	8,862.95	145.69	55.92	-85.08	17,497.34	-2,197.61	996.99	804.50	192.49	5.179	
28,600.00	8,895.45	8,878.24	8,852.57	146.43	55.91	-84.43	17,497.51	-2,197.21	1,041.63	853.15	188.48	5.526	
28,660.79	8,890.00	8,871.95	8,846.27	146.89	55.90	-84.03	17,497.61	-2,196.97	1,072.37	886.53	185.84	5.770	

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

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

Offset Design: Rope State Com Pad - (O) SHETLAND SWD 001 - Vertical - Surveys

Offset Site Error: 0.00 usft

Survey Program: 357-3_INC-Only, 9770-MWD OWSG Rev5

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
21,500.00	9,532.54	9,554.42	9,532.54	94.66	300.47	-96.60	12,230.02	-2,237.97	1,638.25	1,273.72	364.54	4.494	
21,600.00	9,523.57	9,582.31	9,560.42	95.37	301.63	-98.15	12,229.68	-2,237.97	1,560.94	1,192.80	368.14	4.240	
21,700.00	9,514.60	9,550.42	9,528.55	96.07	300.30	-96.37	12,230.38	-2,237.97	1,486.24	1,116.72	369.52	4.022	
21,800.00	9,505.62	9,527.47	9,505.62	96.78	299.34	-95.08	12,230.02	-2,237.97	1,414.12	1,042.58	371.54	3.806	
21,900.00	9,496.65	9,518.50	9,496.65	97.49	298.96	-94.58	12,230.02	-2,237.97	1,345.87	971.50	374.36	3.595	
22,000.00	9,487.68	9,509.53	9,487.68	98.20	298.59	-94.07	12,230.02	-2,237.97	1,281.73	904.31	377.42	3.396	
22,100.00	9,478.71	9,500.56	9,478.71	98.91	298.21	-93.56	12,230.02	-2,237.97	1,222.34	841.69	380.66	3.211	
22,200.00	9,469.73	9,491.58	9,469.73	99.63	297.84	-93.05	12,230.02	-2,237.97	1,168.45	784.42	384.03	3.043	
22,300.00	9,460.76	9,497.07	9,475.34	100.34	298.03	-93.37	12,229.71	-2,237.97	1,120.79	732.87	387.92	2.889	
22,400.00	9,451.79	9,483.44	9,461.72	101.05	297.51	-92.60	12,230.08	-2,237.97	1,080.38	689.32	391.06	2.763	
22,500.00	9,442.81	9,470.75	9,449.05	101.77	297.01	-91.88	12,230.38	-2,237.97	1,047.85	653.88	393.96	2.660	
22,600.00	9,433.84	9,458.91	9,437.22	102.48	296.55	-91.21	12,230.61	-2,237.97	1,023.95	627.49	396.46	2.583	
22,700.00	9,424.87	9,447.85	9,426.16	103.20	296.12	-90.58	12,230.79	-2,237.97	1,009.31	610.96	398.36	2.534	
22,800.00	9,415.89	9,437.47	9,415.79	103.92	295.72	-90.00	12,230.92	-2,237.97	1,004.36	604.83	399.53	2.514	
22,800.42	9,415.86	9,437.43	9,415.75	103.92	295.72	-89.99	12,230.92	-2,237.97	1,004.36	604.83	399.53	2.514	CC, ES, SF
22,900.00	9,406.92	9,427.73	9,406.06	104.63	295.34	-89.44	12,231.01	-2,237.97	1,009.23	609.35	399.89	2.524	
23,000.00	9,397.95	9,418.57	9,396.90	105.35	294.99	-88.92	12,231.07	-2,237.97	1,023.81	624.38	399.43	2.563	
23,100.00	9,388.97	9,409.94	9,388.27	106.07	294.65	-88.43	12,231.10	-2,237.97	1,047.69	649.45	398.24	2.631	
23,200.00	9,380.00	9,401.64	9,380.00	106.79	294.33	-87.96	12,230.02	-2,237.97	1,080.67	684.29	396.39	2.726	
23,300.00	9,371.03	9,392.67	9,371.03	107.51	293.98	-87.45	12,230.02	-2,237.97	1,121.26	727.20	394.06	2.845	
23,400.00	9,362.06	9,383.70	9,362.06	108.23	293.64	-86.94	12,230.02	-2,237.97	1,168.95	777.54	391.41	2.986	
23,500.00	9,353.08	9,374.72	9,353.08	108.96	293.29	-86.43	12,230.02	-2,237.97	1,222.90	834.33	388.57	3.147	
23,600.00	9,344.11	9,365.75	9,344.11	109.68	292.94	-85.93	12,230.02	-2,237.97	1,282.33	896.67	385.66	3.325	
23,700.00	9,335.14	9,356.78	9,335.14	110.40	292.59	-85.42	12,230.02	-2,237.97	1,346.52	963.76	382.76	3.518	
23,800.00	9,326.16	9,347.80	9,326.16	111.13	292.24	-84.91	12,230.02	-2,237.97	1,414.81	1,034.88	379.92	3.724	
23,900.00	9,317.19	9,338.83	9,317.19	111.85	291.90	-84.41	12,230.02	-2,237.97	1,486.64	1,109.44	377.20	3.941	
24,000.00	9,308.22	9,329.86	9,308.22	112.58	291.55	-83.90	12,230.02	-2,237.97	1,561.52	1,186.91	374.61	4.168	
24,100.00	9,299.24	9,320.88	9,299.24	113.30	291.20	-83.40	12,230.02	-2,237.97	1,639.03	1,266.87	372.16	4.404	

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

Offset Design: Rope State Com Pad - (O) STATE AN 005 - Verticals - Surveys

Offset Site Error: 0.00 usft

Survey Program: 100-r.5 GYRO-NS, 8478-MWD OWSG Rev5

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
27,200.00	9,021.08	8,515.00	8,473.85	136.04	30.12	-22.93	18,097.71	-1,471.12	1,584.17	1,498.70	85.48	18.533	
27,300.00	9,012.10	8,515.00	8,473.85	136.78	30.12	-22.93	18,097.71	-1,471.12	1,488.52	1,401.53	86.99	17.111	
27,400.00	9,003.13	8,530.39	8,488.16	137.52	30.15	-23.43	18,102.97	-1,469.06	1,392.66	1,304.63	88.04	15.819	
27,500.00	8,994.16	8,545.00	8,501.07	138.27	30.18	-23.82	18,109.26	-1,466.44	1,298.41	1,209.14	89.26	14.546	
27,600.00	8,985.19	8,545.00	8,501.07	139.01	30.18	-23.82	18,109.26	-1,466.44	1,204.22	1,112.66	91.57	13.151	
27,700.00	8,976.21	8,545.00	8,501.07	139.75	30.18	-23.82	18,109.26	-1,466.44	1,111.06	1,016.72	94.34	11.777	
27,800.00	8,967.24	8,545.00	8,501.07	140.49	30.18	-23.82	18,109.26	-1,466.44	1,019.19	921.48	97.71	10.431	
27,900.00	8,958.27	8,545.00	8,501.07	141.23	30.18	-23.82	18,109.26	-1,466.44	929.00	827.18	101.82	9.124	
28,000.00	8,949.29	8,560.02	8,513.50	141.97	30.22	-24.13	18,117.00	-1,463.14	840.19	734.82	105.36	7.974	
28,100.00	8,940.32	8,575.00	8,524.89	142.72	30.25	-24.33	18,125.93	-1,459.29	754.15	644.45	109.70	6.875	
28,200.00	8,931.35	8,575.00	8,524.89	143.46	30.25	-24.33	18,125.93	-1,459.29	670.94	553.99	116.95	5.737	
28,300.00	8,922.37	8,593.06	8,537.10	144.20	30.28	-24.38	18,138.04	-1,453.79	591.79	468.42	123.37	4.797	
28,400.00	8,913.40	8,609.00	8,546.35	144.95	30.31	-24.21	18,149.69	-1,448.10	518.04	386.50	131.54	3.938	
28,500.00	8,904.43	8,640.00	8,559.84	145.69	30.34	-23.19	18,173.99	-1,434.53	451.49	312.61	138.88	3.251	
28,600.00	8,895.45	8,661.46	8,565.57	146.43	30.35	-21.86	18,191.20	-1,423.12	393.96	245.05	148.91	2.646	
28,660.79	8,890.00	8,685.19	8,568.83	146.89	30.36	-19.83	18,209.85	-1,408.83	364.90	211.29	153.61	2.375	CC, ES, SF

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

Offset Design: Rope State Com Pad - (O) STATE AN 006 TA - Vertical - Surveys

Offset Site Error: 0.00 usft

Survey Program: 0-3_INC-Only

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
25,500.00	9,173.62	9,023.00	9,002.09	123.52	302.11	-60.95	16,529.18	-1,328.92	1,609.47	1,264.77	344.69	4.669	
25,600.00	9,164.65	9,023.00	9,002.09	124.25	302.11	-60.95	16,529.18	-1,328.92	1,509.53	1,164.79	344.74	4.379	
25,700.00	9,155.67	9,023.00	9,002.09	124.99	302.11	-60.95	16,529.18	-1,328.92	1,409.61	1,064.82	344.78	4.088	
25,800.00	9,146.70	9,023.00	9,002.09	125.72	302.11	-60.95	16,529.18	-1,328.92	1,309.69	964.87	344.82	3.798	
25,900.00	9,137.73	9,023.00	9,002.09	126.46	302.11	-60.95	16,529.18	-1,328.92	1,209.79	864.93	344.86	3.508	
26,000.00	9,128.76	9,023.00	9,002.09	127.19	302.11	-60.95	16,529.18	-1,328.92	1,109.91	765.02	344.89	3.218	
26,100.00	9,119.78	9,023.00	9,002.09	127.93	302.11	-60.95	16,529.18	-1,328.92	1,010.05	665.13	344.92	2.928	
26,200.00	9,110.81	9,023.00	9,002.09	128.66	302.11	-60.95	16,529.18	-1,328.92	910.22	565.27	344.95	2.639	
26,300.00	9,101.84	9,023.00	9,002.09	129.40	302.11	-60.95	16,529.18	-1,328.92	810.44	465.45	344.98	2.349	
26,400.00	9,092.86	9,023.00	9,002.09	130.14	302.11	-60.95	16,529.18	-1,328.92	710.71	365.68	345.03	2.060	
26,500.00	9,083.89	9,023.00	9,002.09	130.87	302.11	-60.95	16,529.18	-1,328.92	611.08	265.97	345.11	1.771	
26,600.00	9,074.92	9,023.00	9,002.09	131.61	302.11	-60.95	16,529.18	-1,328.92	511.59	166.32	345.26	1.482	Level 3
26,700.00	9,065.94	9,023.00	9,002.09	132.35	302.11	-60.95	16,529.18	-1,328.92	412.34	66.71	345.62	1.193	Level 2
26,800.00	9,056.97	9,023.00	9,002.09	133.09	302.11	-60.95	16,529.18	-1,328.92	313.57	-32.99	346.56	0.905	Level 1
26,900.00	9,048.00	9,023.00	9,002.09	133.83	302.11	-60.95	16,529.18	-1,328.92	215.94	-133.47	349.41	0.618	Level 1
27,000.00	9,039.02	9,023.00	9,002.09	134.56	302.11	-60.95	16,529.18	-1,328.92	122.20	-238.06	360.26	0.339	Level 1
27,100.00	9,030.05	9,023.00	9,002.09	135.30	302.11	-60.95	16,529.18	-1,328.92	56.89	-343.25	400.14	0.142	Level 1
27,108.48	9,029.29	9,023.00	9,002.09	135.37	302.11	-60.95	16,529.18	-1,328.92	56.26	-347.29	403.55	0.139	Level 1, CC, ES, SF
27,200.00	9,021.08	9,023.00	9,002.09	136.04	302.11	-60.95	16,529.18	-1,328.92	107.43	-275.92	383.35	0.280	Level 1
27,300.00	9,012.10	9,023.00	9,002.09	136.78	302.11	-60.95	16,529.18	-1,328.92	199.61	-164.02	363.63	0.549	Level 1
27,400.00	9,003.13	9,023.00	9,002.09	137.52	302.11	-60.95	16,529.18	-1,328.92	296.90	-59.84	356.74	0.832	Level 1
27,500.00	8,994.16	9,015.03	8,994.16	138.27	301.65	-54.40	16,529.18	-1,328.92	395.46	41.51	353.95	1.117	Level 2
27,600.00	8,985.19	8,999.82	8,979.03	139.01	300.76	-44.38	16,529.45	-1,328.92	494.20	141.77	352.44	1.402	Level 3
27,700.00	8,976.21	8,996.02	8,975.24	139.75	300.54	-42.31	16,529.47	-1,328.92	593.33	242.10	351.22	1.689	
27,800.00	8,967.24	8,988.01	8,967.24	140.49	300.07	-38.41	16,529.18	-1,328.92	692.93	342.58	350.34	1.978	
27,900.00	8,958.27	8,969.03	8,948.35	141.23	298.99	-31.32	16,529.47	-1,328.92	792.07	442.53	349.54	2.266	
28,000.00	8,949.29	8,965.42	8,944.74	141.97	298.79	-30.23	16,529.50	-1,328.92	891.41	542.48	348.93	2.555	
28,100.00	8,940.32	8,960.98	8,940.32	142.72	298.54	-28.97	16,529.18	-1,328.92	991.19	642.77	348.42	2.845	
28,200.00	8,931.35	8,952.01	8,931.35	143.46	298.04	-26.70	16,529.18	-1,328.92	1,090.67	742.78	347.89	3.135	
28,300.00	8,922.37	8,930.94	8,910.38	144.20	296.87	-22.52	16,529.53	-1,328.92	1,189.88	842.76	347.11	3.428	
28,400.00	8,913.40	8,928.37	8,907.81	144.95	296.73	-22.09	16,529.55	-1,328.92	1,289.33	942.57	346.76	3.718	
28,500.00	8,904.43	8,924.97	8,904.43	145.69	296.54	-21.54	16,529.18	-1,328.92	1,389.23	1,042.79	346.43	4.010	
28,600.00	8,895.45	8,916.00	8,895.45	146.43	296.04	-20.22	16,529.18	-1,328.92	1,488.76	1,142.79	345.98	4.303	
28,660.79	8,890.00	8,910.55	8,890.00	146.89	295.73	-19.49	16,529.18	-1,328.92	1,549.28	1,203.57	345.71	4.481	

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
27,400.00	9,003.13	9,022.00	8,994.21	137.52	255.74	93.70	17,852.32	-21.11	1,628.72	1,258.84	369.88	4.403	
27,500.00	8,994.16	9,021.81	8,994.16	138.27	255.73	93.70	17,852.32	-21.11	1,568.48	1,194.56	373.92	4.195	
27,600.00	8,985.19	9,012.83	8,985.19	139.01	255.40	93.30	17,852.32	-21.11	1,512.44	1,134.85	377.58	4.006	
27,700.00	8,976.21	9,003.86	8,976.21	139.75	255.07	92.90	17,852.32	-21.11	1,461.04	1,079.81	381.23	3.832	
27,800.00	8,967.24	8,994.89	8,967.24	140.49	254.73	92.49	17,852.32	-21.11	1,414.79	1,030.02	384.77	3.677	
27,900.00	8,958.27	8,985.91	8,958.27	141.23	254.40	92.09	17,852.32	-21.11	1,374.22	986.11	388.12	3.541	
28,000.00	8,949.29	8,976.94	8,949.29	141.97	254.07	91.69	17,852.32	-21.11	1,339.84	948.71	391.13	3.426	
28,100.00	8,940.32	8,967.97	8,940.32	142.72	253.73	91.29	17,852.32	-21.11	1,312.14	918.43	393.71	3.333	
28,200.00	8,931.35	8,959.00	8,931.35	143.46	253.40	90.89	17,852.32	-21.11	1,291.54	895.82	395.72	3.264	
28,300.00	8,922.37	8,950.02	8,922.37	144.20	253.07	90.48	17,852.32	-21.11	1,278.39	881.33	397.06	3.220	
28,400.00	8,913.40	8,941.05	8,913.40	144.95	252.74	90.08	17,852.32	-21.11	1,272.92	875.26	397.66	3.201	
28,420.35	8,911.58	8,939.22	8,911.58	145.10	252.67	90.00	17,852.32	-21.11	1,272.76	875.08	397.68	3.200	CC, ES, SF
28,500.00	8,904.43	8,932.08	8,904.43	145.69	252.40	89.68	17,852.32	-21.11	1,275.23	877.76	397.47	3.208	
28,600.00	8,895.45	8,923.10	8,895.45	146.43	252.07	89.28	17,852.32	-21.11	1,285.27	888.76	396.51	3.241	
28,660.79	8,890.00	8,917.65	8,890.00	146.89	251.87	89.03	17,852.32	-21.11	1,295.09	899.52	395.57	3.274	

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

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

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

Offset Site Error: 0.00 usft

Survey Program: 0-3_INC-Only

Rule Assigned:

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
26,100.00	9,119.78	9,012.00	8,984.79	127.93	297.39	87.95	16,532.37	-8.16	1,617.73	1,215.16	402.57	4.019	
26,200.00	9,110.81	9,012.00	8,984.79	128.66	297.39	87.95	16,532.37	-8.16	1,557.96	1,151.59	406.36	3.834	
26,300.00	9,101.84	9,012.00	8,984.79	129.40	297.39	87.95	16,532.37	-8.16	1,502.47	1,092.26	410.21	3.663	
26,400.00	9,092.86	9,012.00	8,984.79	130.14	297.39	87.95	16,532.37	-8.16	1,451.75	1,037.71	414.04	3.506	
26,500.00	9,083.89	9,012.00	8,984.79	130.87	297.39	87.95	16,532.37	-8.16	1,406.33	988.56	417.78	3.366	
26,600.00	9,074.92	9,012.00	8,984.79	131.61	297.39	87.95	16,532.37	-8.16	1,366.73	945.42	421.32	3.244	
26,700.00	9,065.94	9,012.00	8,984.79	132.35	297.39	87.95	16,532.37	-8.16	1,333.47	908.93	424.54	3.141	
26,800.00	9,056.97	9,012.00	8,984.79	133.09	297.39	87.95	16,532.37	-8.16	1,307.03	879.69	427.34	3.059	
26,900.00	9,048.00	9,012.00	8,984.79	133.83	297.39	87.95	16,532.37	-8.16	1,287.83	858.24	429.59	2.998	
27,000.00	9,039.02	9,012.00	8,984.79	134.56	297.39	87.95	16,532.37	-8.16	1,276.20	845.01	431.19	2.960	
27,099.09	9,030.13	9,012.00	8,984.79	135.30	297.39	87.95	16,532.37	-8.16	1,272.35	840.27	432.07	2.945	CC
27,100.00	9,030.05	9,012.00	8,984.79	135.30	297.39	87.95	16,532.37	-8.16	1,272.35	840.27	432.08	2.945	ES, SF
27,200.00	9,021.08	9,012.00	8,984.79	136.04	297.39	87.95	16,532.37	-8.16	1,276.34	844.12	432.22	2.953	
27,300.00	9,012.10	9,012.00	8,984.79	136.78	297.39	87.95	16,532.37	-8.16	1,288.11	856.49	431.63	2.984	
27,400.00	9,003.13	9,012.00	8,984.79	137.52	297.39	87.95	16,532.37	-8.16	1,307.45	877.10	430.35	3.038	
27,500.00	8,994.16	9,012.00	8,984.79	138.27	297.39	87.95	16,532.37	-8.16	1,334.02	905.55	428.47	3.113	
27,600.00	8,985.19	9,012.00	8,984.79	139.01	297.39	87.95	16,532.37	-8.16	1,367.40	941.31	426.09	3.209	
27,700.00	8,976.21	9,003.15	8,976.21	139.75	296.94	87.57	16,532.37	-8.16	1,407.09	984.21	422.87	3.327	
27,800.00	8,967.24	8,994.18	8,967.24	140.49	296.49	87.16	16,532.37	-8.16	1,452.53	1,033.13	419.40	3.463	
27,900.00	8,958.27	8,985.20	8,958.27	141.23	296.03	86.76	16,532.37	-8.16	1,503.20	1,087.43	415.77	3.615	
28,000.00	8,949.29	8,976.23	8,949.29	141.97	295.58	86.36	16,532.37	-8.16	1,558.61	1,146.52	412.08	3.782	
28,100.00	8,940.32	8,967.26	8,940.32	142.72	295.13	85.96	16,532.37	-8.16	1,618.24	1,209.85	408.39	3.962	

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

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

Offset Design: Rope State Com Pad - Rope State Com 502H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
6,500.00	6,454.80	6,820.32	6,734.00	23.44	24.86	12.01	-164.71	-2,256.85	1,641.43	1,594.01	47.42	34.615	
6,600.00	6,553.83	6,915.63	6,827.86	23.81	25.22	12.00	-167.60	-2,240.60	1,611.14	1,563.00	48.14	33.470	
6,700.00	6,652.85	7,010.93	6,921.72	24.18	25.58	11.99	-170.50	-2,224.36	1,580.84	1,531.99	48.85	32.358	
6,800.00	6,751.88	7,106.23	7,015.58	24.55	25.94	11.97	-173.39	-2,208.11	1,550.55	1,500.98	49.57	31.279	
6,900.00	6,850.90	7,201.53	7,109.44	24.92	26.30	11.96	-176.29	-2,191.87	1,520.26	1,469.97	50.29	30.230	
7,000.00	6,949.93	7,296.83	7,203.30	25.30	26.65	11.95	-179.18	-2,175.62	1,489.97	1,438.96	51.01	29.210	
7,100.00	7,048.95	7,392.13	7,297.16	25.67	27.01	11.93	-182.08	-2,159.38	1,459.67	1,407.95	51.73	28.218	
7,200.00	7,147.98	7,487.43	7,391.03	26.04	27.37	11.92	-184.97	-2,143.13	1,429.38	1,376.93	52.45	27.254	
7,300.00	7,247.00	7,582.73	7,484.89	26.41	27.73	11.90	-187.87	-2,126.89	1,399.09	1,345.92	53.17	26.316	
7,400.00	7,346.02	7,678.03	7,578.75	26.78	28.09	11.88	-190.76	-2,110.64	1,368.80	1,314.91	53.89	25.402	
7,500.00	7,445.05	7,773.33	7,672.61	27.15	28.45	11.87	-193.66	-2,094.40	1,338.50	1,283.90	54.61	24.512	
7,600.00	7,544.07	7,868.63	7,766.47	27.52	28.81	11.85	-196.55	-2,078.15	1,308.21	1,252.89	55.33	23.646	
7,700.00	7,643.10	7,963.93	7,860.33	27.89	29.17	11.83	-199.44	-2,061.91	1,277.92	1,221.87	56.05	22.802	
7,800.00	7,742.12	8,059.23	7,954.19	28.27	29.53	11.81	-202.34	-2,045.66	1,247.63	1,190.86	56.77	21.979	
7,900.00	7,841.15	8,154.54	8,048.06	28.64	29.89	11.79	-205.23	-2,029.42	1,217.34	1,159.85	57.49	21.176	
8,000.00	7,940.17	8,249.84	8,141.92	29.01	30.25	11.76	-208.13	-2,013.17	1,187.05	1,128.84	58.21	20.393	
8,100.00	8,039.20	8,345.14	8,235.78	29.38	30.61	11.74	-211.02	-1,996.93	1,156.75	1,097.83	58.93	19.630	
8,200.00	8,138.22	8,440.44	8,329.64	29.75	30.97	11.72	-213.92	-1,980.68	1,126.46	1,066.81	59.65	18.885	
8,300.00	8,237.24	8,535.74	8,423.50	30.12	31.33	11.69	-216.81	-1,964.44	1,096.17	1,035.80	60.37	18.157	
8,400.00	8,336.27	8,631.04	8,517.36	30.49	31.69	11.66	-219.71	-1,948.19	1,065.88	1,004.79	61.09	17.447	
8,500.00	8,435.29	8,726.34	8,611.22	30.87	32.05	11.63	-222.60	-1,931.95	1,035.59	973.78	61.82	16.753	
8,600.00	8,534.32	8,821.64	8,705.08	31.24	32.41	11.60	-225.50	-1,915.70	1,005.30	942.76	62.54	16.075	
8,700.00	8,633.34	8,916.94	8,798.95	31.61	32.77	11.57	-228.39	-1,899.46	975.01	911.75	63.26	15.413	
8,800.00	8,732.37	9,012.24	8,892.81	31.98	33.13	11.53	-231.29	-1,883.21	944.72	880.74	63.98	14.765	
8,900.00	8,831.39	9,107.54	8,986.67	32.35	33.49	11.50	-234.18	-1,866.97	914.43	849.73	64.71	14.132	
9,000.00	8,930.42	9,202.84	9,080.53	32.73	33.85	11.46	-237.08	-1,850.72	884.14	818.71	65.43	13.513	
9,100.00	9,029.44	9,298.14	9,174.39	33.10	34.21	11.41	-239.97	-1,834.48	853.86	787.70	66.15	12.907	
9,200.00	9,128.47	9,371.58	9,246.87	33.47	34.49	11.45	-241.20	-1,822.78	824.67	757.69	66.98	12.312	
9,300.00	9,227.49	9,442.75	9,317.44	33.84	34.75	11.70	-239.68	-1,813.69	798.42	730.64	67.78	11.779	
9,400.00	9,326.51	9,514.70	9,388.92	34.21	35.01	12.17	-235.39	-1,806.80	775.26	706.72	68.54	11.311	
9,500.00	9,425.54	9,587.07	9,460.79	34.58	35.26	12.87	-228.30	-1,802.23	755.36	686.12	69.24	10.910	
9,600.00	9,524.56	9,659.50	9,532.49	34.96	35.50	13.82	-218.42	-1,800.03	738.94	669.07	69.87	10.576	
9,700.00	9,623.59	9,741.08	9,612.51	35.33	35.77	15.28	-202.69	-1,799.93	725.92	655.45	70.47	10.301	
9,800.00	9,722.79	9,825.66	9,692.45	35.70	36.03	-0.96	-175.30	-1,800.22	716.36	645.33	71.03	10.086	
9,879.91	9,802.34	9,888.04	9,748.36	35.98	36.21	-31.05	-147.72	-1,800.51	713.82	642.47	71.35	10.004	
9,900.00	9,822.36	9,900.00	9,758.72	36.06	36.25	-39.61	-141.74	-1,800.58	714.00	642.61	71.38	10.002	
10,000.00	9,921.83	9,972.91	9,818.97	36.40	36.44	-71.05	-100.76	-1,801.01	719.99	648.47	71.52	10.067	
10,100.00	10,020.25	10,036.86	9,867.16	36.73	36.59	-74.78	-58.78	-1,801.46	733.51	662.20	71.31	10.287	
10,200.00	10,114.42	10,100.00	9,909.86	37.04	36.72	-71.09	-12.31	-1,801.95	748.83	678.00	70.84	10.571	
10,300.00	10,201.38	10,159.72	9,945.31	37.32	36.82	-67.88	35.70	-1,802.46	764.25	694.11	70.14	10.896	
10,400.00	10,278.48	10,219.66	9,975.68	37.56	36.91	-65.13	87.35	-1,803.01	778.67	709.30	69.36	11.226	
10,500.00	10,343.39	10,278.94	10,000.25	37.75	36.97	-62.91	141.27	-1,803.59	791.16	722.56	68.60	11.533	
10,600.00	10,394.13	10,344.24	10,020.70	37.90	37.03	-61.19	203.24	-1,804.25	801.05	733.03	68.02	11.777	
10,700.00	10,429.16	10,400.00	10,033.82	38.00	37.06	-60.24	257.43	-1,804.83	807.03	739.44	67.59	11.940	
10,800.00	10,451.27	10,483.64	10,048.51	38.07	37.10	-59.85	339.74	-1,805.70	809.47	741.88	67.59	11.976	
10,900.00	10,464.78	10,557.34	10,056.45	38.14	37.14	-59.67	412.99	-1,806.48	810.84	743.22	67.62	11.991	
11,000.00	10,469.61	10,630.99	10,059.67	38.20	37.18	-59.64	486.56	-1,807.27	811.07	743.30	67.77	11.967	
11,100.00	10,465.71	10,717.49	10,058.45	38.28	37.23	-59.84	573.05	-1,808.19	809.75	741.67	68.07	11.896	
11,200.00	10,456.77	10,817.26	10,056.33	38.41	37.33	-60.27	672.78	-1,809.25	806.33	737.81	68.52	11.768	
11,300.00	10,447.80	10,917.03	10,054.21	38.56	37.46	-60.70	772.52	-1,810.32	802.94	733.94	69.00	11.637	
11,400.00	10,438.83	11,016.79	10,052.09	38.74	37.61	-61.13	872.26	-1,811.38	799.59	730.08	69.52	11.502	
11,500.00	10,429.85	11,116.56	10,049.97	38.93	37.78	-61.56	971.99	-1,812.45	796.29	726.23	70.06	11.366	

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

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

Offset Design: Rope State Com Pad - Rope State Com 502H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,600.00	10,420.88	11,216.32	10,047.85	39.14	37.97	-61.99	1,071.73	-1,813.51	793.04	722.41	70.63	11.228	
11,700.00	10,411.91	11,316.09	10,045.73	39.36	38.17	-62.43	1,171.47	-1,814.58	789.83	718.59	71.24	11.088	
11,800.00	10,402.93	11,415.85	10,043.61	39.59	38.39	-62.87	1,271.20	-1,815.64	786.67	714.80	71.87	10.946	
11,900.00	10,393.96	11,515.61	10,041.49	39.84	38.62	-63.32	1,370.94	-1,816.70	783.55	711.03	72.52	10.804	
12,000.00	10,384.99	11,615.38	10,039.37	40.10	38.87	-63.76	1,470.68	-1,817.77	780.49	707.28	73.21	10.661	
12,100.00	10,376.01	11,715.14	10,037.26	40.38	39.13	-64.22	1,570.41	-1,818.83	777.47	703.55	73.92	10.518	
12,200.00	10,367.04	11,814.91	10,035.14	40.66	39.40	-64.67	1,670.15	-1,819.90	774.50	699.84	74.66	10.374	
12,300.00	10,358.07	11,914.67	10,033.02	40.96	39.68	-65.13	1,769.89	-1,820.96	771.58	696.16	75.41	10.231	
12,400.00	10,349.09	12,014.44	10,030.90	41.27	39.98	-65.59	1,869.62	-1,822.02	768.71	692.51	76.20	10.088	
12,500.00	10,340.12	12,114.20	10,028.78	41.60	40.29	-66.06	1,969.36	-1,823.09	765.89	688.89	77.00	9.946	
12,600.00	10,331.15	12,213.97	10,026.66	41.93	40.61	-66.53	2,069.10	-1,824.15	763.12	685.29	77.83	9.805	
12,700.00	10,322.18	12,313.73	10,024.54	42.28	40.94	-67.00	2,168.83	-1,825.22	760.40	681.73	78.68	9.665	
12,800.00	10,313.20	12,413.50	10,022.42	42.63	41.28	-67.48	2,268.57	-1,826.28	757.74	678.19	79.55	9.526	
12,900.00	10,304.23	12,513.26	10,020.30	43.00	41.64	-67.96	2,368.31	-1,827.34	755.13	674.69	80.43	9.388	
13,000.00	10,295.26	12,613.03	10,018.18	43.37	42.00	-68.44	2,468.04	-1,828.41	752.57	671.23	81.34	9.252	
13,100.00	10,286.28	12,706.96	10,015.51	43.76	42.35	-68.85	2,561.93	-1,829.41	750.33	668.09	82.24	9.124	
13,200.00	10,277.31	12,803.11	10,010.32	44.16	42.73	-69.09	2,657.93	-1,830.43	749.02	665.91	83.11	9.012	
13,300.00	10,268.34	12,903.05	10,004.63	44.56	43.14	-69.33	2,757.71	-1,831.49	747.84	663.84	84.00	8.902	
13,400.00	10,259.36	13,003.00	9,998.94	44.98	43.55	-69.56	2,857.49	-1,832.54	746.68	661.76	84.92	8.793	
13,500.00	10,250.39	13,102.95	9,993.25	45.40	43.98	-69.80	2,957.27	-1,833.60	745.52	659.68	85.85	8.684	
13,600.00	10,241.42	13,202.89	9,987.56	45.84	44.41	-70.04	3,057.04	-1,834.66	744.38	657.59	86.80	8.576	
13,700.00	10,232.44	13,302.84	9,981.87	46.28	44.85	-70.28	3,156.82	-1,835.72	743.25	655.49	87.76	8.469	
13,800.00	10,223.47	13,402.78	9,976.18	46.73	45.30	-70.51	3,256.60	-1,836.78	742.13	653.39	88.74	8.363	
13,900.00	10,214.50	13,502.73	9,970.49	47.19	45.76	-70.75	3,356.38	-1,837.84	741.03	651.29	89.74	8.258	
14,000.00	10,205.53	13,602.67	9,964.80	47.66	46.23	-70.99	3,456.16	-1,838.89	739.94	649.19	90.75	8.154	
14,100.00	10,196.55	13,702.62	9,959.11	48.13	46.71	-71.23	3,555.93	-1,839.95	738.86	647.09	91.78	8.051	
14,200.00	10,187.58	13,802.57	9,953.42	48.61	47.19	-71.47	3,655.71	-1,841.01	737.80	644.98	92.82	7.949	
14,300.00	10,178.61	13,902.51	9,947.73	49.10	47.68	-71.72	3,755.49	-1,842.07	736.75	642.88	93.87	7.849	
14,400.00	10,169.63	14,002.46	9,942.04	49.60	48.18	-71.96	3,855.27	-1,843.13	735.71	640.77	94.94	7.749	
14,500.00	10,160.66	14,102.40	9,936.35	50.10	48.68	-72.20	3,955.05	-1,844.19	734.68	638.67	96.02	7.651	
14,600.00	10,151.69	14,202.35	9,930.66	50.61	49.19	-72.45	4,054.83	-1,845.24	733.67	636.56	97.11	7.555	
14,700.00	10,142.71	14,302.30	9,924.97	51.13	49.71	-72.69	4,154.60	-1,846.30	732.67	634.46	98.22	7.460	
14,800.00	10,133.74	14,402.24	9,919.28	51.65	50.23	-72.94	4,254.38	-1,847.36	731.69	632.36	99.33	7.366	
14,900.00	10,124.77	14,502.19	9,913.58	52.18	50.76	-73.18	4,354.16	-1,848.42	730.72	630.26	100.46	7.274	
15,000.00	10,115.79	14,602.13	9,907.89	52.71	51.30	-73.43	4,453.94	-1,849.48	729.76	628.16	101.60	7.183	
15,100.00	10,106.82	14,702.08	9,902.20	53.25	51.84	-73.68	4,553.72	-1,850.54	728.82	626.07	102.74	7.094	
15,200.00	10,097.85	14,802.03	9,896.51	53.80	52.39	-73.92	4,653.49	-1,851.59	727.88	623.98	103.90	7.006	
15,300.00	10,088.87	14,901.97	9,890.82	54.35	52.94	-74.17	4,753.27	-1,852.65	726.97	621.90	105.07	6.919	
15,400.00	10,079.90	15,001.92	9,885.13	54.90	53.50	-74.42	4,853.05	-1,853.71	726.06	619.82	106.24	6.834	
15,500.00	10,070.93	15,101.86	9,879.44	55.46	54.06	-74.67	4,952.83	-1,854.77	725.17	617.74	107.43	6.750	
15,600.00	10,061.96	15,201.81	9,873.75	56.03	54.63	-74.92	5,052.61	-1,855.83	724.30	615.67	108.62	6.668	
15,700.00	10,052.98	15,301.76	9,868.06	56.60	55.21	-75.17	5,152.39	-1,856.89	723.44	613.61	109.83	6.587	
15,800.00	10,044.01	15,401.56	9,862.38	57.18	55.78	-75.42	5,252.03	-1,857.94	722.59	611.55	111.04	6.508	
15,900.00	10,035.04	15,499.97	9,855.96	57.76	56.36	-75.61	5,350.22	-1,858.98	721.96	609.72	112.24	6.432	
16,000.00	10,026.06	15,599.94	9,849.33	58.34	56.95	-75.79	5,449.96	-1,860.04	721.37	607.91	113.45	6.358	
16,100.00	10,017.09	15,699.91	9,842.71	58.93	57.54	-75.97	5,549.71	-1,861.10	720.78	606.10	114.68	6.285	
16,200.00	10,008.12	15,799.89	9,836.08	59.52	58.14	-76.15	5,649.46	-1,862.16	720.20	604.29	115.91	6.214	
16,300.00	9,999.14	15,899.86	9,829.45	60.12	58.74	-76.33	5,749.20	-1,863.22	719.63	602.48	117.15	6.143	
16,400.00	9,990.17	15,999.83	9,822.82	60.72	59.34	-76.52	5,848.95	-1,864.28	719.06	600.67	118.39	6.074	
16,500.00	9,981.20	16,099.80	9,816.20	61.32	59.95	-76.70	5,948.70	-1,865.33	718.51	598.86	119.64	6.005	
16,600.00	9,972.22	16,199.78	9,809.57	61.93	60.56	-76.88	6,048.44	-1,866.39	717.95	597.05	120.90	5.938	
16,700.00	9,963.25	16,299.75	9,802.94	62.54	61.18	-77.06	6,148.19	-1,867.45	717.41	595.25	122.17	5.872	

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

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

Offset Design: Rope State Com Pad - Rope State Com 502H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
16,800.00	9,954.28	16,399.72	9,796.32	63.16	61.80	-77.25	6,247.94	-1,868.51	716.88	593.44	123.44	5.808	
16,900.00	9,945.31	16,499.69	9,789.69	63.78	62.42	-77.43	6,347.68	-1,869.57	716.35	591.63	124.71	5.744	
17,000.00	9,936.33	16,599.66	9,783.06	64.40	63.05	-77.61	6,447.43	-1,870.62	715.83	589.83	126.00	5.681	
17,100.00	9,927.36	16,699.64	9,776.44	65.02	63.68	-77.80	6,547.18	-1,871.68	715.31	588.03	127.28	5.620	
17,200.00	9,918.39	16,799.61	9,769.81	65.65	64.31	-77.98	6,646.92	-1,872.74	714.81	586.23	128.58	5.559	
17,300.00	9,909.41	16,899.58	9,763.18	66.28	64.95	-78.16	6,746.67	-1,873.80	714.31	584.43	129.88	5.500	
17,400.00	9,900.44	16,999.55	9,756.56	66.92	65.58	-78.35	6,846.42	-1,874.86	713.81	582.64	131.18	5.442	
17,500.00	9,891.47	17,099.53	9,749.93	67.55	66.23	-78.53	6,946.17	-1,875.92	713.33	580.84	132.49	5.384	
17,600.00	9,882.49	17,199.50	9,743.30	68.19	66.87	-78.72	7,045.91	-1,876.97	712.85	579.05	133.80	5.328	
17,700.00	9,873.52	17,299.47	9,736.68	68.83	67.52	-78.90	7,145.66	-1,878.03	712.38	577.26	135.12	5.272	
17,800.00	9,864.55	17,399.44	9,730.05	69.48	68.16	-79.09	7,245.41	-1,879.09	711.92	575.48	136.44	5.218	
17,900.00	9,855.57	17,499.42	9,723.42	70.13	68.82	-79.27	7,345.15	-1,880.15	711.47	573.70	137.77	5.164	
18,000.00	9,846.60	17,599.39	9,716.79	70.78	69.47	-79.46	7,444.90	-1,881.21	711.02	571.92	139.10	5.112	
18,100.00	9,837.63	17,699.36	9,710.17	71.43	70.13	-79.65	7,544.65	-1,882.26	710.58	570.14	140.44	5.060	
18,200.00	9,828.66	17,799.33	9,703.54	72.08	70.78	-79.83	7,644.39	-1,883.32	710.15	568.37	141.78	5.009	
18,300.00	9,819.68	17,899.31	9,696.91	72.74	71.44	-80.02	7,744.14	-1,884.38	709.72	566.60	143.12	4.959	
18,400.00	9,810.71	17,999.28	9,690.29	73.40	72.11	-80.21	7,843.89	-1,885.44	709.31	564.84	144.47	4.910	
18,500.00	9,801.74	18,099.25	9,683.66	74.06	72.77	-80.39	7,943.63	-1,886.50	708.90	563.08	145.82	4.861	
18,600.00	9,792.76	18,199.22	9,677.03	74.72	73.44	-80.58	8,043.38	-1,887.56	708.50	561.32	147.17	4.814	
18,700.00	9,783.79	18,299.19	9,670.41	75.39	74.11	-80.77	8,143.13	-1,888.61	708.10	559.57	148.53	4.767	
18,800.00	9,774.82	18,399.17	9,663.78	76.05	74.78	-80.96	8,242.87	-1,889.67	707.72	557.82	149.89	4.721	
18,900.00	9,765.84	18,499.14	9,657.15	76.72	75.45	-81.14	8,342.62	-1,890.73	707.34	556.08	151.26	4.676	
19,000.00	9,756.87	18,599.11	9,650.53	77.39	76.13	-81.33	8,442.37	-1,891.79	706.96	554.34	152.63	4.632	
19,100.00	9,747.90	18,699.08	9,643.90	78.07	76.80	-81.52	8,542.12	-1,892.85	706.60	552.60	154.00	4.588	
19,200.00	9,738.92	18,799.06	9,637.27	78.74	77.48	-81.71	8,641.86	-1,893.90	706.24	550.87	155.37	4.546	
19,300.00	9,729.95	18,899.03	9,630.64	79.42	78.16	-81.90	8,741.61	-1,894.96	705.90	549.15	156.75	4.503	
19,400.00	9,720.98	18,999.00	9,624.02	80.10	78.84	-82.09	8,841.36	-1,896.02	705.56	547.43	158.13	4.462	
19,500.00	9,712.01	19,098.97	9,617.39	80.78	79.53	-82.28	8,941.10	-1,897.08	705.22	545.71	159.51	4.421	
19,600.00	9,703.03	19,197.65	9,610.57	81.46	80.20	-82.44	9,039.54	-1,898.12	704.93	544.05	160.88	4.382	
19,631.23	9,700.23	19,227.90	9,607.99	81.67	80.41	-82.45	9,069.67	-1,898.44	704.91	543.61	161.31	4.370	CC
19,700.00	9,694.06	19,296.60	9,601.70	82.14	80.88	-82.44	9,138.08	-1,899.17	704.92	542.67	162.25	4.345	
19,800.00	9,685.09	19,396.60	9,592.54	82.82	81.57	-82.43	9,237.65	-1,900.23	704.93	541.30	163.63	4.308	
19,900.00	9,676.11	19,496.60	9,583.39	83.51	82.27	-82.41	9,337.23	-1,901.28	704.94	539.93	165.01	4.272	
20,000.00	9,667.14	19,596.60	9,574.24	84.20	82.96	-82.40	9,436.80	-1,902.34	704.95	538.56	166.39	4.237	
20,100.00	9,658.17	19,696.60	9,565.08	84.89	83.66	-82.38	9,536.38	-1,903.39	704.96	537.18	167.78	4.202	
20,200.00	9,649.19	19,796.60	9,555.93	85.58	84.35	-82.37	9,635.95	-1,904.45	704.98	535.81	169.17	4.167	
20,300.00	9,640.22	19,896.60	9,546.78	86.27	85.05	-82.35	9,735.53	-1,905.51	704.99	534.43	170.56	4.133	
20,400.00	9,631.25	19,996.60	9,537.62	86.96	85.75	-82.34	9,835.10	-1,906.56	705.00	533.04	171.96	4.100	
20,500.00	9,622.27	20,096.60	9,528.47	87.65	86.45	-82.32	9,934.67	-1,907.62	705.01	531.66	173.35	4.067	
20,504.16	9,621.90	20,100.75	9,528.09	87.68	86.48	-82.32	9,938.81	-1,907.67	705.01	531.60	173.41	4.066	
20,600.00	9,613.30	20,195.48	9,519.22	88.35	87.14	-82.29	10,033.12	-1,908.67	705.05	530.31	174.74	4.035	
20,700.00	9,604.33	20,293.18	9,507.63	89.05	87.83	-82.06	10,130.12	-1,909.69	705.43	529.32	176.11	4.006	
20,800.00	9,595.36	20,393.11	9,494.96	89.74	88.54	-81.76	10,229.24	-1,910.75	705.94	528.45	177.49	3.977	
20,900.00	9,586.38	20,493.04	9,482.28	90.44	89.25	-81.46	10,328.35	-1,911.80	706.47	527.60	178.88	3.949	
21,000.00	9,577.41	20,592.97	9,469.61	91.14	89.95	-81.16	10,427.47	-1,912.85	707.02	526.76	180.26	3.922	
21,100.00	9,568.44	20,692.90	9,456.94	91.85	90.66	-80.87	10,526.59	-1,913.90	707.59	525.94	181.65	3.895	
21,200.00	9,559.46	20,792.83	9,444.26	92.55	91.37	-80.57	10,625.71	-1,914.95	708.18	525.14	183.05	3.869	
21,300.00	9,550.49	20,892.76	9,431.59	93.25	92.09	-80.27	10,724.82	-1,916.00	708.79	524.35	184.44	3.843	
21,400.00	9,541.52	20,992.69	9,418.92	93.96	92.80	-79.97	10,823.94	-1,917.06	709.42	523.58	185.84	3.817	
21,500.00	9,532.54	21,092.62	9,406.24	94.66	93.51	-79.68	10,923.06	-1,918.11	710.06	522.83	187.23	3.792	
21,600.00	9,523.57	21,192.55	9,393.57	95.37	94.23	-79.38	11,022.18	-1,919.16	710.73	522.10	188.63	3.768	
21,700.00	9,514.60	21,292.48	9,380.90	96.07	94.94	-79.09	11,121.30	-1,920.21	711.41	521.38	190.03	3.744	

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

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

Offset Design: Rope State Com Pad - Rope State Com 502H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
21,800.00	9,505.62	21,392.41	9,368.22	96.78	95.66	-78.79	11,220.41	-1,921.26	712.12	520.68	191.44	3.720	
21,900.00	9,496.65	21,489.45	9,355.14	97.49	96.35	-78.44	11,316.56	-1,922.28	713.00	520.19	192.81	3.698	
22,000.00	9,487.68	21,589.29	9,340.48	98.20	97.07	-77.99	11,415.31	-1,923.33	714.16	519.97	194.20	3.677	
22,100.00	9,478.71	21,689.12	9,325.82	98.91	97.79	-77.54	11,514.05	-1,924.38	715.37	519.78	195.59	3.657	
22,200.00	9,469.73	21,788.96	9,311.15	99.63	98.51	-77.09	11,612.80	-1,925.42	716.62	519.64	196.99	3.638	
22,300.00	9,460.76	21,888.79	9,296.49	100.34	99.23	-76.65	11,711.55	-1,926.47	717.92	519.53	198.38	3.619	
22,400.00	9,451.79	21,988.63	9,281.83	101.05	99.95	-76.20	11,810.29	-1,927.52	719.26	519.48	199.78	3.600	
22,500.00	9,442.81	22,088.46	9,267.17	101.77	100.67	-75.76	11,909.04	-1,928.57	720.64	519.46	201.18	3.582	ES
22,600.00	9,433.84	22,188.29	9,252.51	102.48	101.39	-75.32	12,007.79	-1,929.61	722.07	519.48	202.58	3.564	
22,700.00	9,424.87	22,288.13	9,237.84	103.20	102.12	-74.88	12,106.53	-1,930.66	723.54	519.55	203.99	3.547	
22,800.00	9,415.89	22,387.96	9,223.18	103.92	102.84	-74.44	12,205.28	-1,931.71	725.05	519.66	205.39	3.530	
22,900.00	9,406.92	22,487.80	9,208.52	104.63	103.56	-74.00	12,304.03	-1,932.76	726.60	519.81	206.80	3.514	
23,000.00	9,397.95	22,587.63	9,193.86	105.35	104.29	-73.57	12,402.77	-1,933.80	728.20	519.99	208.20	3.498	
23,100.00	9,388.97	22,687.32	9,179.21	106.07	105.01	-73.13	12,501.38	-1,934.85	729.84	520.22	209.61	3.482	
23,200.00	9,380.00	22,780.51	9,163.98	106.79	105.69	-72.62	12,593.30	-1,935.83	732.02	521.09	210.93	3.470	
23,300.00	9,371.03	22,880.12	9,146.30	107.51	106.42	-71.96	12,691.33	-1,936.87	734.70	522.39	212.31	3.460	
23,400.00	9,362.06	22,979.73	9,128.62	108.23	107.14	-71.31	12,789.35	-1,937.91	737.49	523.79	213.70	3.451	
23,500.00	9,353.08	23,079.34	9,110.95	108.96	107.87	-70.66	12,887.37	-1,938.95	740.37	525.28	215.09	3.442	
23,600.00	9,344.11	23,178.95	9,093.27	109.68	108.60	-70.02	12,985.39	-1,939.99	743.34	526.86	216.48	3.434	
23,700.00	9,335.14	23,278.55	9,075.60	110.40	109.32	-69.38	13,083.41	-1,941.02	746.41	528.54	217.87	3.426	
23,800.00	9,326.16	23,378.16	9,057.92	111.13	110.05	-68.75	13,181.43	-1,942.06	749.56	530.30	219.26	3.419	
23,900.00	9,317.19	23,477.77	9,040.24	111.85	110.78	-68.13	13,279.46	-1,943.10	752.81	532.15	220.66	3.412	
24,000.00	9,308.22	23,577.38	9,022.57	112.58	111.51	-67.51	13,377.48	-1,944.14	756.15	534.09	222.06	3.405	
24,100.00	9,299.24	23,676.99	9,004.89	113.30	112.24	-66.89	13,475.50	-1,945.18	759.58	536.12	223.45	3.399	
24,200.00	9,290.27	23,776.60	8,987.21	114.03	112.97	-66.28	13,573.52	-1,946.22	763.09	538.23	224.86	3.394	
24,300.00	9,281.30	23,876.20	8,969.54	114.75	113.70	-65.68	13,671.54	-1,947.26	766.69	540.43	226.26	3.389	
24,400.00	9,272.32	23,973.72	8,952.18	115.48	114.41	-65.09	13,767.49	-1,948.28	770.40	542.77	227.63	3.384	SF
24,500.00	9,263.35	24,064.92	8,933.99	116.21	115.08	-64.41	13,856.85	-1,949.23	775.12	546.25	228.87	3.387	
24,600.00	9,254.38	24,161.76	8,913.17	116.94	115.79	-63.60	13,951.43	-1,950.23	780.68	550.49	230.19	3.391	
24,700.00	9,245.41	24,260.96	8,891.85	117.67	116.52	-62.78	14,048.30	-1,951.26	786.41	554.85	231.56	3.396	
24,800.00	9,236.43	24,360.16	8,870.52	118.40	117.25	-61.97	14,145.17	-1,952.29	792.30	559.36	232.94	3.401	
24,900.00	9,227.46	24,459.35	8,849.20	119.13	117.98	-61.17	14,242.05	-1,953.32	798.35	564.03	234.32	3.407	
25,000.00	9,218.49	24,558.55	8,827.87	119.86	118.71	-60.39	14,338.92	-1,954.34	804.55	568.85	235.70	3.413	
25,100.00	9,209.51	24,657.75	8,806.55	120.59	119.44	-59.62	14,435.79	-1,955.37	810.90	573.82	237.08	3.420	
25,200.00	9,200.54	24,756.94	8,785.23	121.32	120.17	-58.86	14,532.66	-1,956.40	817.39	578.93	238.47	3.428	
25,300.00	9,191.57	24,856.14	8,763.90	122.05	120.90	-58.11	14,629.53	-1,957.43	824.03	584.18	239.86	3.436	
25,400.00	9,182.59	24,955.34	8,742.58	122.79	121.63	-57.37	14,726.41	-1,958.45	830.81	589.56	241.25	3.444	
25,500.00	9,173.62	25,054.54	8,721.25	123.52	122.37	-56.65	14,823.28	-1,959.48	837.73	595.08	242.64	3.452	
25,600.00	9,164.65	25,153.73	8,699.93	124.25	123.10	-55.93	14,920.15	-1,960.51	844.78	600.73	244.04	3.462	
25,700.00	9,155.67	25,250.29	8,679.13	124.99	123.81	-55.25	15,014.44	-1,961.51	851.98	606.60	245.38	3.472	
25,800.00	9,146.70	25,334.62	8,659.35	125.72	124.43	-54.57	15,096.41	-1,962.38	860.45	614.07	246.38	3.492	
25,900.00	9,137.73	25,418.15	8,637.39	126.46	125.05	-53.78	15,176.99	-1,963.23	870.81	623.54	247.27	3.522	
26,000.00	9,128.76	25,507.28	8,611.65	127.19	125.70	-52.83	15,262.31	-1,964.14	882.98	634.70	248.28	3.556	
26,100.00	9,119.78	25,605.13	8,582.97	127.93	126.42	-51.79	15,355.87	-1,965.13	895.74	646.16	249.58	3.589	
26,200.00	9,110.81	25,702.98	8,554.30	128.66	127.14	-50.78	15,449.42	-1,966.12	908.79	657.90	250.89	3.622	
26,300.00	9,101.84	25,800.84	8,525.62	129.40	127.86	-49.80	15,542.97	-1,967.12	922.12	669.91	252.21	3.656	
26,400.00	9,092.86	25,898.69	8,496.94	130.14	128.57	-48.85	15,636.52	-1,968.11	935.71	682.17	253.53	3.691	
26,500.00	9,083.89	25,996.54	8,468.27	130.87	129.29	-47.92	15,730.07	-1,969.10	949.55	694.69	254.86	3.726	
26,600.00	9,074.92	26,094.40	8,439.59	131.61	130.01	-47.03	15,823.63	-1,970.09	963.63	707.44	256.20	3.761	
26,700.00	9,065.94	26,192.25	8,410.92	132.35	130.73	-46.15	15,917.18	-1,971.09	977.95	720.41	257.54	3.797	
26,800.00	9,056.97	26,290.10	8,382.24	133.09	131.45	-45.30	16,010.73	-1,972.08	992.48	733.60	258.89	3.834	
26,900.00	9,048.00	26,387.96	8,353.56	133.83	132.17	-44.48	16,104.28	-1,973.07	1,007.23	746.99	260.24	3.870	

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

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

Offset Design: Rope State Com Pad - Rope State Com 502H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
27,000.00	9,039.02	26,485.81	8,324.89	134.56	132.89	-43.68	16,197.83	-1,974.06	1,022.18	760.59	261.60	3.907	
27,100.00	9,030.05	26,583.67	8,296.21	135.30	133.61	-42.90	16,291.39	-1,975.06	1,037.33	774.37	262.96	3.945	
27,200.00	9,021.08	26,681.52	8,267.53	136.04	134.33	-42.14	16,384.94	-1,976.05	1,052.66	788.33	264.33	3.982	
27,300.00	9,012.10	26,779.37	8,238.86	136.78	135.05	-41.40	16,478.49	-1,977.04	1,068.17	802.47	265.70	4.020	
27,400.00	9,003.13	26,888.75	8,207.71	137.52	135.86	-40.64	16,583.34	-1,978.15	1,083.19	815.68	267.51	4.049	
27,500.00	8,994.16	26,986.89	8,180.26	138.27	136.58	-39.99	16,677.54	-1,979.15	1,097.97	829.06	268.91	4.083	
27,600.00	8,985.19	27,085.02	8,152.81	139.01	137.31	-39.36	16,771.75	-1,980.15	1,112.89	842.57	270.32	4.117	
27,700.00	8,976.21	27,183.15	8,125.36	139.75	138.03	-38.74	16,865.96	-1,981.15	1,127.94	856.21	271.73	4.151	
27,800.00	8,967.24	27,281.28	8,097.91	140.49	138.76	-38.14	16,960.17	-1,982.15	1,143.11	869.97	273.14	4.185	
27,900.00	8,958.27	27,379.41	8,070.46	141.23	139.48	-37.56	17,054.38	-1,983.15	1,158.41	883.85	274.55	4.219	
28,000.00	8,949.29	27,477.54	8,043.01	141.97	140.21	-36.99	17,148.58	-1,984.15	1,173.82	897.84	275.97	4.253	
28,100.00	8,940.32	27,575.67	8,015.56	142.72	140.93	-36.43	17,242.79	-1,985.15	1,189.34	911.95	277.40	4.288	
28,200.00	8,931.35	27,673.80	7,988.11	143.46	141.66	-35.89	17,337.00	-1,986.15	1,204.97	926.15	278.82	4.322	
28,300.00	8,922.37	27,771.93	7,960.66	144.20	142.38	-35.37	17,431.21	-1,987.15	1,220.71	940.46	280.25	4.356	
28,400.00	8,913.40	27,870.06	7,933.21	144.95	143.11	-34.85	17,525.42	-1,988.15	1,236.54	954.86	281.68	4.390	
28,500.00	8,904.43	27,968.19	7,905.76	145.69	143.83	-34.35	17,619.62	-1,989.15	1,252.47	969.36	283.11	4.424	
28,600.00	8,895.45	28,066.32	7,878.31	146.43	144.56	-33.86	17,713.83	-1,990.15	1,268.49	983.94	284.55	4.458	
28,660.79	8,890.00	28,125.98	7,861.62	146.89	145.00	-33.57	17,771.10	-1,990.75	1,278.27	992.85	285.42	4.479	

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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 Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.10	0.00	0.00	89.80	0.07	20.00	20.00				
100.00	100.00	99.90	100.00	0.28	0.28	89.80	0.07	20.00	20.00	19.45	0.55	36.247	
200.00	200.00	199.90	200.00	0.63	0.63	89.80	0.07	20.00	20.00	18.73	1.27	15.765	
300.00	300.00	299.90	300.00	0.99	0.99	89.80	0.07	20.00	20.00	18.01	1.99	10.073	
400.00	400.00	399.90	400.00	1.35	1.35	89.80	0.07	20.00	20.00	17.30	2.70	7.401	
500.00	500.00	499.90	500.00	1.71	1.71	89.80	0.07	20.00	20.00	16.58	3.42	5.849	
600.00	600.00	599.90	600.00	2.07	2.07	89.80	0.07	20.00	20.00	15.86	4.14	4.835	
700.00	700.00	699.90	700.00	2.43	2.43	89.80	0.07	20.00	20.00	15.15	4.85	4.121	
800.00	800.00	799.90	800.00	2.79	2.78	89.80	0.07	20.00	20.00	14.43	5.57	3.590	
900.00	900.00	899.90	900.00	3.14	3.14	89.80	0.07	20.00	20.00	13.71	6.29	3.181	
1,000.00	1,000.00	999.90	1,000.00	3.50	3.50	89.80	0.07	20.00	20.00	13.00	7.00	2.855	
1,100.00	1,100.00	1,099.90	1,100.00	3.86	3.86	89.80	0.07	20.00	20.00	12.28	7.72	2.590	
1,200.00	1,200.00	1,199.90	1,200.00	4.22	4.22	89.80	0.07	20.00	20.00	11.56	8.44	2.370	
1,300.00	1,300.00	1,299.90	1,300.00	4.58	4.58	89.80	0.07	20.00	20.00	10.85	9.16	2.185	
1,400.00	1,400.00	1,399.90	1,400.00	4.94	4.94	89.80	0.07	20.00	20.00	10.13	9.87	2.026	
1,500.00	1,500.00	1,499.90	1,500.00	5.29	5.29	89.80	0.07	20.00	20.00	9.41	10.59	1.889	
1,600.00	1,600.00	1,599.90	1,600.00	5.65	5.65	89.80	0.07	20.00	20.00	8.69	11.31	1.769	CC, ES, SF
1,700.00	1,699.98	1,699.88	1,699.98	6.00	6.01	-168.72	0.07	20.00	21.71	9.70	12.01	1.807	
1,800.00	1,799.84	1,799.74	1,799.84	6.34	6.37	-170.89	0.07	20.00	26.86	14.15	12.71	2.114	
1,900.00	1,899.45	1,900.39	1,900.47	6.68	6.72	-171.64	-0.95	18.57	33.99	20.60	13.39	2.539	
2,000.00	1,998.70	2,001.22	2,001.16	7.03	7.05	-170.27	-4.03	14.25	41.59	27.54	14.05	2.960	
2,100.00	2,097.73	2,102.27	2,101.81	7.38	7.39	-167.39	-9.17	7.03	48.03	33.32	14.71	3.265	
2,200.00	2,196.75	2,202.09	2,201.09	7.73	7.73	-164.12	-15.23	-1.47	53.24	37.84	15.40	3.458	
2,300.00	2,295.78	2,301.92	2,300.36	8.08	8.07	-161.43	-21.28	-9.96	58.60	42.51	16.09	3.642	
2,400.00	2,394.80	2,401.74	2,399.64	8.43	8.41	-159.20	-27.33	-18.46	64.06	47.27	16.78	3.817	
2,500.00	2,493.82	2,501.56	2,498.92	8.79	8.75	-157.33	-33.38	-26.95	69.60	52.12	17.48	3.981	
2,600.00	2,592.85	2,601.38	2,598.19	9.14	9.10	-155.73	-39.43	-35.45	75.20	57.02	18.18	4.136	
2,700.00	2,691.87	2,701.21	2,697.47	9.50	9.45	-154.35	-45.48	-43.94	80.86	61.97	18.89	4.281	
2,800.00	2,790.90	2,801.03	2,796.74	9.86	9.80	-153.15	-51.54	-52.44	86.56	66.96	19.59	4.417	
2,900.00	2,889.92	2,900.85	2,896.02	10.22	10.15	-152.11	-57.59	-60.93	92.28	71.98	20.30	4.545	
3,000.00	2,988.95	3,000.67	2,995.30	10.58	10.50	-151.18	-63.64	-69.43	98.04	77.02	21.02	4.665	
3,100.00	3,087.97	3,100.50	3,094.57	10.94	10.85	-150.36	-69.69	-77.92	103.82	82.09	21.73	4.778	
3,200.00	3,187.00	3,200.32	3,193.85	11.30	11.20	-149.62	-75.74	-86.42	109.62	87.17	22.45	4.884	
3,300.00	3,286.02	3,300.14	3,293.12	11.67	11.55	-148.96	-81.79	-94.91	115.43	92.27	23.16	4.984	
3,400.00	3,385.04	3,399.96	3,392.40	12.03	11.91	-148.36	-87.85	-103.41	121.26	97.38	23.88	5.078	
3,500.00	3,484.07	3,499.79	3,491.68	12.39	12.26	-147.82	-93.90	-111.90	127.10	102.50	24.60	5.166	
3,600.00	3,583.09	3,599.61	3,590.95	12.76	12.62	-147.33	-99.95	-120.39	132.95	107.63	25.32	5.250	
3,700.00	3,682.12	3,699.43	3,690.23	13.12	12.98	-146.87	-106.00	-128.89	138.81	112.76	26.05	5.330	
3,800.00	3,781.14	3,799.25	3,789.50	13.49	13.33	-146.45	-112.05	-137.38	144.68	117.91	26.77	5.405	
3,900.00	3,880.17	3,899.07	3,888.78	13.85	13.69	-146.07	-118.11	-145.88	150.55	123.06	27.49	5.476	
4,000.00	3,979.19	3,998.90	3,988.06	14.22	14.05	-145.71	-124.16	-154.37	156.43	128.21	28.22	5.544	
4,100.00	4,078.22	4,098.72	4,087.33	14.59	14.41	-145.39	-130.21	-162.87	162.32	133.38	28.94	5.608	
4,200.00	4,177.24	4,198.54	4,186.61	14.95	14.77	-145.08	-136.26	-171.36	168.21	138.54	29.67	5.669	
4,300.00	4,276.26	4,298.36	4,285.88	15.32	15.13	-144.79	-142.31	-179.86	174.11	143.71	30.40	5.728	
4,400.00	4,375.29	4,398.19	4,385.16	15.69	15.49	-144.53	-148.36	-188.35	180.01	148.88	31.13	5.783	
4,500.00	4,474.31	4,498.01	4,484.44	16.05	15.85	-144.28	-154.42	-196.85	185.91	154.05	31.86	5.836	
4,600.00	4,573.34	4,597.83	4,583.71	16.42	16.21	-144.04	-160.47	-205.34	191.82	159.23	32.58	5.887	
4,700.00	4,672.36	4,697.65	4,682.99	16.79	16.57	-143.82	-166.52	-213.84	197.73	164.41	33.31	5.935	
4,800.00	4,771.39	4,797.48	4,782.26	17.16	16.93	-143.61	-172.57	-222.33	203.64	169.59	34.04	5.982	
4,900.00	4,870.41	4,897.30	4,881.54	17.53	17.29	-143.42	-178.62	-230.82	209.55	174.78	34.78	6.026	
5,000.00	4,969.44	4,997.12	4,980.82	17.90	17.65	-143.23	-184.67	-239.32	215.47	179.97	35.51	6.069	
5,100.00	5,068.46	5,096.94	5,080.09	18.26	18.01	-143.05	-190.73	-247.81	221.39	185.15	36.24	6.109	

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

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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 Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.00	5,167.49	5,196.77	5,179.37	18.63	18.38	-142.89	-196.78	-256.31	227.31	190.34	36.97	6.149	
5,300.00	5,266.51	5,296.59	5,278.64	19.00	18.74	-142.73	-202.83	-264.80	233.24	195.53	37.70	6.186	
5,400.00	5,365.53	5,396.41	5,377.92	19.37	19.10	-142.58	-208.88	-273.30	239.16	200.73	38.43	6.223	
5,500.00	5,464.56	5,496.23	5,477.20	19.74	19.46	-142.44	-214.93	-281.79	245.09	205.92	39.17	6.257	
5,600.00	5,563.58	5,596.06	5,576.47	20.11	19.83	-142.30	-220.98	-290.29	251.02	211.11	39.90	6.291	
5,700.00	5,662.61	5,695.88	5,675.75	20.48	20.19	-142.17	-227.04	-298.78	256.94	216.31	40.63	6.323	
5,800.00	5,761.63	5,792.92	5,772.33	20.85	20.54	-142.18	-232.53	-306.50	263.22	221.86	41.35	6.365	
5,900.00	5,860.66	5,888.20	5,867.39	21.22	20.88	-142.74	-236.21	-311.65	271.03	228.98	42.05	6.445	
6,000.00	5,959.68	5,982.97	5,962.10	21.59	21.22	-143.82	-238.04	-314.22	280.55	237.82	42.73	6.566	
6,100.00	6,058.71	6,079.58	6,058.71	21.96	21.55	-145.32	-238.27	-314.55	291.72	248.31	43.41	6.721	
6,200.00	6,157.73	6,178.60	6,157.73	22.33	21.89	-146.82	-238.27	-314.55	303.31	259.21	44.10	6.877	
6,300.00	6,256.75	6,277.62	6,256.75	22.70	22.23	-148.20	-238.27	-314.55	315.10	270.30	44.80	7.033	
6,400.00	6,355.78	6,376.65	6,355.78	23.07	22.57	-149.48	-238.27	-314.55	327.06	281.56	45.50	7.188	
6,500.00	6,454.80	6,475.67	6,454.80	23.44	22.90	-150.67	-238.27	-314.55	339.16	292.96	46.20	7.341	
6,600.00	6,553.83	6,574.70	6,553.83	23.81	23.24	-151.78	-238.27	-314.55	351.40	304.50	46.90	7.492	
6,700.00	6,652.85	6,673.72	6,652.85	24.18	23.58	-152.82	-238.27	-314.55	363.77	316.17	47.60	7.642	
6,800.00	6,751.88	6,772.75	6,751.88	24.55	23.92	-153.79	-238.27	-314.55	376.24	327.94	48.30	7.789	
6,900.00	6,850.90	6,871.77	6,850.90	24.92	24.26	-154.69	-238.27	-314.55	388.81	339.81	49.01	7.934	
7,000.00	6,949.93	6,970.80	6,949.93	25.30	24.60	-155.54	-238.27	-314.55	401.48	351.76	49.71	8.076	
7,100.00	7,048.95	7,069.82	7,048.95	25.67	24.95	-156.34	-238.27	-314.55	414.22	363.80	50.42	8.216	
7,200.00	7,147.98	7,168.85	7,147.98	26.04	25.29	-157.09	-238.27	-314.55	427.04	375.92	51.12	8.353	
7,300.00	7,247.00	7,267.87	7,247.00	26.41	25.63	-157.79	-238.27	-314.55	439.93	388.10	51.83	8.488	
7,400.00	7,346.02	7,366.89	7,346.02	26.78	25.97	-158.46	-238.27	-314.55	452.87	400.34	52.53	8.621	
7,500.00	7,445.05	7,465.92	7,445.05	27.15	26.31	-159.09	-238.27	-314.55	465.88	412.64	53.24	8.750	
7,600.00	7,544.07	7,564.94	7,544.07	27.52	26.66	-159.68	-238.27	-314.55	478.94	424.99	53.95	8.878	
7,700.00	7,643.10	7,663.97	7,643.10	27.89	27.00	-160.24	-238.27	-314.55	492.04	437.38	54.66	9.002	
7,800.00	7,742.12	7,762.99	7,742.12	28.27	27.34	-160.78	-238.27	-314.55	505.19	449.83	55.37	9.125	
7,900.00	7,841.15	7,862.02	7,841.15	28.64	27.69	-161.28	-238.27	-314.55	518.38	462.31	56.07	9.245	
8,000.00	7,940.17	7,961.04	7,940.17	29.01	28.03	-161.77	-238.27	-314.55	531.61	474.83	56.78	9.362	
8,100.00	8,039.20	8,060.07	8,039.20	29.38	28.38	-162.22	-238.27	-314.55	544.87	487.38	57.49	9.477	
8,200.00	8,138.22	8,159.09	8,138.22	29.75	28.72	-162.66	-238.27	-314.55	558.17	499.97	58.20	9.590	
8,300.00	8,237.24	8,258.11	8,237.24	30.12	29.07	-163.08	-238.27	-314.55	571.50	512.58	58.92	9.700	
8,400.00	8,336.27	8,357.14	8,336.27	30.49	29.41	-163.47	-238.27	-314.55	584.85	525.23	59.63	9.809	
8,500.00	8,435.29	8,456.16	8,435.29	30.87	29.76	-163.85	-238.27	-314.55	598.23	537.90	60.34	9.915	
8,600.00	8,534.32	8,555.19	8,534.32	31.24	30.10	-164.22	-238.27	-314.55	611.64	550.59	61.05	10.019	
8,700.00	8,633.34	8,654.21	8,633.34	31.61	30.45	-164.56	-238.27	-314.55	625.07	563.31	61.76	10.120	
8,800.00	8,732.37	8,753.24	8,732.37	31.98	30.80	-164.89	-238.27	-314.55	638.52	576.04	62.48	10.220	
8,900.00	8,831.39	8,852.26	8,831.39	32.35	31.14	-165.21	-238.27	-314.55	651.99	588.80	63.19	10.318	
9,000.00	8,930.42	8,951.29	8,930.42	32.73	31.49	-165.52	-238.27	-314.55	665.48	601.58	63.90	10.414	
9,100.00	9,029.44	9,050.31	9,029.44	33.10	31.84	-165.81	-238.27	-314.55	678.99	614.37	64.62	10.508	
9,200.00	9,128.47	9,149.34	9,128.47	33.47	32.18	-166.10	-238.27	-314.55	692.51	627.18	65.33	10.600	
9,300.00	9,227.49	9,248.36	9,227.49	33.84	32.53	-166.37	-238.27	-314.55	706.06	640.01	66.05	10.690	
9,400.00	9,326.51	9,347.38	9,326.51	34.21	32.88	-166.63	-238.27	-314.55	719.61	652.85	66.76	10.779	
9,500.00	9,425.54	9,446.41	9,425.54	34.58	33.23	-166.88	-238.27	-314.55	733.18	665.71	67.48	10.866	
9,600.00	9,524.56	9,546.42	9,525.47	34.96	33.58	-167.32	-235.71	-314.58	746.73	678.53	68.20	10.950	
9,700.00	9,623.59	9,643.35	9,620.74	35.33	33.90	-168.86	-218.46	-314.76	760.38	691.52	68.86	11.042	
9,800.00	9,722.79	9,732.11	9,704.30	35.70	34.18	170.19	-188.79	-315.09	774.06	704.66	69.40	11.153	
9,900.00	9,822.36	9,812.51	9,775.22	36.06	34.41	126.20	-151.07	-315.49	785.95	716.20	69.76	11.267	
10,000.00	9,921.83	9,884.51	9,833.71	36.40	34.60	88.82	-109.16	-315.95	796.97	727.11	69.85	11.409	
10,100.00	10,020.25	9,950.00	9,881.96	36.73	34.75	78.11	-64.94	-316.43	808.41	738.76	69.64	11.608	
10,200.00	10,114.42	10,012.84	9,923.23	37.04	34.88	74.69	-17.60	-316.94	821.55	752.37	69.18	11.876	
10,300.00	10,201.38	10,074.48	9,958.45	37.32	35.00	71.57	32.95	-317.49	835.36	766.83	68.54	12.189	

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

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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 Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,400.00	10,278.48	10,135.08	9,987.58	37.56	35.10	68.85	86.05	-318.06	848.78	780.99	67.79	12.521	
10,500.00	10,343.39	10,200.00	10,012.38	37.75	35.19	66.49	146.01	-318.71	860.90	793.82	67.08	12.834	
10,600.00	10,394.13	10,257.11	10,028.56	37.90	35.26	64.77	200.75	-319.30	870.89	804.51	66.38	13.120	
10,700.00	10,429.16	10,331.15	10,044.46	38.00	35.34	63.59	273.05	-320.08	877.10	811.07	66.03	13.284	
10,800.00	10,451.27	10,400.00	10,055.03	38.07	35.42	63.15	341.07	-320.82	880.32	814.48	65.84	13.371	
10,900.00	10,464.78	10,479.30	10,062.12	38.14	35.49	62.82	420.03	-321.67	882.50	816.72	65.78	13.416	
11,000.00	10,469.61	10,553.16	10,063.80	38.20	35.56	62.66	493.86	-322.46	883.67	817.87	65.80	13.429	
11,100.00	10,465.71	10,626.98	10,060.72	38.28	35.64	62.65	567.60	-323.26	883.80	817.83	65.97	13.397	
11,200.00	10,456.77	10,724.14	10,052.89	38.41	35.77	62.70	664.43	-324.30	883.38	817.19	66.19	13.346	
11,300.00	10,447.80	10,824.13	10,044.81	38.56	35.92	62.75	764.09	-325.37	882.98	816.53	66.44	13.289	
11,400.00	10,438.83	10,924.13	10,036.72	38.74	36.09	62.80	863.76	-326.44	882.57	815.84	66.73	13.226	
11,500.00	10,429.85	11,024.13	10,028.63	38.93	36.27	62.85	963.42	-327.51	882.16	815.11	67.05	13.156	
11,600.00	10,420.88	11,124.12	10,020.55	39.14	36.47	62.90	1,063.08	-328.58	881.75	814.34	67.41	13.080	
11,700.00	10,411.91	11,224.12	10,012.46	39.36	36.68	62.95	1,162.75	-329.65	881.35	813.55	67.80	12.999	
11,800.00	10,402.93	11,324.11	10,004.38	39.59	36.91	63.01	1,262.41	-330.72	880.94	812.72	68.23	12.912	
11,900.00	10,393.96	11,424.11	9,996.29	39.84	37.15	63.06	1,362.07	-331.79	880.54	811.86	68.68	12.820	
12,000.00	10,384.99	11,524.11	9,988.21	40.10	37.41	63.11	1,461.73	-332.86	880.14	810.97	69.17	12.724	
12,100.00	10,376.01	11,624.10	9,980.12	40.38	37.68	63.16	1,561.40	-333.93	879.73	810.04	69.69	12.623	
12,200.00	10,367.04	11,724.10	9,972.04	40.66	37.96	63.21	1,661.06	-335.01	879.33	809.09	70.24	12.519	
12,300.00	10,358.07	11,824.09	9,963.95	40.96	38.26	63.27	1,760.72	-336.08	878.93	808.11	70.82	12.411	
12,400.00	10,349.09	11,924.09	9,955.87	41.27	38.57	63.32	1,860.39	-337.15	878.53	807.10	71.43	12.299	
12,500.00	10,340.12	12,024.09	9,947.78	41.60	38.90	63.37	1,960.05	-338.22	878.13	806.06	72.07	12.185	
12,600.00	10,331.15	12,124.08	9,939.70	41.93	39.23	63.42	2,059.71	-339.29	877.73	805.00	72.73	12.068	
12,700.00	10,322.18	12,224.08	9,931.61	42.28	39.58	63.47	2,159.37	-340.36	877.33	803.91	73.42	11.949	
12,800.00	10,313.20	12,324.07	9,923.52	42.63	39.94	63.52	2,259.04	-341.43	876.94	802.79	74.14	11.828	
12,900.00	10,304.23	12,424.07	9,915.44	43.00	40.31	63.58	2,358.70	-342.50	876.54	801.65	74.88	11.705	
13,000.00	10,295.26	12,524.07	9,907.35	43.37	40.70	63.63	2,458.36	-343.57	876.14	800.49	75.65	11.581	
13,100.00	10,286.28	12,624.06	9,899.27	43.76	41.09	63.68	2,558.03	-344.64	875.75	799.30	76.44	11.456	
13,200.00	10,277.31	12,724.06	9,891.18	44.16	41.49	63.73	2,657.69	-345.71	875.35	798.09	77.26	11.330	
13,300.00	10,268.34	12,824.05	9,883.10	44.56	41.91	63.79	2,757.35	-346.79	874.96	796.86	78.10	11.204	
13,400.00	10,259.36	12,924.05	9,875.01	44.98	42.33	63.84	2,857.01	-347.86	874.56	795.61	78.95	11.077	
13,500.00	10,250.39	13,024.05	9,866.93	45.40	42.77	63.89	2,956.68	-348.93	874.17	794.34	79.83	10.950	
13,600.00	10,241.42	13,124.04	9,858.84	45.84	43.21	63.94	3,056.34	-350.00	873.78	793.05	80.73	10.823	
13,700.00	10,232.44	13,224.04	9,850.76	46.28	43.66	64.00	3,156.00	-351.07	873.39	791.73	81.65	10.696	
13,800.00	10,223.47	13,324.03	9,842.67	46.73	44.13	64.05	3,255.67	-352.14	873.00	790.41	82.59	10.570	
13,900.00	10,214.50	13,424.03	9,834.58	47.19	44.60	64.10	3,355.33	-353.21	872.61	789.06	83.55	10.444	
14,000.00	10,205.53	13,524.03	9,826.50	47.66	45.07	64.15	3,454.99	-354.28	872.22	787.70	84.52	10.319	
14,100.00	10,196.55	13,624.02	9,818.41	48.13	45.56	64.21	3,554.65	-355.35	871.83	786.32	85.52	10.195	
14,200.00	10,187.58	13,724.02	9,810.33	48.61	46.05	64.26	3,654.32	-356.42	871.44	784.92	86.52	10.072	
14,300.00	10,178.61	13,824.01	9,802.24	49.10	46.56	64.31	3,753.98	-357.50	871.06	783.51	87.55	9.949	
14,400.00	10,169.63	13,924.01	9,794.16	49.60	47.07	64.36	3,853.64	-358.57	870.67	782.08	88.59	9.828	
14,500.00	10,160.66	14,024.01	9,786.07	50.10	47.58	64.42	3,953.31	-359.64	870.29	780.64	89.64	9.708	
14,600.00	10,151.69	14,124.00	9,777.99	50.61	48.10	64.47	4,052.97	-360.71	869.90	779.19	90.71	9.590	
14,700.00	10,142.71	14,224.00	9,769.90	51.13	48.63	64.52	4,152.63	-361.78	869.52	777.72	91.79	9.473	
14,800.00	10,133.74	14,323.99	9,761.82	51.65	49.17	64.58	4,252.29	-362.85	869.13	776.25	92.89	9.357	
14,900.00	10,124.77	14,423.99	9,753.73	52.18	49.71	64.63	4,351.96	-363.92	868.75	774.75	94.00	9.242	
15,000.00	10,115.79	14,523.99	9,745.64	52.71	50.26	64.68	4,451.62	-364.99	868.37	773.25	95.12	9.129	
15,100.00	10,106.82	14,623.98	9,737.56	53.25	50.81	64.74	4,551.28	-366.06	867.99	771.74	96.25	9.018	
15,200.00	10,097.85	14,723.98	9,729.47	53.80	51.37	64.79	4,650.95	-367.13	867.61	770.21	97.40	8.908	
15,300.00	10,088.87	14,823.97	9,721.39	54.35	51.94	64.84	4,750.61	-368.20	867.23	768.68	98.55	8.800	
15,400.00	10,079.90	14,923.97	9,713.30	54.90	52.51	64.89	4,850.27	-369.28	866.85	767.13	99.72	8.693	
15,500.00	10,070.93	15,023.97	9,705.22	55.46	53.08	64.95	4,949.93	-370.35	866.47	765.58	100.90	8.588	

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

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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 Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,600.00	10,061.96	15,123.96	9,697.13	56.03	53.66	65.00	5,049.60	-371.42	866.10	764.01	102.09	8.484	
15,700.00	10,052.98	15,223.96	9,689.05	56.60	54.25	65.05	5,149.26	-372.49	865.72	762.44	103.28	8.382	
15,800.00	10,044.01	15,323.96	9,680.96	57.18	54.84	65.11	5,248.92	-373.56	865.35	760.86	104.49	8.282	
15,900.00	10,035.04	15,423.95	9,672.88	57.76	55.43	65.16	5,348.59	-374.63	864.97	759.27	105.70	8.183	
16,000.00	10,026.06	15,523.95	9,664.79	58.34	56.03	65.22	5,448.25	-375.70	864.60	757.67	106.93	8.086	
16,100.00	10,017.09	15,623.94	9,656.70	58.93	56.63	65.27	5,547.91	-376.77	864.22	756.06	108.16	7.990	
16,200.00	10,008.12	15,723.94	9,648.62	59.52	57.24	65.32	5,647.57	-377.84	863.85	754.45	109.40	7.896	
16,300.00	9,999.14	15,823.94	9,640.53	60.12	57.85	65.38	5,747.24	-378.91	863.48	752.83	110.65	7.804	
16,400.00	9,990.17	15,923.93	9,632.45	60.72	58.46	65.43	5,846.90	-379.98	863.11	751.20	111.91	7.713	
16,500.00	9,981.20	16,023.93	9,624.36	61.32	59.08	65.48	5,946.56	-381.06	862.74	749.57	113.17	7.623	
16,600.00	9,972.22	16,123.92	9,616.28	61.93	59.70	65.54	6,046.23	-382.13	862.37	747.93	114.44	7.536	
16,700.00	9,963.25	16,223.92	9,608.19	62.54	60.32	65.59	6,145.89	-383.20	862.00	746.28	115.72	7.449	
16,800.00	9,954.28	16,323.92	9,600.11	63.16	60.95	65.65	6,245.55	-384.27	861.63	744.63	117.00	7.364	
16,900.00	9,945.31	16,423.91	9,592.02	63.78	61.58	65.70	6,345.21	-385.34	861.27	742.97	118.29	7.281	
17,000.00	9,936.33	16,523.91	9,583.94	64.40	62.22	65.75	6,444.88	-386.41	860.90	741.31	119.59	7.199	
17,100.00	9,927.36	16,623.90	9,575.85	65.02	62.85	65.81	6,544.54	-387.48	860.53	739.64	120.89	7.118	
17,200.00	9,918.39	16,723.90	9,567.76	65.65	63.49	65.86	6,644.20	-388.55	860.17	737.97	122.20	7.039	
17,300.00	9,909.41	16,823.90	9,559.68	66.28	64.14	65.92	6,743.87	-389.62	859.80	736.29	123.52	6.961	
17,400.00	9,900.44	16,923.89	9,551.59	66.92	64.78	65.97	6,843.53	-390.69	859.44	734.61	124.84	6.885	
17,500.00	9,891.47	17,023.89	9,543.51	67.55	65.43	66.02	6,943.19	-391.76	859.08	732.92	126.16	6.809	
17,600.00	9,882.49	17,123.88	9,535.42	68.19	66.08	66.08	7,042.85	-392.84	858.72	731.23	127.49	6.735	
17,700.00	9,873.52	17,223.88	9,527.34	68.83	66.74	66.13	7,142.52	-393.91	858.36	729.53	128.83	6.663	
17,800.00	9,864.55	17,323.88	9,519.25	69.48	67.39	66.19	7,242.18	-394.98	858.00	727.83	130.17	6.592	
17,900.00	9,855.57	17,423.87	9,511.17	70.13	68.05	66.24	7,341.84	-396.05	857.64	726.12	131.51	6.521	
18,000.00	9,846.60	17,523.87	9,503.08	70.78	68.71	66.30	7,441.51	-397.12	857.28	724.42	132.86	6.452	
18,100.00	9,837.63	17,623.86	9,495.00	71.43	69.38	66.35	7,541.17	-398.19	856.92	722.70	134.21	6.385	
18,200.00	9,828.66	17,723.86	9,486.91	72.08	70.04	66.40	7,640.83	-399.26	856.56	720.99	135.57	6.318	
18,300.00	9,819.68	17,823.86	9,478.82	72.74	70.71	66.46	7,740.49	-400.33	856.21	719.27	136.93	6.253	
18,400.00	9,810.71	17,923.85	9,470.74	73.40	71.38	66.51	7,840.16	-401.40	855.85	717.55	138.30	6.188	
18,500.00	9,801.74	18,023.85	9,462.65	74.06	72.05	66.57	7,939.82	-402.47	855.50	715.82	139.67	6.125	
18,600.00	9,792.76	18,123.84	9,454.57	74.72	72.72	66.62	8,039.48	-403.54	855.14	714.10	141.04	6.063	
18,700.00	9,783.79	18,223.84	9,446.48	75.39	73.40	66.68	8,139.15	-404.62	854.79	712.37	142.42	6.002	
18,800.00	9,774.82	18,323.84	9,438.40	76.05	74.08	66.73	8,238.81	-405.69	854.44	710.63	143.80	5.942	
18,900.00	9,765.84	18,423.83	9,430.31	76.72	74.76	66.79	8,338.47	-406.76	854.08	708.90	145.19	5.883	
19,000.00	9,756.87	18,523.83	9,422.23	77.39	75.44	66.84	8,438.13	-407.83	853.73	707.16	146.57	5.825	
19,100.00	9,747.90	18,623.82	9,414.14	78.07	76.12	66.90	8,537.80	-408.90	853.38	705.42	147.97	5.767	
19,200.00	9,738.92	18,723.82	9,406.06	78.74	76.81	66.95	8,637.46	-409.97	853.03	703.67	149.36	5.711	
19,300.00	9,729.95	18,823.82	9,397.97	79.42	77.49	67.01	8,737.12	-411.04	852.68	701.93	150.76	5.656	
19,400.00	9,720.98	18,923.81	9,389.88	80.10	78.18	67.06	8,836.79	-412.11	852.34	700.18	152.16	5.602	
19,500.00	9,712.01	19,023.81	9,381.80	80.78	78.87	67.12	8,936.45	-413.18	851.99	698.43	153.56	5.548	
19,600.00	9,703.03	19,123.80	9,373.71	81.46	79.56	67.17	9,036.11	-414.25	851.64	696.68	154.97	5.496	
19,700.00	9,694.06	19,223.80	9,365.63	82.14	80.25	67.23	9,135.77	-415.32	851.30	694.92	156.38	5.444	
19,800.00	9,685.09	19,323.80	9,357.54	82.82	80.94	67.28	9,235.44	-416.40	850.95	693.17	157.79	5.393	
19,900.00	9,676.11	19,423.79	9,349.46	83.51	81.64	67.34	9,335.10	-417.47	850.61	691.41	159.20	5.343	
20,000.00	9,667.14	19,523.79	9,341.37	84.20	82.34	67.39	9,434.76	-418.54	850.27	689.65	160.62	5.294	
20,100.00	9,658.17	19,623.78	9,333.29	84.89	83.03	67.45	9,534.43	-419.61	849.92	687.89	162.04	5.245	
20,200.00	9,649.19	19,723.78	9,325.20	85.58	83.73	67.51	9,634.09	-420.68	849.58	686.12	163.46	5.198	
20,300.00	9,640.22	19,823.78	9,317.12	86.27	84.43	67.56	9,733.75	-421.75	849.24	684.36	164.88	5.151	
20,400.00	9,631.25	19,923.77	9,309.03	86.96	85.13	67.62	9,833.41	-422.82	848.90	682.59	166.31	5.104	
20,500.00	9,622.27	20,023.77	9,300.94	87.65	85.84	67.67	9,933.08	-423.89	848.56	680.83	167.74	5.059	
20,600.00	9,613.30	20,123.76	9,292.86	88.35	86.54	67.73	10,032.74	-424.96	848.23	679.06	169.17	5.014	
20,700.00	9,604.33	20,223.76	9,284.77	89.05	87.24	67.78	10,132.40	-426.03	847.89	677.29	170.60	4.970	

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

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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

Rule Assigned:

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
20,800.00	9,595.36	20,323.76	9,276.69	89.74	87.95	67.84	10,232.07	-427.10	847.55	675.52	172.04	4.927	
20,900.00	9,586.38	20,423.75	9,268.60	90.44	88.66	67.89	10,331.73	-428.18	847.22	673.74	173.47	4.884	
21,000.00	9,577.41	20,523.75	9,260.52	91.14	89.37	67.95	10,431.39	-429.25	846.88	671.97	174.91	4.842	
21,100.00	9,568.44	20,623.74	9,252.43	91.85	90.07	68.01	10,531.05	-430.32	846.55	670.19	176.35	4.800	
21,200.00	9,559.46	20,723.74	9,244.35	92.55	90.79	68.06	10,630.72	-431.39	846.21	668.42	177.79	4.760	
21,300.00	9,550.49	20,823.74	9,236.26	93.25	91.50	68.12	10,730.38	-432.46	845.88	666.64	179.24	4.719	
21,400.00	9,541.52	20,923.73	9,228.18	93.96	92.21	68.17	10,830.04	-433.53	845.55	664.86	180.68	4.680	
21,500.00	9,532.54	21,023.73	9,220.09	94.66	92.92	68.23	10,929.71	-434.60	845.22	663.09	182.13	4.641	
21,600.00	9,523.57	21,123.73	9,212.00	95.37	93.63	68.29	11,029.37	-435.67	844.89	661.31	183.58	4.602	
21,700.00	9,514.60	21,223.72	9,203.92	96.07	94.35	68.34	11,129.03	-436.74	844.56	659.52	185.03	4.564	
21,800.00	9,505.62	21,323.72	9,195.83	96.78	95.07	68.40	11,228.69	-437.81	844.23	657.74	186.49	4.527	
21,900.00	9,496.65	21,423.71	9,187.75	97.49	95.78	68.46	11,328.36	-438.88	843.90	655.96	187.94	4.490	
22,000.00	9,487.68	21,523.71	9,179.66	98.20	96.50	68.51	11,428.02	-439.96	843.57	654.18	189.40	4.454	
22,100.00	9,478.71	21,623.71	9,171.58	98.91	97.22	68.57	11,527.68	-441.03	843.25	652.39	190.85	4.418	
22,200.00	9,469.73	21,723.70	9,163.49	99.63	97.94	68.62	11,627.35	-442.10	842.92	650.61	192.31	4.383	
22,300.00	9,460.76	21,823.70	9,155.41	100.34	98.66	68.68	11,727.01	-443.17	842.60	648.83	193.77	4.348	
22,400.00	9,451.79	21,923.69	9,147.32	101.05	99.38	68.74	11,826.67	-444.24	842.28	647.04	195.23	4.314	
22,500.00	9,442.81	22,023.69	9,139.24	101.77	100.10	68.79	11,926.33	-445.31	841.95	645.25	196.70	4.280	
22,600.00	9,433.84	22,123.69	9,131.15	102.48	100.82	68.85	12,026.00	-446.38	841.63	643.47	198.16	4.247	
22,700.00	9,424.87	22,223.68	9,123.06	103.20	101.54	68.91	12,125.66	-447.45	841.31	641.68	199.63	4.214	
22,800.00	9,415.89	22,323.68	9,114.98	103.92	102.27	68.96	12,225.32	-448.52	840.99	639.89	201.10	4.182	
22,900.00	9,406.92	22,423.67	9,106.89	104.63	102.99	69.02	12,324.99	-449.59	840.67	638.11	202.56	4.150	
23,000.00	9,397.95	22,523.67	9,098.81	105.35	103.71	69.08	12,424.65	-450.66	840.35	636.32	204.03	4.119	
23,100.00	9,388.97	22,623.67	9,090.72	106.07	104.44	69.13	12,524.31	-451.74	840.03	634.53	205.50	4.088	
23,200.00	9,380.00	22,723.66	9,082.64	106.79	105.17	69.19	12,623.97	-452.81	839.72	632.74	206.98	4.057	
23,300.00	9,371.03	22,823.66	9,074.55	107.51	105.89	69.25	12,723.64	-453.88	839.40	630.95	208.45	4.027	
23,400.00	9,362.06	22,923.65	9,066.47	108.23	106.62	69.30	12,823.30	-454.95	839.08	629.16	209.92	3.997	
23,500.00	9,353.08	23,023.65	9,058.38	108.96	107.35	69.36	12,922.96	-456.02	838.77	627.37	211.40	3.968	
23,600.00	9,344.11	23,123.65	9,050.30	109.68	108.08	69.42	13,022.63	-457.09	838.45	625.58	212.88	3.939	
23,700.00	9,335.14	23,223.64	9,042.21	110.40	108.81	69.47	13,122.29	-458.16	838.14	623.79	214.35	3.910	
23,800.00	9,326.16	23,323.64	9,034.12	111.13	109.54	69.53	13,221.95	-459.23	837.83	622.00	215.83	3.882	
23,900.00	9,317.19	23,423.63	9,026.04	111.85	110.27	69.59	13,321.61	-460.30	837.52	620.21	217.31	3.854	
24,000.00	9,308.22	23,523.63	9,017.95	112.58	111.00	69.65	13,421.28	-461.37	837.21	618.42	218.79	3.827	
24,100.00	9,299.24	23,623.63	9,009.87	113.30	111.73	69.70	13,520.94	-462.44	836.90	616.63	220.27	3.799	
24,200.00	9,290.27	23,723.62	9,001.78	114.03	112.46	69.76	13,620.60	-463.52	836.59	614.83	221.75	3.773	
24,300.00	9,281.30	23,823.62	8,993.70	114.75	113.19	69.82	13,720.27	-464.59	836.28	613.04	223.24	3.746	
24,400.00	9,272.32	23,923.61	8,985.61	115.48	113.93	69.87	13,819.93	-465.66	835.97	611.25	224.72	3.720	
24,500.00	9,263.35	24,023.61	8,977.53	116.21	114.66	69.93	13,919.59	-466.73	835.67	609.46	226.21	3.694	
24,600.00	9,254.38	24,123.61	8,969.44	116.94	115.39	69.99	14,019.25	-467.80	835.36	607.67	227.69	3.669	
24,700.00	9,245.41	24,223.60	8,961.36	117.67	116.13	70.05	14,118.92	-468.87	835.06	605.88	229.18	3.644	
24,800.00	9,236.43	24,323.60	8,953.27	118.40	116.86	70.10	14,218.58	-469.94	834.75	604.09	230.67	3.619	
24,900.00	9,227.46	24,423.59	8,945.18	119.13	117.60	70.16	14,318.24	-471.01	834.45	602.29	232.16	3.594	
25,000.00	9,218.49	24,523.59	8,937.10	119.86	118.33	70.22	14,417.91	-472.08	834.15	600.50	233.65	3.570	
25,100.00	9,209.51	24,623.59	8,929.01	120.59	119.07	70.28	14,517.57	-473.15	833.85	598.71	235.14	3.546	
25,200.00	9,200.54	24,723.58	8,920.93	121.32	119.81	70.33	14,617.23	-474.22	833.55	596.92	236.63	3.523	
25,300.00	9,191.57	24,823.58	8,912.84	122.05	120.54	70.39	14,716.89	-475.30	833.25	595.13	238.12	3.499	
25,400.00	9,182.59	24,923.57	8,904.76	122.79	121.28	70.45	14,816.56	-476.37	832.95	593.34	239.61	3.476	
25,500.00	9,173.62	25,023.57	8,896.67	123.52	122.02	70.51	14,916.22	-477.44	832.65	591.55	241.10	3.453	
25,600.00	9,164.65	25,123.57	8,888.59	124.25	122.76	70.56	15,015.88	-478.51	832.35	589.76	242.60	3.431	
25,700.00	9,155.67	25,223.56	8,880.50	124.99	123.49	70.62	15,115.55	-479.58	832.06	587.96	244.09	3.409	
25,800.00	9,146.70	25,323.56	8,872.42	125.72	124.23	70.68	15,215.21	-480.65	831.76	586.17	245.59	3.387	
25,900.00	9,137.73	25,423.55	8,864.33	126.46	124.97	70.74	15,314.87	-481.72	831.47	584.38	247.08	3.365	

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

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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 Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
26,000.00	9,128.76	25,523.55	8,856.25	127.19	125.71	70.80	15,414.53	-482.79	831.17	582.59	248.58	3.344	
26,100.00	9,119.78	25,623.55	8,848.16	127.93	126.45	70.85	15,514.20	-483.86	830.88	580.80	250.08	3.322	
26,200.00	9,110.81	25,723.54	8,840.07	128.66	127.19	70.91	15,613.86	-484.93	830.59	579.01	251.58	3.302	
26,300.00	9,101.84	25,823.54	8,831.99	129.40	127.93	70.97	15,713.52	-486.00	830.30	577.22	253.08	3.281	
26,400.00	9,092.86	25,923.53	8,823.90	130.14	128.68	71.03	15,813.19	-487.08	830.01	575.43	254.57	3.260	
26,500.00	9,083.89	26,023.53	8,815.82	130.87	129.42	71.09	15,912.85	-488.15	829.72	573.64	256.07	3.240	
26,600.00	9,074.92	26,123.53	8,807.73	131.61	130.16	71.14	16,012.51	-489.22	829.43	571.86	257.57	3.220	
26,700.00	9,065.94	26,223.52	8,799.65	132.35	130.90	71.20	16,112.18	-490.29	829.14	570.07	259.08	3.200	
26,800.00	9,056.97	26,323.52	8,791.56	133.09	131.64	71.26	16,211.84	-491.36	828.86	568.28	260.58	3.181	
26,900.00	9,048.00	26,423.52	8,783.48	133.83	132.39	71.32	16,311.50	-492.43	828.57	566.49	262.08	3.162	
27,000.00	9,039.02	26,523.51	8,775.39	134.56	133.13	71.38	16,411.16	-493.50	828.28	564.70	263.58	3.142	
27,100.00	9,030.05	26,623.51	8,767.31	135.30	133.87	71.44	16,510.83	-494.57	828.00	562.91	265.09	3.124	
27,200.00	9,021.08	26,723.50	8,759.22	136.04	134.62	71.49	16,610.49	-495.64	827.72	561.13	266.59	3.105	
27,300.00	9,012.10	26,823.50	8,751.13	136.78	135.36	71.55	16,710.15	-496.71	827.43	559.34	268.09	3.086	
27,400.00	9,003.13	26,923.50	8,743.05	137.52	136.11	71.61	16,809.82	-497.78	827.15	557.55	269.60	3.068	
27,500.00	8,994.16	27,023.49	8,734.96	138.27	136.85	71.67	16,909.48	-498.86	826.87	555.77	271.10	3.050	
27,600.00	8,985.19	27,123.49	8,726.88	139.01	137.60	71.73	17,009.14	-499.93	826.59	553.98	272.61	3.032	
27,700.00	8,976.21	27,223.48	8,718.79	139.75	138.34	71.79	17,108.80	-501.00	826.31	552.20	274.12	3.014	
27,800.00	8,967.24	27,323.48	8,710.71	140.49	139.09	71.85	17,208.47	-502.07	826.03	550.41	275.62	2.997	
27,900.00	8,958.27	27,423.48	8,702.62	141.23	139.83	71.90	17,308.13	-503.14	825.76	548.63	277.13	2.980	
28,000.00	8,949.29	27,523.47	8,694.54	141.97	140.58	71.96	17,407.79	-504.21	825.48	546.84	278.64	2.963	
28,100.00	8,940.32	27,623.47	8,686.45	142.72	141.33	72.02	17,507.46	-505.28	825.21	545.06	280.15	2.946	
28,200.00	8,931.35	27,723.46	8,678.37	143.46	142.07	72.08	17,607.12	-506.35	824.93	543.27	281.66	2.929	
28,300.00	8,922.37	27,823.46	8,670.28	144.20	142.82	72.14	17,706.78	-507.42	824.66	541.49	283.16	2.912	
28,400.00	8,913.40	27,923.46	8,662.19	144.95	143.57	72.20	17,806.44	-508.49	824.38	539.71	284.67	2.896	
28,500.00	8,904.43	28,023.45	8,654.11	145.69	144.31	72.26	17,906.11	-509.56	824.11	537.93	286.18	2.880	
28,600.00	8,895.45	28,123.45	8,646.02	146.43	145.06	72.32	18,005.77	-510.64	823.84	536.14	287.70	2.864	
28,660.79	8,890.00	28,184.24	8,641.11	146.89	145.52	72.35	18,066.35	-511.29	823.68	535.06	288.61	2.854	

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

Offset Design: Rope State Com Pad - Rope State Com 504H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.30	0.00	0.00	89.78	0.23	59.99	59.99				
100.00	100.00	99.70	100.00	0.28	0.28	89.78	0.23	59.99	59.99	59.44	0.55	108.832	
200.00	200.00	199.70	200.00	0.63	0.63	89.78	0.23	59.99	59.99	58.72	1.27	47.314	
300.00	300.00	299.70	300.00	0.99	0.99	89.78	0.23	59.99	59.99	58.01	1.98	30.224	
400.00	400.00	399.70	400.00	1.35	1.35	89.78	0.23	59.99	59.99	57.29	2.70	22.204	
500.00	500.00	499.70	500.00	1.71	1.71	89.78	0.23	59.99	59.99	56.57	3.42	17.548	
600.00	600.00	599.70	600.00	2.07	2.07	89.78	0.23	59.99	59.99	55.85	4.14	14.506	
700.00	700.00	699.70	700.00	2.43	2.43	89.78	0.23	59.99	59.99	55.14	4.85	12.362	
800.00	800.00	799.70	800.00	2.79	2.78	89.78	0.23	59.99	59.99	54.42	5.57	10.771	
900.00	900.00	899.70	900.00	3.14	3.14	89.78	0.23	59.99	59.99	53.70	6.29	9.543	
1,000.00	1,000.00	999.70	1,000.00	3.50	3.50	89.78	0.23	59.99	59.99	52.99	7.00	8.566	
1,100.00	1,100.00	1,099.70	1,100.00	3.86	3.86	89.78	0.23	59.99	59.99	52.27	7.72	7.770	
1,200.00	1,200.00	1,199.70	1,200.00	4.22	4.22	89.78	0.23	59.99	59.99	51.55	8.44	7.110	
1,300.00	1,300.00	1,299.70	1,300.00	4.58	4.58	89.78	0.23	59.99	59.99	50.84	9.15	6.553	
1,400.00	1,400.00	1,399.70	1,400.00	4.94	4.94	89.78	0.23	59.99	59.99	50.12	9.87	6.077	
1,500.00	1,500.00	1,499.70	1,500.00	5.29	5.29	89.78	0.23	59.99	59.99	49.40	10.59	5.666	
1,600.00	1,600.00	1,599.70	1,600.00	5.65	5.65	89.78	0.23	59.99	59.99	48.69	11.31	5.306	CC, ES
1,700.00	1,699.98	1,699.68	1,699.98	6.00	6.01	-168.11	0.23	59.99	61.70	49.69	12.01	5.137	SF
1,800.00	1,799.84	1,799.54	1,799.84	6.34	6.37	-169.01	0.23	59.99	66.83	54.12	12.71	5.259	
1,900.00	1,899.45	1,896.80	1,897.08	6.68	6.71	-169.70	-0.38	61.51	76.93	63.54	13.38	5.749	
2,000.00	1,998.70	1,992.82	1,992.97	7.03	7.03	-169.70	-2.21	66.00	93.48	79.45	14.03	6.663	
2,100.00	2,097.73	2,087.40	2,087.22	7.38	7.35	-169.24	-5.18	73.34	114.72	100.06	14.66	7.826	
2,200.00	2,196.75	2,180.63	2,179.82	7.73	7.67	-168.39	-9.25	83.39	138.89	123.62	15.27	9.095	
2,300.00	2,295.78	2,276.24	2,274.50	8.08	8.00	-167.49	-14.22	95.66	165.08	149.16	15.92	10.368	
2,400.00	2,394.80	2,372.71	2,370.03	8.43	8.33	-166.82	-19.26	108.10	191.36	174.77	16.59	11.534	
2,500.00	2,493.82	2,469.17	2,465.55	8.79	8.67	-166.31	-24.30	120.54	217.66	200.40	17.27	12.607	
2,600.00	2,592.85	2,565.63	2,561.08	9.14	9.00	-165.91	-29.34	132.97	243.97	226.03	17.94	13.597	
2,700.00	2,691.87	2,662.10	2,656.61	9.50	9.34	-165.59	-34.38	145.41	270.29	251.67	18.62	14.513	
2,800.00	2,790.90	2,758.56	2,752.13	9.86	9.68	-165.32	-39.42	157.85	296.62	277.31	19.31	15.362	
2,900.00	2,889.92	2,855.03	2,847.66	10.22	10.03	-165.10	-44.46	170.29	322.95	302.96	20.00	16.151	
3,000.00	2,988.95	2,951.49	2,943.18	10.58	10.37	-164.91	-49.50	182.73	349.29	328.60	20.68	16.886	
3,100.00	3,087.97	3,047.95	3,038.71	10.94	10.71	-164.75	-54.54	195.16	375.62	354.25	21.38	17.572	
3,200.00	3,187.00	3,144.42	3,134.24	11.30	11.06	-164.61	-59.58	207.60	401.97	379.90	22.07	18.214	
3,300.00	3,286.02	3,240.88	3,229.76	11.67	11.40	-164.48	-64.62	220.04	428.31	405.54	22.76	18.815	
3,400.00	3,385.04	3,337.35	3,325.29	12.03	11.75	-164.38	-69.66	232.48	454.65	431.19	23.46	19.379	
3,500.00	3,484.07	3,433.81	3,420.81	12.39	12.10	-164.28	-74.70	244.92	481.00	456.84	24.16	19.909	
3,600.00	3,583.09	3,530.27	3,516.34	12.76	12.45	-164.19	-79.74	257.35	507.35	482.49	24.86	20.408	
3,700.00	3,682.12	3,626.74	3,611.87	13.12	12.79	-164.11	-84.78	269.79	533.69	508.13	25.56	20.880	
3,800.00	3,781.14	3,723.20	3,707.39	13.49	13.14	-164.04	-89.82	282.23	560.04	533.78	26.26	21.324	
3,900.00	3,880.17	3,819.67	3,802.92	13.85	13.49	-163.98	-94.86	294.67	586.39	559.43	26.97	21.745	
4,000.00	3,979.19	3,916.13	3,898.44	14.22	13.84	-163.92	-99.89	307.11	612.74	585.07	27.67	22.144	
4,100.00	4,078.22	4,012.59	3,993.97	14.59	14.19	-163.86	-104.93	319.54	639.09	610.72	28.38	22.522	
4,200.00	4,177.24	4,109.06	4,089.49	14.95	14.55	-163.81	-109.97	331.98	665.45	636.36	29.08	22.882	
4,300.00	4,276.26	4,205.52	4,185.02	15.32	14.90	-163.77	-115.01	344.42	691.80	662.01	29.79	23.223	
4,400.00	4,375.29	4,301.99	4,280.55	15.69	15.25	-163.73	-120.05	356.86	718.15	687.65	30.50	23.548	
4,500.00	4,474.31	4,398.45	4,376.07	16.05	15.60	-163.69	-125.09	369.30	744.50	713.30	31.21	23.858	
4,600.00	4,573.34	4,494.91	4,471.60	16.42	15.95	-163.65	-130.13	381.73	770.85	738.94	31.91	24.154	
4,700.00	4,672.36	4,591.38	4,567.12	16.79	16.31	-163.61	-135.17	394.17	797.21	764.58	32.62	24.436	
4,800.00	4,771.39	4,687.84	4,662.65	17.16	16.66	-163.58	-140.21	406.61	823.56	790.23	33.33	24.706	
4,900.00	4,870.41	4,784.31	4,758.18	17.53	17.01	-163.55	-145.25	419.05	849.91	815.87	34.05	24.964	
5,000.00	4,969.44	4,880.77	4,853.70	17.90	17.37	-163.52	-150.29	431.49	876.27	841.51	34.76	25.211	
5,100.00	5,068.46	4,977.23	4,949.23	18.26	17.72	-163.50	-155.33	443.92	902.62	867.15	35.47	25.448	

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

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

Offset Design: Rope State Com Pad - Rope State Com 504H - OH - Plan #2

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.00	5,167.49	5,073.70	5,044.75	18.63	18.07	-163.47	-160.37	456.36	928.98	892.79	36.18	25.675	
5,300.00	5,266.51	5,170.16	5,140.28	19.00	18.43	-163.45	-165.41	468.80	955.33	918.44	36.89	25.893	
5,400.00	5,365.53	5,266.63	5,235.81	19.37	18.78	-163.42	-170.45	481.24	981.69	944.08	37.61	26.103	
5,500.00	5,464.56	5,363.09	5,331.33	19.74	19.14	-163.40	-175.49	493.68	1,008.04	969.72	38.32	26.304	
5,600.00	5,563.58	5,459.55	5,426.86	20.11	19.49	-163.38	-180.53	506.11	1,034.39	995.36	39.04	26.498	
5,700.00	5,662.61	5,556.02	5,522.38	20.48	19.85	-163.36	-185.57	518.55	1,060.75	1,021.00	39.75	26.685	
5,800.00	5,761.63	5,652.48	5,617.91	20.85	20.20	-163.34	-190.61	530.99	1,087.10	1,046.64	40.47	26.864	
5,900.00	5,860.66	5,748.95	5,713.44	21.22	20.56	-163.33	-195.65	543.43	1,113.46	1,072.28	41.18	27.038	
6,000.00	5,959.68	5,845.41	5,808.96	21.59	20.91	-163.31	-200.69	555.87	1,139.81	1,097.92	41.90	27.205	
6,100.00	6,058.71	5,941.87	5,904.49	21.96	21.27	-163.29	-205.72	568.30	1,166.17	1,123.56	42.61	27.366	
6,200.00	6,157.73	6,038.34	6,000.01	22.33	21.63	-163.28	-210.76	580.74	1,192.52	1,149.19	43.33	27.522	
6,300.00	6,256.75	6,134.80	6,095.54	22.70	21.98	-163.26	-215.80	593.18	1,218.88	1,174.83	44.05	27.672	
6,400.00	6,355.78	6,231.27	6,191.07	23.07	22.34	-163.25	-220.84	605.62	1,245.24	1,200.47	44.76	27.818	
6,500.00	6,454.80	6,349.73	6,308.44	23.44	22.77	-163.24	-226.86	620.46	1,271.33	1,225.69	45.64	27.853	
6,600.00	6,553.83	6,519.58	6,477.55	23.81	23.39	-163.33	-232.70	634.87	1,293.28	1,246.46	46.82	27.623	
6,700.00	6,652.85	6,693.12	6,650.97	24.18	24.00	-163.56	-234.77	639.99	1,309.64	1,261.77	47.87	27.358	
6,800.00	6,751.88	6,794.02	6,751.88	24.55	24.34	-163.74	-234.77	639.99	1,323.03	1,274.45	48.58	27.234	
6,900.00	6,850.90	6,893.04	6,850.90	24.92	24.68	-163.90	-234.77	639.99	1,336.42	1,287.14	49.28	27.118	
7,000.00	6,949.93	6,992.07	6,949.93	25.30	25.01	-164.07	-234.77	639.99	1,349.82	1,299.84	49.98	27.005	
7,100.00	7,048.95	7,091.09	7,048.95	25.67	25.35	-164.23	-234.77	639.99	1,363.23	1,312.55	50.69	26.894	
7,200.00	7,147.98	7,190.12	7,147.98	26.04	25.69	-164.39	-234.77	639.99	1,376.66	1,325.27	51.39	26.787	
7,300.00	7,247.00	7,289.14	7,247.00	26.41	26.03	-164.54	-234.77	639.99	1,390.09	1,338.00	52.10	26.683	
7,400.00	7,346.02	7,388.17	7,346.02	26.78	26.37	-164.69	-234.77	639.99	1,403.54	1,350.73	52.80	26.581	
7,500.00	7,445.05	7,487.19	7,445.05	27.15	26.70	-164.84	-234.77	639.99	1,416.99	1,363.48	53.51	26.482	
7,600.00	7,544.07	7,586.22	7,544.07	27.52	27.04	-164.99	-234.77	639.99	1,430.45	1,376.24	54.22	26.385	
7,700.00	7,643.10	7,685.24	7,643.10	27.89	27.38	-165.13	-234.77	639.99	1,443.92	1,389.00	54.92	26.290	
7,800.00	7,742.12	7,784.27	7,742.12	28.27	27.72	-165.27	-234.77	639.99	1,457.40	1,401.77	55.63	26.198	
7,900.00	7,841.15	7,883.29	7,841.15	28.64	28.06	-165.41	-234.77	639.99	1,470.89	1,414.55	56.34	26.109	
8,000.00	7,940.17	7,982.31	7,940.17	29.01	28.41	-165.54	-234.77	639.99	1,484.39	1,427.34	57.05	26.021	
8,100.00	8,039.20	8,081.34	8,039.20	29.38	28.75	-165.68	-234.77	639.99	1,497.89	1,440.14	57.75	25.936	
8,200.00	8,138.22	8,180.36	8,138.22	29.75	29.09	-165.81	-234.77	639.99	1,511.41	1,452.94	58.46	25.852	
8,300.00	8,237.24	8,279.39	8,237.24	30.12	29.43	-165.94	-234.77	639.99	1,524.93	1,465.75	59.17	25.771	
8,400.00	8,336.27	8,378.41	8,336.27	30.49	29.77	-166.06	-234.77	639.99	1,538.45	1,478.57	59.88	25.691	
8,500.00	8,435.29	8,477.44	8,435.29	30.87	30.11	-166.18	-234.77	639.99	1,551.99	1,491.39	60.59	25.613	
8,600.00	8,534.32	8,576.46	8,534.32	31.24	30.46	-166.31	-234.77	639.99	1,565.53	1,504.23	61.30	25.537	
8,700.00	8,633.34	8,675.49	8,633.34	31.61	30.80	-166.43	-234.77	639.99	1,579.08	1,517.06	62.01	25.463	
8,800.00	8,732.37	8,774.51	8,732.37	31.98	31.14	-166.54	-234.77	639.99	1,592.63	1,529.91	62.73	25.390	
8,900.00	8,831.39	8,873.53	8,831.39	32.35	31.49	-166.66	-234.77	639.99	1,606.19	1,542.76	63.44	25.319	
9,000.00	8,930.42	8,972.56	8,930.42	32.73	31.83	-166.77	-234.77	639.99	1,619.76	1,555.61	64.15	25.250	
9,100.00	9,029.44	9,071.58	9,029.44	33.10	32.18	-166.88	-234.77	639.99	1,633.34	1,568.47	64.86	25.182	
9,200.00	9,128.47	9,170.61	9,128.47	33.47	32.52	-166.99	-234.77	639.99	1,646.92	1,581.34	65.57	25.115	
9,300.00	9,227.49	9,269.63	9,227.49	33.84	32.87	-167.10	-234.77	639.99	1,660.50	1,594.21	66.29	25.050	

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

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

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.20	0.00	0.00	89.79	0.15	40.00	40.00				
100.00	100.00	99.80	100.00	0.28	0.28	89.79	0.15	40.00	40.00	39.45	0.55	72.531	
200.00	200.00	199.80	200.00	0.63	0.63	89.79	0.15	40.00	40.00	38.73	1.27	31.539	
300.00	300.00	299.80	300.00	0.99	0.99	89.79	0.15	40.00	40.00	38.02	1.99	20.149	
400.00	400.00	399.80	400.00	1.35	1.35	89.79	0.15	40.00	40.00	37.30	2.70	14.803	
500.00	500.00	499.80	500.00	1.71	1.71	89.79	0.15	40.00	40.00	36.58	3.42	11.699	
600.00	600.00	599.80	600.00	2.07	2.07	89.79	0.15	40.00	40.00	35.86	4.14	9.671	
700.00	700.00	699.80	700.00	2.43	2.43	89.79	0.15	40.00	40.00	35.15	4.85	8.242	
800.00	800.00	799.80	800.00	2.79	2.78	89.79	0.15	40.00	40.00	34.43	5.57	7.181	
900.00	900.00	899.80	900.00	3.14	3.14	89.79	0.15	40.00	40.00	33.71	6.29	6.363	
1,000.00	1,000.00	999.80	1,000.00	3.50	3.50	89.79	0.15	40.00	40.00	33.00	7.00	5.711	
1,100.00	1,100.00	1,099.80	1,100.00	3.86	3.86	89.79	0.15	40.00	40.00	32.28	7.72	5.181	
1,200.00	1,200.00	1,199.80	1,200.00	4.22	4.22	89.79	0.15	40.00	40.00	31.56	8.44	4.741	
1,300.00	1,300.00	1,299.80	1,300.00	4.58	4.58	89.79	0.15	40.00	40.00	30.85	9.15	4.369	
1,400.00	1,400.00	1,399.80	1,400.00	4.94	4.94	89.79	0.15	40.00	40.00	30.13	9.87	4.052	
1,500.00	1,500.00	1,499.80	1,500.00	5.29	5.29	89.79	0.15	40.00	40.00	29.41	10.59	3.778	
1,600.00	1,600.00	1,599.80	1,600.00	5.65	5.65	89.79	0.15	40.00	40.00	28.69	11.31	3.538	CC, ES, SF
1,700.00	1,699.98	1,698.80	1,698.98	6.00	5.99	-166.53	-1.12	41.13	42.85	30.86	11.99	3.574	
1,800.00	1,799.84	1,797.27	1,797.31	6.34	6.32	-163.64	-4.93	44.50	51.49	38.85	12.64	4.073	
1,900.00	1,899.45	1,895.46	1,895.17	6.68	6.65	-160.69	-10.97	49.86	65.77	52.47	13.30	4.945	
2,000.00	1,998.70	1,993.82	1,993.15	7.03	6.98	-159.36	-17.38	55.55	83.73	69.77	13.97	5.994	
2,100.00	2,097.73	2,091.87	2,090.84	7.38	7.31	-158.94	-23.78	61.22	103.34	88.70	14.64	7.059	
2,200.00	2,196.75	2,189.93	2,188.52	7.73	7.64	-158.66	-30.17	66.89	122.95	107.64	15.31	8.029	
2,300.00	2,295.78	2,287.99	2,286.20	8.08	7.98	-158.45	-36.57	72.56	142.56	126.57	15.99	8.915	
2,400.00	2,394.80	2,386.04	2,383.89	8.43	8.31	-158.30	-42.96	78.23	162.18	145.50	16.67	9.727	
2,500.00	2,493.82	2,484.10	2,481.57	8.79	8.65	-158.17	-49.35	83.89	181.79	164.43	17.36	10.472	
2,600.00	2,592.85	2,582.16	2,579.26	9.14	8.99	-158.08	-55.75	89.56	201.41	183.36	18.05	11.160	
2,700.00	2,691.87	2,680.22	2,676.94	9.50	9.34	-157.99	-62.14	95.23	221.02	202.28	18.74	11.795	
2,800.00	2,790.90	2,778.27	2,774.62	9.86	9.68	-157.93	-68.54	100.90	240.64	221.20	19.43	12.383	
2,900.00	2,889.92	2,876.33	2,872.31	10.22	10.02	-157.87	-74.93	106.57	260.25	240.12	20.13	12.929	
3,000.00	2,988.95	2,974.39	2,969.99	10.58	10.37	-157.82	-81.32	112.24	279.87	259.04	20.83	13.437	
3,100.00	3,087.97	3,072.44	3,067.67	10.94	10.72	-157.78	-87.72	117.91	299.48	277.96	21.53	13.912	
3,200.00	3,187.00	3,170.50	3,165.36	11.30	11.06	-157.74	-94.11	123.58	319.10	296.87	22.23	14.355	
3,300.00	3,286.02	3,268.56	3,263.04	11.67	11.41	-157.71	-100.51	129.25	338.72	315.79	22.93	14.770	
3,400.00	3,385.04	3,366.61	3,360.73	12.03	11.76	-157.68	-106.90	134.92	358.33	334.70	23.64	15.160	
3,500.00	3,484.07	3,464.67	3,458.41	12.39	12.11	-157.65	-113.29	140.59	377.95	353.61	24.34	15.526	
3,600.00	3,583.09	3,562.73	3,556.09	12.76	12.46	-157.63	-119.69	146.26	397.57	372.52	25.05	15.871	
3,700.00	3,682.12	3,660.78	3,653.78	13.12	12.81	-157.60	-126.08	151.93	417.19	391.43	25.76	16.196	
3,800.00	3,781.14	3,758.84	3,751.46	13.49	13.16	-157.58	-132.48	157.60	436.80	410.34	26.47	16.504	
3,900.00	3,880.17	3,856.90	3,849.15	13.85	13.51	-157.57	-138.87	163.27	456.42	429.24	27.18	16.794	
4,000.00	3,979.19	3,954.96	3,946.83	14.22	13.86	-157.55	-145.27	168.94	476.04	448.15	27.89	17.070	
4,100.00	4,078.22	4,053.01	4,044.51	14.59	14.21	-157.53	-151.66	174.60	495.65	467.05	28.60	17.331	
4,200.00	4,177.24	4,151.07	4,142.20	14.95	14.56	-157.52	-158.05	180.27	515.27	485.96	29.31	17.579	
4,300.00	4,276.26	4,249.13	4,239.88	15.32	14.91	-157.51	-164.45	185.94	534.89	504.86	30.02	17.815	
4,400.00	4,375.29	4,347.18	4,337.56	15.69	15.27	-157.49	-170.84	191.61	554.51	523.77	30.74	18.040	
4,500.00	4,474.31	4,445.24	4,435.25	16.05	15.62	-157.48	-177.24	197.28	574.12	542.67	31.45	18.254	
4,600.00	4,573.34	4,543.30	4,532.93	16.42	15.97	-157.47	-183.63	202.95	593.74	561.57	32.17	18.458	
4,700.00	4,672.36	4,641.35	4,630.62	16.79	16.32	-157.46	-190.02	208.62	613.36	580.48	32.88	18.653	
4,800.00	4,771.39	4,739.41	4,728.30	17.16	16.68	-157.45	-196.42	214.29	632.97	599.38	33.60	18.840	
4,900.00	4,870.41	4,837.47	4,825.98	17.53	17.03	-157.44	-202.81	219.96	652.59	618.28	34.31	19.019	
5,000.00	4,969.44	4,935.52	4,923.67	17.90	17.38	-157.44	-209.21	225.63	672.21	637.18	35.03	19.190	
5,100.00	5,068.46	5,033.58	5,021.35	18.26	17.74	-157.43	-215.60	231.30	691.83	656.08	35.75	19.353	

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

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

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

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.00	5,167.49	5,131.64	5,119.03	18.63	18.09	-157.42	-221.99	236.97	711.44	674.98	36.46	19.511	
5,300.00	5,266.51	5,229.69	5,216.72	19.00	18.45	-157.41	-228.39	242.64	731.06	693.88	37.18	19.662	
5,400.00	5,365.53	5,350.67	5,337.40	19.37	18.88	-157.51	-234.64	248.18	749.31	711.26	38.05	19.692	
5,500.00	5,464.56	5,475.10	5,461.77	19.74	19.32	-157.86	-237.10	250.36	764.26	725.36	38.90	19.646	
5,600.00	5,563.58	5,576.91	5,563.58	20.11	19.67	-158.26	-237.12	250.38	777.23	737.61	39.62	19.619	
5,700.00	5,662.61	5,675.93	5,662.61	20.48	20.00	-158.63	-237.12	250.38	790.20	749.88	40.32	19.599	
5,800.00	5,761.63	5,774.96	5,761.63	20.85	20.34	-158.99	-237.12	250.38	803.21	762.19	41.02	19.580	
5,900.00	5,860.66	5,873.98	5,860.66	21.22	20.68	-159.34	-237.12	250.38	816.25	774.52	41.73	19.562	
6,000.00	5,959.68	5,973.01	5,959.68	21.59	21.01	-159.68	-237.12	250.38	829.32	786.89	42.43	19.545	
6,100.00	6,058.71	6,072.03	6,058.71	21.96	21.35	-160.01	-237.12	250.38	842.41	799.28	43.14	19.529	
6,200.00	6,157.73	6,171.06	6,157.73	22.33	21.69	-160.33	-237.12	250.38	855.54	811.69	43.84	19.514	
6,300.00	6,256.75	6,270.08	6,256.75	22.70	22.03	-160.64	-237.12	250.38	868.68	824.13	44.55	19.499	
6,400.00	6,355.78	6,369.11	6,355.78	23.07	22.37	-160.94	-237.12	250.38	881.85	836.60	45.26	19.486	
6,500.00	6,454.80	6,468.13	6,454.80	23.44	22.71	-161.23	-237.12	250.38	895.05	849.08	45.96	19.473	
6,600.00	6,553.83	6,567.15	6,553.83	23.81	23.06	-161.51	-237.12	250.38	908.27	861.59	46.67	19.460	
6,700.00	6,652.85	6,666.18	6,652.85	24.18	23.40	-161.78	-237.12	250.38	921.50	874.12	47.38	19.449	
6,800.00	6,751.88	6,765.20	6,751.88	24.55	23.74	-162.05	-237.12	250.38	934.76	886.67	48.09	19.437	
6,900.00	6,850.90	6,864.23	6,850.90	24.92	24.08	-162.31	-237.12	250.38	948.04	899.24	48.80	19.427	
7,000.00	6,949.93	6,963.25	6,949.93	25.30	24.42	-162.56	-237.12	250.38	961.34	911.82	49.51	19.417	
7,100.00	7,048.95	7,062.28	7,048.95	25.67	24.77	-162.81	-237.12	250.38	974.65	924.43	50.22	19.407	
7,200.00	7,147.98	7,161.30	7,147.98	26.04	25.11	-163.05	-237.12	250.38	987.98	937.05	50.93	19.398	
7,300.00	7,247.00	7,260.33	7,247.00	26.41	25.46	-163.28	-237.12	250.38	1,001.33	949.68	51.64	19.389	
7,400.00	7,346.02	7,359.35	7,346.02	26.78	25.80	-163.51	-237.12	250.38	1,014.69	962.34	52.36	19.381	
7,500.00	7,445.05	7,458.38	7,445.05	27.15	26.14	-163.73	-237.12	250.38	1,028.07	975.00	53.07	19.373	
7,600.00	7,544.07	7,557.40	7,544.07	27.52	26.49	-163.94	-237.12	250.38	1,041.46	987.68	53.78	19.365	
7,700.00	7,643.10	7,656.42	7,643.10	27.89	26.83	-164.15	-237.12	250.38	1,054.87	1,000.38	54.49	19.358	
7,800.00	7,742.12	7,755.45	7,742.12	28.27	27.18	-164.35	-237.12	250.38	1,068.29	1,013.08	55.21	19.351	
7,900.00	7,841.15	7,854.47	7,841.15	28.64	27.52	-164.55	-237.12	250.38	1,081.72	1,025.80	55.92	19.344	
8,000.00	7,940.17	7,953.50	7,940.17	29.01	27.87	-164.75	-237.12	250.38	1,095.17	1,038.53	56.63	19.338	
8,100.00	8,039.20	8,052.52	8,039.20	29.38	28.22	-164.94	-237.12	250.38	1,108.63	1,051.28	57.35	19.332	
8,200.00	8,138.22	8,151.55	8,138.22	29.75	28.56	-165.12	-237.12	250.38	1,122.10	1,064.03	58.06	19.326	
8,300.00	8,237.24	8,250.57	8,237.24	30.12	28.91	-165.30	-237.12	250.38	1,135.58	1,076.80	58.78	19.320	
8,400.00	8,336.27	8,349.60	8,336.27	30.49	29.26	-165.48	-237.12	250.38	1,149.07	1,089.58	59.49	19.315	
8,500.00	8,435.29	8,448.62	8,435.29	30.87	29.60	-165.65	-237.12	250.38	1,162.57	1,102.36	60.21	19.310	
8,600.00	8,534.32	8,547.64	8,534.32	31.24	29.95	-165.82	-237.12	250.38	1,176.08	1,115.16	60.92	19.305	
8,700.00	8,633.34	8,646.67	8,633.34	31.61	30.30	-165.98	-237.12	250.38	1,189.60	1,127.97	61.64	19.300	
8,800.00	8,732.37	8,745.69	8,732.37	31.98	30.65	-166.14	-237.12	250.38	1,203.13	1,140.78	62.35	19.295	
8,900.00	8,831.39	8,844.72	8,831.39	32.35	30.99	-166.30	-237.12	250.38	1,216.67	1,153.61	63.07	19.291	
9,000.00	8,930.42	8,943.74	8,930.42	32.73	31.34	-166.45	-237.12	250.38	1,230.22	1,166.44	63.79	19.287	
9,100.00	9,029.44	9,042.77	9,029.44	33.10	31.69	-166.60	-237.12	250.38	1,243.78	1,179.28	64.50	19.283	
9,200.00	9,128.47	9,141.79	9,128.47	33.47	32.04	-166.75	-237.12	250.38	1,257.35	1,192.13	65.22	19.279	
9,300.00	9,227.49	9,240.82	9,227.49	33.84	32.39	-166.89	-237.12	250.38	1,270.92	1,204.98	65.94	19.275	
9,400.00	9,326.51	9,339.84	9,326.51	34.21	32.73	-167.04	-237.12	250.38	1,284.50	1,217.85	66.65	19.271	
9,500.00	9,425.54	9,438.87	9,425.54	34.58	33.08	-167.17	-237.12	250.38	1,298.09	1,230.72	67.37	19.268	
9,600.00	9,524.56	9,537.89	9,524.56	34.96	33.43	-167.31	-237.12	250.38	1,311.69	1,243.60	68.09	19.264	
9,700.00	9,623.59	9,636.91	9,623.59	35.33	33.78	-167.44	-237.12	250.38	1,325.29	1,256.48	68.81	19.261	
9,800.00	9,722.79	9,736.12	9,722.79	35.70	34.13	173.86	-237.12	250.38	1,337.70	1,268.17	69.52	19.241	
9,900.00	9,822.36	9,835.68	9,822.36	36.06	34.48	132.67	-237.12	250.38	1,345.93	1,275.70	70.23	19.165	
10,000.00	9,921.83	9,938.36	9,924.75	36.40	34.84	98.24	-231.25	250.32	1,349.76	1,278.82	70.93	19.029	
10,100.00	10,020.25	10,041.36	10,024.83	36.73	35.18	90.61	-207.49	250.06	1,349.95	1,278.35	71.60	18.854	
10,200.00	10,114.42	10,143.03	10,117.88	37.04	35.49	90.31	-166.86	249.62	1,349.90	1,277.68	72.22	18.691	
10,297.62	10,199.41	10,241.00	10,199.41	37.31	35.76	90.00	-112.75	249.03	1,349.88	1,277.11	72.76	18.551	

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

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

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

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,300.00	10,201.38	10,243.37	10,201.27	37.32	35.77	89.99	-111.27	249.02	1,349.88	1,277.10	72.78	18.548	
10,400.00	10,278.48	10,342.44	10,272.84	37.56	36.00	89.68	-42.96	248.28	1,349.90	1,276.63	73.26	18.425	
10,500.00	10,343.39	10,440.30	10,330.97	37.75	36.21	89.38	35.61	247.43	1,349.96	1,276.28	73.67	18.323	
10,600.00	10,394.13	10,537.05	10,374.48	37.90	36.37	89.10	121.89	246.49	1,350.04	1,276.04	74.00	18.243	
10,700.00	10,429.16	10,633.44	10,403.11	38.00	36.49	88.86	213.82	245.50	1,350.14	1,275.88	74.26	18.181	
10,800.00	10,451.27	10,730.97	10,422.06	38.07	36.60	88.75	309.47	244.47	1,350.20	1,275.72	74.48	18.128	
10,900.00	10,464.78	10,828.30	10,432.79	38.14	36.70	88.64	406.16	243.42	1,350.26	1,275.58	74.67	18.082	
11,000.00	10,469.61	10,925.43	10,435.28	38.20	36.79	88.54	503.23	242.38	1,350.31	1,275.46	74.85	18.040	
11,100.00	10,465.71	11,023.06	10,429.70	38.28	36.90	88.47	600.67	241.33	1,350.36	1,275.30	75.06	17.990	
11,200.00	10,456.77	11,123.06	10,421.41	38.41	37.03	88.49	700.32	240.26	1,350.34	1,275.01	75.33	17.925	
11,300.00	10,447.80	11,223.06	10,413.12	38.56	37.18	88.52	799.97	239.19	1,350.33	1,274.69	75.64	17.852	
11,400.00	10,438.83	11,323.06	10,404.82	38.74	37.35	88.55	899.62	238.12	1,350.31	1,274.33	75.98	17.773	
11,500.00	10,429.85	11,423.05	10,396.53	38.93	37.53	88.58	999.26	237.05	1,350.29	1,273.95	76.34	17.687	
11,600.00	10,420.88	11,523.05	10,388.24	39.14	37.73	88.61	1,098.91	235.98	1,350.27	1,273.54	76.74	17.596	
11,700.00	10,411.91	11,623.05	10,379.95	39.36	37.94	88.64	1,198.56	234.91	1,350.26	1,273.10	77.16	17.499	
11,800.00	10,402.93	11,723.05	10,371.65	39.59	38.17	88.67	1,298.21	233.84	1,350.24	1,272.63	77.61	17.397	
11,900.00	10,393.96	11,823.04	10,363.36	39.84	38.41	88.70	1,397.85	232.76	1,350.22	1,272.13	78.09	17.290	
12,000.00	10,384.99	11,923.04	10,355.07	40.10	38.67	88.73	1,497.50	231.69	1,350.21	1,271.61	78.60	17.178	
12,100.00	10,376.01	12,023.04	10,346.78	40.38	38.93	88.76	1,597.15	230.62	1,350.19	1,271.06	79.14	17.062	
12,200.00	10,367.04	12,123.04	10,338.49	40.66	39.22	88.78	1,696.80	229.55	1,350.18	1,270.48	79.70	16.941	
12,300.00	10,358.07	12,223.03	10,330.19	40.96	39.51	88.81	1,796.44	228.48	1,350.16	1,269.88	80.28	16.817	
12,400.00	10,349.09	12,323.03	10,321.90	41.27	39.82	88.84	1,896.09	227.41	1,350.15	1,269.25	80.90	16.690	
12,500.00	10,340.12	12,423.03	10,313.61	41.60	40.14	88.87	1,995.74	226.34	1,350.14	1,268.60	81.53	16.559	
12,600.00	10,331.15	12,523.03	10,305.32	41.93	40.47	88.90	2,095.39	225.27	1,350.12	1,267.93	82.19	16.426	
12,700.00	10,322.18	12,623.02	10,297.02	42.28	40.81	88.93	2,195.03	224.20	1,350.11	1,267.23	82.88	16.290	
12,800.00	10,313.20	12,723.02	10,288.73	42.63	41.17	88.96	2,294.68	223.13	1,350.10	1,266.51	83.59	16.152	
12,900.00	10,304.23	12,823.02	10,280.44	43.00	41.53	88.99	2,394.33	222.06	1,350.08	1,265.77	84.32	16.012	
13,000.00	10,295.26	12,923.02	10,272.15	43.37	41.91	89.02	2,493.98	220.99	1,350.07	1,265.00	85.07	15.871	
13,100.00	10,286.28	13,023.02	10,263.86	43.76	42.30	89.04	2,593.62	219.92	1,350.06	1,264.22	85.84	15.728	
13,200.00	10,277.31	13,123.01	10,255.56	44.16	42.70	89.07	2,693.27	218.85	1,350.05	1,263.41	86.63	15.583	
13,300.00	10,268.34	13,223.01	10,247.27	44.56	43.11	89.10	2,792.92	217.77	1,350.04	1,262.59	87.45	15.438	
13,400.00	10,259.36	13,323.01	10,238.98	44.98	43.53	89.13	2,892.57	216.70	1,350.03	1,261.75	88.28	15.292	
13,500.00	10,250.39	13,423.01	10,230.69	45.40	43.95	89.16	2,992.21	215.63	1,350.02	1,260.88	89.13	15.146	
13,600.00	10,241.42	13,523.00	10,222.40	45.84	44.39	89.19	3,091.86	214.56	1,350.01	1,260.00	90.00	15.000	
13,700.00	10,232.44	13,623.00	10,214.10	46.28	44.84	89.22	3,191.51	213.49	1,350.00	1,259.10	90.89	14.853	
13,800.00	10,223.47	13,723.00	10,205.81	46.73	45.29	89.25	3,291.16	212.42	1,349.99	1,258.19	91.80	14.706	
13,900.00	10,214.50	13,823.00	10,197.52	47.19	45.76	89.28	3,390.80	211.35	1,349.98	1,257.26	92.72	14.560	
14,000.00	10,205.53	13,922.99	10,189.23	47.66	46.23	89.31	3,490.45	210.28	1,349.97	1,256.31	93.66	14.414	
14,100.00	10,196.55	14,022.99	10,180.93	48.13	46.71	89.33	3,590.10	209.21	1,349.96	1,255.35	94.61	14.268	
14,200.00	10,187.58	14,122.99	10,172.64	48.61	47.20	89.36	3,689.75	208.14	1,349.95	1,254.37	95.58	14.123	
14,300.00	10,178.61	14,222.99	10,164.35	49.10	47.69	89.39	3,789.39	207.07	1,349.94	1,253.37	96.57	13.979	
14,400.00	10,169.63	14,322.99	10,156.06	49.60	48.19	89.42	3,889.04	206.00	1,349.94	1,252.37	97.57	13.836	
14,500.00	10,160.66	14,422.98	10,147.77	50.10	48.70	89.45	3,988.69	204.93	1,349.93	1,251.35	98.58	13.693	
14,600.00	10,151.69	14,522.98	10,139.47	50.61	49.22	89.48	4,088.34	203.86	1,349.92	1,250.31	99.61	13.552	
14,700.00	10,142.71	14,622.98	10,131.18	51.13	49.74	89.51	4,187.98	202.78	1,349.92	1,249.27	100.65	13.412	
14,800.00	10,133.74	14,722.98	10,122.89	51.65	50.27	89.54	4,287.63	201.71	1,349.91	1,248.21	101.71	13.273	
14,900.00	10,124.77	14,822.97	10,114.60	52.18	50.80	89.57	4,387.28	200.64	1,349.91	1,247.13	102.77	13.135	
15,000.00	10,115.79	14,922.97	10,106.30	52.71	51.35	89.60	4,486.93	199.57	1,349.90	1,246.05	103.85	12.999	
15,100.00	10,106.82	15,022.97	10,098.01	53.25	51.89	89.62	4,586.57	198.50	1,349.90	1,244.96	104.94	12.864	
15,200.00	10,097.85	15,122.97	10,089.72	53.80	52.44	89.65	4,686.22	197.43	1,349.89	1,243.85	106.04	12.730	
15,300.00	10,088.87	15,222.96	10,081.43	54.35	53.00	89.68	4,785.87	196.36	1,349.89	1,242.73	107.15	12.598	
15,400.00	10,079.90	15,322.96	10,073.14	54.90	53.57	89.71	4,885.52	195.29	1,349.88	1,241.61	108.28	12.467	

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

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

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

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,500.00	10,070.93	15,422.96	10,064.84	55.46	54.13	89.74	4,985.16	194.22	1,349.88	1,240.47	109.41	12.338	
15,600.00	10,061.96	15,522.96	10,056.55	56.03	54.71	89.77	5,084.81	193.15	1,349.88	1,239.32	110.55	12.210	
15,700.00	10,052.98	15,622.96	10,048.26	56.60	55.29	89.80	5,184.46	192.08	1,349.87	1,238.17	111.70	12.084	
15,800.00	10,044.01	15,722.95	10,039.97	57.18	55.87	89.83	5,284.11	191.01	1,349.87	1,237.01	112.87	11.960	
15,900.00	10,035.04	15,822.95	10,031.68	57.76	56.46	89.86	5,383.75	189.94	1,349.87	1,235.83	114.04	11.837	
16,000.00	10,026.06	15,922.95	10,023.38	58.34	57.05	89.89	5,483.40	188.87	1,349.87	1,234.65	115.22	11.716	
16,100.00	10,017.09	16,022.95	10,015.09	58.93	57.64	89.91	5,583.05	187.79	1,349.87	1,233.46	116.40	11.596	
16,200.00	10,008.12	16,122.94	10,006.80	59.52	58.24	89.94	5,682.70	186.72	1,349.86	1,232.26	117.60	11.478	
16,300.00	9,999.14	16,222.94	9,998.51	60.12	58.85	89.97	5,782.34	185.65	1,349.86	1,231.06	118.81	11.362	
16,400.00	9,990.17	16,322.94	9,990.21	60.72	59.45	90.00	5,881.99	184.58	1,349.86	1,229.84	120.02	11.247	
16,478.38	9,983.14	16,401.32	9,983.72	61.19	59.93	90.02	5,960.09	183.74	1,349.86	1,228.89	120.97	11.158	
16,500.00	9,981.20	16,422.94	9,981.92	61.32	60.07	90.03	5,981.64	183.51	1,349.86	1,228.62	121.24	11.134	
16,600.00	9,972.22	16,522.93	9,973.63	61.93	60.68	90.06	6,081.29	182.44	1,349.86	1,227.40	122.47	11.022	
16,700.00	9,963.25	16,622.93	9,965.34	62.54	61.30	90.09	6,180.93	181.37	1,349.86	1,226.16	123.70	10.912	
16,800.00	9,954.28	16,722.93	9,957.05	63.16	61.92	90.12	6,280.58	180.30	1,349.86	1,224.92	124.94	10.804	
16,900.00	9,945.31	16,822.93	9,948.75	63.78	62.55	90.15	6,380.23	179.23	1,349.87	1,223.68	126.19	10.697	
17,000.00	9,936.33	16,922.92	9,940.46	64.40	63.18	90.18	6,479.88	178.16	1,349.87	1,222.42	127.44	10.592	
17,100.00	9,927.36	17,022.92	9,932.17	65.02	63.81	90.20	6,579.52	177.09	1,349.87	1,221.16	128.70	10.488	
17,200.00	9,918.39	17,122.92	9,923.88	65.65	64.44	90.23	6,679.17	176.02	1,349.87	1,219.90	129.97	10.386	
17,300.00	9,909.41	17,222.92	9,915.58	66.28	65.08	90.26	6,778.82	174.95	1,349.87	1,218.63	131.24	10.285	
17,400.00	9,900.44	17,322.92	9,907.29	66.92	65.72	90.29	6,878.47	173.88	1,349.88	1,217.35	132.52	10.186	
17,500.00	9,891.47	17,422.91	9,899.00	67.55	66.36	90.32	6,978.11	172.80	1,349.88	1,216.07	133.81	10.088	
17,600.00	9,882.49	17,522.91	9,890.71	68.19	67.01	90.35	7,077.76	171.73	1,349.88	1,214.79	135.10	9.992	
17,700.00	9,873.52	17,622.91	9,882.42	68.83	67.66	90.38	7,177.41	170.66	1,349.89	1,213.50	136.39	9.897	
17,800.00	9,864.55	17,722.91	9,874.12	69.48	68.31	90.41	7,277.06	169.59	1,349.89	1,212.20	137.69	9.804	
17,900.00	9,855.57	17,822.90	9,865.83	70.13	68.96	90.44	7,376.70	168.52	1,349.90	1,210.90	139.00	9.712	
18,000.00	9,846.60	17,922.90	9,857.54	70.78	69.62	90.47	7,476.35	167.45	1,349.90	1,209.60	140.31	9.621	
18,100.00	9,837.63	18,022.90	9,849.25	71.43	70.28	90.49	7,576.00	166.38	1,349.91	1,208.29	141.62	9.532	
18,200.00	9,828.66	18,122.90	9,840.96	72.08	70.94	90.52	7,675.65	165.31	1,349.91	1,206.97	142.94	9.444	
18,300.00	9,819.68	18,222.89	9,832.66	72.74	71.60	90.55	7,775.29	164.24	1,349.92	1,205.65	144.26	9.357	
18,400.00	9,810.71	18,322.89	9,824.37	73.40	72.27	90.58	7,874.94	163.17	1,349.93	1,204.33	145.59	9.272	
18,500.00	9,801.74	18,422.89	9,816.08	74.06	72.93	90.61	7,974.59	162.10	1,349.93	1,203.01	146.93	9.188	
18,600.00	9,792.76	18,522.89	9,807.79	74.72	73.60	90.64	8,074.24	161.03	1,349.94	1,201.68	148.26	9.105	
18,700.00	9,783.79	18,622.89	9,799.49	75.39	74.27	90.67	8,173.88	159.96	1,349.95	1,200.35	149.60	9.024	
18,800.00	9,774.82	18,722.88	9,791.20	76.05	74.95	90.70	8,273.53	158.89	1,349.96	1,199.01	150.95	8.943	
18,900.00	9,765.84	18,822.88	9,782.91	76.72	75.62	90.73	8,373.18	157.81	1,349.96	1,197.67	152.30	8.864	
19,000.00	9,756.87	18,922.88	9,774.62	77.39	76.30	90.76	8,472.83	156.74	1,349.97	1,196.33	153.65	8.786	
19,100.00	9,747.90	19,022.88	9,766.33	78.07	76.98	90.78	8,572.47	155.67	1,349.98	1,194.98	155.00	8.709	
19,200.00	9,738.92	19,122.87	9,758.03	78.74	77.66	90.81	8,672.12	154.60	1,349.99	1,193.63	156.36	8.634	
19,300.00	9,729.95	19,222.87	9,749.74	79.42	78.34	90.84	8,771.77	153.53	1,350.00	1,192.28	157.72	8.559	
19,400.00	9,720.98	19,322.87	9,741.45	80.10	79.02	90.87	8,871.42	152.46	1,350.01	1,190.92	159.09	8.486	
19,500.00	9,712.01	19,422.87	9,733.16	80.78	79.71	90.90	8,971.06	151.39	1,350.02	1,189.56	160.46	8.414	
19,600.00	9,703.03	19,522.86	9,724.86	81.46	80.39	90.93	9,070.71	150.32	1,350.03	1,188.20	161.83	8.342	
19,700.00	9,694.06	19,622.86	9,716.57	82.14	81.08	90.96	9,170.36	149.25	1,350.04	1,186.84	163.21	8.272	
19,800.00	9,685.09	19,722.86	9,708.28	82.82	81.77	90.99	9,270.01	148.18	1,350.05	1,185.47	164.58	8.203	
19,900.00	9,676.11	19,822.86	9,699.99	83.51	82.46	91.02	9,369.65	147.11	1,350.06	1,184.10	165.97	8.135	
20,000.00	9,667.14	19,922.85	9,691.70	84.20	83.15	91.05	9,469.30	146.04	1,350.08	1,182.73	167.35	8.067	
20,100.00	9,658.17	20,022.85	9,683.40	84.89	83.85	91.07	9,568.95	144.97	1,350.09	1,181.35	168.74	8.001	
20,200.00	9,649.19	20,122.85	9,675.11	85.58	84.54	91.10	9,668.60	143.90	1,350.10	1,179.98	170.13	7.936	
20,300.00	9,640.22	20,222.85	9,666.82	86.27	85.24	91.13	9,768.24	142.82	1,350.12	1,178.60	171.52	7.872	
20,400.00	9,631.25	20,322.85	9,658.53	86.96	85.94	91.16	9,867.89	141.75	1,350.13	1,177.22	172.91	7.808	
20,500.00	9,622.27	20,422.84	9,650.24	87.65	86.63	91.19	9,967.54	140.68	1,350.14	1,175.83	174.31	7.746	

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

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

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

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
20,600.00	9,613.30	20,522.84	9,641.94	88.35	87.34	91.22	10,067.19	139.61	1,350.16	1,174.45	175.71	7.684	
20,700.00	9,604.33	20,622.84	9,633.65	89.05	88.04	91.25	10,166.83	138.54	1,350.17	1,173.06	177.11	7.623	
20,800.00	9,595.36	20,722.84	9,625.36	89.74	88.74	91.28	10,266.48	137.47	1,350.19	1,171.67	178.52	7.563	
20,900.00	9,586.38	20,822.83	9,617.07	90.44	89.44	91.31	10,366.13	136.40	1,350.20	1,170.28	179.92	7.504	
21,000.00	9,577.41	20,922.83	9,608.77	91.14	90.15	91.34	10,465.78	135.33	1,350.22	1,168.88	181.33	7.446	
21,100.00	9,568.44	21,022.83	9,600.48	91.85	90.85	91.36	10,565.42	134.26	1,350.23	1,167.49	182.74	7.389	
21,200.00	9,559.46	21,122.83	9,592.19	92.55	91.56	91.39	10,665.07	133.19	1,350.25	1,166.09	184.16	7.332	
21,300.00	9,550.49	21,222.82	9,583.90	93.25	92.27	91.42	10,764.72	132.12	1,350.26	1,164.69	185.57	7.276	
21,400.00	9,541.52	21,322.82	9,575.61	93.96	92.98	91.45	10,864.37	131.05	1,350.28	1,163.29	186.99	7.221	
21,500.00	9,532.54	21,422.82	9,567.31	94.66	93.69	91.48	10,964.01	129.98	1,350.30	1,161.89	188.41	7.167	
21,600.00	9,523.57	21,522.82	9,559.02	95.37	94.40	91.51	11,063.66	128.91	1,350.32	1,160.49	189.83	7.113	
21,700.00	9,514.60	21,622.82	9,550.73	96.07	95.11	91.54	11,163.31	127.83	1,350.33	1,159.08	191.25	7.060	
21,800.00	9,505.62	21,722.81	9,542.44	96.78	95.82	91.57	11,262.96	126.76	1,350.35	1,157.67	192.68	7.008	
21,900.00	9,496.65	21,822.81	9,534.14	97.49	96.53	91.60	11,362.60	125.69	1,350.37	1,156.26	194.11	6.957	
22,000.00	9,487.68	21,922.81	9,525.85	98.20	97.25	91.63	11,462.25	124.62	1,350.39	1,154.85	195.54	6.906	
22,100.00	9,478.71	22,022.81	9,517.56	98.91	97.96	91.65	11,561.90	123.55	1,350.41	1,153.44	196.97	6.856	
22,200.00	9,469.73	22,122.80	9,509.27	99.63	98.68	91.68	11,661.55	122.48	1,350.43	1,152.03	198.40	6.807	
22,300.00	9,460.76	22,222.80	9,500.98	100.34	99.40	91.71	11,761.19	121.41	1,350.45	1,150.62	199.83	6.758	
22,400.00	9,451.79	22,322.80	9,492.68	101.05	100.11	91.74	11,860.84	120.34	1,350.47	1,149.20	201.27	6.710	
22,500.00	9,442.81	22,422.80	9,484.39	101.77	100.83	91.77	11,960.49	119.27	1,350.49	1,147.78	202.70	6.662	
22,600.00	9,433.84	22,522.79	9,476.10	102.48	101.55	91.80	12,060.14	118.20	1,350.51	1,146.37	204.14	6.615	
22,700.00	9,424.87	22,622.79	9,467.81	103.20	102.27	91.83	12,159.78	117.13	1,350.53	1,144.95	205.58	6.569	
22,800.00	9,415.89	22,722.79	9,459.52	103.92	102.99	91.86	12,259.43	116.06	1,350.55	1,143.53	207.03	6.524	
22,900.00	9,406.92	22,822.79	9,451.22	104.63	103.71	91.89	12,359.08	114.99	1,350.58	1,142.11	208.47	6.479	
23,000.00	9,397.95	22,922.78	9,442.93	105.35	104.44	91.92	12,458.73	113.92	1,350.60	1,140.68	209.91	6.434	
23,100.00	9,388.97	23,022.78	9,434.64	106.07	105.16	91.94	12,558.37	112.84	1,350.62	1,139.26	211.36	6.390	
23,200.00	9,380.00	23,122.78	9,426.35	106.79	105.88	91.97	12,658.02	111.77	1,350.64	1,137.84	212.81	6.347	
23,300.00	9,371.03	23,222.78	9,418.05	107.51	106.61	92.00	12,757.67	110.70	1,350.67	1,136.41	214.26	6.304	
23,400.00	9,362.06	23,322.78	9,409.76	108.23	107.33	92.03	12,857.32	109.63	1,350.69	1,134.98	215.71	6.262	
23,500.00	9,353.08	23,422.77	9,401.47	108.96	108.06	92.06	12,956.96	108.56	1,350.71	1,133.56	217.16	6.220	
23,600.00	9,344.11	23,522.77	9,393.18	109.68	108.78	92.09	13,056.61	107.49	1,350.74	1,132.13	218.61	6.179	
23,700.00	9,335.14	23,622.77	9,384.89	110.40	109.51	92.12	13,156.26	106.42	1,350.76	1,130.70	220.06	6.138	
23,800.00	9,326.16	23,722.77	9,376.59	111.13	110.24	92.15	13,255.91	105.35	1,350.79	1,129.27	221.52	6.098	
23,900.00	9,317.19	23,822.76	9,368.30	111.85	110.96	92.18	13,355.55	104.28	1,350.81	1,127.84	222.98	6.058	
24,000.00	9,308.22	23,922.76	9,360.01	112.58	111.69	92.20	13,455.20	103.21	1,350.84	1,126.41	224.43	6.019	
24,100.00	9,299.24	24,022.76	9,351.72	113.30	112.42	92.23	13,554.85	102.14	1,350.87	1,124.97	225.89	5.980	
24,200.00	9,290.27	24,122.76	9,343.42	114.03	113.15	92.26	13,654.50	101.07	1,350.89	1,123.54	227.35	5.942	
24,300.00	9,281.30	24,222.75	9,335.13	114.75	113.88	92.29	13,754.14	100.00	1,350.92	1,122.11	228.81	5.904	
24,400.00	9,272.32	24,322.75	9,326.84	115.48	114.61	92.32	13,853.79	98.93	1,350.95	1,120.67	230.28	5.867	
24,500.00	9,263.35	24,422.75	9,318.55	116.21	115.34	92.35	13,953.44	97.85	1,350.97	1,119.24	231.74	5.830	
24,600.00	9,254.38	24,522.75	9,310.26	116.94	116.08	92.38	14,053.09	96.78	1,351.00	1,117.80	233.20	5.793	
24,700.00	9,245.41	24,622.75	9,301.96	117.67	116.81	92.41	14,152.73	95.71	1,351.03	1,116.36	234.67	5.757	
24,800.00	9,236.43	24,722.74	9,293.67	118.40	117.54	92.44	14,252.38	94.64	1,351.06	1,114.92	236.13	5.722	
24,900.00	9,227.46	24,822.74	9,285.38	119.13	118.27	92.47	14,352.03	93.57	1,351.09	1,113.49	237.60	5.686	
25,000.00	9,218.49	24,922.74	9,277.09	119.86	119.01	92.49	14,451.68	92.50	1,351.12	1,112.05	239.07	5.652	
25,100.00	9,209.51	25,022.74	9,268.80	120.59	119.74	92.52	14,551.32	91.43	1,351.15	1,110.61	240.54	5.617	
25,200.00	9,200.54	25,122.73	9,260.50	121.32	120.48	92.55	14,650.97	90.36	1,351.18	1,109.17	242.01	5.583	
25,300.00	9,191.57	25,222.73	9,252.21	122.05	121.21	92.58	14,750.62	89.29	1,351.21	1,107.73	243.48	5.550	
25,400.00	9,182.59	25,322.73	9,243.92	122.79	121.95	92.61	14,850.27	88.22	1,351.24	1,106.29	244.95	5.516	
25,500.00	9,173.62	25,422.73	9,235.63	123.52	122.68	92.64	14,949.92	87.15	1,351.27	1,104.84	246.43	5.483	
25,600.00	9,164.65	25,522.72	9,227.33	124.25	123.42	92.67	15,049.56	86.08	1,351.30	1,103.40	247.90	5.451	
25,700.00	9,155.67	25,622.72	9,219.04	124.99	124.15	92.70	15,149.21	85.01	1,351.33	1,101.96	249.37	5.419	

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

Total Directional

Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

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

Offset Site Error: 0.00 usft

Survey Program: 0-MWD+IFR1+MS

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
25,800.00	9,146.70	25,722.72	9,210.75	125.72	124.89	92.73	15,248.86	83.94	1,351.36	1,100.52	250.85	5.387	
25,900.00	9,137.73	25,822.72	9,202.46	126.46	125.63	92.75	15,348.51	82.86	1,351.40	1,099.07	252.32	5.356	
26,000.00	9,128.76	25,922.71	9,194.17	127.19	126.37	92.78	15,448.15	81.79	1,351.43	1,097.63	253.80	5.325	
26,100.00	9,119.78	26,022.71	9,185.87	127.93	127.11	92.81	15,547.80	80.72	1,351.46	1,096.18	255.28	5.294	
26,200.00	9,110.81	26,122.71	9,177.58	128.66	127.84	92.84	15,647.45	79.65	1,351.50	1,094.74	256.76	5.264	
26,300.00	9,101.84	26,222.71	9,169.29	129.40	128.58	92.87	15,747.10	78.58	1,351.53	1,093.29	258.24	5.234	
26,400.00	9,092.86	26,322.71	9,161.00	130.14	129.32	92.90	15,846.74	77.51	1,351.56	1,091.85	259.72	5.204	
26,500.00	9,083.89	26,422.70	9,152.70	130.87	130.06	92.93	15,946.39	76.44	1,351.60	1,090.40	261.20	5.175	
26,600.00	9,074.92	26,522.70	9,144.41	131.61	130.80	92.96	16,046.04	75.37	1,351.63	1,088.95	262.68	5.146	
26,700.00	9,065.94	26,622.70	9,136.12	132.35	131.54	92.99	16,145.69	74.30	1,351.67	1,087.51	264.16	5.117	
26,800.00	9,056.97	26,722.70	9,127.83	133.09	132.28	93.02	16,245.33	73.23	1,351.70	1,086.06	265.65	5.088	
26,900.00	9,048.00	26,822.69	9,119.54	133.83	133.03	93.04	16,344.98	72.16	1,351.74	1,084.61	267.13	5.060	
27,000.00	9,039.02	26,922.69	9,111.24	134.56	133.77	93.07	16,444.63	71.09	1,351.78	1,083.16	268.61	5.032	
27,100.00	9,030.05	27,022.69	9,102.95	135.30	134.51	93.10	16,544.28	70.02	1,351.81	1,081.71	270.10	5.005	
27,200.00	9,021.08	27,122.69	9,094.66	136.04	135.25	93.13	16,643.92	68.95	1,351.85	1,080.26	271.59	4.978	
27,300.00	9,012.10	27,222.68	9,086.37	136.78	135.99	93.16	16,743.57	67.87	1,351.89	1,078.81	273.07	4.951	
27,400.00	9,003.13	27,322.68	9,078.08	137.52	136.74	93.19	16,843.22	66.80	1,351.92	1,077.37	274.56	4.924	
27,500.00	8,994.16	27,422.68	9,069.78	138.27	137.48	93.22	16,942.87	65.73	1,351.96	1,075.92	276.05	4.898	
27,600.00	8,985.19	27,522.68	9,061.49	139.01	138.22	93.25	17,042.51	64.66	1,352.00	1,074.47	277.53	4.871	
27,700.00	8,976.21	27,622.68	9,053.20	139.75	138.97	93.28	17,142.16	63.59	1,352.04	1,073.01	279.02	4.846	
27,800.00	8,967.24	27,722.67	9,044.91	140.49	139.71	93.30	17,241.81	62.52	1,352.08	1,071.56	280.51	4.820	
27,900.00	8,958.27	27,822.67	9,036.61	141.23	140.45	93.33	17,341.46	61.45	1,352.12	1,070.11	282.00	4.795	
28,000.00	8,949.29	27,922.67	9,028.32	141.97	141.20	93.36	17,441.10	60.38	1,352.16	1,068.66	283.49	4.770	
28,100.00	8,940.32	28,022.67	9,020.03	142.72	141.94	93.39	17,540.75	59.31	1,352.20	1,067.21	284.99	4.745	
28,200.00	8,931.35	28,122.66	9,011.74	143.46	142.69	93.42	17,640.40	58.24	1,352.24	1,065.76	286.48	4.720	
28,300.00	8,922.37	28,222.66	9,003.45	144.20	143.43	93.45	17,740.05	57.17	1,352.28	1,064.31	287.97	4.696	
28,400.00	8,913.40	28,322.66	8,995.15	144.95	144.18	93.48	17,839.69	56.10	1,352.32	1,062.86	289.46	4.672	
28,500.00	8,904.43	28,422.66	8,986.86	145.69	144.93	93.51	17,939.34	55.03	1,352.36	1,061.40	290.96	4.648	
28,600.00	8,895.45	28,522.65	8,978.57	146.43	145.67	93.54	18,038.99	53.95	1,352.40	1,059.95	292.45	4.624	
28,601.00	8,895.37	28,523.65	8,978.49	146.44	145.68	93.54	18,039.98	53.94	1,352.40	1,059.94	292.46	4.624	
28,660.79	8,890.00	28,563.28	8,975.20	146.89	145.98	93.55	18,079.47	53.52	1,352.58	1,059.46	293.12	4.614	

Total Directional

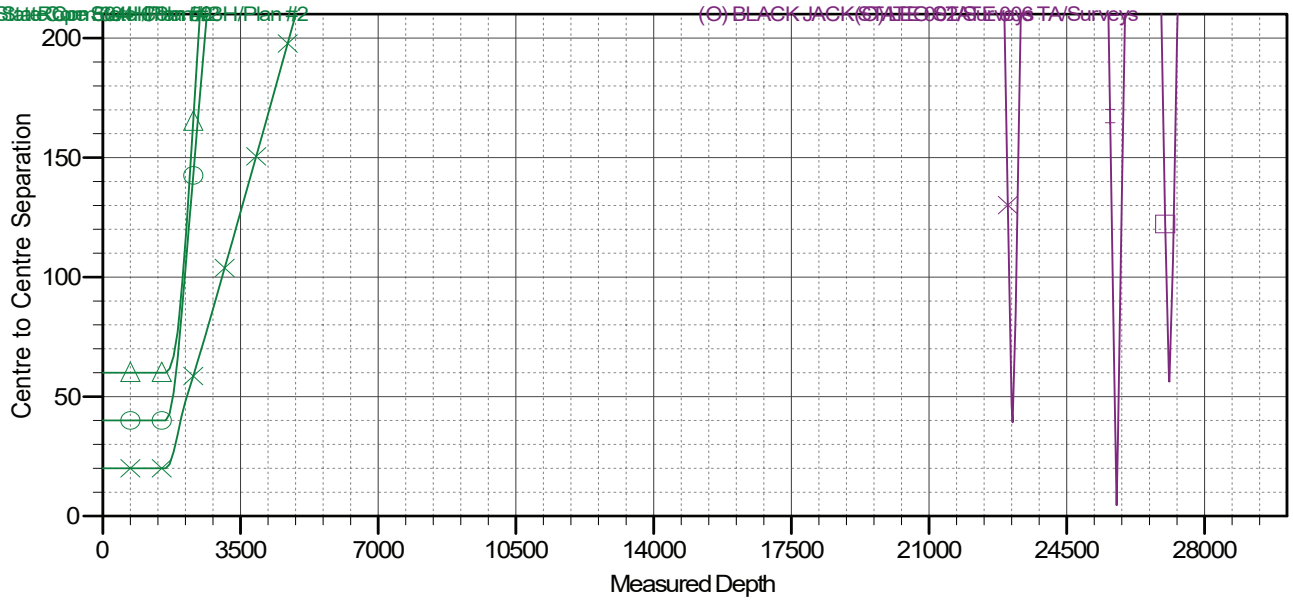
Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

Reference Depths are relative to KB 3939.3' + KB 23' @ 3962.30usft
Offset Depths are relative to Offset Datum
Central Meridian is -104.3333333

Coordinates are relative to: Rope State Com 603H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.45°

Ladder Plot



LEGEND

TE 002 P & A, Vertical, Surveys V0
STATE COM 133H, Horizontal - PRODUCING, Surveys V0
ls, Surveys V0
P & A, Vertical, Surveys V0
cals, Surveys V0
, Plan #2 V0
ertical, Surveys V0
, Plan #2 V0
ertical, Surveys V0

Rope State Com 502H, OH, Plan #2 V0
(O) MESA MERRITT STATE 001 P & A, Vertical, Surveys V0
(O) IRONHOUSE 19 STATE COM 001H, Horizontal - PRODUCING, Surveys V0
(O) IRONHOUSE 19 STATE COM 001H, Pilot, Pilot V0
(O) OHIO STATE 005, Verticals, Surveys V0
(O) AIRSTRIP 31 18 35 RN STATE COM 132H, Horizontal - PRODUCING, Surveys V0
Rope State Com 604H, OH, Plan #2 V0
(O) SHETLAND SWD 001, Vertical, Surveys V0
(O) LEO STATE 006 TA, Verticals, Surveys V0

(O) LEA SOUTHEAST STATE 1 P & A, Vertical, S
(O) STATE AN 006 TA, Vertical, Surveys V0
(O) ALBATROSS STATE COM 002H, Horizontal - PI
(O) BLACK JACK STATE 002, Verticals, Surveys
(O) ALBATROSS STATE COM 001H, Horizontal - PI
(O) LEO STATE 007, Verticals, Surveys V0
(O) IRONHOUSE 19 STATE COM 003H, Horizontal -

Total Directional

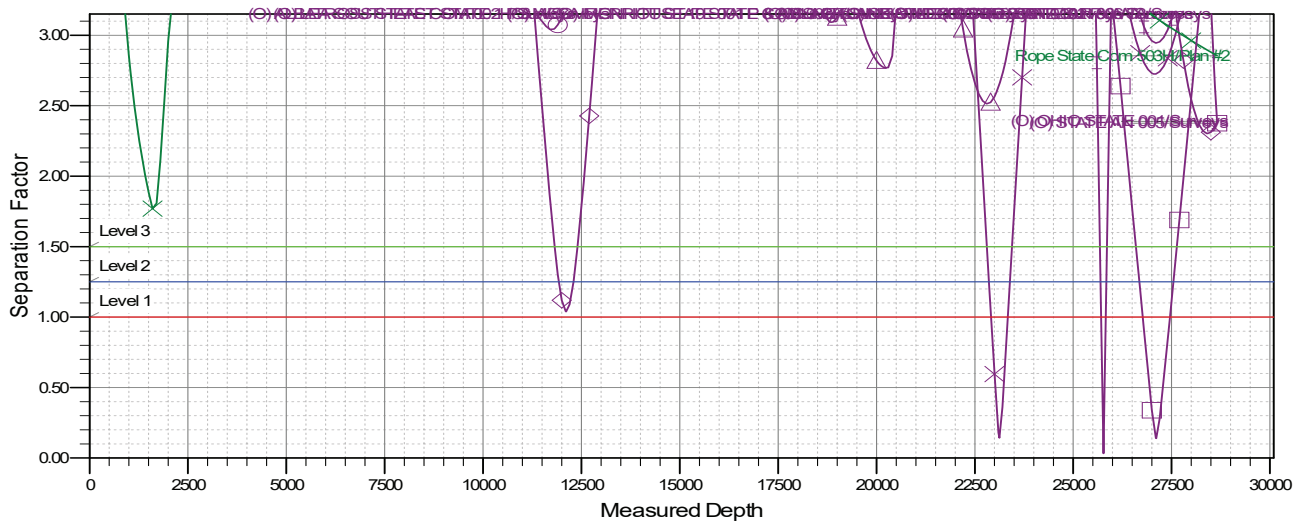
Anticollision Report

Company:	Coterra Energy	**Local Co-ordinate Reference:**	Well Rope State Com 603H
Project:	Lea County, NM (NAD 83)	**TVD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Reference Site:	Rope State Com Pad	**MD Reference:**	KB 3939.3' + KB 23' @ 3962.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	Rope State Com 603H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	.Total Directional Production DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Reference Datum

Reference Depths are relative to KB 3939.3' + KB 23' @ 3962.30usft
Offset Depths are relative to Offset Datum
Central Meridian is -104.3333333

Coordinates are relative to: Rope State Com 603H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.45°

Separation Factor Plot



LEGEND

- Rope State Com 502H, OH, Plan #2 V0
- (O) MESA MERRITT STATE 001 P & A, Vertical, Surveys V0
- (O) IRONHOUSE 19 STATE COM 001H, Horizontal - PRODUCING, Surveys V0
- (O) IRONHOUSE 19 STATE COM 001H, Pilot, Pilot V0
- (O) OHIO STATE 005, Verticals, Surveys V0
- (O) AIRSTRIP 31 18 35 RN STATE COM 132H, Horizontal - PRODUCING, Surveys V0
- Rope State Com 604H, OH, Plan #2 V0
- (O) SHETLAND SWD 001, Vertical, Surveys V0
- (O) LEO STATE 006 TA, Verticals, Surveys V0
- (O) LEA SOUTHEAST STATE 1 P & A, Vertical, S
- (O) STATE AN 006 TA, Vertical, Surveys V0
- (O) ALBATROSS STATE COM 002H, Horizontal - PI
- (O) BLACK JACK STATE 002, Verticals, Surveys
- (O) ALBATROSS STATE COM 001H, Horizontal - PI
- (O) LEO STATE 007, Verticals, Surveys V0
- (O) IRONHOUSE 19 STATE COM 003H, Horizontal -

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 24th 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 24th day of April, 2026.

Signature: _____

Name: Phillip G. Levasseur

Title: Regulatory Compliance Manager, Attorney-in-Fact

WAIVER OF OBJECTION AND CONSENT TO OVERLAP

The undersigned, as authorized representative of **Matador Production Company**, operator of the **Albatross State Com 001H** (API No. 30-025-41809), located in the **E/2 E/2 of Section 30, Township 18 South, Range 35 East, N.M.P.M., Lea County, New Mexico,** and the **Albatross State Com 002H** (API No. 30-025-41544), located in the **W/2 E/2 of Section 30, Township 18 South, Range 35 East, N.M.P.M., Lea County, New Mexico**, hereby acknowledges receipt of the foregoing Notice and, pursuant to 19.15.16.15(B)(9)(b) NMAC, WAIVES 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, N.M.P.M., Lea County, New Mexico), whose completed interval will partially overlap the existing spacing unit of the above-referenced well.

This waiver is executed voluntarily and with knowledge of the applicant's proposed operations.

Signature: _____ KP SE

Printed Name: Jonathan J. Filbert

Title: Executive Vice President of Land

Company: **Matador Production Company**

Date: 4/17/26

Return executed waiver to:
Coterra Energy Operating Co.
Land Dept c/o Blair Nutter
6001 Deauville Blvd.
Midland, Texas 79706

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

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 7th Street
Fort Worth, TX 76102

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

Respectfully,

Gena Hale

Gena Hale
Coterra Energy Inc.
Land Department
Gena.Hale@Coterra.com

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

15. COUNTERPARTS

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

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

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 _____

Type or print name

Title _____

Date _____

Tax ID or S.S. No. _____

MorningStar Operating LLC

By _____

Allen L. Armstrong, Jr.
Type or print name

Title Vice President - Land

Date 2-20-2026

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

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 MARLING STAR OPERATING LLC

(Seal, if any)

IVY LARISSA KIRBY
Notary Public, State of Texas
Comm. Expires 01-30-2027
Notary ID 126259467

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

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

~~_____, who has prepared and circulated this form for execution, represents and warrants that the form was printed from and, with the exception(s) listed below, is identical to the AAPL Form 610-1989 Model Form 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.

_____ 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: _____

_____
Type or print name

Title _____

Date _____

Tax ID or S.S. No. _____

MorningStar Operating LLC

_____ By: _____

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

Title Vice President - Land

Date 2-20-2026

Tax ID or S.S. No. _____

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 _____)~~

~~_____) 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 20TH day of FEBRUARY, 2026 by ALLENE L. ARMSTRONG, JR., as VICE PRESIDENT - LAND of MARATHON OIL PERMIAN LLC, a DELAWARE LLC, on behalf of said company.

IVY LARISSA KIRBY
Notary Public, State of Texas
Comm. Expires 01-30-2027
Notary ID 126259467

_____
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: 2/3/2026

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

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 _____)
) ss.
County of _____)

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)
) ss.
County of Chaves)

This instrument was acknowledged before me on 3rd day of February, 2026 by Kenneth Barbe, JR as President of **Axis Energy Corporation**, a Texas Corp.

(Seal, if any)

BRADEN LEIGH WIDENER
Notary Public
State of New Mexico
Comm. # 2001640
My Comm. Exp. Dec 27, 2027

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

My commission expires: 12-27-2027

State of _____)
) ss.
County of _____)

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

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

~~_____, who has prepared and circulated this form for execution, represents and warrants that the form was printed from and, with the exception(s) listed below, is identical to the AAPL Form 610-1989 Model Form 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 Article _____, 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: [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. _____

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

W. PRODUCED WATER

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

X. FORCE MAJEURE (NM)

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

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

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 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, or by completion of a unit well in a formation different than that originally contemplated by the Consenting Parties when the well was commenced, then the parties' interests in the Contract Area, as shown on Exhibit "A", will remain unchanged, subject to the payment of royalties as follows: The parties agree to pay their share of all royalties, overriding royalties, production payments and all other burdens not 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 Gas Lease(s) on which the royalty and other burdens are due.

Z. MISCELLANEOUS

Conflict of Terms. In the event of a conflict between the typewritten portions and printed portions of this agreement, the typewritten 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 Article XVI shall govern, control and prevail.

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

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

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

AA. ~~PRODUCTION SHARING AGREEMENT~~

~~This JOA is being executed concurrently with two Production Sharing Agreements, both dated April 1, 2021, with Cimarex Energy Co. as Operator. Non-Operator(s) acknowledge that they have reviewed the terms of such Production Sharing Agreements, and in the event of a conflict of the provisions of this Operating Agreement and the Production Sharing Agreements, the provisions of the Production Sharing Agreements shall control and prevail. Furthermore, additional Production Sharing Agreements, containing substantially the same terms, may be executed in the future covering alternative depths and Sharing Areas located within the Contract Area.~~

BB. RENEWAL OR EXTENSION OF LEASES

Notwithstanding anything herein to the contrary, each party committing any Lease or Leases or any undivided interest therein or 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 respect to all of such party's interest therein and to bear the renewal or extension costs and expenses incurred in connection therewith and 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 interest in such Lease, then any replacement Lease taken covering such interest will thereafter be subject to the terms of Article VIII.B. The provisions of this section shall only apply to Leases or portions of Leases located in the Contract Area.

CC. HEADINGS

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

DD. ADDITIONAL LANGUAGE TO ARTICLE V.A – OPERATOR

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

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

NO PARTY SHALL BE LIABLE TO ANY OTHER PARTY HERETO FOR ANY LOST OR PROSPECTIVE PROFITS OR ANY OTHER SPECIAL, PUNITIVE, EXEMPLARY, CONSEQUENTIAL, INCIDENTAL OR INDIRECT LOSSES OR DAMAGES (IN TORT, CONTRACT OR OTHERWISE) UNDER OR IN RESPECT OF THIS AGREEMENT OR FOR ANY FAILURE OF PERFORMANCE RELATED HERETO HOWSOEVER CAUSED, WHETHER OR NOT ARISING FROM SUCH PARTY'S SOLE, JOINT OR CONCURRENT NEGLIGENCE, STRICT LIABILITY, BREACH OF CONTRACT OR OTHER FAULT OR RESPONSIBILITY. For purposes of the foregoing, actual damages may, however, include indirect, special, consequential, incidental or 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 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 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 contractual obligation of a party hereunder.

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

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

~~_____, who has prepared and circulated this form for execution, represents and warrants 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 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.

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 BARBER 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. _____

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 _____)~~

~~_____) 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 New Mexico §
§
COUNTY OF Chaves §

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

BRADEN LEIGH WIDENER
Notary Public
State of New Mexico
Comm. # 2001640
My Comm. Exp. Dec 27, 2027

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

15. COUNTERPARTS

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

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

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
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

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 LEIGH WIDENER
Notary Public
State of New Mexico
Comm. # 2001640
My Comm. Exp. Dec 27, 2027

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/ocd/contact-us

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

CONDITIONS

Operator: Coterra Energy Operating Co. 6001 Deauville Blvd Midland, TX 79706	OGRID: 215099
	Action Number: 572975
	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