

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**

Form C-101  
August 1, 2011  
Permit 410039

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

1. Operator Name and Address Coterra Energy Operating Co. 6001 Deauville Blvd Midland, TX 79706		2. OGRID Number 215099
4. Property Code 338944		3. API Number 30-025-56026
5. Property Name SOMBRERO STATE COM		6. Well No. 222H

**7. Surface Location**

UL - Lot D	Section 13	Township 19S	Range 35E	Lot Idn D	Feet From 380	N/S Line N	Feet From 1302	E/W Line W	County Lea
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**8. Proposed Bottom Hole Location**

UL - Lot C	Section 25	Township 18S	Range 35E	Lot Idn C	Feet From 100	N/S Line N	Feet From 2242	E/W Line W	County Lea
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**9. Pool Information**

WC-025 G-07 S193513B;BONE SPRING	97926
VACUUM;BONE SPRING, SOUTH	61900

**Additional Well Information**

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3746
16. Multiple Y	17. Proposed Depth 30265	18. Formation 2nd Bone Spring Sand	19. Contractor	20. Spud Date 3/27/2026
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

We will be using a closed-loop system in lieu of lined pits

**21. Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54.5	1839	1130	0
Int1	12.25	9.625	36	3123	703	0
Prod	8.5	7	29	9134	324	2923
Prod	8.5	5.5	20	30265	5587	9134

**Casing/Cement Program: Additional Comments**

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**22. Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
Annular	5000	5000	
Pipe	10000	10000	
Double Ram	10000	10000	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.  
I hereby certify that no additives containing PFAS chemicals will be added to the completion or recompletion of this well.  
**I further certify I have complied with 19.15.14.9 (A) NMAC  and/or 19.15.14.9 (B) NMAC  if applicable.**

**OIL CONSERVATION DIVISION**

Signature:

Printed Name: Electronically filed by Phillip Levasseur	Approved By: Jeffrey Harrison
Title: Regulatory Compliance Manager	Title: Petroleum Specialist III
Email Address: phillip.levasseur@coterra.com	Approved Date: 3/10/2026
Date: 3/9/2026	Expiration Date: 3/10/2028
Phone: 412-759-4585	Conditions of Approval Attached





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

**WELL LOCATION INFORMATION**

API Number <b>30-025-56026</b>	Pool Code 61900	Pool Name VACUUM; BONE SPRING, SOUTH
Property Code <b>338944</b>	Property Name SOMBRERO STATE COM	
OGRID No. 215099	Operator Name COTERRA ENERGY OPERATING CO.	Well Number 222H
Surface Owner: <input type="checkbox"/> State <input checked="" type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal		Ground Level Elevation 3,746.3'
Mineral Owner: <input checked="" type="checkbox"/> State <input checked="" type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal		

**Surface Location**

UL D	Section 13	Township 19S	Range 35E	Lot	Ft. from N/S 380 NORTH	Ft. from E/W 1,302 WEST	Latitude (NAD 83) 32.666790°	Longitude (NAD 83) -103.415107°	County LEA
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**Bottom Hole Location**

UL C	Section 25	Township 18S	Range 35E	Lot	Ft. from N/S 100 NORTH	Ft. from E/W 2,242 WEST	Latitude (NAD 83) 32.725462°	Longitude (NAD 83) -103.412046°	County LEA
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Dedicated Acres 320	Infill or Defining Well Defining	Defining Well API Pending	Overlapping Spacing Unit (Y/N) N	Consolidation Code C
Order Numbers. R-24083		Well setbacks are under Common Ownership: <input type="checkbox"/> Yes <input type="checkbox"/> No NA		

**Kick Off Point (KOP)**

UL N	Section 12	Township 19S	Range 35E	Lot	Ft. from N/S 100 SOUTH	Ft. from E/W 2,242 WEST	Latitude (NAD 83) 32.668097°	Longitude (NAD 83) -103.412061°	County LEA
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**First Take Point (FTP)**

UL N	Section 12	Township 19S	Range 35E	Lot	Ft. from N/S 100 SOUTH	Ft. from E/W 2,242 WEST	Latitude (NAD 83) 32.668097°	Longitude (NAD 83) -103.412061°	County LEA
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**Last Take Point (LTP)**

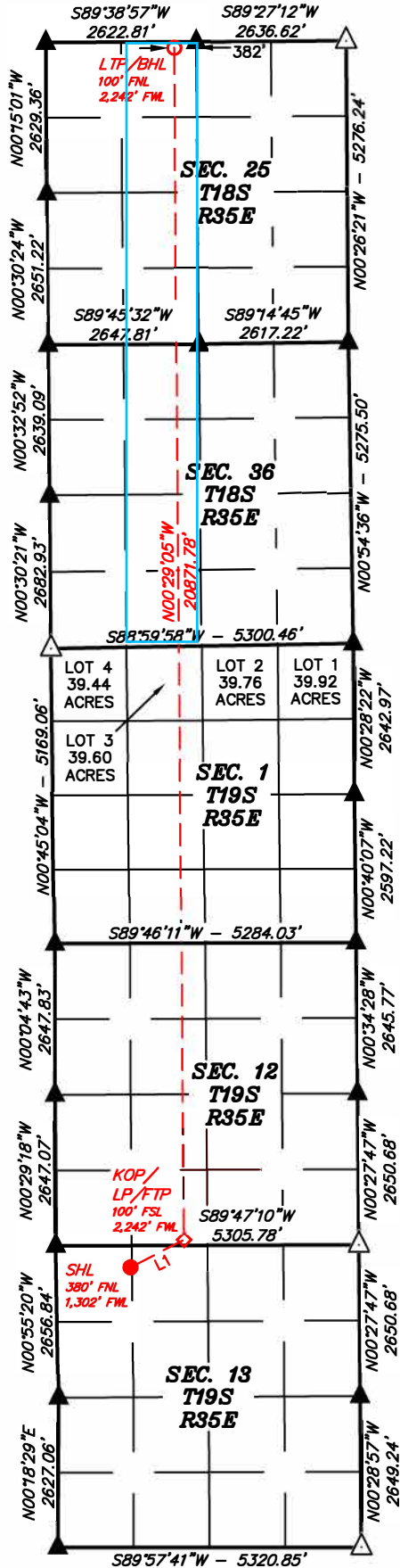
UL C	Section 25	Township 18S	Range 35E	Lot	Ft. from N/S 100 NORTH	Ft. from E/W 2,242 WEST	Latitude (NAD 83) 32.725462°	Longitude (NAD 83) -103.412046°	County LEA
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Unitized Area or Area of Uniform Interest E2W2 Sec 25,36,1,12	Spacing Unit Type <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Floor Elevation: 3746.3
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<p><b>OPERATOR CERTIFICATIONS</b></p> <p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i></p> <p><i>If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.</i></p> <p style="text-align: right;"><i>Shelly Bowen</i>                      3/4/2026</p>	<p><b>SURVEYOR CERTIFICATIONS</b></p> <p><i>I hereby certify that the well location shown on this plat was plotted from the field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i></p> <div style="text-align: center;">  </div>
Signature  Shelly Bowen	Signature and Seal of Professional Surveyor  23782                      July 30, 2025
Printed Name  shelly.bowen@coterra.com	Certificate Number                      Date of Survey
Email Address	

*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 SOMBRERO STATE COM	Well Number 222H	Drawn By N.R. 07-31-25	Revised By
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- = SURFACE HOLE LOCATION
- ◇ = KICK OFF POINT/LANDING POINT/FIRST TAKE POINT
- = LAST TAKE POINT/BOTTOM HOLE LOCATION
- ▲ = SECTION CORNER LOCATED
- △ = SECTION CORNER RE-ESTABLISHED (Not Set on Ground.)

**NOTE:**

- Distances referenced on plat to section lines are perpendicular.
- Bearings, Distances, Coordinates and Areas are based on the New Mexico Coordinate Grid System of 1983, East Zone, in U.S. Feet.
- Section breakdown information for this plat may be obtained from Uintah Engineering & Land Surveying.

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N62°37'01"E	1051.07'

<b>NAD 83 (SURFACE HOLE LOCATION)</b>
LATITUDE = 32°40'00.44" (32.666790°)
LONGITUDE = -103°24'54.39" (-103.415107°)
<b>NAD 27 (SURFACE HOLE LOCATION)</b>
LATITUDE = 32°40'00.00" (32.666668°)
LONGITUDE = -103°24'52.63" (-103.414619°)
<b>STATE PLANE NAD 83 (N.M. EAST)</b>
N: 607531.49' E: 823902.48'
<b>STATE PLANE NAD 27 (N.M. EAST)</b>
N: 607468.29' E: 782721.92'

<b>NAD 83 (KOP/LP/FTP)</b>
LATITUDE = 32°40'05.15" (32.668097°)
LONGITUDE = -103°24'43.42" (-103.412061°)
<b>NAD 27 (KOP/LP/FTP)</b>
LATITUDE = 32°40'04.71" (32.667974°)
LONGITUDE = -103°24'41.66" (-103.411573°)
<b>STATE PLANE NAD 83 (N.M. EAST)</b>
N: 608014.91' E: 824835.78'
<b>STATE PLANE NAD 27 (N.M. EAST)</b>
N: 607951.73' E: 783655.22'

<b>NAD 83 (LTP/BHL)</b>
LATITUDE = 32°43'31.66" (32.725462°)
LONGITUDE = -103°24'43.37" (-103.412046°)
<b>NAD 27 (LTP/BHL)</b>
LATITUDE = 32°43'31.22" (32.725340°)
LONGITUDE = -103°24'41.60" (-103.411555°)
<b>STATE PLANE NAD 83 (N.M. EAST)</b>
N: 628885.94' E: 824659.20'
<b>STATE PLANE NAD 27 (N.M. EAST)</b>
N: 628822.31' E: 783479.38'



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**Santa Fe, NM 87505**

Form APD Comments

Permit 410039

**PERMIT COMMENTS**

Operator Name and Address: Coterra Energy Operating Co. [215099] 6001 Deauville Blvd Midland, TX 79706		API Number: 30-025-56026
		Well: SOMBRERO STATE COM #222H
Created By	Comment	Comment Date
jeffrey.harrison	Submitted as defining well.	3/10/2026

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

Form APD Conditions

Permit 410039

**PERMIT CONDITIONS OF APPROVAL**

Operator Name and Address: Coterra Energy Operating Co. [215099] 6001 Deauville Blvd Midland, TX 79706	API Number: 30-025-56026
	Well: SOMBRERO STATE COM #222H

OCD Reviewer	Condition
jeffrey.harrison	No additives containing PFAS chemicals will be added to the drilling fluids or completion fluids used during drilling, completions, or recompletions operations.
jeffrey.harrison	Cement must be in place for at least 8 hours and achieve a minimum compressive strength of 500 psi before performing further operations on the well.
jeffrey.harrison	Cement is required to circulate on both surface and intermediate1 strings of casing.
jeffrey.harrison	If the method of isolation was not by circulation, a CBL must be performed; if strata isolation is not achieved, then remediation will be required before further operations.
jeffrey.harrison	File As Drilled C-102 and a directional Survey with C-104 completion packet.
jeffrey.harrison	A [C-103] Sub. Drilling (C-103N) is required within (10) days of spud.
jeffrey.harrison	Notify the OCD 24 hours prior to casing & cement.
jeffrey.harrison	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.
jeffrey.harrison	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.

**1. Geological Formations**

TVD of target 9,570  
MD at TD 30,265

Pilot Hole TD N/A  
Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	1740	N/A	
Top of Salt	2000	N/A	
Base Salt	3098	N/A	
Yates	3256	N/A	
Seven Rivers	3670	N/A	
Queen	4416	N/A	
Cherry Canyon	5706	N/A	
Brushy Canyon	5920	N/A	
Bone Spring	7310	Hydrocarbons	
1st Bone Spring Sand	9098	Hydrocarbons	
2nd Bone Spring Carbonate	9238	Hydrocarbons	
2nd Bone Spring Sand	9282	Hydrocarbons	
2nd Bone Spring Sand - Target	9570	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	1839	1839	13-3/8"	54.50	J-55	ST&C	1.42	3.44	5.13
12 1/4	0	3123	3123	9-5/8"	36.00	J-55	LT&C	1.21	2.10	4.03
8 1/2	0	9134	9134	7"	29.00	P-110	BT&C	2.00	2.62	4.85
8 1/2	9134	30265	9570	5-1/2"	20.00	P-110	BT&C	2.48	2.76	73.51
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., Sombrero State Com 222H

	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	891	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	239	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate	520	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
	183	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Production	324	10.30	3.64	22.18		Lead: Tuned Light + LCM
	5587	14.20	1.30	5.86	14:30	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS

Casing String	TOC	% Excess
Surface		45
Intermediate		61
Production	2923	25

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.
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BOP installed and tested before drilling which hole?	Size	Min Required WP	Type		Tested To
<b>12 1/4</b>	<b>13 5/8</b>	<b>10M</b>	Annular	5M	100% of working pressure
			Blind Ram		10M
			Pipe Ram		
			Double Ram	X	
			Other		
<b>8 1/2</b>	<b>13 5/8</b>	<b>10M</b>	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 1839'	Fresh Water	7.83 - 8.33	28	N/C
1839' to 3123'	Brine Water	9.80 - 10.30	30-32	N/C
3123' to 30265'	Oil Based Mud	8.50 - 9.00	50-70	N/C

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

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
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**6. Logging and Testing Procedures**

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

Additional Logs Planned	Interval

**7. Drilling Conditions**

Condition	
BH Pressure at deepest TVD	4478 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**

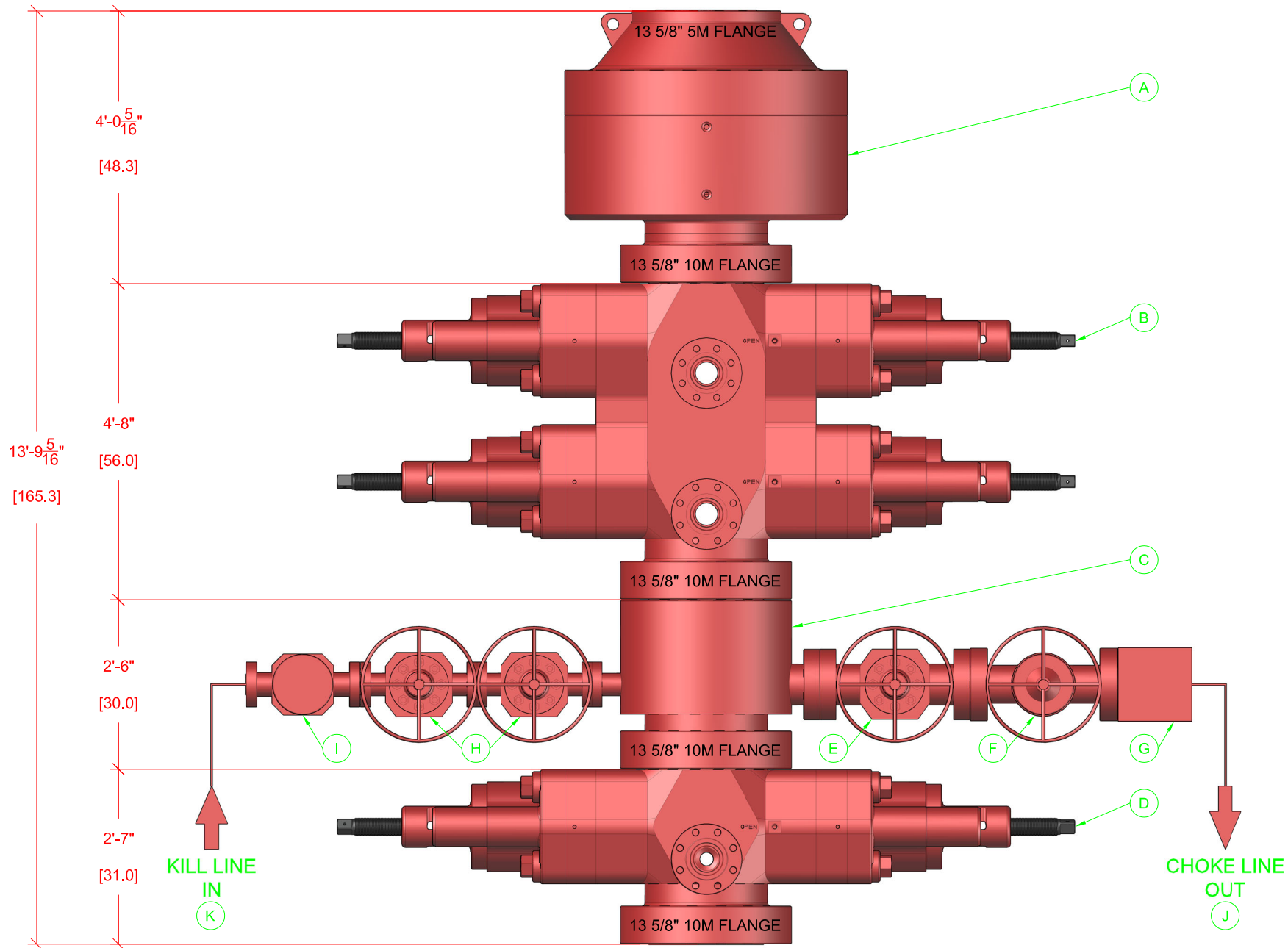
1. The multi-bowl wellhead will be installed by a vendor representative. A copy of the installation instructions has been sent to the BLM field office.
2. A packoff will be installed after running and cementing the production casing. This packoff will be tested to 10K psi.

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.

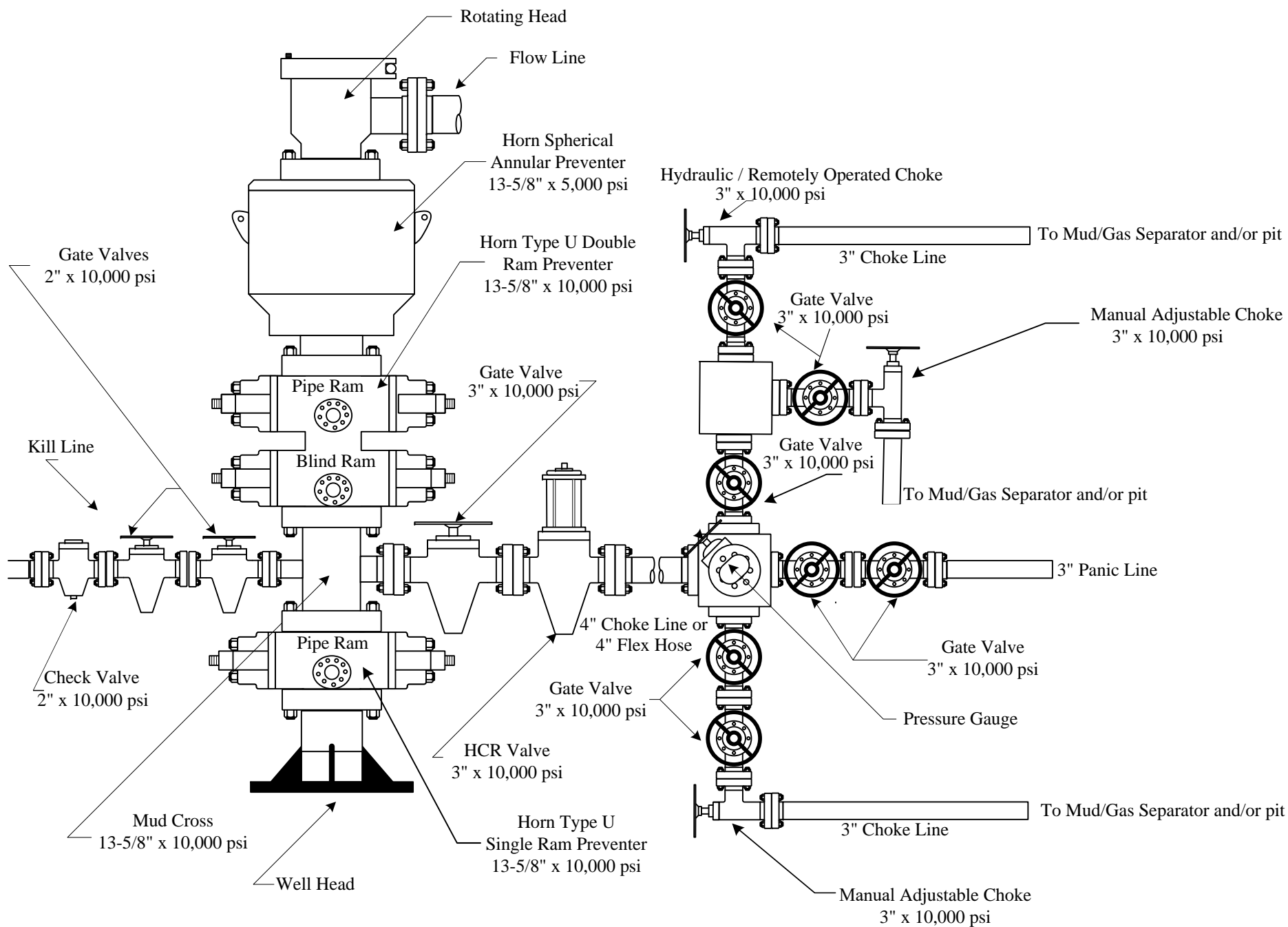
Additional Well Control Notes

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.



**BOP EQUIPMENT INFORMATION**

DESCRIPTION	MODEL	QTY	ITEM	DESCRIPTION	MODEL	QTY
ANNULAR BOP	13 5/8" 5M	1	G	STUDDED BLOCK	4 1/2" 10M	1
DOUBLE RAM BOP	13 5/8" 10M TYPE-U	1	H	GATE VALE	2 1/2" 10M FC MANUAL	2
MUD CROSS	13 5/8" 10M	1	I	CHECK VALVE	2 1/2" 10M	1
SINGLE RAM BOP	13 5/8" 10M TYPE-U	1	J	CHOKE HOSE	4 1/2" 10M	1
GATE VALVE	4 1/2" 10M FC MANUAL	1	K	KILL HOSE	2 1/2" 10M	1
HCR VALVE	4 1/2" 10M HCR	1	L			





CERTIFICATE OF QUALITY

LTYY/QR-5.7.1-19B

No: LT2024-156-001


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

Inspection Items	Inspection results
Appearance Checking	In accordance with API Spec 16C 3 <sup>rd</sup> edition
Size and Lengths	In accordance with API Spec 16C 3 <sup>rd</sup> edition
Dimensions and Tolerances	In accordance with API Spec 16C 3 <sup>rd</sup> edition
End Connections: 4-1/16"×10000psi Integral flange for sour gas service	In accordance with API Spec 6A 21 <sup>st</sup> edition
End Connections: 4-1/16"×10000psi Integral flange for sour gas service	In accordance with API Spec 17D 3 <sup>rd</sup> edition
Hydrostatic Testing	In accordance with API Spec 16C 3 <sup>rd</sup> edition
product Marking	In accordance with API Spec 16C 3 <sup>rd</sup> edition

Inspection conclusion	The inspected items meet standard requirements of API Spec 16C 3 <sup>rd</sup> edition
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Remarks	16C-0403 
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Approver	Jane C	Auditor	Alice D	Inspector	Leo W
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LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD	
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HYDROSTATIC TESTING REPORT

LTTY/QR-5.7.1-28

No: 24090301

Product Name	Choke And Kill Hose	Standard	API Spec 16C 3 <sup>rd</sup> edition
Product Specification	3"×10000psi×35ft (10.67m)	Serial Number	VTC-7660257
Inspection Equipment	MTU-BS-1600-3200-E	Test medium	Water
customer number	PO890145-001	Inspection Date	2024.08.30

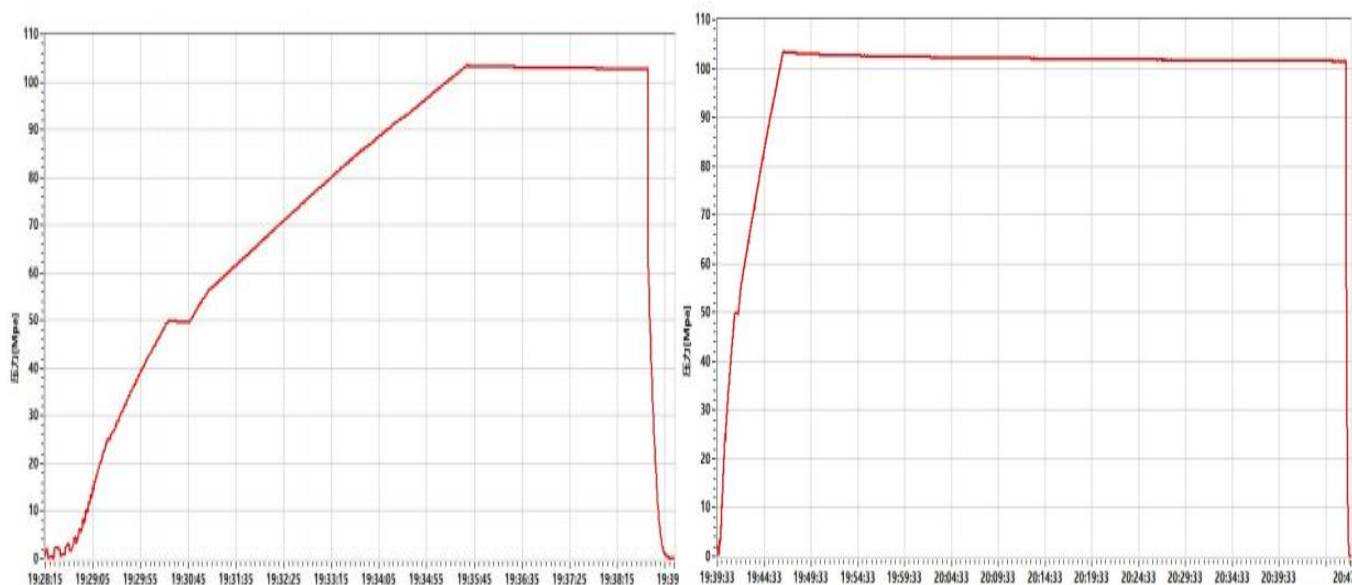
Rate of length change

Standard requirements	At working pressure ,the rate of length change should not more than ±2%
Testing result	10000psi (69.0MPa) ,Rate of length change 0.6%

Hydrostatic testing

Standard requirements	At 1.5 times working pressure, the initial pressure-holding period of not less than three minutes, the second pressure-holding period of not less than one hour, no leakage.
Testing result	15000psi (103.5MPa), 3 min for the first time, 60 min for the second time, no leakage

Graph of pressure testing:



Conclusion	The inspected items meet standard requirements of API Spec 16C 3 <sup>rd</sup> edition		16C-0403	
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Approver	Jane C	Auditor	Alice D	Inspector	Leo W
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LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD	
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CERTIFICATE OF CONFORMANCE

№:LT24090307

Product Name: Choke And Kill Hose

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

Serial Number: VTC-7660257

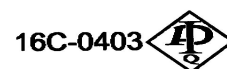
customer number: PO890145-001

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

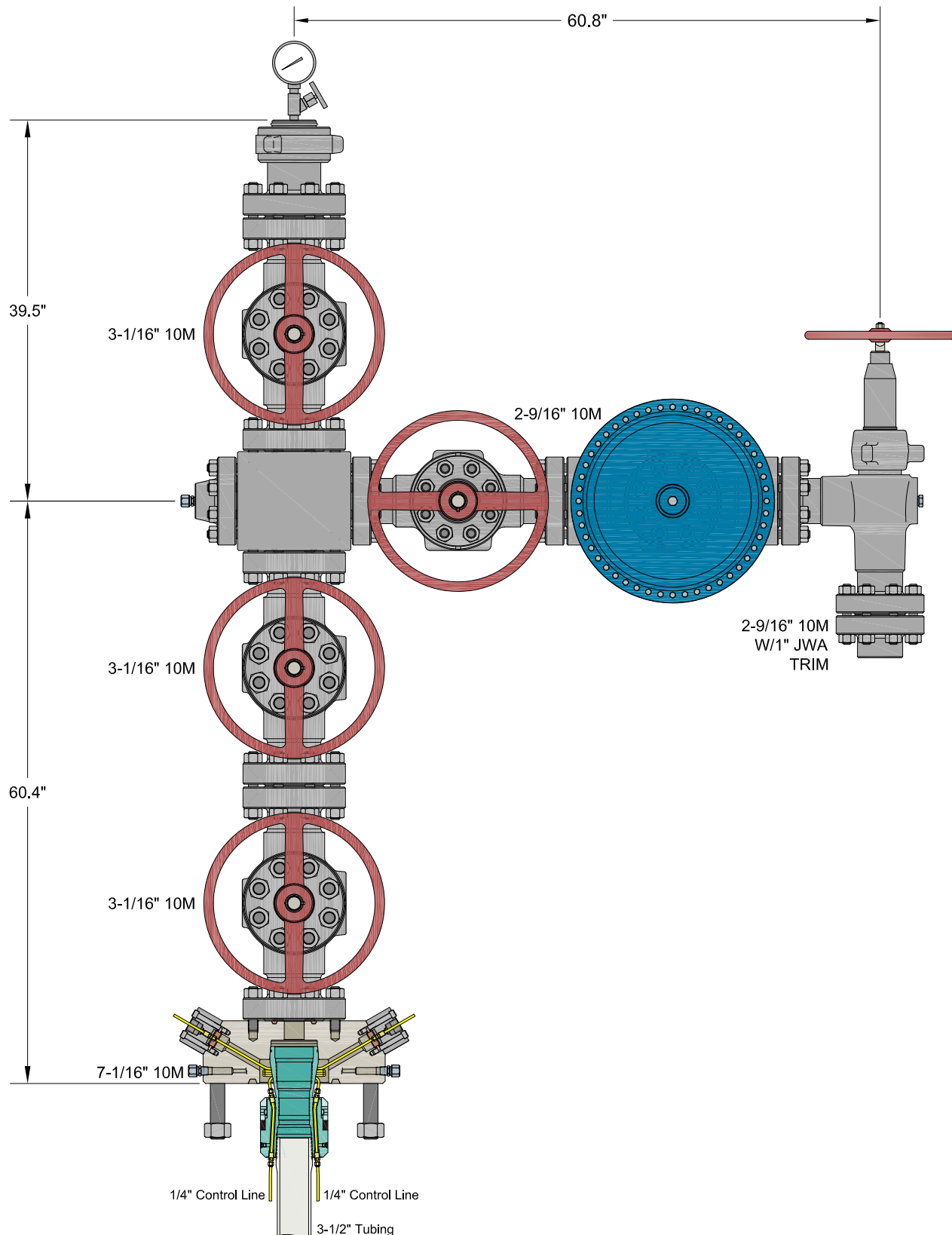
The Choke And Kill Hose assembly was produced by LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD.in Sep,2024, and inspected by LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD. according to API Spec 16C 3<sup>rd</sup> edition on Sep 3, 2024. The overall condition is good. This is to certify that the Choke And Kill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

QC Manager: Jane C

Date:Sep 3, 2024



LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD	
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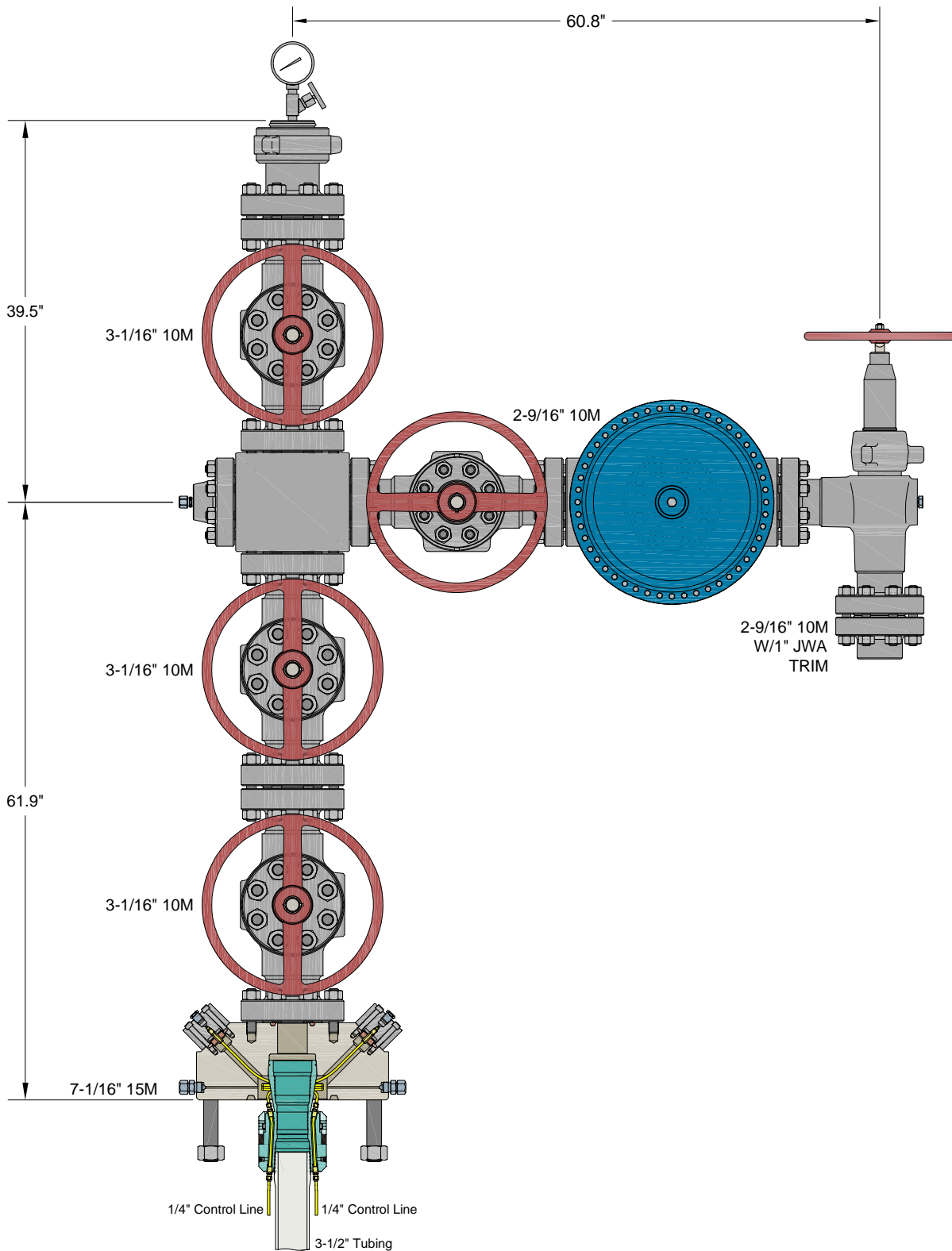
ALL DIMENSIONS APPROXIMATE

# CACTUS WELLHEAD LLC

CIMAREX  
HOBBS, NM

7-1/16" 10M x 3-1/16" x 2-9/16" 10M Production Tree Assembly  
With 7-1/16" 10M x 3-1/16" 10M T40-CCL Tubing Head Adapter  
And 7-1/16" 3-1/2" T40-CCL Tubing Hanger

DRAWN	VJK	05SEP23
APPRV		
DRAWING NO.	HBE0001018	



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ALL DIMENSIONS APPROXIMATE

# CACTUS WELLHEAD LLC

CIMAREX  
HOBBS, NM

7-1/16" 15M x 3-1/16" x 2-9/16" 10M Production Tree Assembly  
With 7-1/16" 15M x 3-1/16" 10M T40-CCL Tubing Head Adapter  
And 7-1/16" 3-1/2" T40-CCL Tubing Hanger

DRAWN	VJK	13DEC23
APPRV		
DRAWING NO.	HBE0001018	



**Cactus**

**Quotation**

**Quote Number : HBE0001018**

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

Date: 09/08/2023  
Valid For 30 Days

**Page 1 of 5**

**Bill To:** 7050

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

**Ship To:** 1016

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

	Quantity	Price	Ext Price
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CIMAREX

HOBBS, NM

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

QUOTATION SUMMARY:

- PRODUCTION TREE ASSEMBLY - \$49,338.02

CACTUS CONTACT:

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

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

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

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


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



**Cactus**<sup>™</sup>

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

**OPTIONAL 15M ADAPTER**

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

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

<b>Matl:</b>	47,261.60
<b>Labor:</b>	0.00
<b>Misc:</b>	2,076.42
<b>Sales Tax:</b>	0.00
<b>Total:</b>	<b>49,338.02</b>



# Cactus

## Quotation

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

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Valid For 30 Days

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### CACTUS WELLHEAD, LLC PURCHASE TERMS AND CONDITIONS

1. **ACCEPTANCE:** Acceptance of Cactus Wellhead, LLC (herein: Company) Purchase Terms and Conditions (herein: CACTUS Purchase Terms) shall be deemed effective upon shipment of the Products and/or rendering of Services which are the subject of an order by Customer (defined as the party purchasing CACTUS Products and or Services referred on the invoice). Any proposal made by Customer for additional or different terms and conditions or any attempt by Customer to vary in any degree any of the terms and conditions of CACTUS Purchase Terms is hereby rejected.
2. **PRICING:** Each Product and Service shall be invoiced at (and Customer shall pay) the respective price shown on the reverse side hereof, or if no price is shown on the reverse side hereof, at the price shown in the current price list of Company. In addition, Customer shall pay any and all additional charges for mileage, transportation, freight, packing and other related charges, as well as any federal, state or local tax, excise, or charge applicable on the sale, transportation, or use of Products and Services, unless otherwise specified.
3. **TERMS OF PAYMENT:** Customer agrees to pay Company any and all payments due on or before thirty (30) days from invoice date at the designated address of Company. Amounts unpaid after such thirty (30) day period shall bear interest at the lesser of (i) one and one-half percent (1½%) per month or (ii) the maximum rate allowed by law. Customer shall also pay any and all of Company's attorney's fees and court costs if any amounts hereunder are collected by an attorney or through legal proceedings. Company reserves the right, among other remedies, either to terminate this agreement or to suspend further deliveries upon failure of Customer to make any payment as provided herein.
4. **LIMITED WARRANTY.** COMPANY MAKES NO WARRANTY, EXPRESSED OR IMPLIED, AS TO THE MERCHANTABILITY, FITNESS FOR PURPOSE, DESCRIPTION, QUALITY, PRODUCTIVENESS, ACCURACY OR ANY OTHER MATTER WITH RESPECT TO PRODUCTS OR SERVICES, ALL SUCH WARRANTIES BEING HEREBY SPECIFICALLY AND EXPRESSLY DISCLAIMED BY COMPANY. COMPANY MAY OFFER TECHNICAL ADVICE OR ASSISTANCE WITH REGARD TO THE PRODUCTS AND SERVICES BASED ON LABORATORY AND/OR FIELD EXPERIENCE AND CUSTOMER UNDERSTANDS AND AGREES THAT SUCH ADVICE REPRESENTS ONLY GOOD FAITH OPINIONS AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE. THE SOLE AND EXPRESS WARRANTY PROVIDED BY COMPANY IS TO WARRANT THAT THE PRODUCTS SOLD AS LISTED ON THE REVERSE SIDE HEREOF COMPLY WITH COMPANY'S SOLE SPECIFICATION AT THE DATE AND TIME OF MANUFACTURE. COMPANY MAKES NO WARRANTY THAT SUCH PRODUCTS SHALL MEET SUCH SPECIFICATION AT ANY TIME AFTER SHIPMENT OF PRODUCTS. USE OF SUCH PRODUCTS IS SPECIFICALLY NOT WARRANTED.
5. **REMEDY.** The exclusive remedy for this warranty for Products shall be limited to, in Company's sole discretion and judgment, the replacement of defective part(s), F.O.B. Company's plant (transportation, redesign, dismantling, disposal of material and installation are not included and shall be borne and paid for by Customer), or repair of defective part(s). The exclusive remedy for this warranty for Services shall be limited to the repeat of Services performed F.O.B. Company's plant (transportation, redesign, dismantling, disposal of material and installation are not included and shall be borne and paid for by Customer). Any such repeat of Services or replacement or repair of Products shall not include any materials not sold by Company hereunder, and specifically excludes any obligation by Company related to other property of the Customer or any property of third parties. Provided, however, Company may in its sole discretion, decide to instead give Customer credit memorandum for the amounts already paid by Customer to Company for such Product or Service. IN ANY EVENT AND NOTWITHSTANDING THE LANGUAGE TO THE CONTRARY HEREIN, CUSTOMER ACKNOWLEDGES THAT ANY CLAIM IT MAY HAVE ARISING OUT OF OR IN CONNECTION WITH ANY ORIGINAL PRODUCTS AND SERVICES, ANY REPLACEMENT PRODUCTS OR REPEAT OF SERVICES AND THESE CACTUS PURCHASE TERMS SHALL BE LIMITED TO AND NOT EXCEED THE AMOUNT CUSTOMER HAS ACTUALLY PAID TO COMPANY FOR SUCH PRODUCTS AND/OR SERVICES PURSUANT HERETO. If Customer fails to make any such claim within thirty (30) days after completion of Service or delivery of Products, Customer hereby waives (to the extent permitted by applicable law) any and all claims it may or does have with respect to such Products and Services. Unless Customer is an authorized reseller of Company, Company's liability in connection with Products and Services shall extend only to Customer. CUSTOMER HEREBY INDEMNIFIES AND HOLDS COMPANY (AND ITS AGENTS, REPRESENTATIVES, OFFICERS DIRECTORS AND EMPLOYEES) HARMLESS FOR ANY LOSS, EXPENSE OR DAMAGE (WHETHER OF CUSTOMER OR OF ANY THIRD PARTY) ARISING FROM OR IN CONNECTION WITH PRODUCTS AND SERVICES, INCLUDING WITHOUT LIMITATION ANY FAILURE OF SUCH PRODUCTS AND SERVICES TO CONFORM TO CUSTOMER'S ORDER OR SPECIFICATION OR ANY OTHER STANDARD, OR ANY NEGLIGENCE OR BREACH OF WARRANTY BY COMPANY WITH RESPECT TO ANYTHING DONE OR FAILED TO HAVE BEEN DONE BY COMPANY, IF AND TO THE EXTENT THAT SUCH LOSS, EXPENSE OR DAMAGE EXCEEDS THE AMOUNT CUSTOMER HAS ACTUALLY PAID COMPANY PURSUANT HERETO FOR SUCH PRODUCTS OR SERVICES.
6. **INSPECTION.** The results of any inspection or testing reported by the Company to Customer represents only good faith opinions and are not to be construed as warranties or guarantees of the quality, classification, merchantability, fitness for purpose, condition, or liability of any equipment or material that has been inspected or tested by the Company.
7. **INSURANCE.** Each party agrees to maintain comprehensive general liability insurance in the amount of \$1,000,000 each occurrence, \$2,000,000 general aggregate, and Workers Compensation insurance per statutory requirements providing coverage for the indemnity obligations in this agreement. The Company (and such of its affiliates as it shall designate) including their officers, directors, members, shareholders, partners, joint ventures, employees, agents and representatives shall be named as additional insureds under the policies of Customer on a primary basis to the extent of its indemnification obligations set forth in these CACTUS Purchase Terms, and the policies shall also provide a waiver of subrogation rights in favor of the Company (and such of its affiliates as it shall designate) and their officers, directors, members, shareholders, employees, agents and representatives. The provisions of this Section 7 shall apply and the obligation to maintain insurance of each party in the coverages and amounts set forth herein shall remain in force regardless and independent of the validity or enforceability of the indemnity provisions of Section 8, below; the obligation to obtain insurance is a separate and independent obligation. If the insurance required herein is more or less than allowed by prevailing law, the indemnity obligations in Section 8 below shall be effective only to the maximum extent permitted under applicable law.
8. **INDEMNIFICATION.** The following indemnifications and releases of liability will apply to any Products or Services provided under this contract. COMPANY AND CUSTOMER EXPRESSLY AGREE THAT, TO THE EXTENT REQUIRED BY APPLICABLE LAW TO BE EFFECTIVE, THE INDEMNITIES AND DISCLAIMERS OF WARRANTIES CONTAINED HEREIN ARE "CONSPICUOUS."
  - A. **Customer Indemnity Obligations.** Customer hereby releases Company from any liability for, and shall protect, defend, indemnify, and hold harmless Company, its parents, affiliates, subsidiaries, partners, joint owners, joint ventures, and its contractors and subcontractors of any tier, and the officers, directors, agents, representatives, employees, insurers, and consultants (specifically excluding any member of Customer Group) of all of the foregoing, and its and their respective successors, heirs and assigns ("Company Group") from and against all costs (including the payment of reasonable attorneys' fees), losses, liabilities, demands, causes of action, damages, or claims of every type and character ("Claims"), arising out of or resulting from or related, directly or indirectly, to (i) injury to, illness or death of Customer its parents, affiliates, subsidiaries, partners, joint owners, joint ventures, and its contractors and subcontractors of any tier, and the officers, directors, agents, representatives, employees, customers, insurers, invitees and consultants of all of the foregoing, and its and their respective successors, heirs and assigns ("Customer Group"), or (ii) loss of or damage to any property of any member of Customer Group, REGARDLESS OF THE CAUSE OF SUCH CLAIMS, INCLUDING THE NEGLIGENCE (WHETHER SOLE, JOINT OR CONCURRENT, ACTIVE OR PASSIVE) STRICT LIABILITY, OR ANY OTHER LEGAL FAULT OR RESPONSIBILITY OF ANY MEMBER OF COMPANY GROUP, BUT NOT IN THE CASE OF GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF ANY MEMBER OF COMPANY GROUP.
  - B. **Company Indemnity Obligations.** Company hereby releases Customer from any liability for, and shall protect, defend, indemnify, and hold harmless Customer from and against all Claims arising out of or resulting from or related, directly or indirectly, to (i) injury to, illness or death of any member of Company Group, or (ii) loss of or damage to any property of any member of Company Group, REGARDLESS OF THE CAUSE OF SUCH CLAIMS, INCLUDING THE NEGLIGENCE (WHETHER SOLE, JOINT OR CONCURRENT, ACTIVE OR PASSIVE) STRICT LIABILITY, OR ANY OTHER LEGAL FAULT OR RESPONSIBILITY OF ANY MEMBER OF CUSTOMER GROUP, BUT NOT IN THE CASE OF GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF ANY MEMBER OF COMPANY GROUP.
  - C. **Third Party Claims.** Notwithstanding the foregoing, to the extent of its negligence, Company and Customer shall each indemnify, defend and hold harmless from and against all Claims, of every type and character, which are asserted by third parties for bodily injury, death or loss or destruction of property or interests in property in any manner caused by, directly or indirectly resulting from, incident to, connected with or arising out of the work to be performed, Services to be rendered or Products or materials furnished to Customer. When personal injury, death or loss of or damage to property is the result of joint or concurrent negligence of Customer and Company, the indemnitor's duty of indemnification shall be in proportion to its allocable share of such negligence.
  - D. **Pollution.** Company agrees that it shall be totally responsible for, and shall protect, defend and indemnify, Customer for all losses, damages, claims, demands, costs, charges, and other expenses, including attorneys' fees, for any and all waste and/or hazardous substances which are in Company Group's exclusive possession and control and directly associated with Company Group's equipment and facilities, EVEN IF THE LOSSES, DAMAGES, CLAIMS, DEMANDS, COSTS, FEES, AND EXPENSES ARE CAUSED BY OR CONTRIBUTED TO BY THE NEGLIGENCE OF CUSTOMER GROUP. Customer shall assume all responsibility for, including control and removal of, and shall protect, defend and indemnify Company Group from and against all Claims arising directly or indirectly from all other pollution or contamination which may occur during the conduct of operations hereunder, including, but not limited to, that which may result from fire, blowout, cratering, seepage or any other uncontrolled flow of oil, gas, water or other substance, EVEN IF THE LOSSES, DAMAGES, CLAIMS, DEMANDS, COSTS, FEES, AND EXPENSES ARE CAUSED BY OR CONTRIBUTED TO BY THE NEGLIGENCE OF COMPANY GROUP.
  - E. **Wild Well.** Customer shall release Company Group of any liability for, and shall protect, defend and indemnify Company Group for any damages, expenses, losses, fines, penalties, costs, expert fees and attorneys' fees arising out of a fire, blow out, cratering, seepage or wild well, including regaining control thereof, debris removal and property restoration and remediation. THIS INDEMNITY APPLIES EVEN IF THE LOSSES, DAMAGES, CLAIMS, DEMANDS, COSTS, FEES, AND EXPENSES ARE CAUSED NEGLIGENCE (WHETHER SOLE, JOINT OR CONCURRENT, ACTIVE OR PASSIVE, ORDINARY OR GROSS) STRICT LIABILITY, OR ANY OTHER LEGAL FAULT OR RESPONSIBILITY OF ANY MEMBER OF COMPANY GROUP.
  - F. **Underground Damage.** Customer shall release Company Group of any liability for, and shall protect, defend and indemnify Company Group from and against any and all claims, liability and expenses resulting from operations related to the work under this agreement on account of injury to, destruction of, or loss or impairment of any property right in or to oil, gas or other mineral substance or water, if at the time of the act or omission causing such injury, destruction, loss or impairment said substance and not been reduced to physical possession above the surface of the earth, and for any loss or damage to any formation, strata, or reservoir beneath the surface of the earth. THIS INDEMNITY APPLIES EVEN IF THE LOSSES, DAMAGES, CLAIMS, DEMANDS, COSTS, FEES, AND EXPENSES ARE CAUSED NEGLIGENCE (WHETHER SOLE, JOINT OR CONCURRENT, ACTIVE OR PASSIVE, ORDINARY OR GROSS) STRICT LIABILITY, OR ANY OTHER LEGAL FAULT OR RESPONSIBILITY OF ANY MEMBER OF COMPANY GROUP.
  - G. The foregoing indemnities set forth in these CACTUS Purchase Terms are intended to be enforceable against the parties hereto in accordance with the express terms and scope hereof notwithstanding Texas' Express Negligence Rule or any similar directive that would prohibit or otherwise limit indemnities because of the negligence (whether sole, concurrent, active or passive, ordinary or gross) or other fault or strict liability of Company or Customer.
  - H. If a claim is asserted against one of the parties to this agreement which may give rise to a claim for indemnity against the other party hereto, the party against whom the claim is first asserted must notify the potential indemnitor in writing and give the potential indemnitor the right to defend or assist in the defense of the claim.
9. **RISK OF LOSS.**
  - A. Title and risk of loss shall pass to Customer upon delivery as specified in Article 11. Customer's receipt of any material delivered hereunder shall be an unqualified acceptance of, and a waiver by Customer of any and all claims with respect to, such material unless Customer gives Company written notice of claim within thirty (30) days after such receipt. Notwithstanding the foregoing, installation or use of materials or equipment shall unequivocally constitute irrevocable acceptance of said materials. Customer assumes all risk and liability for the results obtained by the use of any material or Products delivered hereunder in work performed by on behalf of Customer or in combination with other or substances. No claim of any kind, whether as to material delivered or for non-delivery of material, and whether or not based on negligence, shall be greater in amount than the purchase price of the


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**Page 5 of 5**

material in respect of which such claim is made.

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

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

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

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

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

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

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

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

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

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

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

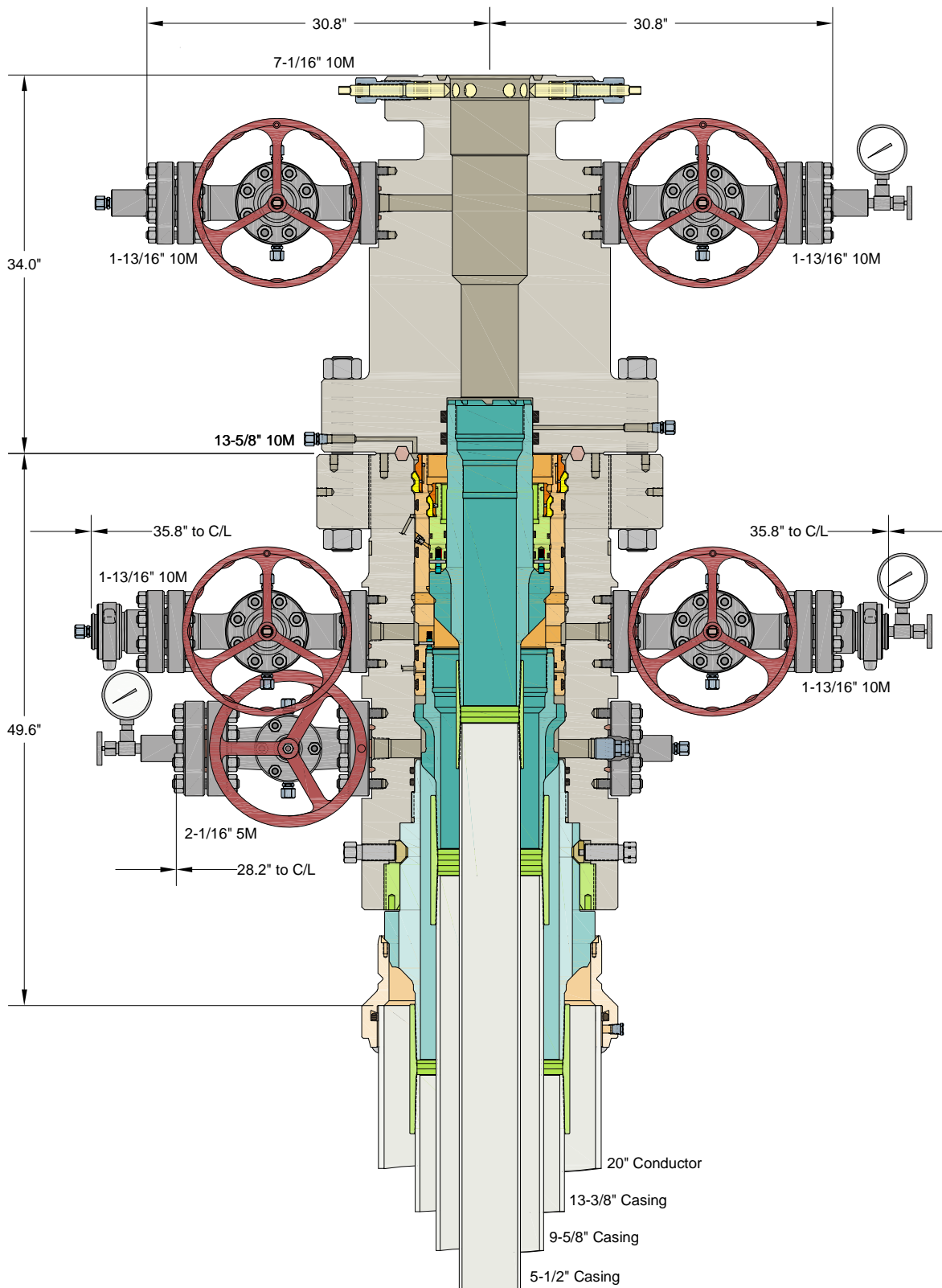
20. **CHOICE OF LAW.** THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS AND SHALL BE PERFORMABLE IN HARRIS COUNTY, TEXAS. WITHOUT REGARD TO CONFLICTS OF LAW PRINCIPALS AND WAIVER OF SAME, EACH PARTY HERETO SUBMITS TO THE JURISDICTION OF THE COURTS OF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

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

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

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

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



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

ALL DIMENSIONS APPROXIMATE

# CACTUS WELLHEAD LLC

CIMAREX  
HOBBS, NM

20" x 13-3/8" x 9-5/8" x 5-1/2" MBU-3T-CFL Wellhead Sys.  
With 13-5/8" 10M x 7-1/16" 10M CTH-DBLHPS Tubing Head  
And 9-5/8" & 5-1/2" Fluted Mandrel Casing Hangers

DRAWN	VJK	01MAY24
APPRV		
DRAWING NO.	HBE0001215	

# Standard New Mexico Variances

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## Variance Request #1: Skid Rig after Cementing Surface Casing

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

## Variance Request #2: Offline Cement Intermediate Casing

Coterra requests approval to execute an offline cement job on the Intermediate casing string. The procedure will include the following:

- Land casing in the wellhead with a solid-body casing hanger
- Install backpressure valve
- Skid rig to next well in drilling sequence
- Check for pressure and remove backpressure valve
- Install cement head and risers from casing valves
- Circulate down casing taking returns through appropriately designed flowback equipment
- Pump lead & tail cement
- Displace cement and land plug
- Verify floats are holding
- Rig down cement crew
- Install backpressure valve and TA cap

## Variance Request #4: Utilize Co-Flex Choke Line

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

## Variance Request #5: 10M BOPE & 5M Annular

Coterra requests permission to utilize a 5M annular BOP with a 10M BOP primary system. The 10M BOP system will include upper pipe rams, blind rams, and lower pipe rams, all tested to 10K, 100% of the rated working pressure. The annular element will be tested to 5K, 100% of the

rated working pressure. As noted in the well control plan, if pressure approaches the rated working pressure of the 5K annular element while in use, the upper pipe rams will be closed, and the annular opened so as to not exceed the rated working pressures.

### Variance Request #6: Break Testing BOPE

In compliance with API Standard 53, Coterra requests a variance to complete a BOP *break test* following any rig walking operation during the batch drilling sequence of multi-well pads. For this variance, the following stipulations will be met:

1. The first well in the batch drilling sequence for each hole section will be drilled to a depth sufficient to identify any depth-dependent drilling hazards prior to conducting break tests in subsequent wells.
2. On the first well in the drilling sequence, a full BOP test will be completed.
  - a. For the full BOP test, the Annular Preventer will be tested to 100% of its rated working pressure.
3. For each break test, the upper pipe rams will serve as the top barrier, and the BOP test plug will serve as the bottom barrier against which the BOP connection will be tested.
4. Each break test will include a choke manifold shell test, conducted as a single test against the adjustable choke to 100% of the BOP system's maximum working pressure.
5. *Break tests* will only be conducted for drilling intervals terminating above the Wolfcamp formation.
6. For any drilling sequence utilizing consecutive *break tests*, no more than 21 days will elapse between full BOP tests.

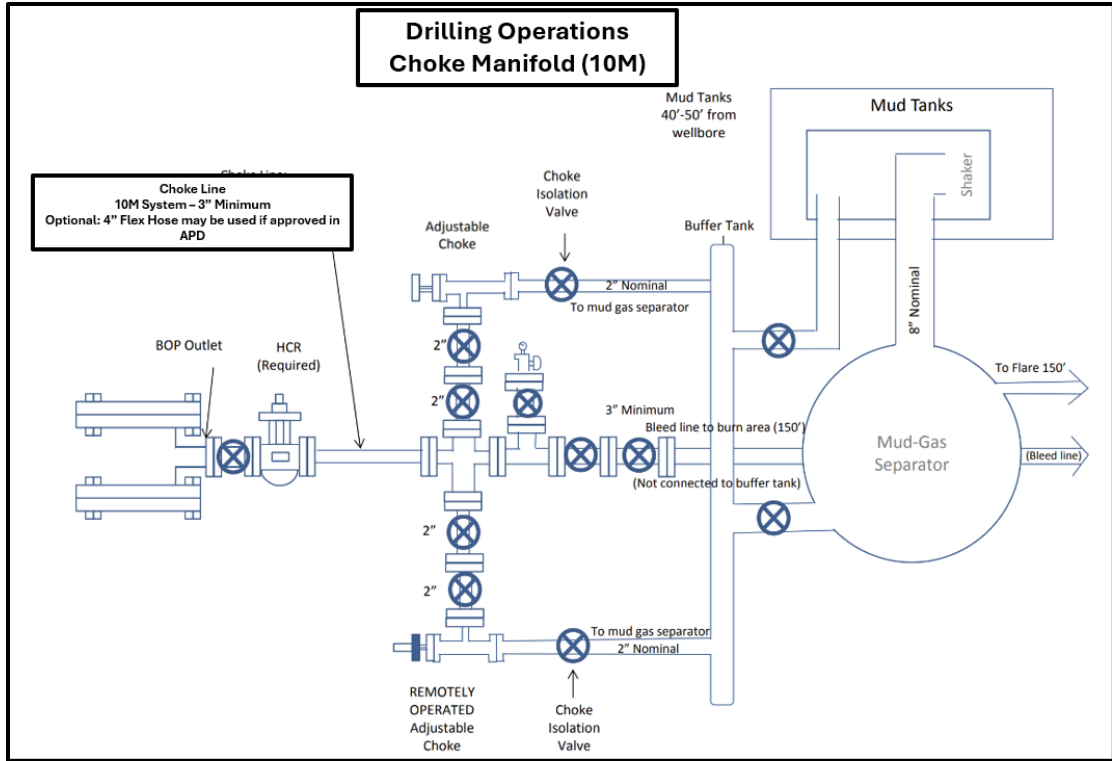


Figure 1: 10M Drilling Choke Manifold

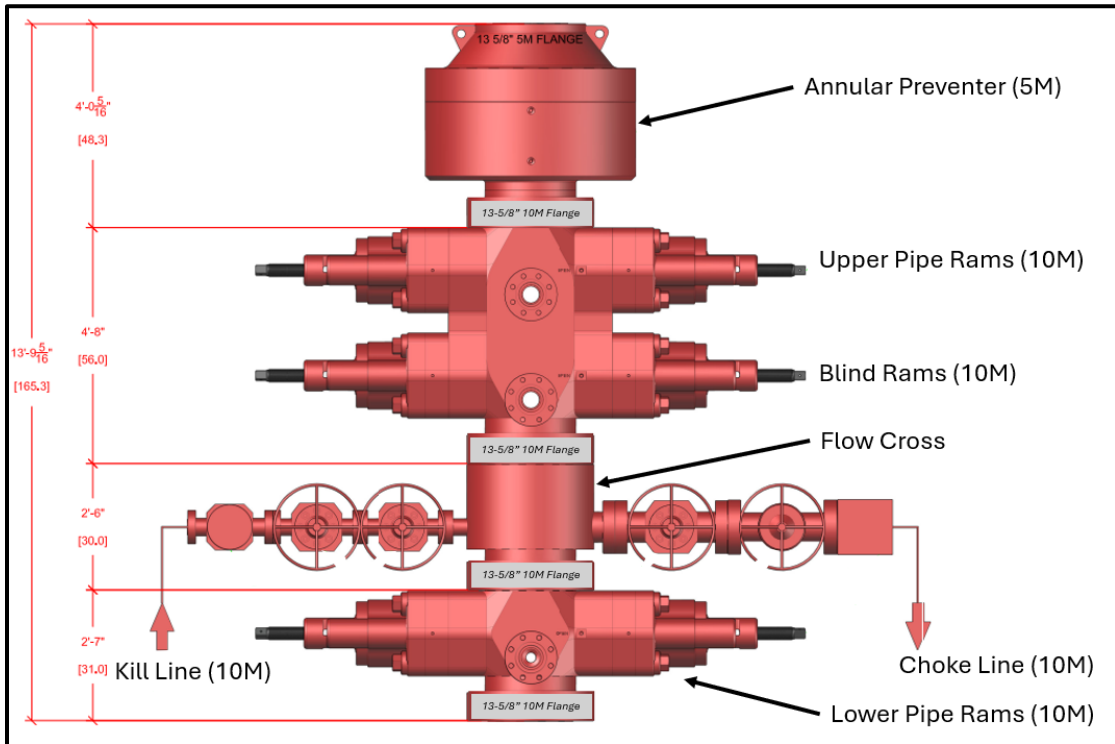


Figure 2: Drilling BOP Configuration

## Variance Request #7: Offline Cement Production Casing

Coterra requests approval to execute an offline cement job on the production casing string. The procedure will include the following:

- Land casing in the wellhead with a solid-body casing hanger
- Install backpressure valve
- Skid rig to next well in drilling sequence
- Check for pressure and remove backpressure valve
- Install cement head and risers from casing valves
- Circulate down casing taking returns through appropriately designed flowback equipment
- Pump cement volumes
- Displace cement and land plug
- Verify floats are holding
- Rig down cement crew
- Install backpressure valve and TA cap

## Variance Request #8: Offline Testing BOPE

Coterra requests approval to test the BOPE prior to the first installation of BOPE on a wellhead system. In this case, the following procedure will be followed:

- While batch drilling the surface sections of the wells on pad, each BOP element will undergo a full test to 100% working pressure, as defined in the Well Control Plan.
- The BOPE will be tested utilizing a blank 13-5/8" 10M flanged connection below the lower pipe rams
- Once equipment is installed on the first well, the full BOP test will be completed by inserting the test plug in the wellhead and testing the break and any BOP equipment that was not tested prior to installation.

Coterra: Well Control Plan



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## Well Control Plan

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### Warning Signs of a Kick

If a kick is ever suspected, perform flow check.

While Drilling:

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

While Tripping:

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

While Out of the Hole:

1. Flow
2. Pit gain

### Well Control Procedures with Diverter

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

If rotating head is installed:

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

## Coterra: Well Control Plan

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

If rotating head is not installed:

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

## Well Control Procedures

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

### *General Well Control*

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

### *Hard Shut-In*

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

## Coterra: Well Control Plan

### *Flow Check when on Bottom*

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

### *Shutting in while Drilling*

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

### *Flow Check while Tripping*

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

### *Shutting in while Tripping*

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

### *Shutting in while Out of Hole*

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

### *Information to Record while Shut-In*

1. Shut in drill pipe pressure every 5 minutes

## Coterra: Well Control Plan

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

### *H2S with Annular Diverter:*

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

### *H2S with BOP's:*

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

### *Procedure for Closing Blind Rams*

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

### *Procedure for Opening Blind Rams*

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

## Coterra: Well Control Plan

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

### *BOP Drills*

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

### *Choke Manifold Freeze Prevention*

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

**Coterra Energy**  
 Site: Sun-Sombrero Pad  
 Well: Sombrero State Com 222H  
 Wellbore: OH  
 Design: Plan #1  
 Rig: H&P 448



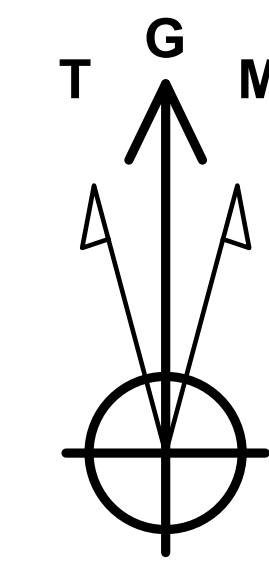
SHL

320' FNL, 1283' FWL  
 RKB Elevation: GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	607591.47	823882.28	32.6669555	-103.4151714	

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	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
856.79	7.14	66.68	855.87	8.79	20.38	2.00	66.68	8.61	Hold - 856.79' MD/855.87' TVD
8935.72	7.14	66.68	8872.22	406.14	941.95	0.00	0.00	398.23	Start DLS 4.00 TFO -122.98
9133.58	7.20	359.52	9068.85	423.43	953.15	4.00	-122.98	415.43	KOP - Start 10.00°/100' DLS
9961.58	90.00	359.52	9570.00	991.85	948.35	10.00	0.00	983.87	LP - 9961.58' MD
30264.95	90.00	359.52	9570.00	21294.49	776.57	0.00	0.00	21287.24	TD - 30264.95' MD



Azimuths to Grid North  
 True North: -0.50°  
 Magnetic North: 5.50°  
 Magnetic Field  
 Strength: 47264.3nT  
 Dip Angle: 60.38°  
 Date: 3/29/2026  
 Model: HDGM2026

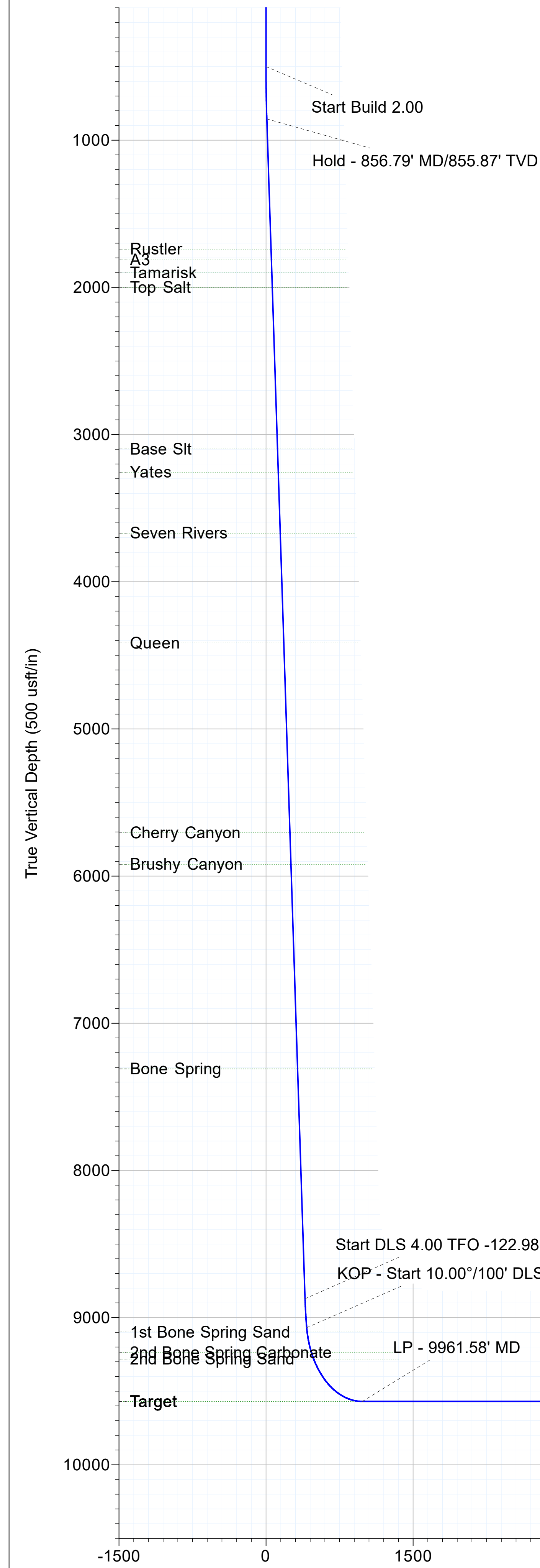
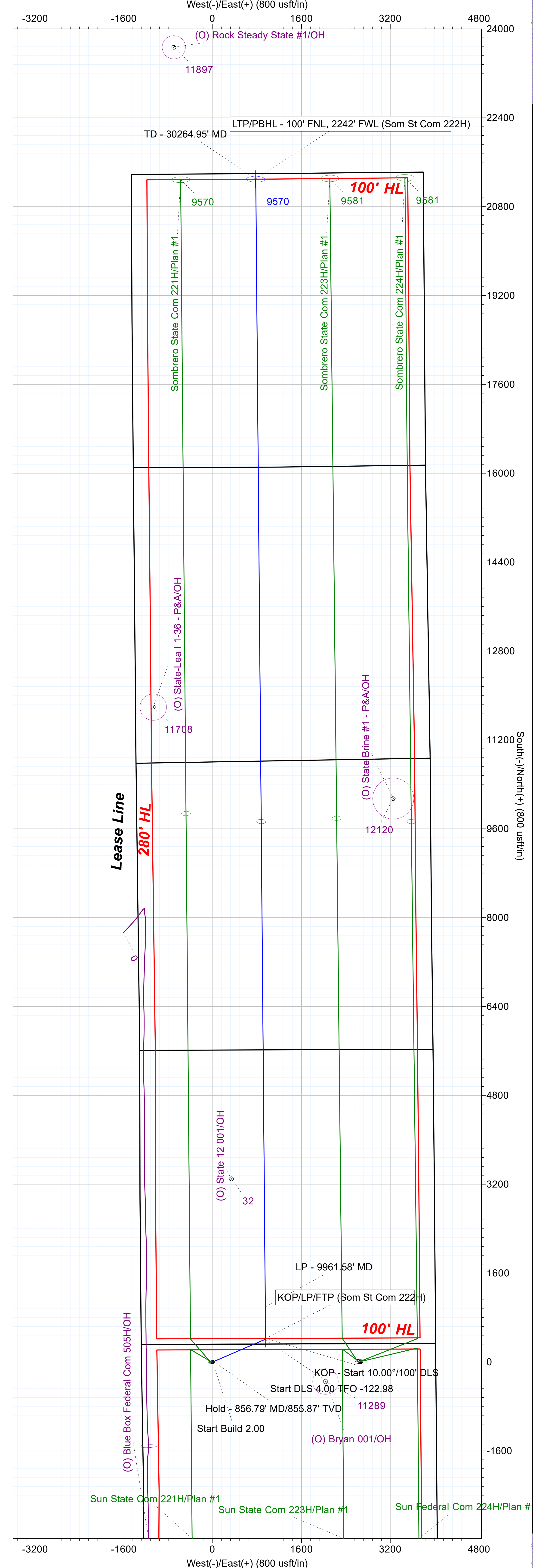
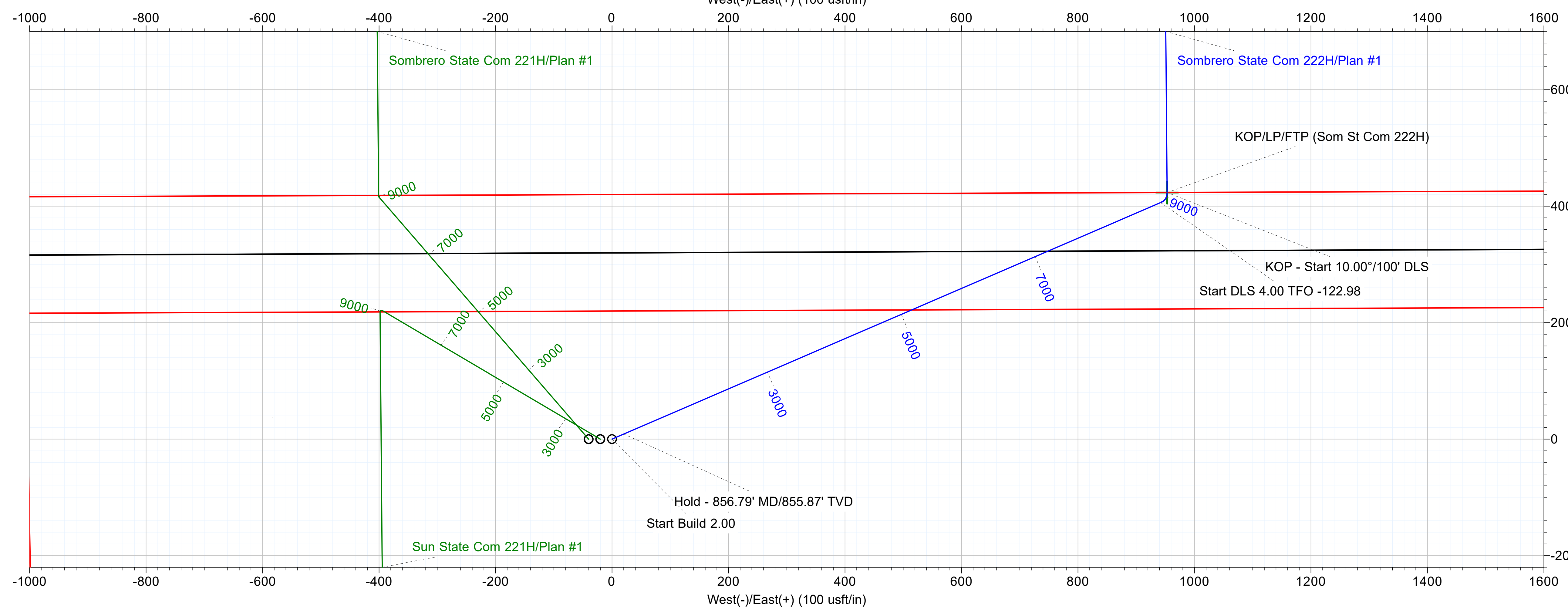
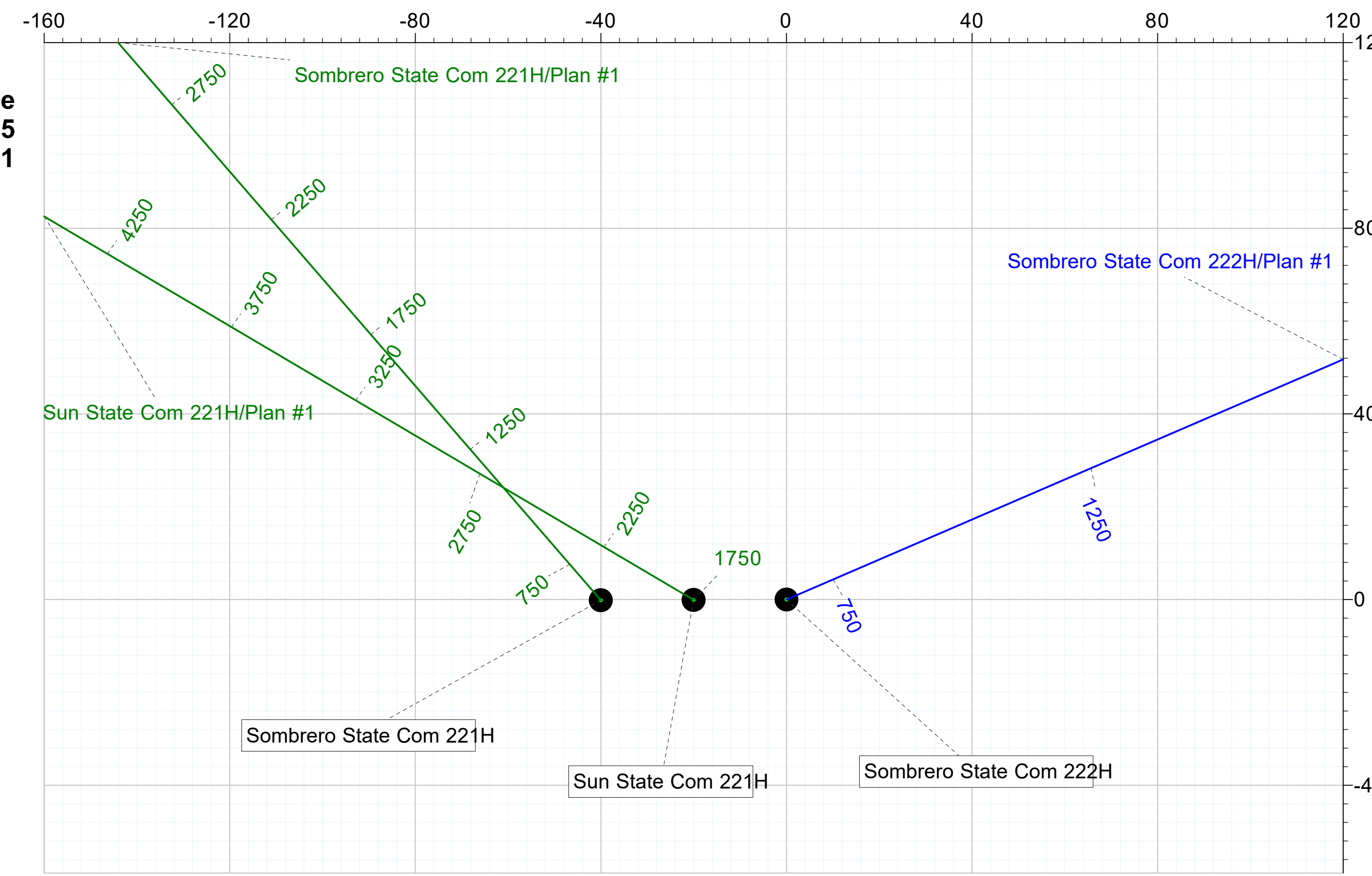
To convert a Magnetic Direction to a Grid Direction, Add 5.50°

PROJECT DETAILS: Lea County, NM (NAD 83)  
 Geodetic System: US State Plane 1983  
 Datum: North American Datum 1983  
 Ellipsoid: GRS 1980  
 Zone: New Mexico Eastern Zone



WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
KOP/LP/FTP (Som St Com 222H)	9068.85	423.43	953.15	608014.90	824835.43	32.6680965	-103.4120625
LTP/PBHL - 100' FNL, 2242' FWL (Som St Com 222H)	9570.00	21294.49	776.57	628885.96	824658.85	32.7254616	-103.4120471



Formations

TVDPATH	Formation
1740.00	Rustler
1814.00	A3
1902.00	Tamarisk
2000.00	Top Salt
3098.00	Base Sit
3256.00	Yates
3670.00	Seven Rivers
4416.00	Queen
5706.00	Cherry Canyon
5920.00	Brushy Canyon
7310.00	Bone Spring
9098.00	1st Bone Spring Sand
9238.00	2nd Bone Spring Carbonate
9282.00	2nd Bone Spring Sand
9570.00	Target

Vertical Section at 359.52° (750 usft/in)

# Coterra Energy

Lea County, NM (NAD 83)  
Sun-Sombrero Pad  
Sombrero State Com 222H

320' FNL, 1283' FWL

OH

Plan: Plan #1



## Standard Plan Report

04 March, 2026

Total Report Version 1.80

COMPASS 5000.16 Build 97

### ATTENTION

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

# Total Directional Planned Survey Report



<b>Company:</b> Coterra Energy	<b>Local Co-ordinate Reference:</b> Well Sombrero State Com 222H
<b>Project:</b> Lea County, NM (NAD 83)	<b>TVD Reference:</b> GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site:</b> Sun-Sombrero Pad	<b>MD Reference:</b> GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Well:</b> Sombrero State Com 222H	<b>North Reference:</b> Grid
<b>Wellbore:</b> OH	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Plan #1	<b>Database:</b> .Total Directional Production DB

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

<b>Site</b> Sun-Sombrero Pad	
<b>Site Position:</b>	<b>Northing:</b> 607,591.32 usft <b>Latitude:</b> 32.6669561
<b>From:</b> Map	<b>Easting:</b> 823,842.28 usft <b>Longitude:</b> -103.4153014
<b>Position Uncertainty:</b> 0.00 usft	<b>Slot Radius:</b> 13-3/16 "

<b>Well</b> Sombrero State Com 222H	
<b>Well Position</b>	<b>+N/-S</b> 0.00 usft <b>Northing:</b> 607,591.47 usft <b>Latitude:</b> 32.6669555
	<b>+E/-W</b> 0.00 usft <b>Easting:</b> 823,882.28 usft <b>Longitude:</b> -103.4151714
<b>Position Uncertainty</b> 0.00 usft	<b>Wellhead Elevation:</b> usft <b>Ground Level:</b> 3,746.70 usft
<b>Grid Convergence:</b> 0.50 °	

<b>Wellbore</b> OH	
<b>Magnetics</b>	<b>Model Name</b> HDGM2026 <b>Sample Date</b> 3/29/2026 <b>Declination (°)</b> 6.00 <b>Dip Angle (°)</b> 60.38 <b>Field Strength (nT)</b> 47,264.30000000

<b>Design</b> Plan #1	
<b>Audit Notes:</b>	
<b>Version:</b>	<b>Phase:</b> PLAN <b>Tie On Depth:</b> 0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b> 0.00 <b>+N/-S (usft)</b> 0.00 <b>+E/-W (usft)</b> 0.00 <b>Direction (°)</b> 359.52

<b>Survey Tool Program</b> <b>Date</b> 3/4/2026				
<b>From (usft)</b> 0.00	<b>To (usft)</b> 30,264.95	<b>Survey (Wellbore)</b> Plan #1 (OH)	<b>Tool Name</b> MWD+IFR1+MS	<b>Description</b> OWSG MWD + IFR1 + Multi-Station Correction

<b>Plan Summary</b>										
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	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
856.79	7.14	66.68	855.87	8.79	20.38	2.00	2.00	0.00	66.68	
8,935.72	7.14	66.68	8,872.22	406.14	941.95	0.00	0.00	0.00	0.00	
9,133.58	7.20	359.52	9,068.85	423.43	953.15	4.00	0.03	-33.94	-122.98	
9,961.58	90.00	359.52	9,570.00	991.85	948.35	10.00	10.00	0.00	0.00	
30,264.95	90.00	359.52	9,570.00	21,294.49	776.57	0.00	0.00	0.00	0.00	LTP/PBHL - 100' FN

## Total Directional Planned Survey Report



<b>Company:</b> Coterra Energy	<b>Local Co-ordinate Reference:</b> Well Sombrero State Com 222H
<b>Project:</b> Lea County, NM (NAD 83)	<b>TVD Reference:</b> GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site:</b> Sun-Sombrero Pad	<b>MD Reference:</b> GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Well:</b> Sombrero State Com 222H	<b>North Reference:</b> Grid
<b>Wellbore:</b> OH	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Plan #1	<b>Database:</b> .Total Directional Production DB

Planned Survey													
Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	607,591.47	823,882.28	32.6669555	-103.4151714	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	607,591.47	823,882.28	32.6669555	-103.4151714	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	607,591.47	823,882.28	32.6669555	-103.4151714	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	607,591.47	823,882.28	32.6669555	-103.4151714	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	607,591.47	823,882.28	32.6669555	-103.4151714	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	607,591.47	823,882.28	32.6669555	-103.4151714	0.00	0.00	0.00	0.00
<b>Start Build 2.00</b>													
600.00	2.00	66.68	599.98	0.69	1.60	607,592.16	823,883.88	32.6669574	-103.4151662	0.68	2.00	2.00	0.00
700.00	4.00	66.68	699.84	2.76	6.41	607,594.23	823,888.69	32.6669630	-103.4151505	2.71	2.00	2.00	0.00
800.00	6.00	66.68	799.45	6.21	14.41	607,597.68	823,896.69	32.6669723	-103.4151244	6.09	2.00	2.00	0.00
856.79	7.14	66.68	855.87	8.79	20.38	607,600.26	823,902.66	32.6669792	-103.4151050	8.61	2.00	2.00	0.00
<b>Hold - 856.79' MD/855.87' TVD</b>													
900.00	7.14	66.68	898.74	10.91	25.30	607,602.38	823,907.58	32.6669849	-103.4150889	10.70	0.00	0.00	0.00
1,000.00	7.14	66.68	997.97	15.83	36.71	607,607.30	823,918.99	32.6669982	-103.4150517	15.52	0.00	0.00	0.00
1,100.00	7.14	66.68	1,097.19	20.75	48.12	607,612.22	823,930.40	32.6670114	-103.4150145	20.34	0.00	0.00	0.00
1,200.00	7.14	66.68	1,196.42	25.67	59.53	607,617.14	823,941.81	32.6670246	-103.4149773	25.17	0.00	0.00	0.00
1,300.00	7.14	66.68	1,295.65	30.58	70.93	607,622.05	823,953.21	32.6670379	-103.4149401	29.99	0.00	0.00	0.00
1,400.00	7.14	66.68	1,394.87	35.50	82.34	607,626.97	823,964.62	32.6670511	-103.4149029	34.81	0.00	0.00	0.00
1,500.00	7.14	66.68	1,494.10	40.42	93.75	607,631.89	823,976.03	32.6670644	-103.4148657	39.63	0.00	0.00	0.00
1,600.00	7.14	66.68	1,593.32	45.34	105.15	607,636.81	823,987.43	32.6670776	-103.4148285	44.46	0.00	0.00	0.00
1,700.00	7.14	66.68	1,692.55	50.26	116.56	607,641.73	823,998.84	32.6670909	-103.4147913	49.28	0.00	0.00	0.00
1,747.82	7.14	66.68	1,740.00	52.61	122.02	607,644.08	824,004.30	32.6670972	-103.4147735	51.59	0.00	0.00	0.00
<b>Rustler</b>													
1,800.00	7.14	66.68	1,791.77	55.18	127.97	607,646.65	824,010.25	32.6671041	-103.4147541	54.10	0.00	0.00	0.00
1,822.40	7.14	66.68	1,814.00	56.28	130.52	607,647.75	824,012.80	32.6671071	-103.4147457	55.18	0.00	0.00	0.00
<b>A3</b>													
1,900.00	7.14	66.68	1,891.00	60.09	139.38	607,651.56	824,021.66	32.6671174	-103.4147169	58.92	0.00	0.00	0.00
1,911.09	7.14	66.68	1,902.00	60.64	140.64	607,652.11	824,022.92	32.6671188	-103.4147127	59.46	0.00	0.00	0.00
<b>Tamarisk</b>													
2,000.00	7.14	66.68	1,990.22	65.01	150.78	607,656.48	824,033.06	32.6671306	-103.4146797	63.75	0.00	0.00	0.00
2,009.85	7.14	66.68	2,000.00	65.50	151.91	607,656.97	824,034.19	32.6671319	-103.4146760	64.22	0.00	0.00	0.00
<b>Top Salt</b>													
2,100.00	7.14	66.68	2,089.45	69.93	162.19	607,661.40	824,044.47	32.6671439	-103.4146425	68.57	0.00	0.00	0.00
2,200.00	7.14	66.68	2,188.67	74.85	173.60	607,666.32	824,055.88	32.6671571	-103.4146053	73.39	0.00	0.00	0.00
2,300.00	7.14	66.68	2,287.90	79.77	185.00	607,671.24	824,067.28	32.6671704	-103.4145680	78.22	0.00	0.00	0.00
2,400.00	7.14	66.68	2,387.13	84.69	196.41	607,676.16	824,078.69	32.6671836	-103.4145308	83.04	0.00	0.00	0.00
2,500.00	7.14	66.68	2,486.35	89.60	207.82	607,681.07	824,090.10	32.6671968	-103.4144936	87.86	0.00	0.00	0.00
2,600.00	7.14	66.68	2,585.58	94.52	219.23	607,685.99	824,101.51	32.6672101	-103.4144564	92.68	0.00	0.00	0.00

## Total Directional Planned Survey Report



<b>Company:</b> Coterra Energy	<b>Local Co-ordinate Reference:</b> Well Sombrero State Com 222H
<b>Project:</b> Lea County, NM (NAD 83)	<b>TVD Reference:</b> GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site:</b> Sun-Sombrero Pad	<b>MD Reference:</b> GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Well:</b> Sombrero State Com 222H	<b>North Reference:</b> Grid
<b>Wellbore:</b> OH	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Plan #1	<b>Database:</b> .Total Directional Production DB

### Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,700.00	7.14	66.68	2,684.80	99.44	230.63	607,690.91	824,112.91	32.6672233	-103.4144192	97.51	0.00	0.00	0.00
2,800.00	7.14	66.68	2,784.03	104.36	242.04	607,695.83	824,124.32	32.6672366	-103.4143820	102.33	0.00	0.00	0.00
2,900.00	7.14	66.68	2,883.25	109.28	253.45	607,700.75	824,135.73	32.6672498	-103.4143448	107.15	0.00	0.00	0.00
3,000.00	7.14	66.68	2,982.48	114.20	264.85	607,705.67	824,147.13	32.6672631	-103.4143076	111.97	0.00	0.00	0.00
3,100.00	7.14	66.68	3,081.70	119.11	276.26	607,710.58	824,158.54	32.6672763	-103.4142704	116.80	0.00	0.00	0.00
3,116.42	7.14	66.68	3,098.00	119.92	278.14	607,711.39	824,160.42	32.6672785	-103.4142643	117.59	0.00	0.00	0.00
<b>Base Sit</b>													
3,200.00	7.14	66.68	3,180.93	124.03	287.67	607,715.50	824,169.95	32.6672896	-103.4142332	121.62	0.00	0.00	0.00
3,275.66	7.14	66.68	3,256.00	127.75	296.30	607,719.22	824,178.58	32.6672996	-103.4142051	125.27	0.00	0.00	0.00
<b>Yates</b>													
3,300.00	7.14	66.68	3,280.15	128.95	299.08	607,720.42	824,181.36	32.6673028	-103.4141960	126.44	0.00	0.00	0.00
3,400.00	7.14	66.68	3,379.38	133.87	310.48	607,725.34	824,192.76	32.6673161	-103.4141588	131.26	0.00	0.00	0.00
3,500.00	7.14	66.68	3,478.61	138.79	321.89	607,730.26	824,204.17	32.6673293	-103.4141216	136.09	0.00	0.00	0.00
3,600.00	7.14	66.68	3,577.83	143.71	333.30	607,735.18	824,215.58	32.6673426	-103.4140844	140.91	0.00	0.00	0.00
3,692.89	7.14	66.68	3,670.00	148.28	343.89	607,739.75	824,226.17	32.6673549	-103.4140498	145.39	0.00	0.00	0.00
<b>Seven Rivers</b>													
3,700.00	7.14	66.68	3,677.06	148.63	344.70	607,740.10	824,226.98	32.6673558	-103.4140472	145.73	0.00	0.00	0.00
3,800.00	7.14	66.68	3,776.28	153.54	356.11	607,745.01	824,238.39	32.6673690	-103.4140100	150.55	0.00	0.00	0.00
3,900.00	7.14	66.68	3,875.51	158.46	367.52	607,749.93	824,249.80	32.6673823	-103.4139728	155.38	0.00	0.00	0.00
4,000.00	7.14	66.68	3,974.73	163.38	378.93	607,754.85	824,261.21	32.6673955	-103.4139356	160.20	0.00	0.00	0.00
4,100.00	7.14	66.68	4,073.96	168.30	390.33	607,759.77	824,272.61	32.6674088	-103.4138984	165.02	0.00	0.00	0.00
4,200.00	7.14	66.68	4,173.18	173.22	401.74	607,764.69	824,284.02	32.6674220	-103.4138612	169.85	0.00	0.00	0.00
4,300.00	7.14	66.68	4,272.41	178.14	413.15	607,769.61	824,295.43	32.6674353	-103.4138240	174.67	0.00	0.00	0.00
4,400.00	7.14	66.68	4,371.63	183.05	424.55	607,774.52	824,306.83	32.6674485	-103.4137868	179.49	0.00	0.00	0.00
4,444.71	7.14	66.68	4,416.00	185.25	429.66	607,776.72	824,311.94	32.6674544	-103.4137701	181.65	0.00	0.00	0.00
<b>Queen</b>													
4,500.00	7.14	66.68	4,470.86	187.97	435.96	607,779.44	824,318.24	32.6674618	-103.4137496	184.31	0.00	0.00	0.00
4,600.00	7.14	66.68	4,570.08	192.89	447.37	607,784.36	824,329.65	32.6674750	-103.4137124	189.14	0.00	0.00	0.00
4,700.00	7.14	66.68	4,669.31	197.81	458.78	607,789.28	824,341.06	32.6674883	-103.4136752	193.96	0.00	0.00	0.00
4,800.00	7.14	66.68	4,768.54	202.73	470.18	607,794.20	824,352.46	32.6675015	-103.4136380	198.78	0.00	0.00	0.00
4,900.00	7.14	66.68	4,867.76	207.65	481.59	607,799.12	824,363.87	32.6675148	-103.4136008	203.60	0.00	0.00	0.00
5,000.00	7.14	66.68	4,966.99	212.56	493.00	607,804.03	824,375.28	32.6675280	-103.4135636	208.43	0.00	0.00	0.00
5,100.00	7.14	66.68	5,066.21	217.48	504.40	607,808.95	824,386.68	32.6675412	-103.4135264	213.25	0.00	0.00	0.00
5,200.00	7.14	66.68	5,165.44	222.40	515.81	607,813.87	824,398.09	32.6675545	-103.4134892	218.07	0.00	0.00	0.00
5,300.00	7.14	66.68	5,264.66	227.32	527.22	607,818.79	824,409.50	32.6675677	-103.4134519	222.89	0.00	0.00	0.00
5,400.00	7.14	66.68	5,363.89	232.24	538.63	607,823.71	824,420.91	32.6675810	-103.4134147	227.72	0.00	0.00	0.00
5,500.00	7.14	66.68	5,463.11	237.16	550.03	607,828.63	824,432.31	32.6675942	-103.4133775	232.54	0.00	0.00	0.00
5,600.00	7.14	66.68	5,562.34	242.07	561.44	607,833.54	824,443.72	32.6676075	-103.4133403	237.36	0.00	0.00	0.00

### Total Directional Planned Survey Report



<b>Company:</b> Coterra Energy	<b>Local Co-ordinate Reference:</b> Well Sombrero State Com 222H
<b>Project:</b> Lea County, NM (NAD 83)	<b>TVD Reference:</b> GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site:</b> Sun-Sombrero Pad	<b>MD Reference:</b> GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Well:</b> Sombrero State Com 222H	<b>North Reference:</b> Grid
<b>Wellbore:</b> OH	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Plan #1	<b>Database:</b> .Total Directional Production DB

**Planned Survey**

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,700.00	7.14	66.68	5,661.56	246.99	572.85	607,838.46	824,455.13	32.6676207	-103.4133031	242.19	0.00	0.00	0.00
5,744.78	7.14	66.68	5,706.00	249.20	577.96	607,840.67	824,460.24	32.6676266	-103.4132865	244.34	0.00	0.00	0.00
<b>Cherry Canyon</b>													
5,800.00	7.14	66.68	5,760.79	251.91	584.25	607,843.38	824,466.53	32.6676340	-103.4132659	247.01	0.00	0.00	0.00
5,900.00	7.14	66.68	5,860.02	256.83	595.66	607,848.30	824,477.94	32.6676472	-103.4132287	251.83	0.00	0.00	0.00
5,960.45	7.14	66.68	5,920.00	259.80	602.56	607,851.27	824,484.84	32.6676552	-103.4132062	254.75	0.00	0.00	0.00
<b>Brushy Canyon</b>													
6,000.00	7.14	66.68	5,959.24	261.75	607.07	607,853.22	824,489.35	32.6676605	-103.4131915	256.65	0.00	0.00	0.00
6,100.00	7.14	66.68	6,058.47	266.67	618.48	607,858.14	824,500.76	32.6676737	-103.4131543	261.48	0.00	0.00	0.00
6,200.00	7.14	66.68	6,157.69	271.58	629.88	607,863.05	824,512.16	32.6676869	-103.4131171	266.30	0.00	0.00	0.00
6,300.00	7.14	66.68	6,256.92	276.50	641.29	607,867.97	824,523.57	32.6677002	-103.4130799	271.12	0.00	0.00	0.00
6,400.00	7.14	66.68	6,356.14	281.42	652.70	607,872.89	824,534.98	32.6677134	-103.4130427	275.94	0.00	0.00	0.00
6,500.00	7.14	66.68	6,455.37	286.34	664.10	607,877.81	824,546.38	32.6677267	-103.4130055	280.77	0.00	0.00	0.00
6,600.00	7.14	66.68	6,554.59	291.26	675.51	607,882.73	824,557.79	32.6677399	-103.4129683	285.59	0.00	0.00	0.00
6,700.00	7.14	66.68	6,653.82	296.18	686.92	607,887.65	824,569.20	32.6677532	-103.4129311	290.41	0.00	0.00	0.00
6,800.00	7.14	66.68	6,753.04	301.09	698.33	607,892.56	824,580.61	32.6677664	-103.4128939	295.23	0.00	0.00	0.00
6,900.00	7.14	66.68	6,852.27	306.01	709.73	607,897.48	824,592.01	32.6677797	-103.4128567	300.06	0.00	0.00	0.00
7,000.00	7.14	66.68	6,951.50	310.93	721.14	607,902.40	824,603.42	32.6677929	-103.4128195	304.88	0.00	0.00	0.00
7,100.00	7.14	66.68	7,050.72	315.85	732.55	607,907.32	824,614.83	32.6678062	-103.4127823	309.70	0.00	0.00	0.00
7,200.00	7.14	66.68	7,149.95	320.77	743.95	607,912.24	824,626.23	32.6678194	-103.4127451	314.52	0.00	0.00	0.00
7,300.00	7.14	66.68	7,249.17	325.69	755.36	607,917.16	824,637.64	32.6678326	-103.4127079	319.35	0.00	0.00	0.00
7,361.30	7.14	66.68	7,310.00	328.70	762.36	607,920.17	824,644.64	32.6678408	-103.4126851	322.30	0.00	0.00	0.00
<b>Bone Spring</b>													
7,400.00	7.14	66.68	7,348.40	330.61	766.77	607,922.08	824,649.05	32.6678459	-103.4126707	324.17	0.00	0.00	0.00
7,500.00	7.14	66.68	7,447.62	335.52	778.18	607,926.99	824,660.46	32.6678591	-103.4126335	328.99	0.00	0.00	0.00
7,600.00	7.14	66.68	7,546.85	340.44	789.58	607,931.91	824,671.86	32.6678724	-103.4125963	333.82	0.00	0.00	0.00
7,700.00	7.14	66.68	7,646.07	345.36	800.99	607,936.83	824,683.27	32.6678856	-103.4125591	338.64	0.00	0.00	0.00
7,800.00	7.14	66.68	7,745.30	350.28	812.40	607,941.75	824,694.68	32.6678989	-103.4125219	343.46	0.00	0.00	0.00
7,900.00	7.14	66.68	7,844.52	355.20	823.80	607,946.67	824,706.08	32.6679121	-103.4124847	348.28	0.00	0.00	0.00
8,000.00	7.14	66.68	7,943.75	360.12	835.21	607,951.59	824,717.49	32.6679254	-103.4124475	353.11	0.00	0.00	0.00
8,100.00	7.14	66.68	8,042.98	365.03	846.62	607,956.50	824,728.90	32.6679386	-103.4124102	357.93	0.00	0.00	0.00
8,200.00	7.14	66.68	8,142.20	369.95	858.03	607,961.42	824,740.31	32.6679519	-103.4123730	362.75	0.00	0.00	0.00
8,300.00	7.14	66.68	8,241.43	374.87	869.43	607,966.34	824,751.71	32.6679651	-103.4123358	367.57	0.00	0.00	0.00
8,400.00	7.14	66.68	8,340.65	379.79	880.84	607,971.26	824,763.12	32.6679783	-103.4122986	372.40	0.00	0.00	0.00
8,500.00	7.14	66.68	8,439.88	384.71	892.25	607,976.18	824,774.53	32.6679916	-103.4122614	377.22	0.00	0.00	0.00
8,600.00	7.14	66.68	8,539.10	389.63	903.65	607,981.10	824,785.93	32.6680048	-103.4122242	382.04	0.00	0.00	0.00
8,700.00	7.14	66.68	8,638.33	394.54	915.06	607,986.01	824,797.34	32.6680181	-103.4121870	386.86	0.00	0.00	0.00
8,800.00	7.14	66.68	8,737.55	399.46	926.47	607,990.93	824,808.75	32.6680313	-103.4121498	391.69	0.00	0.00	0.00

# Total Directional Planned Survey Report



<b>Company:</b> Coterra Energy	<b>Local Co-ordinate Reference:</b> Well Sombrero State Com 222H
<b>Project:</b> Lea County, NM (NAD 83)	<b>TVD Reference:</b> GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site:</b> Sun-Sombrero Pad	<b>MD Reference:</b> GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Well:</b> Sombrero State Com 222H	<b>North Reference:</b> Grid
<b>Wellbore:</b> OH	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Plan #1	<b>Database:</b> .Total Directional Production DB

**Planned Survey**

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,900.00	7.14	66.68	8,836.78	404.38	937.88	607,995.85	824,820.16	32.6680446	-103.4121126	396.51	0.00	0.00	0.00
8,935.72	7.14	66.68	8,872.22	406.14	941.95	607,997.61	824,824.23	32.6680493	-103.4120993	398.23	0.00	0.00	0.00
<b>Start DLS 4.00 TFO -122.98</b>													
9,000.00	6.13	46.03	8,936.08	410.10	948.09	608,001.57	824,830.37	32.6680600	-103.4120793	402.14	4.00	-1.57	-32.12
9,100.00	6.55	9.36	9,035.51	419.44	952.86	608,010.91	824,835.14	32.6680856	-103.4120635	411.44	4.00	0.42	-36.67
9,133.58	7.20	359.52	9,068.85	423.43	953.15	608,014.90	824,835.43	32.6680966	-103.4120625	415.43	4.00	1.94	-29.30
<b>KOP - Start 10.00°/100' DLS - KOP/LP/FTP (Som St Com 222H)</b>													
9,150.00	8.84	359.52	9,085.11	425.72	953.13	608,017.19	824,835.41	32.6681029	-103.4120624	417.72	10.00	10.00	-0.01
9,163.07	10.15	359.52	9,098.00	427.88	953.11	608,019.35	824,835.39	32.6681088	-103.4120624	419.88	10.00	10.00	0.00
<b>1st Bone Spring Sand</b>													
9,200.00	13.84	359.52	9,134.12	435.55	953.05	608,027.02	824,835.33	32.6681299	-103.4120624	427.55	10.00	10.00	0.00
9,250.00	18.84	359.52	9,182.08	449.61	952.93	608,041.08	824,835.21	32.6681685	-103.4120624	441.61	10.00	10.00	0.00
9,300.00	23.84	359.52	9,228.64	467.80	952.78	608,059.27	824,835.06	32.6682185	-103.4120624	459.81	10.00	10.00	0.00
9,310.28	24.87	359.52	9,238.00	472.04	952.74	608,063.51	824,835.02	32.6682302	-103.4120624	464.04	10.00	10.00	0.00
<b>2nd Bone Spring Carbonate</b>													
9,350.00	28.84	359.52	9,273.43	489.98	952.59	608,081.45	824,834.87	32.6682795	-103.4120624	481.98	10.00	10.00	0.00
9,359.83	29.82	359.52	9,282.00	494.80	952.55	608,086.27	824,834.83	32.6682927	-103.4120624	486.80	10.00	10.00	0.00
<b>2nd Bone Spring Sand</b>													
9,400.00	33.84	359.52	9,316.12	515.98	952.37	608,107.45	824,834.65	32.6683509	-103.4120624	507.98	10.00	10.00	0.00
9,450.00	38.84	359.52	9,356.38	545.60	952.12	608,137.07	824,834.40	32.6684324	-103.4120624	537.60	10.00	10.00	0.00
9,500.00	43.84	359.52	9,393.91	578.62	951.84	608,170.09	824,834.12	32.6685231	-103.4120623	570.62	10.00	10.00	0.00
9,550.00	48.84	359.52	9,428.42	614.78	951.53	608,206.25	824,833.81	32.6686225	-103.4120623	606.78	10.00	10.00	0.00
9,600.00	53.84	359.52	9,459.64	653.81	951.20	608,245.28	824,833.48	32.6687298	-103.4120623	645.82	10.00	10.00	0.00
9,650.00	58.84	359.52	9,487.34	695.41	950.85	608,286.88	824,833.13	32.6688441	-103.4120622	687.42	10.00	10.00	0.00
9,700.00	63.84	359.52	9,511.32	739.27	950.48	608,330.74	824,832.76	32.6689647	-103.4120622	731.28	10.00	10.00	0.00
9,750.00	68.84	359.52	9,531.37	785.05	950.10	608,376.52	824,832.38	32.6690905	-103.4120622	777.06	10.00	10.00	0.00
9,800.00	73.84	359.52	9,547.36	832.41	949.69	608,423.88	824,831.97	32.6692207	-103.4120621	824.42	10.00	10.00	0.00
9,850.00	78.84	359.52	9,559.17	880.98	949.28	608,472.45	824,831.56	32.6693542	-103.4120621	872.99	10.00	10.00	0.00
9,900.00	83.84	359.52	9,566.69	930.39	948.87	608,521.86	824,831.15	32.6694900	-103.4120621	922.41	10.00	10.00	0.00
9,950.00	88.84	359.52	9,569.88	980.27	948.44	608,571.74	824,830.72	32.6696271	-103.4120620	972.29	10.00	10.00	0.00
9,961.58	90.00	359.52	9,570.00	991.85	948.35	608,583.32	824,830.63	32.6696589	-103.4120620	983.87	10.00	10.00	0.00
<b>LP - 9961.58' MD - Target</b>													
10,000.00	90.00	359.52	9,570.00	1,030.27	948.02	608,621.74	824,830.30	32.6697645	-103.4120620	1,022.29	0.00	0.00	0.00
10,100.00	90.00	359.52	9,570.00	1,130.26	947.17	608,721.73	824,829.45	32.6700393	-103.4120619	1,122.29	0.00	0.00	0.00
10,200.00	90.00	359.52	9,570.00	1,230.26	946.33	608,821.73	824,828.61	32.6703142	-103.4120619	1,222.29	0.00	0.00	0.00
10,300.00	90.00	359.52	9,570.00	1,330.26	945.48	608,921.73	824,827.76	32.6705890	-103.4120618	1,322.29	0.00	0.00	0.00
10,400.00	90.00	359.52	9,570.00	1,430.25	944.64	609,021.72	824,826.92	32.6708639	-103.4120617	1,422.29	0.00	0.00	0.00
10,500.00	90.00	359.52	9,570.00	1,530.25	943.79	609,121.72	824,826.07	32.6711387	-103.4120616	1,522.29	0.00	0.00	0.00
10,600.00	90.00	359.52	9,570.00	1,630.24	942.94	609,221.71	824,825.22	32.6714136	-103.4120616	1,622.29	0.00	0.00	0.00

### Total Directional Planned Survey Report



<b>Company:</b> Coterra Energy	<b>Local Co-ordinate Reference:</b> Well Sombrero State Com 222H
<b>Project:</b> Lea County, NM (NAD 83)	<b>TVD Reference:</b> GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site:</b> Sun-Sombrero Pad	<b>MD Reference:</b> GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Well:</b> Sombrero State Com 222H	<b>North Reference:</b> Grid
<b>Wellbore:</b> OH	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Plan #1	<b>Database:</b> .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)
10,700.00	90.00	359.52	9,570.00	1,730.24	942.10	609,321.71	824,824.38	32.6716884	-103.4120615	1,722.29	0.00	0.00	0.00
10,800.00	90.00	359.52	9,570.00	1,830.24	941.25	609,421.71	824,823.53	32.6719633	-103.4120614	1,822.29	0.00	0.00	0.00
10,900.00	90.00	359.52	9,570.00	1,930.23	940.41	609,521.70	824,822.69	32.6722381	-103.4120614	1,922.29	0.00	0.00	0.00
11,000.00	90.00	359.52	9,570.00	2,030.23	939.56	609,621.70	824,821.84	32.6725129	-103.4120613	2,022.29	0.00	0.00	0.00
11,100.00	90.00	359.52	9,570.00	2,130.23	938.71	609,721.70	824,820.99	32.6727878	-103.4120612	2,122.29	0.00	0.00	0.00
11,200.00	90.00	359.52	9,570.00	2,230.22	937.87	609,821.69	824,820.15	32.6730626	-103.4120611	2,222.29	0.00	0.00	0.00
11,300.00	90.00	359.52	9,570.00	2,330.22	937.02	609,921.69	824,819.30	32.6733375	-103.4120611	2,322.29	0.00	0.00	0.00
11,400.00	90.00	359.52	9,570.00	2,430.22	936.18	610,021.69	824,818.46	32.6736123	-103.4120610	2,422.29	0.00	0.00	0.00
11,500.00	90.00	359.52	9,570.00	2,530.21	935.33	610,121.68	824,817.61	32.6738872	-103.4120609	2,522.29	0.00	0.00	0.00
11,600.00	90.00	359.52	9,570.00	2,630.21	934.48	610,221.68	824,816.76	32.6741620	-103.4120609	2,622.29	0.00	0.00	0.00
11,700.00	90.00	359.52	9,570.00	2,730.21	933.64	610,321.68	824,815.92	32.6744369	-103.4120608	2,722.29	0.00	0.00	0.00
11,800.00	90.00	359.52	9,570.00	2,830.20	932.79	610,421.67	824,815.07	32.6747117	-103.4120607	2,822.29	0.00	0.00	0.00
11,900.00	90.00	359.52	9,570.00	2,930.20	931.95	610,521.67	824,814.23	32.6749866	-103.4120606	2,922.29	0.00	0.00	0.00
12,000.00	90.00	359.52	9,570.00	3,030.19	931.10	610,621.66	824,813.38	32.6752614	-103.4120606	3,022.29	0.00	0.00	0.00
12,100.00	90.00	359.52	9,570.00	3,130.19	930.25	610,721.66	824,812.53	32.6755362	-103.4120605	3,122.29	0.00	0.00	0.00
12,200.00	90.00	359.52	9,570.00	3,230.19	929.41	610,821.66	824,811.69	32.6758111	-103.4120604	3,222.29	0.00	0.00	0.00
12,300.00	90.00	359.52	9,570.00	3,330.18	928.56	610,921.65	824,810.84	32.6760859	-103.4120604	3,322.29	0.00	0.00	0.00
12,400.00	90.00	359.52	9,570.00	3,430.18	927.72	611,021.65	824,810.00	32.6763608	-103.4120603	3,422.29	0.00	0.00	0.00
12,500.00	90.00	359.52	9,570.00	3,530.18	926.87	611,121.65	824,809.15	32.6766356	-103.4120602	3,522.29	0.00	0.00	0.00
12,600.00	90.00	359.52	9,570.00	3,630.17	926.02	611,221.64	824,808.30	32.6769105	-103.4120601	3,622.29	0.00	0.00	0.00
12,700.00	90.00	359.52	9,570.00	3,730.17	925.18	611,321.64	824,807.46	32.6771853	-103.4120601	3,722.29	0.00	0.00	0.00
12,800.00	90.00	359.52	9,570.00	3,830.17	924.33	611,421.64	824,806.61	32.6774602	-103.4120600	3,822.29	0.00	0.00	0.00
12,900.00	90.00	359.52	9,570.00	3,930.16	923.49	611,521.63	824,805.77	32.6777350	-103.4120599	3,922.29	0.00	0.00	0.00
13,000.00	90.00	359.52	9,570.00	4,030.16	922.64	611,621.63	824,804.92	32.6780099	-103.4120599	4,022.29	0.00	0.00	0.00
13,100.00	90.00	359.52	9,570.00	4,130.16	921.79	611,721.63	824,804.07	32.6782847	-103.4120598	4,122.29	0.00	0.00	0.00
13,200.00	90.00	359.52	9,570.00	4,230.15	920.95	611,821.62	824,803.23	32.6785595	-103.4120597	4,222.29	0.00	0.00	0.00
13,300.00	90.00	359.52	9,570.00	4,330.15	920.10	611,921.62	824,802.38	32.6788344	-103.4120596	4,322.29	0.00	0.00	0.00
13,400.00	90.00	359.52	9,570.00	4,430.14	919.26	612,021.61	824,801.54	32.6791092	-103.4120596	4,422.29	0.00	0.00	0.00
13,500.00	90.00	359.52	9,570.00	4,530.14	918.41	612,121.61	824,800.69	32.6793841	-103.4120595	4,522.29	0.00	0.00	0.00
13,600.00	90.00	359.52	9,570.00	4,630.14	917.56	612,221.61	824,799.84	32.6796589	-103.4120594	4,622.29	0.00	0.00	0.00
13,700.00	90.00	359.52	9,570.00	4,730.13	916.72	612,321.60	824,799.00	32.6799338	-103.4120593	4,722.29	0.00	0.00	0.00
13,800.00	90.00	359.52	9,570.00	4,830.13	915.87	612,421.60	824,798.15	32.6802086	-103.4120593	4,822.29	0.00	0.00	0.00
13,900.00	90.00	359.52	9,570.00	4,930.13	915.03	612,521.60	824,797.31	32.6804835	-103.4120592	4,922.29	0.00	0.00	0.00
14,000.00	90.00	359.52	9,570.00	5,030.12	914.18	612,621.59	824,796.46	32.6807583	-103.4120591	5,022.29	0.00	0.00	0.00
14,100.00	90.00	359.52	9,570.00	5,130.12	913.33	612,721.59	824,795.61	32.6810332	-103.4120591	5,122.29	0.00	0.00	0.00
14,200.00	90.00	359.52	9,570.00	5,230.12	912.49	612,821.59	824,794.77	32.6813080	-103.4120590	5,222.29	0.00	0.00	0.00
14,300.00	90.00	359.52	9,570.00	5,330.11	911.64	612,921.58	824,793.92	32.6815828	-103.4120589	5,322.29	0.00	0.00	0.00

### Total Directional Planned Survey Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Well:</b>	Sombrero State Com 222H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan #1	<b>Database:</b>	.Total Directional Production DB

**Planned Survey**

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,400.00	90.00	359.52	9,570.00	5,430.11	910.79	613,021.58	824,793.07	32.6818577	-103.4120588	5,422.29	0.00	0.00	0.00
14,500.00	90.00	359.52	9,570.00	5,530.11	909.95	613,121.58	824,792.23	32.6821325	-103.4120588	5,522.29	0.00	0.00	0.00
14,600.00	90.00	359.52	9,570.00	5,630.10	909.10	613,221.57	824,791.38	32.6824074	-103.4120587	5,622.29	0.00	0.00	0.00
14,700.00	90.00	359.52	9,570.00	5,730.10	908.26	613,321.57	824,790.54	32.6826822	-103.4120586	5,722.29	0.00	0.00	0.00
14,800.00	90.00	359.52	9,570.00	5,830.09	907.41	613,421.56	824,789.69	32.6829571	-103.4120586	5,822.29	0.00	0.00	0.00
14,900.00	90.00	359.52	9,570.00	5,930.09	906.56	613,521.56	824,788.84	32.6832319	-103.4120585	5,922.29	0.00	0.00	0.00
15,000.00	90.00	359.52	9,570.00	6,030.09	905.72	613,621.56	824,788.00	32.6835068	-103.4120584	6,022.29	0.00	0.00	0.00
15,100.00	90.00	359.52	9,570.00	6,130.08	904.87	613,721.55	824,787.15	32.6837816	-103.4120583	6,122.29	0.00	0.00	0.00
15,200.00	90.00	359.52	9,570.00	6,230.08	904.03	613,821.55	824,786.31	32.6840565	-103.4120583	6,222.29	0.00	0.00	0.00
15,300.00	90.00	359.52	9,570.00	6,330.08	903.18	613,921.55	824,785.46	32.6843313	-103.4120582	6,322.29	0.00	0.00	0.00
15,400.00	90.00	359.52	9,570.00	6,430.07	902.33	614,021.54	824,784.61	32.6846061	-103.4120581	6,422.29	0.00	0.00	0.00
15,500.00	90.00	359.52	9,570.00	6,530.07	901.49	614,121.54	824,783.77	32.6848810	-103.4120580	6,522.29	0.00	0.00	0.00
15,600.00	90.00	359.52	9,570.00	6,630.07	900.64	614,221.54	824,782.92	32.6851558	-103.4120580	6,622.29	0.00	0.00	0.00
15,700.00	90.00	359.52	9,570.00	6,730.06	899.80	614,321.53	824,782.08	32.6854307	-103.4120579	6,722.29	0.00	0.00	0.00
15,800.00	90.00	359.52	9,570.00	6,830.06	898.95	614,421.53	824,781.23	32.6857055	-103.4120578	6,822.29	0.00	0.00	0.00
15,900.00	90.00	359.52	9,570.00	6,930.06	898.10	614,521.53	824,780.38	32.6859804	-103.4120578	6,922.29	0.00	0.00	0.00
16,000.00	90.00	359.52	9,570.00	7,030.05	897.26	614,621.52	824,779.54	32.6862552	-103.4120577	7,022.29	0.00	0.00	0.00
16,100.00	90.00	359.52	9,570.00	7,130.05	896.41	614,721.52	824,778.69	32.6865301	-103.4120576	7,122.29	0.00	0.00	0.00
16,200.00	90.00	359.52	9,570.00	7,230.04	895.57	614,821.51	824,777.85	32.6868049	-103.4120575	7,222.29	0.00	0.00	0.00
16,300.00	90.00	359.52	9,570.00	7,330.04	894.72	614,921.51	824,777.00	32.6870798	-103.4120575	7,322.29	0.00	0.00	0.00
16,400.00	90.00	359.52	9,570.00	7,430.04	893.87	615,021.51	824,776.15	32.6873546	-103.4120574	7,422.29	0.00	0.00	0.00
16,500.00	90.00	359.52	9,570.00	7,530.03	893.03	615,121.50	824,775.31	32.6876294	-103.4120573	7,522.29	0.00	0.00	0.00
16,600.00	90.00	359.52	9,570.00	7,630.03	892.18	615,221.50	824,774.46	32.6879043	-103.4120572	7,622.29	0.00	0.00	0.00
16,700.00	90.00	359.52	9,570.00	7,730.03	891.34	615,321.50	824,773.62	32.6881791	-103.4120572	7,722.29	0.00	0.00	0.00
16,800.00	90.00	359.52	9,570.00	7,830.02	890.49	615,421.49	824,772.77	32.6884540	-103.4120571	7,822.29	0.00	0.00	0.00
16,900.00	90.00	359.52	9,570.00	7,930.02	889.64	615,521.49	824,771.92	32.6887288	-103.4120570	7,922.29	0.00	0.00	0.00
17,000.00	90.00	359.52	9,570.00	8,030.02	888.80	615,621.49	824,771.08	32.6890037	-103.4120570	8,022.29	0.00	0.00	0.00
17,100.00	90.00	359.52	9,570.00	8,130.01	887.95	615,721.48	824,770.23	32.6892785	-103.4120569	8,122.29	0.00	0.00	0.00
17,200.00	90.00	359.52	9,570.00	8,230.01	887.11	615,821.48	824,769.39	32.6895534	-103.4120568	8,222.29	0.00	0.00	0.00
17,300.00	90.00	359.52	9,570.00	8,330.01	886.26	615,921.47	824,768.54	32.6898282	-103.4120567	8,322.29	0.00	0.00	0.00
17,400.00	90.00	359.52	9,570.00	8,430.00	885.41	616,021.47	824,767.69	32.6901031	-103.4120567	8,422.29	0.00	0.00	0.00
17,500.00	90.00	359.52	9,570.00	8,530.00	884.57	616,121.47	824,766.85	32.6903779	-103.4120566	8,522.29	0.00	0.00	0.00
17,600.00	90.00	359.52	9,570.00	8,629.99	883.72	616,221.46	824,766.00	32.6906527	-103.4120565	8,622.29	0.00	0.00	0.00
17,700.00	90.00	359.52	9,570.00	8,729.99	882.88	616,321.46	824,765.16	32.6909276	-103.4120564	8,722.29	0.00	0.00	0.00
17,800.00	90.00	359.52	9,570.00	8,829.99	882.03	616,421.46	824,764.31	32.6912024	-103.4120564	8,822.29	0.00	0.00	0.00
17,900.00	90.00	359.52	9,570.00	8,929.98	881.18	616,521.45	824,763.46	32.6914773	-103.4120563	8,922.29	0.00	0.00	0.00
18,000.00	90.00	359.52	9,570.00	9,029.98	880.34	616,621.45	824,762.62	32.6917521	-103.4120562	9,022.29	0.00	0.00	0.00
18,100.00	90.00	359.52	9,570.00	9,129.98	879.49	616,721.45	824,761.77	32.6920270	-103.4120562	9,122.29	0.00	0.00	0.00

### Total Directional Planned Survey Report



<b>Company:</b> Coterra Energy	<b>Local Co-ordinate Reference:</b> Well Sombrero State Com 222H
<b>Project:</b> Lea County, NM (NAD 83)	<b>TVD Reference:</b> GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site:</b> Sun-Sombrero Pad	<b>MD Reference:</b> GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Well:</b> Sombrero State Com 222H	<b>North Reference:</b> Grid
<b>Wellbore:</b> OH	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Plan #1	<b>Database:</b> .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)
18,200.00	90.00	359.52	9,570.00	9,229.97	878.65	616,821.44	824,760.93	32.6923018	-103.4120561	9,222.29	0.00	0.00	0.00
18,300.00	90.00	359.52	9,570.00	9,329.97	877.80	616,921.44	824,760.08	32.6925767	-103.4120560	9,322.29	0.00	0.00	0.00
18,400.00	90.00	359.52	9,570.00	9,429.97	876.95	617,021.44	824,759.23	32.6928515	-103.4120559	9,422.29	0.00	0.00	0.00
18,500.00	90.00	359.52	9,570.00	9,529.96	876.11	617,121.43	824,758.39	32.6931263	-103.4120559	9,522.29	0.00	0.00	0.00
18,600.00	90.00	359.52	9,570.00	9,629.96	875.26	617,221.43	824,757.54	32.6934012	-103.4120558	9,622.29	0.00	0.00	0.00
18,700.00	90.00	359.52	9,570.00	9,729.96	874.41	617,321.42	824,756.69	32.6936760	-103.4120557	9,722.29	0.00	0.00	0.00
18,800.00	90.00	359.52	9,570.00	9,829.95	873.57	617,421.42	824,755.85	32.6939509	-103.4120556	9,822.29	0.00	0.00	0.00
18,900.00	90.00	359.52	9,570.00	9,929.95	872.72	617,521.42	824,755.00	32.6942257	-103.4120556	9,922.29	0.00	0.00	0.00
19,000.00	90.00	359.52	9,570.00	10,029.94	871.88	617,621.41	824,754.16	32.6945006	-103.4120555	10,022.29	0.00	0.00	0.00
19,100.00	90.00	359.52	9,570.00	10,129.94	871.03	617,721.41	824,753.31	32.6947754	-103.4120554	10,122.29	0.00	0.00	0.00
19,200.00	90.00	359.52	9,570.00	10,229.94	870.18	617,821.41	824,752.46	32.6950503	-103.4120553	10,222.29	0.00	0.00	0.00
19,300.00	90.00	359.52	9,570.00	10,329.93	869.34	617,921.40	824,751.62	32.6953251	-103.4120553	10,322.29	0.00	0.00	0.00
19,400.00	90.00	359.52	9,570.00	10,429.93	868.49	618,021.40	824,750.77	32.6955999	-103.4120552	10,422.29	0.00	0.00	0.00
19,500.00	90.00	359.52	9,570.00	10,529.93	867.65	618,121.40	824,749.93	32.6958748	-103.4120551	10,522.29	0.00	0.00	0.00
19,600.00	90.00	359.52	9,570.00	10,629.92	866.80	618,221.39	824,749.08	32.6961496	-103.4120551	10,622.29	0.00	0.00	0.00
19,700.00	90.00	359.52	9,570.00	10,729.92	865.95	618,321.39	824,748.23	32.6964245	-103.4120550	10,722.29	0.00	0.00	0.00
19,800.00	90.00	359.52	9,570.00	10,829.92	865.11	618,421.39	824,747.39	32.6966993	-103.4120549	10,822.29	0.00	0.00	0.00
19,900.00	90.00	359.52	9,570.00	10,929.91	864.26	618,521.38	824,746.54	32.6969742	-103.4120548	10,922.29	0.00	0.00	0.00
20,000.00	90.00	359.52	9,570.00	11,029.91	863.42	618,621.38	824,745.70	32.6972490	-103.4120548	11,022.29	0.00	0.00	0.00
20,100.00	90.00	359.52	9,570.00	11,129.90	862.57	618,721.37	824,744.85	32.6975239	-103.4120547	11,122.29	0.00	0.00	0.00
20,200.00	90.00	359.52	9,570.00	11,229.90	861.72	618,821.37	824,744.00	32.6977987	-103.4120546	11,222.29	0.00	0.00	0.00
20,300.00	90.00	359.52	9,570.00	11,329.90	860.88	618,921.37	824,743.16	32.6980736	-103.4120545	11,322.29	0.00	0.00	0.00
20,400.00	90.00	359.52	9,570.00	11,429.89	860.03	619,021.36	824,742.31	32.6983484	-103.4120545	11,422.29	0.00	0.00	0.00
20,500.00	90.00	359.52	9,570.00	11,529.89	859.19	619,121.36	824,741.47	32.6986232	-103.4120544	11,522.29	0.00	0.00	0.00
20,600.00	90.00	359.52	9,570.00	11,629.89	858.34	619,221.36	824,740.62	32.6988981	-103.4120543	11,622.29	0.00	0.00	0.00
20,700.00	90.00	359.52	9,570.00	11,729.88	857.49	619,321.35	824,739.77	32.6991729	-103.4120542	11,722.29	0.00	0.00	0.00
20,800.00	90.00	359.52	9,570.00	11,829.88	856.65	619,421.35	824,738.93	32.6994478	-103.4120542	11,822.29	0.00	0.00	0.00
20,900.00	90.00	359.52	9,570.00	11,929.88	855.80	619,521.35	824,738.08	32.6997226	-103.4120541	11,922.29	0.00	0.00	0.00
21,000.00	90.00	359.52	9,570.00	12,029.87	854.96	619,621.34	824,737.24	32.6999975	-103.4120540	12,022.29	0.00	0.00	0.00
21,100.00	90.00	359.52	9,570.00	12,129.87	854.11	619,721.34	824,736.39	32.7002723	-103.4120540	12,122.29	0.00	0.00	0.00
21,200.00	90.00	359.52	9,570.00	12,229.87	853.26	619,821.34	824,735.54	32.7005472	-103.4120539	12,222.29	0.00	0.00	0.00
21,300.00	90.00	359.52	9,570.00	12,329.86	852.42	619,921.33	824,734.70	32.7008220	-103.4120538	12,322.29	0.00	0.00	0.00
21,400.00	90.00	359.52	9,570.00	12,429.86	851.57	620,021.33	824,733.85	32.7010968	-103.4120537	12,422.29	0.00	0.00	0.00
21,500.00	90.00	359.52	9,570.00	12,529.85	850.73	620,121.32	824,733.01	32.7013717	-103.4120537	12,522.29	0.00	0.00	0.00
21,600.00	90.00	359.52	9,570.00	12,629.85	849.88	620,221.32	824,732.16	32.7016465	-103.4120536	12,622.29	0.00	0.00	0.00
21,700.00	90.00	359.52	9,570.00	12,729.85	849.03	620,321.32	824,731.31	32.7019214	-103.4120535	12,722.29	0.00	0.00	0.00
21,800.00	90.00	359.52	9,570.00	12,829.84	848.19	620,421.31	824,730.47	32.7021962	-103.4120534	12,822.29	0.00	0.00	0.00

### Total Directional Planned Survey Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Well:</b>	Sombrero State Com 222H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan #1	<b>Database:</b>	.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)
21,900.00	90.00	359.52	9,570.00	12,929.84	847.34	620,521.31	824,729.62	32.7024711	-103.4120534	12,922.29	0.00	0.00	0.00
22,000.00	90.00	359.52	9,570.00	13,029.84	846.50	620,621.31	824,728.78	32.7027459	-103.4120533	13,022.29	0.00	0.00	0.00
22,100.00	90.00	359.52	9,570.00	13,129.83	845.65	620,721.30	824,727.93	32.7030208	-103.4120532	13,122.29	0.00	0.00	0.00
22,200.00	90.00	359.52	9,570.00	13,229.83	844.80	620,821.30	824,727.08	32.7032956	-103.4120531	13,222.29	0.00	0.00	0.00
22,300.00	90.00	359.52	9,570.00	13,329.83	843.96	620,921.30	824,726.24	32.7035704	-103.4120531	13,322.29	0.00	0.00	0.00
22,400.00	90.00	359.52	9,570.00	13,429.82	843.11	621,021.29	824,725.39	32.7038453	-103.4120530	13,422.29	0.00	0.00	0.00
22,500.00	90.00	359.52	9,570.00	13,529.82	842.27	621,121.29	824,724.55	32.7041201	-103.4120529	13,522.29	0.00	0.00	0.00
22,600.00	90.00	359.52	9,570.00	13,629.82	841.42	621,221.29	824,723.70	32.7043950	-103.4120528	13,622.29	0.00	0.00	0.00
22,700.00	90.00	359.52	9,570.00	13,729.81	840.57	621,321.28	824,722.85	32.7046698	-103.4120528	13,722.29	0.00	0.00	0.00
22,800.00	90.00	359.52	9,570.00	13,829.81	839.73	621,421.28	824,722.01	32.7049447	-103.4120527	13,822.29	0.00	0.00	0.00
22,900.00	90.00	359.52	9,570.00	13,929.80	838.88	621,521.27	824,721.16	32.7052195	-103.4120526	13,922.29	0.00	0.00	0.00
23,000.00	90.00	359.52	9,570.00	14,029.80	838.03	621,621.27	824,720.31	32.7054944	-103.4120525	14,022.29	0.00	0.00	0.00
23,100.00	90.00	359.52	9,570.00	14,129.80	837.19	621,721.27	824,719.47	32.7057692	-103.4120525	14,122.29	0.00	0.00	0.00
23,200.00	90.00	359.52	9,570.00	14,229.79	836.34	621,821.26	824,718.62	32.7060440	-103.4120524	14,222.29	0.00	0.00	0.00
23,300.00	90.00	359.52	9,570.00	14,329.79	835.50	621,921.26	824,717.78	32.7063189	-103.4120523	14,322.29	0.00	0.00	0.00
23,400.00	90.00	359.52	9,570.00	14,429.79	834.65	622,021.26	824,716.93	32.7065937	-103.4120523	14,422.29	0.00	0.00	0.00
23,500.00	90.00	359.52	9,570.00	14,529.78	833.80	622,121.25	824,716.08	32.7068686	-103.4120522	14,522.29	0.00	0.00	0.00
23,600.00	90.00	359.52	9,570.00	14,629.78	832.96	622,221.25	824,715.24	32.7071434	-103.4120521	14,622.29	0.00	0.00	0.00
23,700.00	90.00	359.52	9,570.00	14,729.78	832.11	622,321.25	824,714.39	32.7074183	-103.4120520	14,722.29	0.00	0.00	0.00
23,800.00	90.00	359.52	9,570.00	14,829.77	831.27	622,421.24	824,713.55	32.7076931	-103.4120520	14,822.29	0.00	0.00	0.00
23,900.00	90.00	359.52	9,570.00	14,929.77	830.42	622,521.24	824,712.70	32.7079680	-103.4120519	14,922.29	0.00	0.00	0.00
24,000.00	90.00	359.52	9,570.00	15,029.77	829.57	622,621.24	824,711.85	32.7082428	-103.4120518	15,022.29	0.00	0.00	0.00
24,100.00	90.00	359.52	9,570.00	15,129.76	828.73	622,721.23	824,711.01	32.7085176	-103.4120517	15,122.29	0.00	0.00	0.00
24,200.00	90.00	359.52	9,570.00	15,229.76	827.88	622,821.23	824,710.16	32.7087925	-103.4120517	15,222.29	0.00	0.00	0.00
24,300.00	90.00	359.52	9,570.00	15,329.75	827.04	622,921.22	824,709.32	32.7090673	-103.4120516	15,322.29	0.00	0.00	0.00
24,400.00	90.00	359.52	9,570.00	15,429.75	826.19	623,021.22	824,708.47	32.7093422	-103.4120515	15,422.29	0.00	0.00	0.00
24,500.00	90.00	359.52	9,570.00	15,529.75	825.34	623,121.22	824,707.62	32.7096170	-103.4120514	15,522.29	0.00	0.00	0.00
24,600.00	90.00	359.52	9,570.00	15,629.74	824.50	623,221.21	824,706.78	32.7098919	-103.4120514	15,622.29	0.00	0.00	0.00
24,700.00	90.00	359.52	9,570.00	15,729.74	823.65	623,321.21	824,705.93	32.7101667	-103.4120513	15,722.29	0.00	0.00	0.00
24,800.00	90.00	359.52	9,570.00	15,829.74	822.81	623,421.21	824,705.09	32.7104416	-103.4120512	15,822.29	0.00	0.00	0.00
24,900.00	90.00	359.52	9,570.00	15,929.73	821.96	623,521.20	824,704.24	32.7107164	-103.4120511	15,922.29	0.00	0.00	0.00
25,000.00	90.00	359.52	9,570.00	16,029.73	821.11	623,621.20	824,703.39	32.7109912	-103.4120511	16,022.29	0.00	0.00	0.00
25,100.00	90.00	359.52	9,570.00	16,129.73	820.27	623,721.20	824,702.55	32.7112661	-103.4120510	16,122.29	0.00	0.00	0.00
25,200.00	90.00	359.52	9,570.00	16,229.72	819.42	623,821.19	824,701.70	32.7115409	-103.4120509	16,222.29	0.00	0.00	0.00
25,300.00	90.00	359.52	9,570.00	16,329.72	818.58	623,921.19	824,700.86	32.7118158	-103.4120508	16,322.29	0.00	0.00	0.00
25,400.00	90.00	359.52	9,570.00	16,429.72	817.73	624,021.19	824,700.01	32.7120906	-103.4120508	16,422.29	0.00	0.00	0.00
25,500.00	90.00	359.52	9,570.00	16,529.71	816.88	624,121.18	824,699.16	32.7123655	-103.4120507	16,522.29	0.00	0.00	0.00
25,600.00	90.00	359.52	9,570.00	16,629.71	816.04	624,221.18	824,698.32	32.7126403	-103.4120506	16,622.29	0.00	0.00	0.00

### Total Directional Planned Survey Report



<b>Company:</b> Coterra Energy	<b>Local Co-ordinate Reference:</b> Well Sombrero State Com 222H
<b>Project:</b> Lea County, NM (NAD 83)	<b>TVD Reference:</b> GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site:</b> Sun-Sombrero Pad	<b>MD Reference:</b> GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Well:</b> Sombrero State Com 222H	<b>North Reference:</b> Grid
<b>Wellbore:</b> OH	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Plan #1	<b>Database:</b> .Total Directional Production DB

**Planned Survey**

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
25,700.00	90.00	359.52	9,570.00	16,729.70	815.19	624,321.17	824,697.47	32.7129151	-103.4120505	16,722.29	0.00	0.00	0.00
25,800.00	90.00	359.52	9,570.00	16,829.70	814.35	624,421.17	824,696.63	32.7131900	-103.4120505	16,822.29	0.00	0.00	0.00
25,900.00	90.00	359.52	9,570.00	16,929.70	813.50	624,521.17	824,695.78	32.7134648	-103.4120504	16,922.29	0.00	0.00	0.00
26,000.00	90.00	359.52	9,570.00	17,029.69	812.65	624,621.16	824,694.93	32.7137397	-103.4120503	17,022.29	0.00	0.00	0.00
26,100.00	90.00	359.52	9,570.00	17,129.69	811.81	624,721.16	824,694.09	32.7140145	-103.4120502	17,122.29	0.00	0.00	0.00
26,200.00	90.00	359.52	9,570.00	17,229.69	810.96	624,821.16	824,693.24	32.7142894	-103.4120502	17,222.29	0.00	0.00	0.00
26,300.00	90.00	359.52	9,570.00	17,329.68	810.12	624,921.15	824,692.40	32.7145642	-103.4120501	17,322.29	0.00	0.00	0.00
26,400.00	90.00	359.52	9,570.00	17,429.68	809.27	625,021.15	824,691.55	32.7148391	-103.4120500	17,422.29	0.00	0.00	0.00
26,500.00	90.00	359.52	9,570.00	17,529.68	808.42	625,121.15	824,690.70	32.7151139	-103.4120499	17,522.29	0.00	0.00	0.00
26,600.00	90.00	359.52	9,570.00	17,629.67	807.58	625,221.14	824,689.86	32.7153887	-103.4120499	17,622.29	0.00	0.00	0.00
26,700.00	90.00	359.52	9,570.00	17,729.67	806.73	625,321.14	824,689.01	32.7156636	-103.4120498	17,722.29	0.00	0.00	0.00
26,800.00	90.00	359.52	9,570.00	17,829.67	805.89	625,421.13	824,688.17	32.7159384	-103.4120497	17,822.29	0.00	0.00	0.00
26,900.00	90.00	359.52	9,570.00	17,929.66	805.04	625,521.13	824,687.32	32.7162133	-103.4120496	17,922.29	0.00	0.00	0.00
27,000.00	90.00	359.52	9,570.00	18,029.66	804.19	625,621.13	824,686.47	32.7164881	-103.4120496	18,022.29	0.00	0.00	0.00
27,100.00	90.00	359.52	9,570.00	18,129.65	803.35	625,721.12	824,685.63	32.7167630	-103.4120495	18,122.29	0.00	0.00	0.00
27,200.00	90.00	359.52	9,570.00	18,229.65	802.50	625,821.12	824,684.78	32.7170378	-103.4120494	18,222.29	0.00	0.00	0.00
27,300.00	90.00	359.52	9,570.00	18,329.65	801.65	625,921.12	824,683.93	32.7173127	-103.4120493	18,322.29	0.00	0.00	0.00
27,400.00	90.00	359.52	9,570.00	18,429.64	800.81	626,021.11	824,683.09	32.7175875	-103.4120493	18,422.29	0.00	0.00	0.00
27,500.00	90.00	359.52	9,570.00	18,529.64	799.96	626,121.11	824,682.24	32.7178623	-103.4120492	18,522.29	0.00	0.00	0.00
27,600.00	90.00	359.52	9,570.00	18,629.64	799.12	626,221.11	824,681.40	32.7181372	-103.4120491	18,622.29	0.00	0.00	0.00
27,700.00	90.00	359.52	9,570.00	18,729.63	798.27	626,321.10	824,680.55	32.7184120	-103.4120490	18,722.29	0.00	0.00	0.00
27,800.00	90.00	359.52	9,570.00	18,829.63	797.42	626,421.10	824,679.70	32.7186869	-103.4120490	18,822.29	0.00	0.00	0.00
27,900.00	90.00	359.52	9,570.00	18,929.63	796.58	626,521.10	824,678.86	32.7189617	-103.4120489	18,922.29	0.00	0.00	0.00
28,000.00	90.00	359.52	9,570.00	19,029.62	795.73	626,621.09	824,678.01	32.7192366	-103.4120488	19,022.29	0.00	0.00	0.00
28,100.00	90.00	359.52	9,570.00	19,129.62	794.89	626,721.09	824,677.17	32.7195114	-103.4120487	19,122.29	0.00	0.00	0.00
28,200.00	90.00	359.52	9,570.00	19,229.62	794.04	626,821.08	824,676.32	32.7197862	-103.4120487	19,222.29	0.00	0.00	0.00
28,300.00	90.00	359.52	9,570.00	19,329.61	793.19	626,921.08	824,675.47	32.7200611	-103.4120486	19,322.29	0.00	0.00	0.00
28,400.00	90.00	359.52	9,570.00	19,429.61	792.35	627,021.08	824,674.63	32.7203359	-103.4120485	19,422.29	0.00	0.00	0.00
28,500.00	90.00	359.52	9,570.00	19,529.60	791.50	627,121.07	824,673.78	32.7206108	-103.4120484	19,522.29	0.00	0.00	0.00
28,600.00	90.00	359.52	9,570.00	19,629.60	790.66	627,221.07	824,672.94	32.7208856	-103.4120484	19,622.29	0.00	0.00	0.00
28,700.00	90.00	359.52	9,570.00	19,729.60	789.81	627,321.07	824,672.09	32.7211605	-103.4120483	19,722.29	0.00	0.00	0.00
28,800.00	90.00	359.52	9,570.00	19,829.59	788.96	627,421.06	824,671.24	32.7214353	-103.4120482	19,822.29	0.00	0.00	0.00
28,900.00	90.00	359.52	9,570.00	19,929.59	788.12	627,521.06	824,670.40	32.7217102	-103.4120481	19,922.29	0.00	0.00	0.00
29,000.00	90.00	359.52	9,570.00	20,029.59	787.27	627,621.06	824,669.55	32.7219850	-103.4120481	20,022.29	0.00	0.00	0.00
29,100.00	90.00	359.52	9,570.00	20,129.58	786.43	627,721.05	824,668.71	32.7222598	-103.4120480	20,122.29	0.00	0.00	0.00
29,200.00	90.00	359.52	9,570.00	20,229.58	785.58	627,821.05	824,667.86	32.7225347	-103.4120479	20,222.29	0.00	0.00	0.00
29,300.00	90.00	359.52	9,570.00	20,329.58	784.73	627,921.05	824,667.01	32.7228095	-103.4120478	20,322.29	0.00	0.00	0.00

# Total Directional Planned Survey Report



<b>Company:</b> Coterra Energy	<b>Local Co-ordinate Reference:</b> Well Sombrero State Com 222H
<b>Project:</b> Lea County, NM (NAD 83)	<b>TVD Reference:</b> GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site:</b> Sun-Sombrero Pad	<b>MD Reference:</b> GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Well:</b> Sombrero State Com 222H	<b>North Reference:</b> Grid
<b>Wellbore:</b> OH	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Plan #1	<b>Database:</b> .Total Directional Production DB

### Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Geo Coordinates		Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
				+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude (°)	Longitude (°)				
29,400.00	90.00	359.52	9,570.00	20,429.57	783.89	628,021.04	824,666.17	32.7230844	-103.4120478	20,422.29	0.00	0.00	0.00
29,500.00	90.00	359.52	9,570.00	20,529.57	783.04	628,121.04	824,665.32	32.7233592	-103.4120477	20,522.29	0.00	0.00	0.00
29,600.00	90.00	359.52	9,570.00	20,629.57	782.20	628,221.03	824,664.48	32.7236341	-103.4120476	20,622.29	0.00	0.00	0.00
29,700.00	90.00	359.52	9,570.00	20,729.56	781.35	628,321.03	824,663.63	32.7239089	-103.4120475	20,722.29	0.00	0.00	0.00
29,800.00	90.00	359.52	9,570.00	20,829.56	780.50	628,421.03	824,662.78	32.7241837	-103.4120475	20,822.29	0.00	0.00	0.00
29,900.00	90.00	359.52	9,570.00	20,929.55	779.66	628,521.02	824,661.94	32.7244586	-103.4120474	20,922.29	0.00	0.00	0.00
30,000.00	90.00	359.52	9,570.00	21,029.55	778.81	628,621.02	824,661.09	32.7247334	-103.4120473	21,022.29	0.00	0.00	0.00
30,100.00	90.00	359.52	9,570.00	21,129.55	777.97	628,721.02	824,660.25	32.7250083	-103.4120472	21,122.29	0.00	0.00	0.00
30,200.00	90.00	359.52	9,570.00	21,229.54	777.12	628,821.01	824,659.40	32.7252831	-103.4120472	21,222.29	0.00	0.00	0.00
30,264.95	90.00	359.52	9,570.00	21,294.49	776.57	628,885.96	824,658.85	32.7254616	-103.4120471	21,287.24	0.00	0.00	0.00

**TD - 30264.95' MD - LTP/PBHL - 100' FNL, 2242' FWL (Som St Com 222H)**

### Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target - Shape - Point	0.00	0.00	9,068.85	423.43	953.15	608,014.90	824,835.43	32.6680966	-103.4120625
LTP/PBHL - 100' FNL, - plan hits target center - Point	0.00	0.00	9,570.00	21,294.49	776.57	628,885.96	824,658.85	32.7254616	-103.4120471

### Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,747.82	1,740.00	Rustler			
1,822.40	1,814.00	A3			
1,911.09	1,902.00	Tamarisk			
2,009.85	2,000.00	Top Salt			
3,116.42	3,098.00	Base Slit			
3,275.66	3,256.00	Yates			
3,692.89	3,670.00	Seven Rivers			
4,444.71	4,416.00	Queen			
5,744.78	5,706.00	Cherry Canyon			
5,960.45	5,920.00	Brushy Canyon			
7,361.30	7,310.00	Bone Spring			
9,163.07	9,098.00	1st Bone Spring Sand			
9,310.28	9,238.00	2nd Bone Spring Carbonate			
9,359.83	9,282.00	2nd Bone Spring Sand			
9,961.58	9,570.00	Target			

## Total Directional Planned Survey Report



<b>Company:</b> Coterra Energy	<b>Local Co-ordinate Reference:</b> Well Sombrero State Com 222H
<b>Project:</b> Lea County, NM (NAD 83)	<b>TVD Reference:</b> GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site:</b> Sun-Sombrero Pad	<b>MD Reference:</b> GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Well:</b> Sombrero State Com 222H	<b>North Reference:</b> Grid
<b>Wellbore:</b> OH	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Plan #1	<b>Database:</b> .Total Directional Production DB

**Plan Annotations**

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
500	500	0	0	Start Build 2.00
857	856	9	20	Hold - 856.79' MD/855.87' TVD
8936	8872	406	942	Start DLS 4.00 TFO -122.98
9134	9069	423	953	KOP - Start 10.00°/100' DLS
9962	9570	992	948	LP - 9961.58' MD
30,265	9570	21,294	777	TD - 30264.95' MD

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

# Coterra Energy

Lea County, NM (NAD 83)

Sun-Sombrero Pad

Sombrero State Com 222H

320' FNL, 1283' FWL

OH

Plan #1



## Anticollision Report

Minimum Magnetic Interference Warning level is 20' center to center

04 March, 2026

Total Report Version 1.70

COMPASS 5000.16 Build 97

[Click here for our anticollision policy](#)

### ATTENTION

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

<b>Reference</b>	Plan #1		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	MD Interval 100.00usft	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum centre distance of 3,312.47usft	<b>Error Surface:</b>	Pedal Curve
<b>Warning Levels Evaluated at:</b>	2.00 Sigma	<b>Casing Method:</b>	Not applied

<b>Well</b>	Sombrero State Com 222H				
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	607,591.47 usft	<b>Latitude:</b> 32.6669555
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	823,882.28 usft	<b>Longitude:</b> -103.4151714
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b> 3,746.70 usft
<b>Grid Convergence:</b>		0.50 °			

<b>Survey Tool Program</b>	<b>Date</b>	3/4/2026			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
0.00	30,264.95	Plan #1 (OH)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction	

**Experimental: Summary Highlights: Sombrero State Com 222H**

Offset Listing							
Offset Customer - Project - Site Name Offset Well	Map Coordinates		Geographical Coordinates		Surface Uncertainty		
	Ground Level	KB Height	Northing	Easting	Latitude	Longitude	Site Well
- - Sun-Sombrero Pad							
(O) Aberada Record 002 - P&A -	3,679.00	3,679.00	595,332.90	827,334.12	32.6331820	-103.4043040	0.00 0.00
(O) Blue Box Federal Com 505H -	3,802.90	3,828.90	615,321.84	822,280.64	32.6882393	-103.4201594	0.00 0.00
(O) Bryan 001 -	3,733.10	3,733.10	607,239.26	825,914.87	32.6659390	-103.4085770	0.00 0.00
(O) Coyote State 001 - P&A -	3,676.00	3,676.00	591,627.89	825,926.71	32.6230330	-103.4089800	0.00 0.00
(O) Haumea State 002H -	3,668.00	3,686.50	591,627.89	825,926.71	32.6230330	-103.4089800	0.00 0.00
(O) Northeast Pearl Queen Unit 011 -	3,716.50	3,716.50	607,601.21	826,515.09	32.6669194	-103.4066165	0.00 0.00
(O) Old Boy State 002H -	3,669.00	3,686.00	591,824.69	826,422.58	32.6235620	-103.4073640	0.00 0.00
(O) Record YW State 001 - P&A -	3,676.60	3,676.60	595,317.33	824,877.07	32.6331980	-103.4122850	0.00 0.00
(O) Rock Steady State #1 -	3,875.90	3,875.90	631,260.80	823,181.90	32.7320237	-103.4167824	0.00 0.00
(O) State 12 001 -	3,763.00	3,763.00	610,888.63	824,221.36	32.6760092	-103.4139769	0.00 0.00
(O) State Brine #1 - P&A -	3,853.00	3,853.00	617,735.14	827,135.60	32.6947560	-103.4043120	0.00 0.00
(O) State-Lea I 1-36 - P&A -	3,856.60	3,856.60	619,381.10	822,811.59	32.6993830	-103.4183200	0.00 0.00
(O) Sun State Com 502H -	3,708.20	3,738.20	599,528.98	825,267.52	32.6447639	-103.4108980	0.00 0.00
Sombrero State Com 221H -	3,746.80	3,773.30	607,591.32	823,842.28	32.6669561	-103.4153014	0.00 0.00
Sombrero State Com 223H -	3,739.20	3,762.20	607,601.13	826,495.09	32.6669197	-103.4066815	0.00 0.00
Sombrero State Com 224H -	3,739.00	3,762.00	607,601.29	826,535.08	32.6669191	-103.4065515	0.00 0.00
Sun Federal Com 224H -	3,738.90	3,761.90	607,601.37	826,555.08	32.6669189	-103.4064865	0.00 0.00
Sun State Com 221H -	3,746.80	3,773.30	607,591.39	823,862.28	32.6669558	-103.4152364	0.00 0.00

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

**Total Directional  
Anticollision Report**



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

Offset Listing								
Offset Customer - Project - Site Name	Ground Level KB Height		Map Coordinates		Geographical Coordinates		Surface Uncertainty	
Offset Well			Northing	Easting	Latitude	Longitude	Site	Well
- - Sun-Sombrero Pad								
Sun State Com 223H -	3,739.30	3,762.30	607,601.21	826,515.09	32.6669194	-103.4066165	0.00	0.00

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Sun-Sombrero Pad						
(O) Aberada Record 002 - P&A - OH - OH						Out of range
(O) Blue Box Federal Com 505H - OH - OH	9,500.00	16,806.84	2,174.24	2,016.93	13.82	SF
(O) Blue Box Federal Com 505H - OH - OH	10,600.00	15,744.00	2,135.67	1,993.26	15.00	ES
(O) Blue Box Federal Com 505H - OH - OH	16,524.07	9,845.00	2,112.77	2,024.11	23.83	CC
(O) Bryan 001 - OH - OH	9,028.64	8,925.72	1,325.33	1,109.61	6.14	CC, ES
(O) Bryan 001 - OH - OH	9,200.00	9,093.49	1,336.02	1,116.26	6.08	SF
(O) Coyote State 001 - P&A - OH - OH						Out of range
(O) Haumea State 002H - OH - OH						Out of range
(O) Old Boy State 002H - OH - OH						Out of range
(O) Record YW State 001 - P&A - OH - OH						Out of range
(O) Rock Steady State #1 - OH - OH	30,264.95	9,672.70	2,796.65	2,527.03	10.37	CC, ES, SF
(O) State 12 001 - OH - OH						Out of range
(O) State Brine #1 - P&A - OH - OH	19,093.57	9,649.80	2,382.32	2,005.01	6.31	CC
(O) State Brine #1 - P&A - OH - OH	19,100.00	9,649.80	2,382.33	2,004.96	6.31	ES
(O) State Brine #1 - P&A - OH - OH	19,200.00	9,649.80	2,384.69	2,006.54	6.31	SF
(O) State-Lea I 1-36 - P&A - OH - OH	20,776.06	9,654.10	1,927.61	1,648.17	6.90	CC, ES
(O) State-Lea I 1-36 - P&A - OH - OH	20,800.00	9,654.10	1,927.76	1,648.20	6.90	SF
(O) Sun State Com 502H - OH - OH						Out of range
Sombrero State Com 221H - OH - Plan #1	416.63	416.73	40.00	37.20	14.30	CC
Sombrero State Com 221H - OH - Plan #1	500.00	500.00	40.00	36.61	11.78	ES
Sombrero State Com 221H - OH - Plan #1	30,264.95	30,208.72	1,353.79	1,021.41	4.07	SF
Sombrero State Com 223H - OH - Plan #1	30,264.95	30,219.49	1,334.40	1,001.98	4.01	CC, ES, SF
Sombrero State Com 224H - OH - Plan #1	1,166.55	852.35	2,634.42	2,627.43	376.67	CC
Sombrero State Com 224H - OH - Plan #1	30,264.95	30,286.17	2,688.18	2,355.25	8.07	ES, SF
Sun Federal Com 224H - OH - Plan #1	1,153.23	836.68	2,655.18	2,648.29	385.57	CC
Sun Federal Com 224H - OH - Plan #1	1,200.00	861.75	2,655.37	2,648.23	371.83	ES
Sun Federal Com 224H - OH - Plan #1	9,500.00	9,286.34	2,769.26	2,701.22	40.70	SF
Sun State Com 221H - OH - Plan #1	500.00	500.10	20.00	16.61	5.89	CC, ES
Sun State Com 221H - OH - Plan #1	600.00	600.08	21.62	17.51	5.26	SF
Sun State Com 223H - OH - Plan #1	9,098.67	9,027.53	1,395.36	1,330.24	21.42	CC
Sun State Com 223H - OH - Plan #1	9,100.00	9,028.38	1,395.37	1,330.23	21.42	ES
Sun State Com 223H - OH - Plan #1	9,300.00	9,150.00	1,408.27	1,342.07	21.27	SF

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

Survey Program: 169-MWD OWSG Rev5													Offset Site Error:	0.00 usft
Reference													Offset Well Error:	0.00 usft
Measured		Vertical		Semi Major Axis		Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning	
Depth	Depth	Depth	Depth	Reference	Offset		Between	Between	Centres	Ellipses				Separation
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S	+E/-W	(usft)	(usft)	(usft)			
7,100.00	7,050.72	16,970.94	9,697.10	25.87	125.68	-157.22	419.55	-1,201.21	3,279.25	3,165.03	114.22	28.709		
7,200.00	7,149.95	16,970.62	9,697.09	26.24	125.68	-157.21	419.86	-1,201.21	3,206.47	3,090.39	116.08	27.623		
7,300.00	7,249.17	16,970.31	9,697.07	26.61	125.67	-157.20	420.18	-1,201.21	3,135.18	3,017.18	118.00	26.570		
7,400.00	7,348.40	16,970.00	9,697.06	26.98	125.67	-157.20	420.49	-1,201.22	3,065.50	2,945.52	119.98	25.550		
7,500.00	7,447.62	16,969.69	9,697.04	27.35	125.66	-157.19	420.80	-1,201.22	2,997.53	2,875.51	122.02	24.565		
7,600.00	7,546.85	16,969.38	9,697.03	27.71	125.66	-157.18	421.11	-1,201.22	2,931.40	2,807.27	124.13	23.616		
7,700.00	7,646.07	16,969.07	9,697.02	28.08	125.65	-157.17	421.42	-1,201.23	2,867.23	2,740.95	126.28	22.705		
7,800.00	7,745.30	16,968.76	9,697.00	28.45	125.65	-157.16	421.72	-1,201.23	2,805.16	2,676.67	128.49	21.832		
7,900.00	7,844.52	16,968.45	9,696.99	28.82	125.64	-157.16	422.03	-1,201.23	2,745.33	2,614.60	130.74	20.999		
8,000.00	7,943.75	16,968.15	9,696.97	29.19	125.64	-157.15	422.34	-1,201.23	2,687.90	2,554.87	133.02	20.207		
8,100.00	8,042.98	16,967.84	9,696.96	29.56	125.63	-157.14	422.65	-1,201.24	2,633.00	2,497.68	135.32	19.457		
8,200.00	8,142.20	16,967.53	9,696.95	29.92	125.63	-157.13	422.95	-1,201.24	2,580.82	2,443.18	137.64	18.751		
8,300.00	8,241.43	16,967.23	9,696.93	30.29	125.62	-157.13	423.26	-1,201.24	2,531.51	2,391.56	139.95	18.089		
8,400.00	8,340.65	16,966.92	9,696.92	30.66	125.62	-157.12	423.56	-1,201.24	2,485.25	2,343.01	142.24	17.472		
8,500.00	8,439.88	16,966.62	9,696.90	31.03	125.61	-157.11	423.87	-1,201.25	2,442.21	2,297.72	144.49	16.902		
8,600.00	8,539.10	16,966.31	9,696.89	31.40	125.61	-157.10	424.17	-1,201.25	2,402.56	2,255.88	146.68	16.379		
8,700.00	8,638.33	16,966.01	9,696.88	31.77	125.60	-157.09	424.47	-1,201.25	2,366.48	2,217.68	148.79	15.904		
8,800.00	8,737.55	16,965.71	9,696.86	32.14	125.60	-157.09	424.78	-1,201.26	2,334.12	2,183.32	150.80	15.478		
8,900.00	8,836.78	16,965.40	9,696.85	32.51	125.59	-157.08	425.08	-1,201.26	2,305.66	2,152.97	152.68	15.101		
9,000.00	8,936.08	16,964.17	9,696.79	32.87	125.57	-136.91	426.32	-1,201.27	2,280.06	2,125.67	154.39	14.768		
9,100.00	9,035.51	16,958.69	9,696.54	33.23	125.48	-100.94	431.78	-1,201.32	2,253.35	2,097.51	155.84	14.459		
9,200.00	9,134.12	16,945.31	9,695.92	33.58	125.27	-92.86	445.15	-1,201.42	2,226.54	2,069.59	156.95	14.186		
9,300.00	9,228.64	16,914.65	9,694.50	33.93	124.76	-94.36	475.78	-1,201.63	2,204.22	2,046.66	157.56	13.990		
9,400.00	9,316.12	16,868.65	9,692.27	34.26	124.01	-95.03	521.72	-1,201.92	2,186.89	2,029.21	157.68	13.869		
9,500.00	9,393.91	16,806.84	9,689.16	34.55	123.00	-94.99	583.45	-1,202.26	2,174.24	2,016.93	157.31	13.821	SF	
9,600.00	9,459.64	16,731.88	9,685.69	34.79	121.78	-94.49	658.34	-1,202.49	2,165.53	2,009.00	156.53	13.835		
9,700.00	9,511.32	16,656.25	9,683.97	34.99	120.55	-93.97	733.94	-1,202.68	2,160.08	2,004.46	155.62	13.880		
9,800.00	9,547.36	16,563.58	9,683.15	35.14	119.04	-93.38	826.61	-1,202.99	2,156.97	2,002.65	154.32	13.978		
9,900.00	9,566.69	16,455.30	9,680.99	35.27	117.27	-92.96	934.86	-1,203.16	2,155.07	2,002.39	152.68	14.115		
10,000.00	9,570.00	16,354.16	9,678.72	35.39	115.63	-92.89	1,035.98	-1,203.08	2,153.85	2,002.68	151.17	14.248		
10,100.00	9,570.00	16,228.36	9,675.62	35.54	113.58	-92.81	1,161.74	-1,202.26	2,152.26	2,003.06	149.19	14.426		
10,200.00	9,570.00	16,099.60	9,671.47	35.71	111.50	-92.71	1,290.40	-1,199.60	2,149.17	2,002.02	147.15	14.605		
10,300.00	9,570.00	16,000.45	9,667.84	35.91	109.90	-92.62	1,389.44	-1,196.94	2,145.47	1,999.73	145.74	14.721		
10,400.00	9,570.00	15,895.00	9,663.80	36.12	108.20	-92.51	1,494.78	-1,194.10	2,141.76	1,997.55	144.21	14.852		
10,500.00	9,570.00	15,806.30	9,660.73	36.34	106.77	-92.43	1,583.40	-1,191.78	2,138.16	1,995.12	143.04	14.948		
10,600.00	9,570.00	15,744.00	9,658.99	36.58	105.76	-92.39	1,645.67	-1,190.81	2,135.67	1,993.26	142.41	14.997	ES	
10,700.00	9,570.00	15,667.63	9,658.12	36.84	104.52	-92.37	1,722.03	-1,190.95	2,134.89	1,993.40	141.49	15.088		
10,800.00	9,570.00	15,561.23	9,656.37	37.11	102.80	-92.32	1,828.41	-1,191.31	2,134.31	1,994.30	140.01	15.244		
10,892.53	9,570.00	15,484.91	9,655.25	37.37	101.56	-92.29	1,904.72	-1,191.48	2,133.73	1,994.66	139.07	15.343		
10,900.00	9,570.00	15,480.26	9,655.21	37.39	101.49	-92.29	1,909.38	-1,191.52	2,133.73	1,994.71	139.02	15.348		
11,000.00	9,570.00	15,413.69	9,655.20	37.69	100.41	-92.29	1,975.93	-1,192.79	2,134.74	1,996.44	138.31	15.435		
11,100.00	9,570.00	15,312.27	9,654.43	38.00	98.76	-92.27	2,077.31	-1,195.27	2,136.31	1,999.35	136.96	15.598		
11,200.00	9,570.00	15,228.52	9,651.46	38.32	97.40	-92.18	2,160.97	-1,197.80	2,138.35	2,002.42	135.93	15.731		
11,300.00	9,570.00	15,126.12	9,646.14	38.66	95.74	-92.04	2,263.17	-1,201.31	2,140.74	2,006.16	134.58	15.907		
11,400.00	9,570.00	15,007.25	9,639.40	39.00	93.82	-91.86	2,381.80	-1,204.73	2,142.58	2,009.63	132.94	16.117		
11,500.00	9,570.00	14,893.62	9,635.03	39.36	91.99	-91.74	2,495.32	-1,207.03	2,143.64	2,012.22	131.42	16.312		
11,600.00	9,570.00	14,793.03	9,634.79	39.73	90.37	-91.73	2,595.89	-1,208.59	2,144.33	2,014.17	130.16	16.475		
11,700.00	9,570.00	14,695.29	9,633.27	40.11	88.80	-91.69	2,693.60	-1,210.27	2,145.15	2,016.19	128.96	16.634		
11,800.00	9,570.00	14,604.46	9,630.40	40.50	87.34	-91.61	2,784.37	-1,212.05	2,146.18	2,018.29	127.89	16.782		
11,900.00	9,570.00	14,517.28	9,627.03	40.90	85.94	-91.52	2,871.46	-1,214.25	2,147.76	2,020.87	126.89	16.926		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - (O) Blue Box Federal Com 505H - OH - OH

Survey Program: 169-MWD OWSG Rev5													Offset Site Error:	0.00 usft
Rule Assigned:													Offset Well Error:	0.00 usft
Measured Reference Depth (usft)	Vertical Reference Depth (usft)	Measured Offset Depth (usft)	Vertical Offset Depth (usft)	Semi Major Axis			Offset Wellbore Centre		Distance				Warning	
				Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
12,000.00	9,570.00	14,424.58	9,625.70	41.31	84.45	-91.49	2,964.10	-1,217.04	2,149.88	2,024.07	125.81	17.088		
12,100.00	9,570.00	14,327.18	9,623.03	41.74	82.89	-91.41	3,061.42	-1,220.17	2,152.17	2,027.52	124.65	17.265		
12,200.00	9,570.00	14,229.19	9,618.77	42.17	81.32	-91.30	3,159.29	-1,223.44	2,154.57	2,031.08	123.49	17.447		
12,300.00	9,570.00	14,094.62	9,612.58	42.61	79.17	-91.13	3,293.63	-1,227.20	2,156.49	2,034.79	121.70	17.720		
12,400.00	9,570.00	13,965.92	9,607.86	43.06	77.13	-91.01	3,422.23	-1,228.25	2,156.32	2,036.30	120.02	17.967		
12,500.00	9,570.00	13,869.76	9,604.41	43.52	75.61	-90.91	3,518.33	-1,228.76	2,155.93	2,037.00	118.94	18.127		
12,600.00	9,570.00	13,747.49	9,600.81	43.99	73.69	-90.82	3,640.54	-1,229.14	2,155.41	2,038.02	117.40	18.360		
12,700.00	9,570.00	13,641.61	9,599.55	44.46	72.02	-90.79	3,746.41	-1,228.39	2,153.83	2,037.65	116.18	18.539		
12,800.00	9,570.00	13,548.30	9,597.30	44.94	70.56	-90.73	3,839.70	-1,227.85	2,152.37	2,037.18	115.19	18.685		
12,900.00	9,570.00	13,446.00	9,594.01	45.44	68.97	-90.64	3,941.94	-1,227.36	2,151.01	2,036.96	114.05	18.860		
13,000.00	9,570.00	13,354.77	9,590.50	45.94	67.55	-90.55	4,033.10	-1,227.03	2,149.77	2,036.66	113.12	19.005		
13,100.00	9,570.00	13,242.21	9,586.28	46.44	65.81	-90.43	4,145.57	-1,226.46	2,148.37	2,036.57	111.81	19.215		
13,200.00	9,570.00	13,157.11	9,582.90	46.95	64.49	-90.34	4,230.61	-1,226.20	2,147.18	2,036.18	111.01	19.343		
13,300.00	9,570.00	13,058.38	9,579.20	47.47	62.98	-90.25	4,329.27	-1,226.20	2,146.32	2,036.35	109.97	19.517		
13,400.00	9,570.00	12,969.81	9,575.92	48.00	61.62	-90.16	4,417.78	-1,226.49	2,145.79	2,036.66	109.13	19.663		
13,500.00	9,570.00	12,881.00	9,572.33	48.54	60.26	-90.06	4,506.52	-1,227.06	2,145.60	2,037.31	108.28	19.814		
13,506.78	9,570.00	12,869.05	9,571.87	48.57	60.08	-90.05	4,518.45	-1,227.15	2,145.58	2,037.46	108.12	19.844		
13,600.00	9,570.00	12,798.40	9,570.16	49.07	59.00	-90.00	4,589.08	-1,228.13	2,146.09	2,038.52	107.57	19.951		
13,700.00	9,570.00	12,717.65	9,569.03	49.62	57.77	-89.97	4,669.80	-1,230.05	2,147.62	2,040.73	106.89	20.092		
13,800.00	9,570.00	12,622.65	9,566.49	50.17	56.33	-89.91	4,764.71	-1,232.93	2,149.80	2,043.83	105.97	20.287		
13,900.00	9,570.00	12,514.38	9,563.59	50.73	54.70	-89.83	4,872.91	-1,236.05	2,151.84	2,047.00	104.85	20.524		
14,000.00	9,570.00	12,421.46	9,560.90	51.29	53.32	-89.76	4,965.75	-1,238.62	2,153.78	2,049.79	103.99	20.711		
14,100.00	9,570.00	12,322.63	9,557.27	51.86	51.85	-89.66	5,064.47	-1,241.61	2,155.98	2,052.93	103.05	20.923		
14,200.00	9,570.00	12,229.82	9,553.33	52.43	50.49	-89.56	5,157.15	-1,244.55	2,158.33	2,056.12	102.21	21.117		
14,300.00	9,570.00	12,049.22	9,545.04	53.01	47.86	-89.34	5,337.50	-1,248.54	2,160.34	2,060.42	99.92	21.621		
14,400.00	9,570.00	11,954.16	9,540.85	53.59	46.52	-89.23	5,432.47	-1,247.82	2,158.81	2,059.72	99.09	21.786		
14,500.00	9,570.00	11,797.73	9,534.09	54.18	44.35	-89.05	5,588.74	-1,245.97	2,157.02	2,059.79	97.23	22.184		
14,600.00	9,570.00	11,685.08	9,530.84	54.77	42.83	-88.96	5,701.26	-1,241.89	2,152.53	2,056.37	96.16	22.385		
14,700.00	9,570.00	11,602.28	9,529.01	55.37	41.73	-88.91	5,784.01	-1,239.48	2,148.80	2,053.17	95.64	22.469		
14,800.00	9,570.00	11,516.82	9,528.62	55.97	40.61	-88.89	5,869.44	-1,237.62	2,145.79	2,050.70	95.09	22.565		
14,900.00	9,570.00	11,432.45	9,528.91	56.57	39.53	-88.90	5,953.80	-1,236.36	2,143.45	2,048.87	94.59	22.661		
15,000.00	9,570.00	11,349.25	9,528.59	57.18	38.48	-88.89	6,036.99	-1,235.78	2,141.91	2,047.80	94.11	22.759		
15,100.00	9,570.00	11,264.59	9,528.21	57.79	37.43	-88.88	6,121.66	-1,235.77	2,141.07	2,047.44	93.64	22.866		
15,143.52	9,570.00	11,230.76	9,528.31	58.06	37.02	-88.88	6,155.49	-1,235.99	2,140.97	2,047.49	93.48	22.902		
15,200.00	9,570.00	11,185.00	9,528.82	58.41	36.47	-88.90	6,201.24	-1,236.52	2,141.14	2,047.88	93.26	22.959		
15,300.00	9,570.00	11,100.74	9,529.53	59.03	35.47	-88.92	6,285.48	-1,238.03	2,142.06	2,049.22	92.84	23.073		
15,400.00	9,570.00	10,991.23	9,528.22	59.65	34.23	-88.88	6,394.96	-1,240.11	2,143.14	2,051.07	92.07	23.277		
15,500.00	9,570.00	10,867.27	9,524.52	60.27	32.91	-88.78	6,518.86	-1,241.36	2,143.36	2,052.22	91.13	23.519		
15,600.00	9,570.00	10,754.07	9,519.84	60.90	31.79	-88.66	6,631.96	-1,241.41	2,142.64	2,052.24	90.40	23.701		
15,700.00	9,570.00	10,629.50	9,510.88	61.54	30.65	-88.42	6,756.19	-1,240.53	2,141.30	2,051.75	89.56	23.910		
15,800.00	9,570.00	10,508.53	9,499.54	62.17	29.68	-88.11	6,876.59	-1,238.07	2,138.69	2,049.85	88.84	24.075		
15,900.00	9,570.00	10,398.32	9,489.72	62.81	28.89	-87.84	6,986.33	-1,235.17	2,135.52	2,047.17	88.35	24.170		
16,000.00	9,570.00	10,280.68	9,479.61	63.45	28.14	-87.57	7,103.46	-1,231.13	2,131.57	2,043.69	87.88	24.257		
16,100.00	9,570.00	10,176.54	9,474.34	64.10	27.56	-87.42	7,207.38	-1,227.15	2,127.12	2,039.44	87.69	24.258		
16,200.00	9,570.00	10,075.20	9,470.77	64.74	27.06	-87.32	7,308.59	-1,223.28	2,122.62	2,034.98	87.64	24.220		
16,300.00	9,570.00	9,969.99	9,464.11	65.39	26.62	-87.13	7,413.46	-1,218.95	2,117.96	2,030.31	87.65	24.164		
16,400.00	9,570.00	9,939.00	9,460.03	66.05	26.50	-87.02	7,444.14	-1,217.52	2,114.30	2,025.97	88.34	23.935		
16,500.00	9,570.00	9,845.00	9,441.65	66.70	26.19	-86.52	7,536.26	-1,215.97	2,112.91	2,024.47	88.44	23.891		
16,524.07	9,570.00	9,845.00	9,441.65	66.86	26.19	-86.52	7,536.26	-1,215.97	2,112.77	2,024.11	88.66	23.830	CC	
16,600.00	9,570.00	9,796.57	9,428.61	67.36	26.09	-86.16	7,582.89	-1,216.35	2,113.80	2,024.80	89.00	23.751		
16,700.00	9,570.00	9,700.29	9,394.25	68.02	25.93	-85.23	7,672.73	-1,215.59	2,115.02	2,025.77	89.24	23.700		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - (O) Blue Box Federal Com 505H - OH - OH

Offset Site Error: 0.00 usft

Offset Well Error: 0.00 usft

Survey Program:		169-MWD OWSG Rev5		Rule Assigned:										
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance		Minimum Separation		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
16,800.00	9,570.00	9,631.25	9,360.47	68.68	25.88	-84.32	7,732.90	-1,214.72	2,117.84	2,028.17	89.66	23.620		
16,900.00	9,570.00	9,557.72	9,321.09	69.34	25.90	-83.25	7,794.99	-1,213.86	2,122.48	2,032.39	90.08	23.562		
17,000.00	9,570.00	9,468.87	9,271.35	70.01	25.96	-81.92	7,868.59	-1,212.55	2,128.60	2,038.12	90.48	23.526		
17,100.00	9,570.00	9,412.36	9,238.09	70.68	26.01	-81.02	7,914.26	-1,211.64	2,136.58	2,045.58	91.01	23.477		
17,200.00	9,570.00	9,374.00	9,214.32	71.35	26.05	-80.39	7,944.36	-1,211.13	2,147.26	2,055.73	91.53	23.460		
17,300.00	9,570.00	9,374.00	9,214.32	72.02	26.05	-80.39	7,944.36	-1,211.13	2,162.01	2,069.97	92.04	23.490		
17,400.00	9,570.00	9,334.95	9,188.82	72.69	26.02	-79.72	7,973.92	-1,211.65	2,179.67	2,087.40	92.27	23.623		
17,500.00	9,570.00	9,318.95	9,177.93	73.37	26.01	-79.43	7,985.61	-1,212.43	2,201.70	2,109.17	92.53	23.795		
17,600.00	9,570.00	9,280.00	9,150.39	74.05	25.98	-78.72	8,012.95	-1,215.69	2,228.08	2,135.45	92.63	24.053		
17,700.00	9,570.00	9,280.00	9,150.39	74.73	25.98	-78.72	8,012.95	-1,215.69	2,257.03	2,164.25	92.78	24.327		
17,800.00	9,570.00	9,280.00	9,150.39	75.41	25.98	-78.72	8,012.95	-1,215.69	2,289.98	2,197.16	92.82	24.670		
17,900.00	9,570.00	9,242.16	9,122.12	76.09	26.00	-78.01	8,037.77	-1,219.70	2,326.02	2,233.16	92.86	25.049		
18,000.00	9,570.00	9,217.85	9,103.08	76.78	26.02	-77.53	8,052.67	-1,222.18	2,365.10	2,272.30	92.81	25.485		
18,100.00	9,570.00	9,186.00	9,077.17	77.46	26.04	-76.88	8,070.92	-1,225.29	2,407.19	2,314.49	92.70	25.967		
18,200.00	9,570.00	9,186.00	9,077.17	78.15	26.04	-76.88	8,070.92	-1,225.29	2,452.11	2,359.62	92.48	26.515		
18,300.00	9,570.00	9,139.77	9,037.66	78.84	26.05	-75.88	8,094.64	-1,228.82	2,499.45	2,407.19	92.26	27.091		
18,400.00	9,570.00	9,115.41	9,016.00	79.53	26.05	-75.34	8,105.73	-1,229.96	2,549.43	2,457.46	91.97	27.721		
18,500.00	9,570.00	9,092.00	8,994.71	80.22	26.05	-74.81	8,115.44	-1,230.58	2,601.92	2,510.29	91.62	28.398		
18,600.00	9,570.00	9,092.00	8,994.71	80.92	26.05	-74.81	8,115.44	-1,230.58	2,656.94	2,565.70	91.24	29.120		
18,700.00	9,570.00	9,092.00	8,994.71	81.61	26.05	-74.81	8,115.44	-1,230.58	2,714.52	2,623.70	90.83	29.887		
18,800.00	9,570.00	9,051.30	8,956.94	82.31	26.13	-73.86	8,130.58	-1,231.12	2,773.70	2,683.21	90.49	30.652		
18,900.00	9,570.00	9,039.09	8,945.48	83.01	26.15	-73.58	8,134.77	-1,231.22	2,835.36	2,745.29	90.07	31.479		
19,000.00	9,570.00	8,998.00	8,906.46	83.70	26.22	-72.61	8,147.64	-1,231.37	2,899.48	2,809.78	89.71	32.322		
19,100.00	9,570.00	8,998.00	8,906.46	84.40	26.22	-72.61	8,147.64	-1,231.37	2,964.78	2,875.53	89.25	33.220		
19,200.00	9,570.00	8,998.00	8,906.46	85.11	26.22	-72.61	8,147.64	-1,231.37	3,031.96	2,943.18	88.78	34.151		
19,300.00	9,570.00	8,998.00	8,906.46	85.81	26.22	-72.61	8,147.64	-1,231.37	3,100.92	3,012.60	88.31	35.113		
19,400.00	9,570.00	8,998.00	8,906.46	86.51	26.22	-72.61	8,147.64	-1,231.37	3,171.52	3,083.68	87.85	36.104		
19,500.00	9,570.00	8,998.00	8,906.46	87.22	26.22	-72.61	8,147.64	-1,231.37	3,243.68	3,156.30	87.38	37.121		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - (O) Bryan 001 - OH - OH

Survey Program:		150-INC-ONLY		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Site Error:
Measured Reference Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	Offset Well Error:
0.00	0.00	0.00	40.10	0.00	0.00	99.83	-352.21	2,032.59	2,063.27					0.00 usft
100.00	100.00	59.90	100.00	0.26	1.06	99.83	-352.21	2,032.59	2,062.88	2,061.56	1.32	1,557.076		0.00 usft
200.00	200.00	159.90	200.00	0.62	2.83	99.83	-352.21	2,032.59	2,062.88	2,059.43	3.45	597.089		
264.61	264.61	224.51	264.60	0.85	3.98	99.83	-352.13	2,032.59	2,062.87	2,058.04	4.83	426.998		
300.00	300.00	259.54	299.64	0.98	4.60	99.83	-352.15	2,032.59	2,062.87	2,057.29	5.58	369.778		
400.00	400.00	359.90	400.00	1.34	6.40	99.83	-352.21	2,032.59	2,062.88	2,055.14	7.74	266.622		
500.00	500.00	459.90	500.00	1.70	8.33	99.83	-352.21	2,032.59	2,062.88	2,052.85	10.03	205.691		
600.00	599.98	559.88	599.98	2.05	10.26	33.20	-352.21	2,032.59	2,061.42	2,049.10	12.32	167.381		
700.00	699.84	659.14	699.24	2.41	12.18	33.31	-351.81	2,032.59	2,056.97	2,042.39	14.59	141.011		
800.00	799.45	758.05	798.14	2.76	14.10	33.53	-352.07	2,032.59	2,049.74	2,032.88	16.85	121.612		
900.00	898.74	858.69	898.74	3.12	16.10	33.78	-352.21	2,032.59	2,039.87	2,020.65	19.22	106.153		
1,000.00	997.97	957.91	997.97	3.48	18.11	33.98	-352.21	2,032.59	2,029.53	2,007.95	21.58	94.059		
1,100.00	1,097.19	1,056.69	1,096.74	3.84	20.10	34.15	-351.22	2,032.59	2,019.03	1,995.10	23.93	84.369		
1,200.00	1,196.42	1,154.54	1,194.58	4.20	22.08	34.35	-351.52	2,032.59	2,008.79	1,982.53	26.27	76.475		
1,300.00	1,295.65	1,252.36	1,292.39	4.56	24.06	34.57	-352.18	2,032.59	1,998.65	1,970.05	28.60	69.872		
1,400.00	1,394.87	1,354.87	1,394.87	4.93	26.02	34.78	-352.21	2,032.59	1,988.42	1,957.50	30.92	64.308		
1,500.00	1,494.10	1,454.09	1,494.10	5.29	27.91	34.98	-352.21	2,032.59	1,978.20	1,945.03	33.17	59.639		
1,600.00	1,593.32	1,552.79	1,592.78	5.66	29.79	35.16	-351.44	2,032.59	1,967.85	1,932.44	35.41	55.574		
1,700.00	1,692.55	1,650.97	1,690.96	6.02	31.65	35.38	-351.70	2,032.59	1,957.74	1,920.10	37.64	52.012		
1,800.00	1,791.77	1,751.80	1,791.77	6.39	33.57	35.61	-352.21	2,032.59	1,947.70	1,907.78	39.92	48.788		
1,900.00	1,891.00	1,851.02	1,891.00	6.75	35.46	35.82	-352.21	2,032.59	1,937.59	1,895.42	42.17	45.944		
2,000.00	1,990.22	1,950.25	1,990.22	7.12	37.35	36.04	-352.21	2,032.59	1,927.51	1,883.08	44.42	43.388		
2,100.00	2,089.45	2,049.07	2,089.05	7.48	39.23	36.24	-351.70	2,032.59	1,917.33	1,870.67	46.67	41.084		
2,200.00	2,188.67	2,147.56	2,187.53	7.85	41.11	36.46	-351.88	2,032.59	1,907.34	1,858.44	48.91	38.999		
2,300.00	2,287.90	2,247.96	2,287.90	8.22	43.04	36.70	-352.21	2,032.59	1,897.41	1,846.21	51.21	37.055		
2,400.00	2,387.13	2,347.18	2,387.13	8.58	45.34	36.92	-352.21	2,032.59	1,887.44	1,833.58	53.86	35.044		
2,500.00	2,486.35	2,446.41	2,486.35	8.95	47.63	37.15	-352.21	2,032.59	1,877.50	1,820.98	56.51	33.222		
2,600.00	2,585.58	2,544.99	2,584.93	9.32	49.90	37.35	-351.44	2,032.59	1,867.40	1,808.25	59.15	31.569		
2,700.00	2,684.80	2,643.05	2,682.99	9.69	52.17	37.59	-351.71	2,032.59	1,857.58	1,795.80	61.78	30.067		
2,800.00	2,784.03	2,744.24	2,784.03	10.05	54.53	37.84	-352.21	2,032.59	1,847.84	1,783.34	64.50	28.647		
2,900.00	2,883.25	2,838.58	2,878.36	10.42	57.09	38.06	-351.87	2,032.59	1,837.94	1,770.51	67.43	27.257		
3,000.00	2,982.48	2,940.71	2,980.41	10.79	60.01	38.30	-351.71	2,032.59	1,828.10	1,757.39	70.71	25.852		
3,100.00	3,081.70	3,042.08	3,081.70	11.15	63.02	38.56	-352.21	2,032.59	1,818.47	1,744.38	74.09	24.544		
3,200.00	3,180.93	3,141.42	3,180.93	11.52	65.97	38.81	-352.21	2,032.59	1,808.75	1,731.35	77.40	23.369		
3,300.00	3,280.15	3,240.72	3,280.15	11.89	68.75	39.05	-352.21	2,032.59	1,799.05	1,718.51	80.55	22.336		
3,400.00	3,379.38	3,335.61	3,375.03	12.26	71.10	39.28	-351.91	2,032.59	1,789.32	1,706.05	83.26	21.490		
3,500.00	3,478.61	3,439.21	3,478.61	12.62	73.39	39.56	-352.21	2,032.59	1,779.77	1,693.85	85.92	20.715		
3,600.00	3,577.83	3,538.18	3,577.56	12.99	75.50	39.78	-351.29	2,032.59	1,769.92	1,681.53	88.39	20.025		
3,700.00	3,677.06	3,634.33	3,673.70	13.36	77.55	40.04	-351.64	2,032.59	1,760.47	1,669.67	90.80	19.389		
3,800.00	3,776.28	3,736.94	3,776.28	13.73	79.66	40.33	-352.21	2,032.59	1,751.11	1,657.83	93.28	18.773		
3,900.00	3,875.51	3,836.17	3,875.51	14.09	81.60	40.59	-352.21	2,032.59	1,741.62	1,646.04	95.58	18.221		
4,000.00	3,974.73	3,935.07	3,974.41	14.46	83.54	40.84	-351.52	2,032.59	1,731.97	1,634.09	97.88	17.695		
4,100.00	4,073.96	4,032.76	4,072.09	14.83	85.45	41.11	-351.72	2,032.59	1,722.62	1,622.47	100.16	17.200		
4,200.00	4,173.18	4,133.88	4,173.18	15.20	87.42	41.40	-352.21	2,032.59	1,713.40	1,610.91	102.50	16.717		
4,300.00	4,272.41	4,233.11	4,272.41	15.56	89.37	41.68	-352.21	2,032.59	1,704.07	1,599.27	104.80	16.260		
4,400.00	4,371.63	4,332.33	4,371.63	15.93	91.31	41.96	-352.21	2,032.59	1,694.78	1,587.67	107.11	15.823		
4,500.00	4,470.86	4,430.57	4,469.86	16.30	93.23	42.21	-351.51	2,032.59	1,685.31	1,575.91	109.40	15.406		
4,600.00	4,570.08	4,528.31	4,567.60	16.67	95.14	42.50	-351.82	2,032.59	1,676.20	1,564.52	111.67	15.010		
4,700.00	4,669.31	4,630.05	4,669.31	17.04	97.14	42.81	-352.21	2,032.59	1,667.16	1,553.13	114.03	14.620		
4,800.00	4,768.54	4,729.27	4,768.54	17.40	99.08	43.10	-352.21	2,032.59	1,658.03	1,541.70	116.34	14.252		
4,900.00	4,867.76	4,828.50	4,867.76	17.77	101.03	43.39	-352.21	2,032.59	1,648.95	1,530.30	118.65	13.898		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - (O) Bryan 001 - OH - OH

Survey Program:		Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,966.99	4,926.56	4,965.81	18.14	102.95	43.66	-351.48	2,032.59	1,639.66	1,518.73	120.93	13.558		
5,100.00	5,066.21	5,024.32	5,063.57	18.51	104.86	43.97	-351.81	2,032.59	1,630.78	1,507.57	123.22	13.235		
5,200.00	5,165.44	5,126.22	5,165.44	18.88	106.86	44.30	-352.21	2,032.59	1,621.97	1,496.40	125.58	12.916		
5,300.00	5,264.66	5,225.44	5,264.66	19.24	108.81	44.60	-352.21	2,032.59	1,613.07	1,485.19	127.89	12.613		
5,400.00	5,363.89	5,324.67	5,363.89	19.61	110.75	44.91	-352.21	2,032.59	1,604.22	1,474.02	130.20	12.321		
5,500.00	5,463.11	5,422.65	5,461.86	19.98	112.67	45.20	-351.49	2,032.59	1,595.14	1,462.66	132.48	12.040		
5,600.00	5,562.34	5,520.34	5,559.55	20.35	114.59	45.52	-351.83	2,032.59	1,586.51	1,451.74	134.77	11.772		
5,700.00	5,661.56	5,622.39	5,661.56	20.72	116.62	45.86	-352.21	2,032.59	1,577.94	1,440.78	137.16	11.505		
5,800.00	5,760.79	5,721.61	5,760.79	21.08	118.65	46.19	-352.21	2,032.59	1,569.28	1,429.73	139.55	11.245		
5,900.00	5,860.02	5,820.84	5,860.02	21.45	120.68	46.52	-352.21	2,032.59	1,560.67	1,418.73	141.94	10.995		
6,000.00	5,959.24	5,918.75	5,957.92	21.82	122.68	46.82	-351.49	2,032.59	1,551.83	1,407.52	144.31	10.753		
6,100.00	6,058.47	6,016.38	6,055.55	22.19	124.68	47.16	-351.83	2,032.59	1,543.46	1,396.78	146.67	10.523		
6,200.00	6,157.69	6,118.57	6,157.69	22.56	126.79	47.52	-352.21	2,032.59	1,535.16	1,386.01	149.15	10.293		
6,300.00	6,256.92	6,217.80	6,256.92	22.93	128.90	47.86	-352.21	2,032.59	1,526.76	1,375.13	151.63	10.069		
6,400.00	6,356.14	6,317.02	6,356.14	23.29	131.01	48.21	-352.21	2,032.59	1,518.42	1,364.32	154.10	9.853		
6,500.00	6,455.37	6,414.48	6,453.58	23.66	133.09	48.52	-351.24	2,032.59	1,509.72	1,353.18	156.54	9.644		
6,600.00	6,554.59	6,511.53	6,550.63	24.03	135.15	48.88	-351.67	2,032.59	1,501.68	1,342.71	158.97	9.446		
6,700.00	6,653.82	6,614.78	6,653.82	24.40	137.29	49.27	-352.21	2,032.59	1,493.73	1,332.26	161.48	9.250		
6,800.00	6,753.04	6,714.00	6,753.04	24.77	139.24	49.63	-352.21	2,032.59	1,485.62	1,321.83	163.79	9.070		
6,900.00	6,852.27	6,813.23	6,852.27	25.14	141.19	50.00	-352.21	2,032.59	1,477.57	1,311.47	166.10	8.896		
7,000.00	6,951.50	6,910.59	6,949.62	25.50	143.10	50.33	-351.25	2,032.59	1,469.15	1,300.77	168.38	8.725		
7,100.00	7,050.72	7,007.53	7,046.56	25.87	145.00	50.71	-351.69	2,032.59	1,461.42	1,290.77	170.65	8.564		
7,200.00	7,149.95	7,110.95	7,149.95	26.24	147.01	51.12	-352.21	2,032.59	1,453.78	1,280.77	173.01	8.403		
7,300.00	7,249.17	7,210.17	7,249.17	26.61	148.87	51.50	-352.21	2,032.59	1,445.98	1,270.74	175.25	8.251		
7,400.00	7,348.40	7,309.40	7,348.40	26.98	150.74	51.88	-352.21	2,032.59	1,438.24	1,260.77	177.48	8.104		
7,500.00	7,447.62	7,407.61	7,446.61	27.35	152.59	52.25	-351.74	2,032.59	1,430.34	1,250.65	179.69	7.960		
7,600.00	7,546.85	7,505.64	7,544.63	27.71	154.44	52.65	-351.97	2,032.59	1,422.85	1,240.94	181.90	7.822		
7,700.00	7,646.07	7,607.10	7,646.07	28.08	156.38	53.07	-352.21	2,032.59	1,415.43	1,231.22	184.21	7.684		
7,800.00	7,745.30	7,706.33	7,745.30	28.45	158.33	53.47	-352.21	2,032.59	1,407.97	1,221.44	186.52	7.549		
7,900.00	7,844.52	7,804.81	7,843.78	28.82	160.26	53.85	-351.57	2,032.59	1,400.24	1,211.42	188.82	7.416		
8,000.00	7,943.75	7,901.80	7,940.77	29.19	162.17	54.26	-351.83	2,032.59	1,393.05	1,201.95	191.10	7.290		
8,100.00	8,042.98	8,004.04	8,042.98	29.56	164.20	54.70	-352.21	2,032.59	1,385.99	1,192.50	193.49	7.163		
8,200.00	8,142.20	8,103.27	8,142.20	29.92	166.23	55.12	-352.21	2,032.59	1,378.81	1,182.93	195.88	7.039		
8,300.00	8,241.43	8,202.24	8,241.17	30.29	168.25	55.52	-351.51	2,032.59	1,371.33	1,173.06	198.27	6.916		
8,400.00	8,340.65	8,299.34	8,338.26	30.66	170.24	55.94	-351.68	2,032.59	1,364.40	1,163.77	200.63	6.801		
8,500.00	8,439.88	8,396.40	8,435.33	31.03	172.22	56.38	-352.14	2,032.59	1,357.70	1,154.72	202.98	6.689		
8,600.00	8,539.10	8,500.22	8,539.10	31.40	174.35	56.84	-352.21	2,032.59	1,350.86	1,145.40	205.46	6.575		
8,700.00	8,638.33	8,599.29	8,638.17	31.77	176.37	57.25	-351.40	2,032.59	1,343.61	1,135.76	207.86	6.464		
8,800.00	8,737.55	8,695.18	8,734.05	32.14	178.33	57.69	-351.63	2,032.59	1,337.03	1,126.85	210.18	6.361		
8,900.00	8,836.78	8,797.94	8,836.78	32.51	180.43	58.17	-352.21	2,032.59	1,330.73	1,118.08	212.65	6.258		
9,000.00	8,936.08	8,897.24	8,936.08	32.87	182.46	58.64	-352.21	2,032.59	1,325.62	1,110.58	215.04	6.164		
9,028.64	8,964.56	8,925.72	8,964.56	32.97	183.05	90.00	-352.21	2,032.59	1,325.33	1,109.61	215.73	6.144	CC, ES	
9,100.00	9,035.51	8,996.67	9,035.51	33.23	184.50	116.04	-352.21	2,032.59	1,327.13	1,109.70	217.43	6.104		
9,200.00	9,134.12	9,093.49	9,132.32	33.58	186.48	125.76	-351.55	2,032.59	1,336.02	1,116.26	219.75	6.080	SF	
9,300.00	9,228.64	9,185.80	9,224.63	33.93	188.37	125.19	-351.88	2,032.59	1,355.69	1,133.72	221.97	6.107		
9,400.00	9,316.12	9,277.33	9,316.12	34.26	190.26	124.18	-352.21	2,032.59	1,385.87	1,161.69	224.18	6.182		
9,500.00	9,393.91	9,355.12	9,393.91	34.55	191.92	122.29	-352.21	2,032.59	1,426.35	1,200.23	226.12	6.308		
9,600.00	9,459.64	9,420.85	9,459.64	34.79	193.31	119.17	-352.21	2,032.59	1,476.98	1,249.21	227.77	6.484		
9,700.00	9,511.32	9,472.53	9,511.32	34.99	194.41	114.34	-352.21	2,032.59	1,536.98	1,307.89	229.09	6.709		
9,800.00	9,547.36	9,508.04	9,546.82	35.14	195.17	107.16	-351.12	2,032.59	1,604.18	1,374.17	230.02	6.974		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - (O) Bryan 001 - OH - OH

Survey Program:		150-INC-ONLY		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Site Error:
Measured Reference	Vertical	Measured	Vertical	Reference	Offset	Highside	+N/-S	+E/-W	Between	Between	Minimum	Separation	Warning	
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	(usft)	(usft)	Toolface (°)	(usft)	(usft)	Centres (usft)	Ellipses (usft)	Separation (usft)	Factor		
9,900.00	9,566.69	9,526.50	9,565.28	35.27	195.56	97.28	-351.14	2,032.59	1,678.32	1,447.78	230.54	7.280		
10,000.00	9,570.00	9,529.55	9,568.33	35.39	195.62	89.91	-351.14	2,032.59	1,756.30	1,525.58	230.71	7.612		
10,100.00	9,570.00	9,529.44	9,568.22	35.54	195.62	89.90	-351.14	2,032.59	1,836.49	1,605.68	230.81	7.957		
10,200.00	9,570.00	9,529.33	9,568.10	35.71	195.62	89.90	-351.14	2,032.59	1,918.54	1,687.64	230.90	8.309		
10,300.00	9,570.00	9,529.21	9,567.99	35.91	195.62	89.89	-351.14	2,032.59	2,002.22	1,771.23	230.99	8.668		
10,400.00	9,570.00	9,529.10	9,567.88	36.12	195.61	89.89	-351.14	2,032.59	2,087.34	1,856.27	231.07	9.033		
10,500.00	9,570.00	9,528.99	9,567.77	36.34	195.61	89.88	-351.14	2,032.59	2,173.73	1,942.58	231.15	9.404		
10,600.00	9,570.00	9,528.88	9,567.65	36.58	195.61	89.87	-351.14	2,032.59	2,261.24	2,030.01	231.23	9.779		
10,700.00	9,570.00	9,528.77	9,567.54	36.84	195.61	89.87	-351.14	2,032.59	2,349.75	2,118.44	231.31	10.159		
10,800.00	9,570.00	9,528.66	9,567.44	37.11	195.60	89.86	-351.14	2,032.59	2,439.15	2,207.77	231.38	10.542		
10,900.00	9,570.00	9,528.55	9,567.33	37.39	195.60	89.86	-351.14	2,032.59	2,529.33	2,297.89	231.45	10.928		
11,000.00	9,570.00	9,528.44	9,567.22	37.69	195.60	89.85	-351.14	2,032.59	2,620.24	2,388.72	231.51	11.318		
11,100.00	9,570.00	9,528.34	9,567.11	38.00	195.60	89.85	-351.14	2,032.59	2,711.78	2,480.20	231.58	11.710		
11,200.00	9,570.00	9,528.23	9,567.01	38.32	195.60	89.84	-351.14	2,032.59	2,803.90	2,572.26	231.64	12.105		
11,300.00	9,570.00	9,528.12	9,566.90	38.66	195.59	89.83	-351.14	2,032.59	2,896.54	2,664.84	231.70	12.501		
11,400.00	9,570.00	9,528.02	9,566.79	39.00	195.59	89.83	-351.14	2,032.59	2,989.66	2,757.90	231.76	12.900		
11,500.00	9,570.00	9,527.91	9,566.69	39.36	195.59	89.82	-351.14	2,032.59	3,083.21	2,851.39	231.81	13.300		
11,600.00	9,570.00	9,527.81	9,566.59	39.73	195.59	89.82	-351.14	2,032.59	3,177.15	2,945.28	231.87	13.702		
11,700.00	9,570.00	9,527.71	9,566.48	40.11	195.58	89.81	-351.14	2,032.59	3,271.45	3,039.52	231.93	14.106		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - (O) Rock Steady State #1 - OH - OH

Survey Program:		12000-INC-ONLY		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Site Error:
Measured Reference Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
29,700.00	9,570.00	9,672.70	9,570.00	162.22	168.82	-90.00	23,669.33	-700.38	3,292.08	3,034.61	257.47	12.786		
29,800.00	9,570.00	9,672.70	9,570.00	162.97	168.82	-90.00	23,669.33	-700.38	3,202.71	2,943.36	259.35	12.349		
29,900.00	9,570.00	9,672.70	9,570.00	163.72	168.82	-90.00	23,669.33	-700.38	3,113.98	2,852.64	261.34	11.916		
30,000.00	9,570.00	9,672.70	9,570.00	164.48	168.82	-90.00	23,669.33	-700.38	3,025.96	2,762.52	263.44	11.486		
30,100.00	9,570.00	9,672.70	9,570.00	165.23	168.82	-90.00	23,669.33	-700.38	2,938.71	2,673.04	265.67	11.062		
30,200.00	9,570.00	9,672.70	9,570.00	165.98	168.82	-90.00	23,669.33	-700.38	2,852.29	2,584.27	268.02	10.642		
30,264.95	9,570.00	9,672.70	9,570.00	166.47	168.82	-90.00	23,669.33	-700.38	2,796.65	2,527.03	269.62	10.373	CC, ES, SF	

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - (O) State Brine #1 - P&A - OH - OH

Survey Program:		12200-2 Assumed Vertical		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Warning
Measured Reference Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
16,800.00	9,570.00	9,649.80	9,570.00	68.68	293.05	90.00	10,143.66	3,253.32	3,306.94	2,960.05	346.89	9.533		
16,900.00	9,570.00	9,649.80	9,570.00	69.34	293.05	90.00	10,143.66	3,253.32	3,238.39	2,890.38	348.01	9.305		
17,000.00	9,570.00	9,649.80	9,570.00	70.01	293.05	90.00	10,143.66	3,253.32	3,171.51	2,822.33	349.18	9.083		
17,100.00	9,570.00	9,649.80	9,570.00	70.68	293.05	90.00	10,143.66	3,253.32	3,106.40	2,756.01	350.40	8.865		
17,200.00	9,570.00	9,649.80	9,570.00	71.35	293.05	90.00	10,143.66	3,253.32	3,043.19	2,691.53	351.66	8.654		
17,300.00	9,570.00	9,649.80	9,570.00	72.02	293.05	90.00	10,143.66	3,253.32	2,982.00	2,629.03	352.97	8.448		
17,400.00	9,570.00	9,649.80	9,570.00	72.69	293.05	90.00	10,143.66	3,253.32	2,922.94	2,568.62	354.33	8.249		
17,500.00	9,570.00	9,649.80	9,570.00	73.37	293.05	90.00	10,143.66	3,253.32	2,866.16	2,510.44	355.72	8.057		
17,600.00	9,570.00	9,649.80	9,570.00	74.05	293.05	90.00	10,143.66	3,253.32	2,811.79	2,454.64	357.15	7.873		
17,700.00	9,570.00	9,649.80	9,570.00	74.73	293.05	90.00	10,143.66	3,253.32	2,759.98	2,401.36	358.61	7.696		
17,800.00	9,570.00	9,649.80	9,570.00	75.41	293.05	90.00	10,143.66	3,253.32	2,710.86	2,350.76	360.10	7.528		
17,900.00	9,570.00	9,649.80	9,570.00	76.09	293.05	90.00	10,143.66	3,253.32	2,664.59	2,302.98	361.61	7.369		
18,000.00	9,570.00	9,649.80	9,570.00	76.78	293.05	90.00	10,143.66	3,253.32	2,621.32	2,258.20	363.12	7.219		
18,100.00	9,570.00	9,649.80	9,570.00	77.46	293.05	90.00	10,143.66	3,253.32	2,581.20	2,216.57	364.64	7.079		
18,200.00	9,570.00	9,649.80	9,570.00	78.15	293.05	90.00	10,143.66	3,253.32	2,544.39	2,178.24	366.14	6.949		
18,300.00	9,570.00	9,649.80	9,570.00	78.84	293.05	90.00	10,143.66	3,253.32	2,511.01	2,143.38	367.63	6.830		
18,400.00	9,570.00	9,649.80	9,570.00	79.53	293.05	90.00	10,143.66	3,253.32	2,481.22	2,112.14	369.08	6.723		
18,500.00	9,570.00	9,649.80	9,570.00	80.22	293.05	90.00	10,143.66	3,253.32	2,455.15	2,084.66	370.49	6.627		
18,600.00	9,570.00	9,649.80	9,570.00	80.92	293.05	90.00	10,143.66	3,253.32	2,432.91	2,061.06	371.84	6.543		
18,700.00	9,570.00	9,649.80	9,570.00	81.61	293.05	90.00	10,143.66	3,253.32	2,414.61	2,041.48	373.13	6.471		
18,800.00	9,570.00	9,649.80	9,570.00	82.31	293.05	90.00	10,143.66	3,253.32	2,400.34	2,026.01	374.33	6.412		
18,900.00	9,570.00	9,649.80	9,570.00	83.01	293.05	90.00	10,143.66	3,253.32	2,390.17	2,014.72	375.44	6.366		
19,000.00	9,570.00	9,649.80	9,570.00	83.70	293.05	90.00	10,143.66	3,253.32	2,384.15	2,007.70	376.46	6.333		
19,093.57	9,570.00	9,649.80	9,570.00	84.36	293.05	90.00	10,143.66	3,253.32	2,382.32	2,005.01	377.31	6.314	CC	
19,100.00	9,570.00	9,649.80	9,570.00	84.40	293.05	90.00	10,143.66	3,253.32	2,382.33	2,004.96	377.36	6.313	ES	
19,200.00	9,570.00	9,649.80	9,570.00	85.11	293.05	90.00	10,143.66	3,253.32	2,384.69	2,006.54	378.15	6.306	SF	
19,300.00	9,570.00	9,649.80	9,570.00	85.81	293.05	90.00	10,143.66	3,253.32	2,391.24	2,012.42	378.83	6.312		
19,400.00	9,570.00	9,649.80	9,570.00	86.51	293.05	90.00	10,143.66	3,253.32	2,401.94	2,022.56	379.38	6.331		
19,500.00	9,570.00	9,649.80	9,570.00	87.22	293.05	90.00	10,143.66	3,253.32	2,416.74	2,036.92	379.81	6.363		
19,600.00	9,570.00	9,649.80	9,570.00	87.92	293.05	90.00	10,143.66	3,253.32	2,435.55	2,055.42	380.13	6.407		
19,700.00	9,570.00	9,649.80	9,570.00	88.63	293.05	90.00	10,143.66	3,253.32	2,458.29	2,077.96	380.33	6.464		
19,800.00	9,570.00	9,649.80	9,570.00	89.34	293.05	90.00	10,143.66	3,253.32	2,484.85	2,104.42	380.43	6.532		
19,900.00	9,570.00	9,649.80	9,570.00	90.05	293.05	90.00	10,143.66	3,253.32	2,515.11	2,134.69	380.42	6.611		
20,000.00	9,570.00	9,649.80	9,570.00	90.76	293.05	90.00	10,143.66	3,253.32	2,548.93	2,168.62	380.32	6.702		
20,100.00	9,570.00	9,649.80	9,570.00	91.47	293.05	90.00	10,143.66	3,253.32	2,586.18	2,206.05	380.13	6.803		
20,200.00	9,570.00	9,649.80	9,570.00	92.18	293.05	90.00	10,143.66	3,253.32	2,626.72	2,246.85	379.86	6.915		
20,300.00	9,570.00	9,649.80	9,570.00	92.89	293.05	90.00	10,143.66	3,253.32	2,670.38	2,290.85	379.53	7.036		
20,400.00	9,570.00	9,649.80	9,570.00	93.60	293.05	90.00	10,143.66	3,253.32	2,717.02	2,337.89	379.14	7.166		
20,500.00	9,570.00	9,649.80	9,570.00	94.32	293.05	90.00	10,143.66	3,253.32	2,766.49	2,387.80	378.69	7.305		
20,600.00	9,570.00	9,649.80	9,570.00	95.03	293.05	90.00	10,143.66	3,253.32	2,818.65	2,440.45	378.20	7.453		
20,700.00	9,570.00	9,649.80	9,570.00	95.75	293.05	90.00	10,143.66	3,253.32	2,873.34	2,495.66	377.68	7.608		
20,800.00	9,570.00	9,649.80	9,570.00	96.47	293.05	90.00	10,143.66	3,253.32	2,930.42	2,553.29	377.12	7.770		
20,900.00	9,570.00	9,649.80	9,570.00	97.19	293.05	90.00	10,143.66	3,253.32	2,989.76	2,613.21	376.55	7.940		
21,000.00	9,570.00	9,649.80	9,570.00	97.90	293.05	90.00	10,143.66	3,253.32	3,051.22	2,675.26	375.96	8.116		
21,100.00	9,570.00	9,649.80	9,570.00	98.62	293.05	90.00	10,143.66	3,253.32	3,114.68	2,739.32	375.36	8.298		
21,200.00	9,570.00	9,649.80	9,570.00	99.34	293.05	90.00	10,143.66	3,253.32	3,180.02	2,805.27	374.75	8.486		
21,300.00	9,570.00	9,649.80	9,570.00	100.06	293.05	90.00	10,143.66	3,253.32	3,247.12	2,872.99	374.13	8.679		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - (O) State-Lea I 1-36 - P&A - OH - OH **Offset Site Error:** 0.00 usft

Survey Program:		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:				Warning	
Reference	Measured	Vertical	Reference	Offset	Reference		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
18,100.00	9,570.00	9,654.10	9,570.00	77.46	183.24	-90.00	11,789.63	-1,070.69	3,298.03	3,057.32	240.71	13.701		
18,200.00	9,570.00	9,654.10	9,570.00	78.15	183.24	-90.00	11,789.63	-1,070.69	3,217.42	2,975.62	241.80	13.306		
18,300.00	9,570.00	9,654.10	9,570.00	78.84	183.24	-90.00	11,789.63	-1,070.69	3,137.92	2,894.98	242.94	12.916		
18,400.00	9,570.00	9,654.10	9,570.00	79.53	183.24	-90.00	11,789.63	-1,070.69	3,059.63	2,815.49	244.14	12.532		
18,500.00	9,570.00	9,654.10	9,570.00	80.22	183.24	-90.00	11,789.63	-1,070.69	2,982.64	2,737.24	245.40	12.154		
18,600.00	9,570.00	9,654.10	9,570.00	80.92	183.24	-90.00	11,789.63	-1,070.69	2,907.05	2,660.33	246.71	11.783		
18,700.00	9,570.00	9,654.10	9,570.00	81.61	183.24	-90.00	11,789.63	-1,070.69	2,832.97	2,584.88	248.09	11.419		
18,800.00	9,570.00	9,654.10	9,570.00	82.31	183.24	-90.00	11,789.63	-1,070.69	2,760.52	2,510.99	249.53	11.063		
18,900.00	9,570.00	9,654.10	9,570.00	83.01	183.24	-90.00	11,789.63	-1,070.69	2,689.85	2,438.82	251.03	10.715		
19,000.00	9,570.00	9,654.10	9,570.00	83.70	183.24	-90.00	11,789.63	-1,070.69	2,621.08	2,368.50	252.59	10.377		
19,100.00	9,570.00	9,654.10	9,570.00	84.40	183.24	-90.00	11,789.63	-1,070.69	2,554.38	2,300.18	254.20	10.049		
19,200.00	9,570.00	9,654.10	9,570.00	85.11	183.24	-90.00	11,789.63	-1,070.69	2,489.91	2,234.04	255.87	9.731		
19,300.00	9,570.00	9,654.10	9,570.00	85.81	183.24	-90.00	11,789.63	-1,070.69	2,427.85	2,170.26	257.58	9.426		
19,400.00	9,570.00	9,654.10	9,570.00	86.51	183.24	-90.00	11,789.63	-1,070.69	2,368.38	2,109.04	259.34	9.132		
19,500.00	9,570.00	9,654.10	9,570.00	87.22	183.24	-90.00	11,789.63	-1,070.69	2,311.71	2,050.59	261.12	8.853		
19,600.00	9,570.00	9,654.10	9,570.00	87.92	183.24	-90.00	11,789.63	-1,070.69	2,258.05	1,995.12	262.93	8.588		
19,700.00	9,570.00	9,654.10	9,570.00	88.63	183.24	-90.00	11,789.63	-1,070.69	2,207.62	1,942.87	264.75	8.339		
19,800.00	9,570.00	9,654.10	9,570.00	89.34	183.24	-90.00	11,789.63	-1,070.69	2,160.64	1,894.09	266.55	8.106		
19,900.00	9,570.00	9,654.10	9,570.00	90.05	183.24	-90.00	11,789.63	-1,070.69	2,117.35	1,849.01	268.33	7.891		
20,000.00	9,570.00	9,654.10	9,570.00	90.76	183.24	-90.00	11,789.63	-1,070.69	2,077.97	1,807.90	270.07	7.694		
20,100.00	9,570.00	9,654.10	9,570.00	91.47	183.24	-90.00	11,789.63	-1,070.69	2,042.73	1,771.00	271.73	7.517		
20,200.00	9,570.00	9,654.10	9,570.00	92.18	183.24	-90.00	11,789.63	-1,070.69	2,011.85	1,738.54	273.30	7.361		
20,300.00	9,570.00	9,654.10	9,570.00	92.89	183.24	-90.00	11,789.63	-1,070.69	1,985.53	1,710.77	274.76	7.226		
20,400.00	9,570.00	9,654.10	9,570.00	93.60	183.24	-90.00	11,789.63	-1,070.69	1,963.95	1,687.88	276.08	7.114		
20,500.00	9,570.00	9,654.10	9,570.00	94.32	183.24	-90.00	11,789.63	-1,070.69	1,947.28	1,670.05	277.23	7.024		
20,600.00	9,570.00	9,654.10	9,570.00	95.03	183.24	-90.00	11,789.63	-1,070.69	1,935.63	1,657.43	278.21	6.958		
20,700.00	9,570.00	9,654.10	9,570.00	95.75	183.24	-90.00	11,789.63	-1,070.69	1,929.11	1,650.13	278.99	6.915		
20,776.06	9,570.00	9,654.10	9,570.00	96.30	183.24	-90.00	11,789.63	-1,070.69	1,927.61	1,648.17	279.44	6.898	CC, ES	
20,800.00	9,570.00	9,654.10	9,570.00	96.47	183.24	-90.00	11,789.63	-1,070.69	1,927.76	1,648.20	279.56	6.896	SF	
20,900.00	9,570.00	9,654.10	9,570.00	97.19	183.24	-90.00	11,789.63	-1,070.69	1,931.59	1,651.67	279.92	6.901		
21,000.00	9,570.00	9,654.10	9,570.00	97.90	183.24	-90.00	11,789.63	-1,070.69	1,940.58	1,660.51	280.07	6.929		
21,100.00	9,570.00	9,654.10	9,570.00	98.62	183.24	-90.00	11,789.63	-1,070.69	1,954.64	1,674.63	280.01	6.981		
21,200.00	9,570.00	9,654.10	9,570.00	99.34	183.24	-90.00	11,789.63	-1,070.69	1,973.68	1,693.92	279.76	7.055		
21,300.00	9,570.00	9,654.10	9,570.00	100.06	183.24	-90.00	11,789.63	-1,070.69	1,997.55	1,718.23	279.32	7.152		
21,400.00	9,570.00	9,654.10	9,570.00	100.79	183.24	-90.00	11,789.63	-1,070.69	2,026.08	1,747.36	278.71	7.269		
21,500.00	9,570.00	9,654.10	9,570.00	101.51	183.24	-90.00	11,789.63	-1,070.69	2,059.07	1,781.11	277.96	7.408		
21,600.00	9,570.00	9,654.10	9,570.00	102.23	183.24	-90.00	11,789.63	-1,070.69	2,096.32	1,819.23	277.09	7.566		
21,700.00	9,570.00	9,654.10	9,570.00	102.95	183.24	-90.00	11,789.63	-1,070.69	2,137.60	1,861.50	276.11	7.742		
21,800.00	9,570.00	9,654.10	9,570.00	103.68	183.24	-90.00	11,789.63	-1,070.69	2,182.69	1,907.65	275.04	7.936		
21,900.00	9,570.00	9,654.10	9,570.00	104.40	183.24	-90.00	11,789.63	-1,070.69	2,231.35	1,957.44	273.91	8.146		
22,000.00	9,570.00	9,654.10	9,570.00	105.13	183.24	-90.00	11,789.63	-1,070.69	2,283.36	2,010.62	272.74	8.372		
22,100.00	9,570.00	9,654.10	9,570.00	105.86	183.24	-90.00	11,789.63	-1,070.69	2,338.48	2,066.95	271.54	8.612		
22,200.00	9,570.00	9,654.10	9,570.00	106.58	183.24	-90.00	11,789.63	-1,070.69	2,396.52	2,126.20	270.31	8.866		
22,300.00	9,570.00	9,654.10	9,570.00	107.31	183.24	-90.00	11,789.63	-1,070.69	2,457.25	2,188.16	269.09	9.132		
22,400.00	9,570.00	9,654.10	9,570.00	108.04	183.24	-90.00	11,789.63	-1,070.69	2,520.49	2,252.62	267.87	9.409		
22,500.00	9,570.00	9,654.10	9,570.00	108.77	183.24	-90.00	11,789.63	-1,070.69	2,586.05	2,319.38	266.67	9.698		
22,600.00	9,570.00	9,654.10	9,570.00	109.50	183.24	-90.00	11,789.63	-1,070.69	2,653.76	2,388.28	265.49	9.996		
22,700.00	9,570.00	9,654.10	9,570.00	110.22	183.24	-90.00	11,789.63	-1,070.69	2,723.46	2,459.13	264.33	10.303		
22,800.00	9,570.00	9,654.10	9,570.00	110.96	183.24	-90.00	11,789.63	-1,070.69	2,795.00	2,531.79	263.21	10.619		
22,900.00	9,570.00	9,654.10	9,570.00	111.69	183.24	-90.00	11,789.63	-1,070.69	2,868.24	2,606.12	262.12	10.942		
23,000.00	9,570.00	9,654.10	9,570.00	112.42	183.24	-90.00	11,789.63	-1,070.69	2,943.06	2,681.99	261.07	11.273		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - (O) State-Lea I 1-36 - P&A - OH - OH

Survey Program:		103-INC-ONLY		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Site Error:
Measured Reference Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
23,100.00	9,570.00	9,654.10	9,570.00	113.15	183.24	-90.00	11,789.63	-1,070.69	3,019.34	2,759.28	260.06	11.610	0.00 usft	
23,200.00	9,570.00	9,654.10	9,570.00	113.88	183.24	-90.00	11,789.63	-1,070.69	3,096.96	2,837.88	259.08	11.954	0.00 usft	
23,300.00	9,570.00	9,654.10	9,570.00	114.61	183.24	-90.00	11,789.63	-1,070.69	3,175.84	2,917.69	258.15	12.302		
23,400.00	9,570.00	9,654.10	9,570.00	115.35	183.24	-90.00	11,789.63	-1,070.69	3,255.88	2,998.62	257.25	12.656		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - Sombrero State Com 221H - OH - Plan #1

Survey Program:		0-MWD+IFR1+MS		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Warning
Reference	Vertical	Measured	Vertical	Reference	Offset	Highside	+N/-S	+E/-W	Between	Between	Minimum	Separation		
Depth	Depth	Depth	Depth	(usft)	(usft)	Toolface	(usft)	(usft)	Centres	Ellipses	Separation	Factor		
(usft)	(usft)	(usft)	(usft)			(°)			(usft)	(usft)	(usft)			
0.00	0.00	0.10	0.00	0.00	0.00	-90.21	-0.15	-40.00	40.00					
100.00	100.00	100.10	100.00	0.26	0.26	-90.21	-0.15	-40.00	40.00	39.47	0.53	75.857		
200.00	200.00	200.10	200.00	0.62	0.62	-90.21	-0.15	-40.00	40.00	38.76	1.24	32.148		
300.00	300.00	300.10	300.00	0.98	0.98	-90.21	-0.15	-40.00	40.00	38.04	1.96	20.396		
400.00	400.00	400.10	400.00	1.34	1.34	-90.21	-0.15	-40.00	40.00	37.32	2.68	14.936		
416.63	416.63	416.73	416.63	1.40	1.40	-90.21	-0.15	-40.00	40.00	37.20	2.80	14.299	CC	
500.00	500.00	500.00	499.90	1.70	1.70	-90.21	-0.15	-40.00	40.00	36.61	3.39	11.783	ES	
600.00	599.98	599.12	599.00	2.05	2.05	-156.03	1.15	-41.12	42.74	38.64	4.10	10.418		
700.00	699.84	697.80	697.55	2.41	2.41	-154.03	5.00	-44.46	50.97	46.16	4.81	10.603		
800.00	799.45	797.03	796.56	2.76	2.76	-153.08	9.90	-48.70	63.29	57.77	5.52	11.475		
900.00	898.74	895.88	895.20	3.12	3.11	-153.52	14.78	-52.93	78.41	72.19	6.23	12.596		
1,000.00	997.97	994.64	993.75	3.48	3.47	-154.02	19.66	-57.16	94.05	87.12	6.93	13.573		
1,100.00	1,097.19	1,093.41	1,092.31	3.84	3.82	-154.38	24.55	-61.39	109.68	102.05	7.64	14.364		
1,200.00	1,196.42	1,192.18	1,190.87	4.20	4.18	-154.65	29.43	-65.61	125.32	116.98	8.34	15.019		
1,300.00	1,295.65	1,290.95	1,289.42	4.56	4.53	-154.86	34.31	-69.84	140.96	131.91	9.05	15.568		
1,400.00	1,394.87	1,389.72	1,387.98	4.93	4.89	-155.02	39.19	-74.07	156.60	146.84	9.77	16.036		
1,500.00	1,494.10	1,488.48	1,486.54	5.29	5.24	-155.16	44.07	-78.30	172.25	161.77	10.48	16.439		
1,600.00	1,593.32	1,587.25	1,585.09	5.66	5.60	-155.27	48.95	-82.52	187.89	176.70	11.19	16.789		
1,700.00	1,692.55	1,686.02	1,683.65	6.02	5.95	-155.37	53.83	-86.75	203.54	191.63	11.91	17.097		
1,800.00	1,791.77	1,784.79	1,782.21	6.39	6.31	-155.45	58.71	-90.98	219.18	206.56	12.62	17.369		
1,900.00	1,891.00	1,883.56	1,880.76	6.75	6.66	-155.53	63.59	-95.20	234.83	221.49	13.33	17.611		
2,000.00	1,990.22	1,982.32	1,979.32	7.12	7.02	-155.59	68.47	-99.43	250.48	236.43	14.05	17.828		
2,100.00	2,089.45	2,081.09	2,077.88	7.48	7.38	-155.64	73.35	-103.66	266.12	251.36	14.76	18.024		
2,200.00	2,188.67	2,179.86	2,176.43	7.85	7.73	-155.69	78.23	-107.88	281.77	266.29	15.48	18.201		
2,300.00	2,287.90	2,278.63	2,274.99	8.22	8.09	-155.74	83.11	-112.11	297.42	281.22	16.20	18.363		
2,400.00	2,387.13	2,377.40	2,373.55	8.58	8.45	-155.78	87.99	-116.34	313.06	296.15	16.91	18.510		
2,500.00	2,486.35	2,476.16	2,472.10	8.95	8.80	-155.81	92.87	-120.57	328.71	311.08	17.63	18.645		
2,600.00	2,585.58	2,574.93	2,570.66	9.32	9.16	-155.85	97.76	-124.79	344.36	326.01	18.35	18.770		
2,700.00	2,684.80	2,673.70	2,669.22	9.69	9.51	-155.87	102.64	-129.02	360.00	340.94	19.06	18.885		
2,800.00	2,784.03	2,772.47	2,767.77	10.05	9.87	-155.90	107.52	-133.25	375.65	355.87	19.78	18.991		
2,900.00	2,883.25	2,871.24	2,866.33	10.42	10.23	-155.93	112.40	-137.47	391.30	370.80	20.50	19.090		
3,000.00	2,982.48	2,970.00	2,964.89	10.79	10.58	-155.95	117.28	-141.70	406.95	385.73	21.21	19.183		
3,100.00	3,081.70	3,068.77	3,063.45	11.15	10.94	-155.97	122.16	-145.93	422.60	400.66	21.93	19.269		
3,200.00	3,180.93	3,167.54	3,162.00	11.52	11.30	-155.99	127.04	-150.15	438.24	415.59	22.65	19.349		
3,300.00	3,280.15	3,266.31	3,260.56	11.89	11.65	-156.01	131.92	-154.38	453.89	430.52	23.37	19.425		
3,400.00	3,379.38	3,365.08	3,359.12	12.26	12.01	-156.03	136.80	-158.61	469.54	445.45	24.08	19.496		
3,500.00	3,478.61	3,463.84	3,457.67	12.62	12.37	-156.04	141.68	-162.84	485.19	460.38	24.80	19.562		
3,600.00	3,577.83	3,562.61	3,556.23	12.99	12.72	-156.06	146.56	-167.06	500.83	475.31	25.52	19.625		
3,700.00	3,677.06	3,661.38	3,654.79	13.36	13.08	-156.07	151.44	-171.29	516.48	490.24	26.24	19.685		
3,800.00	3,776.28	3,760.15	3,753.34	13.73	13.44	-156.09	156.32	-175.52	532.13	505.18	26.96	19.741		
3,900.00	3,875.51	3,858.92	3,851.90	14.09	13.79	-156.10	161.20	-179.74	547.78	520.11	27.67	19.794		
4,000.00	3,974.73	3,957.69	3,950.46	14.46	14.15	-156.11	166.09	-183.97	563.43	535.04	28.39	19.845		
4,100.00	4,073.96	4,056.45	4,049.01	14.83	14.51	-156.12	170.97	-188.20	579.07	549.97	29.11	19.893		
4,200.00	4,173.18	4,155.22	4,147.57	15.20	14.86	-156.13	175.85	-192.42	594.72	564.90	29.83	19.938		
4,300.00	4,272.41	4,253.99	4,246.13	15.56	15.22	-156.14	180.73	-196.65	610.37	579.83	30.55	19.982		
4,400.00	4,371.63	4,352.76	4,344.68	15.93	15.58	-156.15	185.61	-200.88	626.02	594.75	31.26	20.023		
4,500.00	4,470.86	4,451.53	4,443.24	16.30	15.93	-156.16	190.49	-205.11	641.67	609.68	31.98	20.063		
4,600.00	4,570.08	4,550.29	4,541.80	16.67	16.29	-156.17	195.37	-209.33	657.32	624.61	32.70	20.101		
4,700.00	4,669.31	4,649.06	4,640.35	17.04	16.65	-156.18	200.25	-213.56	672.96	639.54	33.42	20.137		
4,800.00	4,768.54	4,747.83	4,738.91	17.40	17.00	-156.19	205.13	-217.79	688.61	654.47	34.14	20.172		
4,900.00	4,867.76	4,846.60	4,837.47	17.77	17.36	-156.20	210.01	-222.01	704.26	669.40	34.86	20.205		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - Sombrero State Com 221H - OH - Plan #1

Survey Program: 0-MWD+IFR1+MS												Offset Site Error:	0.00 usft
Reference Offset												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance			Warning	
				Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		Separation Factor
5,000.00	4,966.99	4,945.37	4,936.02	18.14	17.72	-156.20	214.89	-226.24	719.91	684.33	35.57	20.236	
5,100.00	5,066.21	5,044.13	5,034.58	18.51	18.07	-156.21	219.77	-230.47	735.56	699.26	36.29	20.267	
5,200.00	5,165.44	5,142.90	5,133.14	18.88	18.43	-156.22	224.65	-234.69	751.21	714.19	37.01	20.296	
5,300.00	5,264.66	5,241.67	5,231.69	19.24	18.79	-156.22	229.53	-238.92	766.85	729.12	37.73	20.324	
5,400.00	5,363.89	5,340.44	5,330.25	19.61	19.14	-156.23	234.42	-243.15	782.50	744.05	38.45	20.351	
5,500.00	5,463.11	5,439.21	5,428.81	19.98	19.50	-156.23	239.30	-247.38	798.15	758.98	39.17	20.378	
5,600.00	5,562.34	5,537.97	5,527.36	20.35	19.86	-156.24	244.18	-251.60	813.80	773.91	39.89	20.403	
5,700.00	5,661.56	5,636.74	5,625.92	20.72	20.21	-156.25	249.06	-255.83	829.45	788.84	40.61	20.427	
5,800.00	5,760.79	5,735.51	5,724.48	21.08	20.57	-156.25	253.94	-260.06	845.09	803.77	41.32	20.450	
5,900.00	5,860.02	5,834.28	5,823.03	21.45	20.93	-156.26	258.82	-264.28	860.74	818.70	42.04	20.473	
6,000.00	5,959.24	5,933.05	5,921.59	21.82	21.28	-156.26	263.70	-268.51	876.39	833.63	42.76	20.494	
6,100.00	6,058.47	6,031.81	6,020.15	22.19	21.64	-156.27	268.58	-272.74	892.04	848.56	43.48	20.515	
6,200.00	6,157.69	6,130.58	6,118.70	22.56	22.00	-156.27	273.46	-276.96	907.69	863.49	44.20	20.536	
6,300.00	6,256.92	6,229.35	6,217.26	22.93	22.35	-156.27	278.34	-281.19	923.34	878.42	44.92	20.555	
6,400.00	6,356.14	6,328.12	6,315.82	23.29	22.71	-156.28	283.22	-285.42	938.98	893.35	45.64	20.574	
6,500.00	6,455.37	6,426.89	6,414.38	23.66	23.07	-156.28	288.10	-289.65	954.63	908.28	46.36	20.593	
6,600.00	6,554.59	6,525.65	6,512.93	24.03	23.42	-156.29	292.98	-293.87	970.28	923.20	47.08	20.611	
6,700.00	6,653.82	6,624.42	6,611.49	24.40	23.78	-156.29	297.86	-298.10	985.93	938.13	47.80	20.628	
6,800.00	6,753.04	6,723.19	6,710.05	24.77	24.14	-156.29	302.75	-302.33	1,001.58	953.06	48.52	20.645	
6,900.00	6,852.27	6,821.96	6,808.60	25.14	24.49	-156.30	307.63	-306.55	1,017.23	967.99	49.23	20.661	
7,000.00	6,951.50	6,920.73	6,907.16	25.50	24.85	-156.30	312.51	-310.78	1,032.87	982.92	49.95	20.677	
7,100.00	7,050.72	7,019.49	7,005.72	25.87	25.21	-156.31	317.39	-315.01	1,048.52	997.85	50.67	20.692	
7,200.00	7,149.95	7,118.26	7,104.27	26.24	25.56	-156.31	322.27	-319.23	1,064.17	1,012.78	51.39	20.707	
7,300.00	7,249.17	7,217.03	7,202.83	26.61	25.92	-156.31	327.15	-323.46	1,079.82	1,027.71	52.11	20.721	
7,400.00	7,348.40	7,315.80	7,301.39	26.98	26.28	-156.31	332.03	-327.69	1,095.47	1,042.64	52.83	20.735	
7,500.00	7,447.62	7,414.57	7,399.94	27.35	26.63	-156.32	336.91	-331.92	1,111.12	1,057.57	53.55	20.749	
7,600.00	7,546.85	7,513.33	7,498.50	27.71	26.99	-156.32	341.79	-336.14	1,126.77	1,072.49	54.27	20.762	
7,700.00	7,646.07	7,612.10	7,597.06	28.08	27.35	-156.32	346.67	-340.37	1,142.41	1,087.42	54.99	20.775	
7,800.00	7,745.30	7,710.87	7,695.61	28.45	27.70	-156.33	351.55	-344.60	1,158.06	1,102.35	55.71	20.787	
7,900.00	7,844.52	7,809.64	7,794.17	28.82	28.06	-156.33	356.43	-348.82	1,173.71	1,117.28	56.43	20.799	
8,000.00	7,943.75	7,908.41	7,892.73	29.19	28.42	-156.33	361.31	-353.05	1,189.36	1,132.21	57.15	20.811	
8,100.00	8,042.98	8,007.17	7,991.28	29.56	28.78	-156.33	366.19	-357.28	1,205.01	1,147.14	57.87	20.823	
8,200.00	8,142.20	8,105.94	8,089.84	29.92	29.13	-156.34	371.08	-361.51	1,220.66	1,162.07	58.59	20.834	
8,300.00	8,241.43	8,204.71	8,188.40	30.29	29.49	-156.34	375.96	-365.73	1,236.30	1,176.99	59.31	20.845	
8,400.00	8,340.65	8,303.48	8,286.95	30.66	29.85	-156.34	380.84	-369.96	1,251.95	1,191.92	60.03	20.856	
8,500.00	8,439.88	8,402.25	8,385.51	31.03	30.20	-156.34	385.72	-374.19	1,267.60	1,206.85	60.75	20.866	
8,600.00	8,539.10	8,501.01	8,484.07	31.40	30.56	-156.35	390.60	-378.41	1,283.25	1,221.78	61.47	20.876	
8,700.00	8,638.33	8,599.78	8,582.62	31.77	30.92	-156.35	395.48	-382.64	1,298.90	1,236.71	62.19	20.886	
8,800.00	8,737.55	8,698.55	8,681.18	32.14	31.27	-156.35	400.36	-386.87	1,314.55	1,251.64	62.91	20.896	
8,900.00	8,836.78	8,797.32	8,779.74	32.51	31.63	-156.35	405.24	-391.09	1,330.19	1,266.57	63.63	20.905	
9,000.00	8,936.08	8,896.25	8,878.46	32.87	31.99	-135.68	410.13	-395.33	1,344.65	1,280.30	64.35	20.897	
9,100.00	9,035.51	9,056.12	9,037.99	33.23	32.56	-99.35	418.61	-400.65	1,353.51	1,288.11	65.39	20.698	
9,200.00	9,134.12	9,151.27	9,131.90	33.58	32.91	-89.60	433.26	-400.78	1,353.83	1,287.76	66.07	20.492	
9,300.00	9,228.64	9,250.00	9,225.38	33.93	33.26	-89.62	464.65	-401.04	1,353.82	1,287.08	66.75	20.283	
9,345.44	9,269.43	9,294.44	9,265.41	34.08	33.40	-89.64	483.93	-401.20	1,353.82	1,286.78	67.04	20.193	
9,400.00	9,316.12	9,348.22	9,311.67	34.26	33.58	-89.66	511.32	-401.43	1,353.82	1,286.42	67.40	20.087	
9,500.00	9,393.91	9,446.90	9,389.06	34.55	33.86	-89.70	572.33	-401.95	1,353.81	1,285.80	68.01	19.905	
9,600.00	9,459.64	9,545.77	9,454.97	34.79	34.10	-89.75	645.87	-402.57	1,353.81	1,285.23	68.58	19.741	
9,700.00	9,511.32	9,644.87	9,507.38	34.99	34.30	-89.81	729.83	-403.28	1,353.80	1,284.72	69.09	19.595	
9,800.00	9,547.36	9,744.23	9,544.63	35.14	34.50	-89.88	821.79	-404.06	1,353.80	1,284.27	69.53	19.471	

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - Sombrero State Com 221H - OH - Plan #1

Survey Program: 0-MWD+IFR1+MS											Rule Assigned:		Offset Site Error:
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Offset Well Error:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			Warning
9,900.00	9,566.69	9,843.86	9,565.49	35.27	34.67	-89.95	919.09	-404.88	1,353.80	1,283.90	69.90	19.367	
10,000.00	9,570.00	9,943.77	9,569.90	35.39	34.82	-90.00	1,018.81	-405.73	1,353.80	1,283.60	70.20	19.285	
10,100.00	9,570.00	10,043.77	9,569.90	35.54	34.97	-90.00	1,118.81	-406.57	1,353.80	1,283.29	70.51	19.201	
10,200.00	9,570.00	10,143.77	9,569.90	35.71	35.13	-90.00	1,218.81	-407.42	1,353.80	1,282.95	70.84	19.110	
10,300.00	9,570.00	10,243.77	9,569.90	35.91	35.32	-90.00	1,318.80	-408.27	1,353.80	1,282.58	71.21	19.010	
10,400.00	9,570.00	10,343.77	9,569.90	36.12	35.52	-90.00	1,418.80	-409.11	1,353.80	1,282.18	71.61	18.904	
10,500.00	9,570.00	10,443.77	9,569.90	36.34	35.73	-90.00	1,518.79	-409.96	1,353.80	1,281.75	72.05	18.791	
10,600.00	9,570.00	10,543.77	9,569.90	36.58	35.96	-90.00	1,618.79	-410.80	1,353.80	1,281.29	72.51	18.671	
10,700.00	9,570.00	10,643.77	9,569.90	36.84	36.21	-90.00	1,718.79	-411.65	1,353.80	1,280.80	73.00	18.545	
10,800.00	9,570.00	10,743.77	9,569.90	37.11	36.47	-90.00	1,818.78	-412.50	1,353.80	1,280.28	73.52	18.414	
10,900.00	9,570.00	10,843.77	9,569.90	37.39	36.74	-90.00	1,918.78	-413.34	1,353.80	1,279.73	74.07	18.278	
11,000.00	9,570.00	10,943.77	9,569.90	37.69	37.03	-90.00	2,018.78	-414.19	1,353.80	1,279.15	74.64	18.137	
11,100.00	9,570.00	11,043.77	9,569.90	38.00	37.33	-90.00	2,118.77	-415.03	1,353.80	1,278.55	75.25	17.991	
11,200.00	9,570.00	11,143.77	9,569.90	38.32	37.65	-90.00	2,218.77	-415.88	1,353.80	1,277.92	75.88	17.842	
11,300.00	9,570.00	11,243.77	9,569.90	38.66	37.97	-90.00	2,318.77	-416.73	1,353.80	1,277.26	76.53	17.689	
11,400.00	9,570.00	11,343.77	9,569.90	39.00	38.31	-90.00	2,418.76	-417.57	1,353.80	1,276.58	77.21	17.533	
11,500.00	9,570.00	11,443.77	9,569.90	39.36	38.67	-90.00	2,518.76	-418.42	1,353.80	1,275.88	77.92	17.374	
11,600.00	9,570.00	11,543.77	9,569.90	39.73	39.03	-90.00	2,618.76	-419.26	1,353.80	1,275.15	78.65	17.213	
11,700.00	9,570.00	11,643.77	9,569.90	40.11	39.41	-90.00	2,718.75	-420.11	1,353.80	1,274.40	79.40	17.050	
11,800.00	9,570.00	11,743.77	9,569.90	40.50	39.79	-90.00	2,818.75	-420.96	1,353.80	1,273.62	80.17	16.886	
11,900.00	9,570.00	11,843.77	9,569.90	40.90	40.19	-90.00	2,918.74	-421.80	1,353.80	1,272.82	80.97	16.719	
12,000.00	9,570.00	11,943.77	9,569.90	41.31	40.60	-90.00	3,018.74	-422.65	1,353.80	1,272.01	81.79	16.552	
12,100.00	9,570.00	12,043.77	9,569.90	41.74	41.02	-90.00	3,118.74	-423.49	1,353.80	1,271.17	82.63	16.384	
12,200.00	9,570.00	12,143.77	9,569.90	42.17	41.45	-90.00	3,218.73	-424.34	1,353.80	1,270.31	83.49	16.216	
12,300.00	9,570.00	12,243.77	9,569.90	42.61	41.89	-90.00	3,318.73	-425.19	1,353.80	1,269.43	84.36	16.047	
12,400.00	9,570.00	12,343.77	9,569.90	43.06	42.34	-90.00	3,418.73	-426.03	1,353.80	1,268.54	85.26	15.878	
12,500.00	9,570.00	12,443.77	9,569.90	43.52	42.80	-90.00	3,518.72	-426.88	1,353.80	1,267.62	86.17	15.710	
12,600.00	9,570.00	12,543.77	9,569.90	43.99	43.26	-90.00	3,618.72	-427.72	1,353.80	1,266.69	87.11	15.542	
12,700.00	9,570.00	12,643.77	9,569.90	44.46	43.74	-90.00	3,718.72	-428.57	1,353.80	1,265.74	88.06	15.374	
12,800.00	9,570.00	12,743.77	9,569.90	44.94	44.22	-90.00	3,818.71	-429.42	1,353.80	1,264.77	89.02	15.208	
12,900.00	9,570.00	12,843.77	9,569.90	45.44	44.71	-90.00	3,918.71	-430.26	1,353.80	1,263.79	90.00	15.042	
13,000.00	9,570.00	12,943.77	9,569.90	45.94	45.21	-90.00	4,018.71	-431.11	1,353.80	1,262.80	91.00	14.877	
13,100.00	9,570.00	13,043.77	9,569.90	46.44	45.72	-90.00	4,118.70	-431.95	1,353.80	1,261.78	92.01	14.713	
13,200.00	9,570.00	13,143.77	9,569.90	46.95	46.23	-90.00	4,218.70	-432.80	1,353.80	1,260.76	93.04	14.551	
13,300.00	9,570.00	13,243.77	9,569.90	47.47	46.75	-90.00	4,318.69	-433.65	1,353.80	1,259.72	94.08	14.390	
13,400.00	9,570.00	13,343.77	9,569.90	48.00	47.28	-90.00	4,418.69	-434.49	1,353.80	1,258.66	95.13	14.230	
13,500.00	9,570.00	13,443.77	9,569.90	48.54	47.81	-90.00	4,518.69	-435.34	1,353.80	1,257.60	96.20	14.073	
13,600.00	9,570.00	13,543.77	9,569.90	49.07	48.35	-90.00	4,618.68	-436.18	1,353.80	1,256.52	97.28	13.916	
13,700.00	9,570.00	13,643.77	9,569.90	49.62	48.90	-90.00	4,718.68	-437.03	1,353.80	1,255.42	98.37	13.762	
13,800.00	9,570.00	13,743.77	9,569.90	50.17	49.45	-90.00	4,818.68	-437.88	1,353.80	1,254.32	99.48	13.609	
13,900.00	9,570.00	13,843.77	9,569.90	50.73	50.01	-90.00	4,918.67	-438.72	1,353.80	1,253.20	100.59	13.458	
14,000.00	9,570.00	13,943.77	9,569.90	51.29	50.58	-90.00	5,018.67	-439.57	1,353.80	1,252.08	101.72	13.309	
14,100.00	9,570.00	14,043.77	9,569.90	51.86	51.15	-90.00	5,118.67	-440.41	1,353.80	1,250.94	102.85	13.162	
14,200.00	9,570.00	14,143.77	9,569.90	52.43	51.72	-90.00	5,218.66	-441.26	1,353.80	1,249.79	104.00	13.017	
14,300.00	9,570.00	14,243.77	9,569.90	53.01	52.30	-90.00	5,318.66	-442.11	1,353.80	1,248.64	105.16	12.874	
14,400.00	9,570.00	14,343.77	9,569.90	53.59	52.88	-90.00	5,418.66	-442.95	1,353.80	1,247.47	106.33	12.732	
14,500.00	9,570.00	14,443.77	9,569.90	54.18	53.47	-90.00	5,518.65	-443.80	1,353.80	1,246.29	107.50	12.593	
14,600.00	9,570.00	14,543.77	9,569.90	54.77	54.07	-90.00	5,618.65	-444.64	1,353.80	1,245.11	108.69	12.456	
14,700.00	9,570.00	14,643.77	9,569.90	55.37	54.66	-90.00	5,718.64	-445.49	1,353.80	1,243.91	109.88	12.320	
14,800.00	9,570.00	14,743.77	9,569.90	55.97	55.27	-90.00	5,818.64	-446.34	1,353.80	1,242.71	111.09	12.187	
14,900.00	9,570.00	14,843.77	9,569.90	56.57	55.87	-90.00	5,918.64	-447.18	1,353.80	1,241.50	112.30	12.056	

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - Sombrero State Com 221H - OH - Plan #1

Survey Program: 0-MWD+IFR1+MS													Offset Site Error:	0.00 usft
Reference Offset													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:				Warning	
				Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,000.00	9,570.00	14,943.77	9,569.90	57.18	56.48	-90.00	6,018.63	-448.03	1,353.80	1,240.28	113.52	11.926		
15,100.00	9,570.00	15,043.77	9,569.90	57.79	57.10	-90.00	6,118.63	-448.87	1,353.80	1,239.05	114.74	11.799		
15,200.00	9,570.00	15,143.77	9,569.90	58.41	57.71	-90.00	6,218.63	-449.72	1,353.80	1,237.82	115.98	11.673		
15,300.00	9,570.00	15,243.77	9,569.90	59.03	58.34	-90.00	6,318.62	-450.57	1,353.80	1,236.58	117.22	11.549		
15,400.00	9,570.00	15,343.77	9,569.90	59.65	58.96	-90.00	6,418.62	-451.41	1,353.80	1,235.33	118.47	11.428		
15,500.00	9,570.00	15,443.77	9,569.90	60.27	59.59	-90.00	6,518.62	-452.26	1,353.80	1,234.07	119.72	11.308		
15,600.00	9,570.00	15,543.77	9,569.90	60.90	60.22	-90.00	6,618.61	-453.10	1,353.80	1,232.81	120.98	11.190		
15,700.00	9,570.00	15,643.77	9,569.90	61.54	60.86	-90.00	6,718.61	-453.95	1,353.80	1,231.54	122.25	11.074		
15,800.00	9,570.00	15,743.77	9,569.90	62.17	61.49	-90.00	6,818.61	-454.80	1,353.80	1,230.27	123.53	10.960		
15,900.00	9,570.00	15,843.77	9,569.90	62.81	62.13	-90.00	6,918.60	-455.64	1,353.80	1,228.99	124.81	10.847		
16,000.00	9,570.00	15,943.77	9,569.90	63.45	62.78	-90.00	7,018.60	-456.49	1,353.80	1,227.70	126.09	10.737		
16,100.00	9,570.00	16,043.77	9,569.90	64.10	63.42	-90.00	7,118.59	-457.33	1,353.80	1,226.41	127.38	10.628		
16,200.00	9,570.00	16,143.77	9,569.90	64.74	64.07	-90.00	7,218.59	-458.18	1,353.80	1,225.12	128.68	10.521		
16,300.00	9,570.00	16,243.77	9,569.90	65.39	64.73	-90.00	7,318.59	-459.03	1,353.80	1,223.81	129.98	10.415		
16,400.00	9,570.00	16,343.77	9,569.90	66.05	65.38	-90.00	7,418.58	-459.87	1,353.80	1,222.51	131.29	10.312		
16,500.00	9,570.00	16,443.77	9,569.90	66.70	66.04	-90.00	7,518.58	-460.72	1,353.80	1,221.19	132.60	10.209		
16,600.00	9,570.00	16,543.77	9,569.90	67.36	66.70	-90.00	7,618.58	-461.56	1,353.80	1,219.88	133.92	10.109		
16,700.00	9,570.00	16,643.77	9,569.90	68.02	67.36	-90.00	7,718.57	-462.41	1,353.79	1,218.55	135.24	10.010		
16,800.00	9,570.00	16,743.77	9,569.90	68.68	68.02	-90.00	7,818.57	-463.26	1,353.79	1,217.23	136.57	9.913		
16,900.00	9,570.00	16,843.77	9,569.90	69.34	68.69	-90.00	7,918.57	-464.10	1,353.79	1,215.90	137.90	9.817		
17,000.00	9,570.00	16,943.77	9,569.90	70.01	69.36	-90.00	8,018.56	-464.95	1,353.79	1,214.56	139.23	9.723		
17,100.00	9,570.00	17,043.77	9,569.90	70.68	70.03	-90.00	8,118.56	-465.79	1,353.79	1,213.22	140.57	9.631		
17,200.00	9,570.00	17,143.77	9,569.90	71.35	70.70	-90.00	8,218.56	-466.64	1,353.79	1,211.88	141.92	9.539		
17,300.00	9,570.00	17,243.77	9,569.90	72.02	71.37	-90.00	8,318.55	-467.49	1,353.79	1,210.53	143.26	9.450		
17,400.00	9,570.00	17,343.77	9,569.90	72.69	72.05	-90.00	8,418.55	-468.33	1,353.79	1,209.18	144.62	9.361		
17,500.00	9,570.00	17,443.77	9,569.90	73.37	72.73	-90.00	8,518.54	-469.18	1,353.79	1,207.82	145.97	9.274		
17,600.00	9,570.00	17,543.77	9,569.90	74.05	73.41	-90.00	8,618.54	-470.02	1,353.79	1,206.47	147.33	9.189		
17,700.00	9,570.00	17,643.77	9,569.90	74.73	74.09	-90.00	8,718.54	-470.87	1,353.79	1,205.10	148.69	9.105		
17,800.00	9,570.00	17,743.77	9,569.90	75.41	74.77	-90.00	8,818.53	-471.72	1,353.79	1,203.74	150.06	9.022		
17,900.00	9,570.00	17,843.77	9,569.90	76.09	75.46	-90.00	8,918.53	-472.56	1,353.79	1,202.37	151.43	8.940		
18,000.00	9,570.00	17,943.77	9,569.90	76.78	76.14	-90.00	9,018.53	-473.41	1,353.79	1,201.00	152.80	8.860		
18,100.00	9,570.00	18,043.77	9,569.90	77.46	76.83	-90.00	9,118.52	-474.26	1,353.79	1,199.62	154.17	8.781		
18,200.00	9,570.00	18,143.77	9,569.90	78.15	77.52	-90.00	9,218.52	-475.10	1,353.79	1,198.24	155.55	8.703		
18,300.00	9,570.00	18,243.77	9,569.90	78.84	78.21	-90.00	9,318.52	-475.95	1,353.79	1,196.86	156.93	8.627		
18,400.00	9,570.00	18,343.77	9,569.90	79.53	78.91	-90.00	9,418.51	-476.79	1,353.79	1,195.48	158.32	8.551		
18,500.00	9,570.00	18,443.77	9,569.90	80.22	79.60	-90.00	9,518.51	-477.64	1,353.79	1,194.09	159.70	8.477		
18,600.00	9,570.00	18,543.77	9,569.90	80.92	80.30	-90.00	9,618.51	-478.49	1,353.79	1,192.70	161.09	8.404		
18,700.00	9,570.00	18,643.77	9,569.90	81.61	80.99	-90.00	9,718.50	-479.33	1,353.79	1,191.31	162.49	8.332		
18,800.00	9,570.00	18,743.77	9,569.90	82.31	81.69	-90.00	9,818.50	-480.18	1,353.79	1,189.91	163.88	8.261		
18,900.00	9,570.00	18,843.77	9,569.90	83.01	82.39	-90.00	9,918.49	-481.02	1,353.79	1,188.52	165.28	8.191		
19,000.00	9,570.00	18,943.77	9,569.90	83.70	83.09	-90.00	10,018.49	-481.87	1,353.79	1,187.12	166.68	8.122		
19,100.00	9,570.00	19,043.77	9,569.90	84.40	83.79	-90.00	10,118.49	-482.72	1,353.79	1,185.71	168.08	8.054		
19,200.00	9,570.00	19,143.77	9,569.90	85.11	84.50	-90.00	10,218.48	-483.56	1,353.79	1,184.31	169.49	7.988		
19,300.00	9,570.00	19,243.77	9,569.90	85.81	85.20	-90.00	10,318.48	-484.41	1,353.79	1,182.90	170.89	7.922		
19,400.00	9,570.00	19,343.77	9,569.90	86.51	85.90	-90.00	10,418.48	-485.25	1,353.79	1,181.49	172.30	7.857		
19,500.00	9,570.00	19,443.77	9,569.90	87.22	86.61	-90.00	10,518.47	-486.10	1,353.79	1,180.08	173.72	7.793		
19,600.00	9,570.00	19,543.77	9,569.90	87.92	87.32	-90.00	10,618.47	-486.95	1,353.79	1,178.67	175.13	7.730		
19,700.00	9,570.00	19,643.77	9,569.90	88.63	88.03	-90.00	10,718.47	-487.79	1,353.79	1,177.25	176.54	7.668		
19,800.00	9,570.00	19,743.77	9,569.90	89.34	88.74	-90.00	10,818.46	-488.64	1,353.79	1,175.83	177.96	7.607		
19,900.00	9,570.00	19,843.77	9,569.90	90.05	89.45	-90.00	10,918.46	-489.48	1,353.79	1,174.41	179.38	7.547		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - Sombrero State Com 221H - OH - Plan #1

Survey Program:		0-MWD+IFR1+MS		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Site Error:	
Measured Reference	Vertical Offset	Measured	Vertical	Reference	Offset	Highside	+N/-S	+E/-W	Between	Between	Minimum	Separation	Warning
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	(usft)	(usft)	Toolface (°)	(usft)	(usft)	Centres (usft)	Ellipses (usft)	Separation (usft)	Factor	
20,000.00	9,570.00	19,943.77	9,569.90	90.76	90.16	-90.00	11,018.46	-490.33	1,353.79	1,172.99	180.81	7.488	
20,100.00	9,570.00	20,043.77	9,569.90	91.47	90.87	-90.00	11,118.45	-491.18	1,353.79	1,171.57	182.23	7.429	
20,200.00	9,570.00	20,143.77	9,569.90	92.18	91.58	-90.00	11,218.45	-492.02	1,353.79	1,170.14	183.65	7.371	
20,300.00	9,570.00	20,243.77	9,569.90	92.89	92.30	-90.00	11,318.44	-492.87	1,353.79	1,168.71	185.08	7.315	
20,400.00	9,570.00	20,343.77	9,569.90	93.60	93.01	-90.00	11,418.44	-493.71	1,353.79	1,167.28	186.51	7.258	
20,500.00	9,570.00	20,443.77	9,569.90	94.32	93.73	-90.00	11,518.44	-494.56	1,353.79	1,165.85	187.94	7.203	
20,600.00	9,570.00	20,543.77	9,569.90	95.03	94.45	-90.00	11,618.43	-495.41	1,353.79	1,164.42	189.38	7.149	
20,700.00	9,570.00	20,643.77	9,569.90	95.75	95.16	-90.00	11,718.43	-496.25	1,353.79	1,162.98	190.81	7.095	
20,800.00	9,570.00	20,743.77	9,569.90	96.47	95.88	-90.00	11,818.43	-497.10	1,353.79	1,161.55	192.25	7.042	
20,900.00	9,570.00	20,843.77	9,569.90	97.19	96.60	-90.00	11,918.42	-497.94	1,353.79	1,160.11	193.68	6.990	
21,000.00	9,570.00	20,943.77	9,569.90	97.90	97.32	-90.00	12,018.42	-498.79	1,353.79	1,158.67	195.12	6.938	
21,100.00	9,570.00	21,043.77	9,569.90	98.62	98.04	-90.00	12,118.42	-499.64	1,353.79	1,157.23	196.56	6.887	
21,200.00	9,570.00	21,143.77	9,569.90	99.34	98.76	-90.00	12,218.41	-500.48	1,353.79	1,155.79	198.01	6.837	
21,300.00	9,570.00	21,243.77	9,569.90	100.06	99.49	-90.00	12,318.41	-501.33	1,353.79	1,154.34	199.45	6.788	
21,400.00	9,570.00	21,343.77	9,569.90	100.79	100.21	-90.00	12,418.41	-502.17	1,353.79	1,152.90	200.89	6.739	
21,500.00	9,570.00	21,443.77	9,569.90	101.51	100.93	-90.00	12,518.40	-503.02	1,353.79	1,151.45	202.34	6.691	
21,600.00	9,570.00	21,543.77	9,569.90	102.23	101.66	-90.00	12,618.40	-503.87	1,353.79	1,150.00	203.79	6.643	
21,700.00	9,570.00	21,643.77	9,569.90	102.95	102.38	-90.00	12,718.39	-504.71	1,353.79	1,148.56	205.24	6.596	
21,800.00	9,570.00	21,743.77	9,569.90	103.68	103.11	-90.00	12,818.39	-505.56	1,353.79	1,147.11	206.69	6.550	
21,900.00	9,570.00	21,843.77	9,569.90	104.40	103.83	-90.00	12,918.39	-506.40	1,353.79	1,145.65	208.14	6.504	
22,000.00	9,570.00	21,943.77	9,569.90	105.13	104.56	-90.00	13,018.38	-507.25	1,353.79	1,144.20	209.59	6.459	
22,100.00	9,570.00	22,043.77	9,569.90	105.86	105.29	-90.00	13,118.38	-508.10	1,353.79	1,142.75	211.05	6.415	
22,200.00	9,570.00	22,143.77	9,569.90	106.58	106.02	-90.00	13,218.38	-508.94	1,353.79	1,141.29	212.50	6.371	
22,300.00	9,570.00	22,243.77	9,569.90	107.31	106.75	-90.00	13,318.37	-509.79	1,353.79	1,139.83	213.96	6.327	
22,400.00	9,570.00	22,343.77	9,569.90	108.04	107.47	-90.00	13,418.37	-510.63	1,353.79	1,138.38	215.42	6.285	
22,500.00	9,570.00	22,443.77	9,569.90	108.77	108.20	-90.00	13,518.37	-511.48	1,353.79	1,136.92	216.88	6.242	
22,600.00	9,570.00	22,543.77	9,569.90	109.50	108.93	-90.00	13,618.36	-512.33	1,353.79	1,135.46	218.34	6.201	
22,700.00	9,570.00	22,643.77	9,569.90	110.22	109.67	-90.00	13,718.36	-513.17	1,353.79	1,134.00	219.80	6.159	
22,800.00	9,570.00	22,743.77	9,569.90	110.96	110.40	-90.00	13,818.36	-514.02	1,353.79	1,132.53	221.26	6.119	
22,900.00	9,570.00	22,843.77	9,569.90	111.69	111.13	-90.00	13,918.35	-514.86	1,353.79	1,131.07	222.72	6.078	
23,000.00	9,570.00	22,943.77	9,569.90	112.42	111.86	-90.00	14,018.35	-515.71	1,353.79	1,129.61	224.19	6.039	
23,100.00	9,570.00	23,043.77	9,569.90	113.15	112.59	-90.00	14,118.34	-516.56	1,353.79	1,128.14	225.65	5.999	
23,200.00	9,570.00	23,143.77	9,569.90	113.88	113.33	-90.00	14,218.34	-517.40	1,353.79	1,126.68	227.12	5.961	
23,300.00	9,570.00	23,243.77	9,569.90	114.61	114.06	-90.00	14,318.34	-518.25	1,353.79	1,125.21	228.58	5.922	
23,400.00	9,570.00	23,343.77	9,569.90	115.35	114.80	-90.00	14,418.33	-519.09	1,353.79	1,123.74	230.05	5.885	
23,500.00	9,570.00	23,443.77	9,569.90	116.08	115.53	-90.00	14,518.33	-519.94	1,353.79	1,122.27	231.52	5.847	
23,600.00	9,570.00	23,543.77	9,569.90	116.81	116.27	-90.00	14,618.33	-520.79	1,353.79	1,120.80	232.99	5.810	
23,700.00	9,570.00	23,643.77	9,569.90	117.55	117.00	-90.00	14,718.32	-521.63	1,353.79	1,119.33	234.46	5.774	
23,800.00	9,570.00	23,743.77	9,569.90	118.28	117.74	-90.00	14,818.32	-522.48	1,353.79	1,117.86	235.93	5.738	
23,900.00	9,570.00	23,843.77	9,569.90	119.02	118.47	-90.00	14,918.32	-523.32	1,353.79	1,116.39	237.41	5.702	
24,000.00	9,570.00	23,943.77	9,569.90	119.76	119.21	-90.00	15,018.31	-524.17	1,353.79	1,114.91	238.88	5.667	
24,100.00	9,570.00	24,043.77	9,569.90	120.49	119.95	-90.00	15,118.31	-525.02	1,353.79	1,113.44	240.35	5.632	
24,200.00	9,570.00	24,143.77	9,569.90	121.23	120.69	-90.00	15,218.30	-525.86	1,353.79	1,111.96	241.83	5.598	
24,300.00	9,570.00	24,243.77	9,569.90	121.97	121.42	-90.00	15,318.30	-526.71	1,353.79	1,110.49	243.30	5.564	
24,400.00	9,570.00	24,343.77	9,569.90	122.70	122.16	-90.00	15,418.30	-527.55	1,353.79	1,109.01	244.78	5.531	
24,500.00	9,570.00	24,443.77	9,569.90	123.44	122.90	-90.00	15,518.29	-528.40	1,353.79	1,107.53	246.26	5.497	
24,600.00	9,570.00	24,543.77	9,569.90	124.18	123.64	-90.00	15,618.29	-529.25	1,353.79	1,106.06	247.74	5.465	
24,700.00	9,570.00	24,643.77	9,569.90	124.92	124.38	-90.00	15,718.29	-530.09	1,353.79	1,104.58	249.22	5.432	
24,800.00	9,570.00	24,743.77	9,569.90	125.66	125.12	-90.00	15,818.28	-530.94	1,353.79	1,103.10	250.70	5.400	
24,900.00	9,570.00	24,843.77	9,569.90	126.40	125.86	-90.00	15,918.28	-531.78	1,353.79	1,101.62	252.18	5.368	
25,000.00	9,570.00	24,943.77	9,569.90	127.14	126.60	-90.00	16,018.28	-532.63	1,353.79	1,100.14	253.66	5.337	

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - Sombrero State Com 221H - OH - Plan #1

Survey Program:		0-MWD+IFR1+MS		Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Site Error:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	Offset Well Error:		
25,100.00	9,570.00	25,043.77	9,569.90	127.88	127.34	-90.00	16,118.27	-533.48	1,353.79	1,098.65	255.14	5.306		0.00 usft		
25,200.00	9,570.00	25,143.77	9,569.90	128.62	128.08	-90.00	16,218.27	-534.32	1,353.79	1,097.17	256.62	5.275		0.00 usft		
25,300.00	9,570.00	25,243.77	9,569.90	129.36	128.83	-90.00	16,318.27	-535.17	1,353.79	1,095.69	258.10	5.245				
25,400.00	9,570.00	25,343.77	9,569.90	130.10	129.57	-90.00	16,418.26	-536.01	1,353.79	1,094.21	259.59	5.215				
25,500.00	9,570.00	25,443.77	9,569.90	130.84	130.31	-90.00	16,518.26	-536.86	1,353.79	1,092.72	261.07	5.186				
25,600.00	9,570.00	25,543.77	9,569.90	131.58	131.05	-90.00	16,618.25	-537.71	1,353.79	1,091.24	262.56	5.156				
25,700.00	9,570.00	25,643.77	9,569.90	132.33	131.80	-90.00	16,718.25	-538.55	1,353.79	1,089.75	264.04	5.127				
25,800.00	9,570.00	25,743.77	9,569.90	133.07	132.54	-90.00	16,818.25	-539.40	1,353.79	1,088.26	265.53	5.098				
25,900.00	9,570.00	25,843.77	9,569.90	133.81	133.28	-90.00	16,918.24	-540.24	1,353.79	1,086.78	267.01	5.070				
26,000.00	9,570.00	25,943.77	9,569.90	134.55	134.03	-90.00	17,018.24	-541.09	1,353.79	1,085.29	268.50	5.042				
26,100.00	9,570.00	26,043.77	9,569.90	135.30	134.77	-90.00	17,118.24	-541.94	1,353.79	1,083.80	269.99	5.014				
26,200.00	9,570.00	26,143.77	9,569.90	136.04	135.52	-90.00	17,218.23	-542.78	1,353.79	1,082.31	271.48	4.987				
26,300.00	9,570.00	26,243.77	9,569.90	136.78	136.26	-90.00	17,318.23	-543.63	1,353.79	1,080.82	272.97	4.960				
26,400.00	9,570.00	26,343.77	9,569.90	137.53	137.01	-90.00	17,418.23	-544.47	1,353.79	1,079.34	274.46	4.933				
26,500.00	9,570.00	26,443.77	9,569.90	138.27	137.75	-90.00	17,518.22	-545.32	1,353.79	1,077.85	275.95	4.906				
26,600.00	9,570.00	26,543.77	9,569.90	139.02	138.50	-90.00	17,618.22	-546.17	1,353.79	1,076.35	277.44	4.880				
26,700.00	9,570.00	26,643.77	9,569.90	139.76	139.24	-90.00	17,718.22	-547.01	1,353.79	1,074.86	278.93	4.854				
26,800.00	9,570.00	26,743.77	9,569.90	140.51	139.99	-90.00	17,818.21	-547.86	1,353.79	1,073.37	280.42	4.828				
26,900.00	9,570.00	26,843.77	9,569.90	141.25	140.74	-90.00	17,918.21	-548.71	1,353.79	1,071.88	281.91	4.802				
27,000.00	9,570.00	26,943.77	9,569.90	142.00	141.48	-90.00	18,018.20	-549.55	1,353.79	1,070.39	283.41	4.777				
27,100.00	9,570.00	27,043.77	9,569.90	142.75	142.23	-90.00	18,118.20	-550.40	1,353.79	1,068.89	284.90	4.752				
27,200.00	9,570.00	27,143.77	9,569.90	143.49	142.98	-90.00	18,218.20	-551.24	1,353.79	1,067.40	286.39	4.727				
27,300.00	9,570.00	27,243.77	9,569.90	144.24	143.72	-90.00	18,318.19	-552.09	1,353.79	1,065.90	287.89	4.703				
27,400.00	9,570.00	27,343.77	9,569.90	144.99	144.47	-90.00	18,418.19	-552.94	1,353.79	1,064.41	289.38	4.678				
27,500.00	9,570.00	27,443.77	9,569.90	145.73	145.22	-90.00	18,518.19	-553.78	1,353.79	1,062.92	290.88	4.654				
27,600.00	9,570.00	27,543.77	9,569.90	146.48	145.97	-90.00	18,618.18	-554.63	1,353.79	1,061.42	292.37	4.630				
27,700.00	9,570.00	27,643.77	9,569.90	147.23	146.71	-90.00	18,718.18	-555.47	1,353.79	1,059.92	293.87	4.607				
27,800.00	9,570.00	27,743.77	9,569.90	147.97	147.46	-90.00	18,818.18	-556.32	1,353.79	1,058.43	295.37	4.583				
27,900.00	9,570.00	27,843.77	9,569.90	148.72	148.21	-90.00	18,918.17	-557.17	1,353.79	1,056.93	296.86	4.560				
28,000.00	9,570.00	27,943.77	9,569.90	149.47	148.96	-90.00	19,018.17	-558.01	1,353.79	1,055.43	298.36	4.537				
28,100.00	9,570.00	28,043.77	9,569.90	150.22	149.71	-90.00	19,118.17	-558.86	1,353.79	1,053.93	299.86	4.515				
28,200.00	9,570.00	28,143.77	9,569.90	150.97	150.46	-90.00	19,218.16	-559.70	1,353.79	1,052.44	301.36	4.492				
28,300.00	9,570.00	28,243.77	9,569.90	151.72	151.21	-90.00	19,318.16	-560.55	1,353.79	1,050.94	302.85	4.470				
28,400.00	9,570.00	28,343.77	9,569.90	152.47	151.96	-90.00	19,418.15	-561.40	1,353.79	1,049.44	304.35	4.448				
28,500.00	9,570.00	28,443.77	9,569.90	153.22	152.71	-90.00	19,518.15	-562.24	1,353.79	1,047.94	305.85	4.426				
28,600.00	9,570.00	28,543.77	9,569.90	153.96	153.46	-90.00	19,618.15	-563.09	1,353.79	1,046.44	307.35	4.405				
28,700.00	9,570.00	28,643.77	9,569.90	154.71	154.21	-90.00	19,718.14	-563.93	1,353.79	1,044.94	308.85	4.383				
28,800.00	9,570.00	28,743.77	9,569.90	155.46	154.96	-90.00	19,818.14	-564.78	1,353.79	1,043.44	310.35	4.362				
28,900.00	9,570.00	28,843.77	9,569.90	156.21	155.71	-90.00	19,918.14	-565.63	1,353.79	1,041.94	311.85	4.341				
29,000.00	9,570.00	28,943.77	9,569.90	156.96	156.46	-90.00	20,018.13	-566.47	1,353.79	1,040.44	313.36	4.320				
29,100.00	9,570.00	29,043.77	9,569.90	157.71	157.21	-90.00	20,118.13	-567.32	1,353.79	1,038.93	314.86	4.300				
29,200.00	9,570.00	29,143.77	9,569.90	158.47	157.96	-90.00	20,218.13	-568.16	1,353.79	1,037.43	316.36	4.279				
29,300.00	9,570.00	29,243.77	9,569.90	159.22	158.71	-90.00	20,318.12	-569.01	1,353.79	1,035.93	317.86	4.259				
29,400.00	9,570.00	29,343.77	9,569.90	159.97	159.47	-90.00	20,418.12	-569.86	1,353.79	1,034.43	319.37	4.239				
29,500.00	9,570.00	29,443.77	9,569.90	160.72	160.22	-90.00	20,518.12	-570.70	1,353.79	1,032.92	320.87	4.219				
29,600.00	9,570.00	29,543.77	9,569.90	161.47	160.97	-90.00	20,618.11	-571.55	1,353.79	1,031.42	322.37	4.199				
29,700.00	9,570.00	29,643.77	9,569.90	162.22	161.72	-90.00	20,718.11	-572.39	1,353.79	1,029.92	323.88	4.180				
29,800.00	9,570.00	29,743.77	9,569.90	162.97	162.47	-90.00	20,818.10	-573.24	1,353.79	1,028.41	325.38	4.161				
29,900.00	9,570.00	29,843.77	9,569.90	163.72	163.23	-90.00	20,918.10	-574.09	1,353.79	1,026.91	326.88	4.142				
30,000.00	9,570.00	29,943.77	9,569.90	164.48	163.98	-90.00	21,018.10	-574.93	1,353.79	1,025.40	328.39	4.123				

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design:</b> Sun-Sombrero Pad - Sombrero State Com 221H - OH - Plan #1													<b>Offset Site Error:</b>	0.00 usft
Survey Program: 0-MWD+IFR1+MS													<b>Offset Well Error:</b>	0.00 usft
Reference Offset				Semi Major Axis		Highside		Offset Wellbore Centre		Distance			Rule Assigned:	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
30,100.00	9,570.00	30,043.77	9,569.90	165.23	164.73	-90.00	21,118.09	-575.78	1,353.79	1,023.90	329.89	4.104		
30,200.00	9,570.00	30,143.77	9,569.90	165.98	165.48	-90.00	21,218.09	-576.62	1,353.79	1,022.39	331.40	4.085		
30,264.95	9,570.00	30,208.72	9,569.90	166.47	165.97	-90.00	21,283.04	-577.17	1,353.79	1,021.41	332.38	4.073	SF	

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - Sombrero State Com 223H - OH - Plan #1

Survey Program: 0-MWD+IFR1+MS													Offset Site Error:	0.00 usft
Reference Offset													Offset Well Error:	0.00 usft
Measured Reference Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance				Warning	
				Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	11.00	0.00	0.00	89.79	9.66	2,612.81	2,612.85					
100.00	100.00	89.00	100.00	0.26	0.25	89.79	9.66	2,612.81	2,612.83	2,612.32		0.51	5,131.868	
200.00	200.00	189.00	200.00	0.62	0.60	89.79	9.66	2,612.81	2,612.83	2,611.61	1.22		2,146.921	
300.00	300.00	289.00	300.00	0.98	0.95	89.79	9.66	2,612.81	2,612.83	2,610.89	1.93		1,351.029	
400.00	400.00	389.00	400.00	1.34	1.31	89.79	9.66	2,612.81	2,612.83	2,610.18	2.65		985.639	
500.00	500.00	489.00	500.00	1.70	1.67	89.79	9.66	2,612.81	2,612.83	2,609.46	3.37		775.817	
600.00	599.98	679.21	690.09	2.05	2.35	23.06	14.32	2,609.69	2,609.68	2,605.28	4.40		593.111	
700.00	699.84	774.55	785.26	2.41	2.69	23.07	19.03	2,606.55	2,601.59	2,596.50	5.09		510.763	
800.00	799.45	873.89	884.43	2.76	3.05	23.12	23.94	2,603.26	2,590.30	2,584.50	5.80		446.298	
900.00	898.74	972.88	983.24	3.12	3.40	23.18	28.84	2,599.98	2,576.12	2,569.61	6.52		395.377	
1,000.00	997.97	1,071.79	1,081.98	3.48	3.76	23.18	33.74	2,596.71	2,561.43	2,554.21	7.22		354.719	
1,100.00	1,097.19	1,170.71	1,180.72	3.84	4.11	23.17	38.63	2,593.43	2,546.74	2,538.82	7.93		321.191	
1,200.00	1,196.42	1,269.62	1,279.46	4.20	4.47	23.17	43.53	2,590.16	2,532.05	2,523.42	8.64		293.097	
1,300.00	1,295.65	1,368.54	1,378.20	4.56	4.82	23.17	48.43	2,586.88	2,517.37	2,508.01	9.35		269.228	
1,400.00	1,394.87	1,467.45	1,476.94	4.93	5.18	23.17	53.32	2,583.61	2,502.68	2,492.61	10.06		248.707	
1,500.00	1,494.10	1,566.37	1,575.68	5.29	5.54	23.17	58.22	2,580.33	2,487.99	2,477.21	10.78		230.880	
1,600.00	1,593.32	1,665.28	1,674.42	5.66	5.89	23.16	63.11	2,577.06	2,473.30	2,461.81	11.49		215.252	
1,700.00	1,692.55	1,764.20	1,773.16	6.02	6.25	23.16	68.01	2,573.78	2,458.61	2,446.40	12.20		201.444	
1,800.00	1,791.77	1,863.12	1,871.90	6.39	6.60	23.16	72.91	2,570.51	2,443.92	2,431.00	12.92		189.156	
1,900.00	1,891.00	1,962.03	1,970.64	6.75	6.96	23.16	77.80	2,567.23	2,429.23	2,415.59	13.64		178.152	
2,000.00	1,990.22	2,060.95	2,069.38	7.12	7.32	23.16	82.70	2,563.96	2,414.54	2,400.19	14.35		168.241	
2,100.00	2,089.45	2,159.86	2,168.12	7.48	7.67	23.15	87.59	2,560.68	2,399.85	2,384.78	15.07		159.268	
2,200.00	2,188.67	2,258.78	2,266.86	7.85	8.03	23.15	92.49	2,557.41	2,385.16	2,369.37	15.78		151.107	
2,300.00	2,287.90	2,357.69	2,365.60	8.22	8.38	23.15	97.39	2,554.14	2,370.47	2,353.97	16.50		143.653	
2,400.00	2,387.13	2,456.61	2,464.34	8.58	8.74	23.15	102.28	2,550.86	2,355.78	2,338.56	17.22		136.818	
2,500.00	2,486.35	2,555.52	2,563.08	8.95	9.10	23.15	107.18	2,547.59	2,341.09	2,323.15	17.94		130.528	
2,600.00	2,585.58	2,654.44	2,661.82	9.32	9.45	23.14	112.07	2,544.31	2,326.40	2,307.75	18.65		124.721	
2,700.00	2,684.80	2,753.35	2,760.55	9.69	9.81	23.14	116.97	2,541.04	2,311.71	2,292.34	19.37		119.343	
2,800.00	2,784.03	2,852.27	2,859.29	10.05	10.17	23.14	121.87	2,537.76	2,297.02	2,276.93	20.09		114.348	
2,900.00	2,883.25	2,951.18	2,958.03	10.42	10.52	23.14	126.76	2,534.49	2,282.33	2,261.53	20.81		109.698	
3,000.00	2,982.48	3,050.10	3,056.77	10.79	10.88	23.13	131.66	2,531.21	2,267.64	2,246.12	21.52		105.357	
3,100.00	3,081.70	3,149.01	3,155.51	11.15	11.24	23.13	136.55	2,527.94	2,252.95	2,230.71	22.24		101.295	
3,200.00	3,180.93	3,247.93	3,254.25	11.52	11.59	23.13	141.45	2,524.66	2,238.26	2,215.30	22.96		97.488	
3,300.00	3,280.15	3,346.84	3,352.99	11.89	11.95	23.13	146.35	2,521.39	2,223.57	2,199.90	23.68		93.910	
3,400.00	3,379.38	3,445.76	3,451.73	12.26	12.31	23.13	151.24	2,518.11	2,208.88	2,184.49	24.40		90.544	
3,500.00	3,478.61	3,544.67	3,550.47	12.62	12.66	23.12	156.14	2,514.84	2,194.20	2,169.08	25.11		87.369	
3,600.00	3,577.83	3,643.59	3,649.21	12.99	13.02	23.12	161.03	2,511.57	2,179.51	2,153.67	25.83		84.371	
3,700.00	3,677.06	3,742.50	3,747.95	13.36	13.38	23.12	165.93	2,508.29	2,164.82	2,138.27	26.55		81.535	
3,800.00	3,776.28	3,841.42	3,846.69	13.73	13.73	23.12	170.83	2,505.02	2,150.13	2,122.86	27.27		78.848	
3,900.00	3,875.51	3,940.33	3,945.43	14.09	14.09	23.11	175.72	2,501.74	2,135.44	2,107.45	27.99		76.299	
4,000.00	3,974.73	4,039.25	4,044.17	14.46	14.45	23.11	180.62	2,498.47	2,120.75	2,092.04	28.71		73.877	
4,100.00	4,073.96	4,138.16	4,142.91	14.83	14.80	23.11	185.51	2,495.19	2,106.06	2,076.63	29.43		71.574	
4,200.00	4,173.18	4,237.08	4,241.65	15.20	15.16	23.10	190.41	2,491.92	2,091.37	2,061.22	30.14		69.380	
4,300.00	4,272.41	4,335.99	4,340.39	15.56	15.52	23.10	195.31	2,488.64	2,076.68	2,045.82	30.86		67.288	
4,400.00	4,371.63	4,434.91	4,439.13	15.93	15.87	23.10	200.20	2,485.37	2,061.99	2,030.41	31.58		65.292	
4,500.00	4,470.86	4,533.82	4,537.87	16.30	16.23	23.10	205.10	2,482.09	2,047.30	2,015.00	32.30		63.384	
4,600.00	4,570.08	4,632.74	4,636.61	16.67	16.59	23.09	209.99	2,478.82	2,032.61	1,999.59	33.02		61.559	
4,700.00	4,669.31	4,731.65	4,735.35	17.04	16.94	23.09	214.89	2,475.54	2,017.92	1,984.18	33.74		59.812	
4,800.00	4,768.54	4,830.57	4,834.09	17.40	17.30	23.09	219.79	2,472.27	2,003.23	1,968.78	34.46		58.137	
4,900.00	4,867.76	4,929.49	4,932.83	17.77	17.66	23.08	224.68	2,469.00	1,988.54	1,953.37	35.18		56.531	
5,000.00	4,966.99	5,028.40	5,031.57	18.14	18.01	23.08	229.58	2,465.72	1,973.85	1,937.96	35.89		54.990	

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - Sombrero State Com 223H - OH - Plan #1

Survey Program: 0-MWD+IFR1+MS													Offset Site Error:	0.00 usft
Reference Offset													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance				Warning	
				Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,100.00	5,066.21	5,127.32	5,130.31	18.51	18.37	23.08	234.47	2,462.45	1,959.16	1,922.55	36.61	53.509		
5,200.00	5,165.44	5,226.23	5,229.05	18.88	18.73	23.08	239.37	2,459.17	1,944.47	1,907.14	37.33	52.084		
5,300.00	5,264.66	5,325.15	5,327.79	19.24	19.08	23.07	244.27	2,455.90	1,929.78	1,891.73	38.05	50.714		
5,400.00	5,363.89	5,424.06	5,426.53	19.61	19.44	23.07	249.16	2,452.62	1,915.10	1,876.32	38.77	49.394		
5,500.00	5,463.11	5,522.98	5,525.26	19.98	19.80	23.07	254.06	2,449.35	1,900.41	1,860.92	39.49	48.123		
5,600.00	5,562.34	5,621.89	5,624.00	20.35	20.15	23.06	258.95	2,446.07	1,885.72	1,845.51	40.21	46.897		
5,700.00	5,661.56	5,720.81	5,722.74	20.72	20.51	23.06	263.85	2,442.80	1,871.03	1,830.10	40.93	45.714		
5,800.00	5,760.79	5,819.72	5,821.48	21.08	20.87	23.06	268.75	2,439.52	1,856.34	1,814.69	41.65	44.571		
5,900.00	5,860.02	5,918.64	5,920.22	21.45	21.22	23.05	273.64	2,436.25	1,841.65	1,799.28	42.37	43.468		
6,000.00	5,959.24	6,017.55	6,018.96	21.82	21.58	23.05	278.54	2,432.97	1,826.96	1,783.87	43.09	42.401		
6,100.00	6,058.47	6,116.47	6,117.70	22.19	21.94	23.04	283.43	2,429.70	1,812.27	1,768.46	43.81	41.370		
6,200.00	6,157.69	6,215.38	6,216.44	22.56	22.29	23.04	288.33	2,426.43	1,797.58	1,753.05	44.53	40.371		
6,300.00	6,256.92	6,314.30	6,315.18	22.93	22.65	23.04	293.23	2,423.15	1,782.89	1,737.65	45.25	39.405		
6,400.00	6,356.14	6,413.21	6,413.92	23.29	23.01	23.03	298.12	2,419.88	1,768.20	1,722.24	45.97	38.468		
6,500.00	6,455.37	6,512.13	6,512.66	23.66	23.36	23.03	303.02	2,416.60	1,753.51	1,706.83	46.68	37.561		
6,600.00	6,554.59	6,611.04	6,611.40	24.03	23.72	23.03	307.91	2,413.33	1,738.82	1,691.42	47.40	36.680		
6,700.00	6,653.82	6,709.96	6,710.14	24.40	24.08	23.02	312.81	2,410.05	1,724.13	1,676.01	48.12	35.827		
6,800.00	6,753.04	6,808.87	6,808.88	24.77	24.43	23.02	317.71	2,406.78	1,709.44	1,660.60	48.84	34.998		
6,900.00	6,852.27	6,907.79	6,907.62	25.14	24.79	23.01	322.60	2,403.50	1,694.75	1,645.19	49.56	34.193		
7,000.00	6,951.50	7,006.70	7,006.36	25.50	25.15	23.01	327.50	2,400.23	1,680.07	1,629.78	50.28	33.412		
7,100.00	7,050.72	7,105.62	7,105.10	25.87	25.51	23.01	332.39	2,396.95	1,665.38	1,614.37	51.00	32.652		
7,200.00	7,149.95	7,204.53	7,203.84	26.24	25.86	23.00	337.29	2,393.68	1,650.69	1,598.96	51.72	31.914		
7,300.00	7,249.17	7,303.45	7,302.58	26.61	26.22	23.00	342.19	2,390.40	1,636.00	1,583.55	52.44	31.196		
7,400.00	7,348.40	7,402.36	7,401.32	26.98	26.58	22.99	347.08	2,387.13	1,621.31	1,568.15	53.16	30.497		
7,500.00	7,447.62	7,501.28	7,500.06	27.35	26.93	22.99	351.98	2,383.86	1,606.62	1,552.74	53.88	29.817		
7,600.00	7,546.85	7,600.19	7,598.80	27.71	27.29	22.98	356.87	2,380.58	1,591.93	1,537.33	54.60	29.155		
7,700.00	7,646.07	7,699.11	7,697.54	28.08	27.65	22.98	361.77	2,377.31	1,577.24	1,521.92	55.32	28.510		
7,800.00	7,745.30	7,798.02	7,796.28	28.45	28.00	22.97	366.67	2,374.03	1,562.55	1,506.51	56.04	27.881		
7,900.00	7,844.52	7,896.94	7,895.02	28.82	28.36	22.97	371.56	2,370.76	1,547.86	1,491.10	56.76	27.269		
8,000.00	7,943.75	7,995.86	7,993.76	29.19	28.72	22.96	376.46	2,367.48	1,533.17	1,475.69	57.48	26.672		
8,100.00	8,042.98	8,094.77	8,092.50	29.56	29.07	22.96	381.35	2,364.21	1,518.48	1,460.28	58.20	26.089		
8,200.00	8,142.20	8,193.69	8,191.23	29.92	29.43	22.95	386.25	2,360.93	1,503.79	1,444.87	58.92	25.521		
8,300.00	8,241.43	8,292.60	8,289.97	30.29	29.79	22.95	391.15	2,357.66	1,489.11	1,429.46	59.64	24.967		
8,400.00	8,340.65	8,391.52	8,388.71	30.66	30.14	22.94	396.04	2,354.38	1,474.42	1,414.05	60.36	24.425		
8,500.00	8,439.88	8,490.43	8,487.45	31.03	30.50	22.94	400.94	2,351.11	1,459.73	1,398.64	61.08	23.897		
8,600.00	8,539.10	8,589.35	8,586.19	31.40	30.86	22.93	405.83	2,347.83	1,445.04	1,383.23	61.80	23.381		
8,700.00	8,638.33	8,688.26	8,684.93	31.77	31.21	22.93	410.73	2,344.56	1,430.35	1,367.82	62.53	22.876		
8,800.00	8,737.55	8,787.18	8,783.67	32.14	31.57	22.92	415.63	2,341.29	1,415.66	1,352.41	63.25	22.383		
8,900.00	8,836.78	8,886.09	8,882.41	32.51	31.93	22.91	420.52	2,338.01	1,400.97	1,337.00	63.97	21.902		
9,000.00	8,936.08	8,985.16	8,981.31	32.87	32.29	22.91	425.43	2,334.73	1,387.47	1,322.78	64.69	21.450		
9,100.00	9,035.51	9,044.97	9,041.02	33.23	32.50	80.35	428.58	2,333.53	1,380.72	1,315.38	65.33	21.134		
9,188.34	9,122.53	9,129.24	9,124.49	33.54	32.81	89.71	439.59	2,333.41	1,379.73	1,313.79	65.94	20.924		
9,200.00	9,134.12	9,141.01	9,135.99	33.58	32.85	90.22	442.10	2,333.39	1,380.35	1,314.33	66.02	20.908		
9,300.00	9,228.64	9,242.62	9,232.51	33.93	33.21	90.29	473.43	2,333.05	1,380.29	1,313.58	66.71	20.691		
9,400.00	9,316.12	9,344.48	9,322.20	34.26	33.54	90.35	521.43	2,332.54	1,380.19	1,312.82	67.37	20.486		
9,500.00	9,393.91	9,446.54	9,402.12	34.55	33.84	90.40	584.67	2,331.87	1,380.06	1,312.07	68.00	20.296		
9,600.00	9,459.64	9,548.71	9,469.65	34.79	34.08	90.44	661.16	2,331.05	1,379.90	1,311.33	68.57	20.125		
9,700.00	9,511.32	9,650.94	9,522.56	34.99	34.29	90.46	748.47	2,330.12	1,379.71	1,310.64	69.08	19.973		
9,800.00	9,547.36	9,753.15	9,559.13	35.14	34.50	90.47	843.77	2,329.10	1,379.50	1,309.99	69.52	19.843		
9,900.00	9,566.69	9,855.28	9,578.19	35.27	34.67	90.47	943.95	2,328.03	1,379.28	1,309.40	69.89	19.736		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - Sombrero State Com 223H - OH - Plan #1

Survey Program: 0-MWD+IFR1+MS													Offset Site Error:	0.00 usft
Reference Offset													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance				Warning	
				Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,000.00	9,570.00	9,956.39	9,581.00	35.39	34.82	90.46	1,044.97	2,326.96	1,379.06	1,308.88	70.18	19.650		
10,100.00	9,570.00	10,056.39	9,581.00	35.54	34.97	90.46	1,144.97	2,325.89	1,378.84	1,308.35	70.49	19.562		
10,200.00	9,570.00	10,156.39	9,581.00	35.71	35.14	90.46	1,244.96	2,324.82	1,378.62	1,307.79	70.83	19.465		
10,300.00	9,570.00	10,256.39	9,581.00	35.91	35.32	90.46	1,344.95	2,323.76	1,378.40	1,307.20	71.20	19.361		
10,400.00	9,570.00	10,356.39	9,581.00	36.12	35.52	90.46	1,444.95	2,322.69	1,378.18	1,306.58	71.60	19.249		
10,500.00	9,570.00	10,456.39	9,581.00	36.34	35.74	90.46	1,544.94	2,321.62	1,377.96	1,305.93	72.03	19.131		
10,600.00	9,570.00	10,556.39	9,581.00	36.58	35.97	90.46	1,644.94	2,320.56	1,377.74	1,305.25	72.49	19.006		
10,700.00	9,570.00	10,656.39	9,581.00	36.84	36.22	90.46	1,744.93	2,319.49	1,377.52	1,304.53	72.98	18.875		
10,800.00	9,570.00	10,756.39	9,581.00	37.11	36.48	90.46	1,844.92	2,318.43	1,377.30	1,303.79	73.50	18.738		
10,900.00	9,570.00	10,856.39	9,581.00	37.39	36.75	90.46	1,944.92	2,317.36	1,377.07	1,303.02	74.05	18.596		
11,000.00	9,570.00	10,956.39	9,581.00	37.69	37.04	90.46	2,044.91	2,316.29	1,376.85	1,302.23	74.63	18.449		
11,100.00	9,570.00	11,056.39	9,581.00	38.00	37.34	90.46	2,144.91	2,315.23	1,376.63	1,301.40	75.23	18.298		
11,200.00	9,570.00	11,156.39	9,581.00	38.32	37.66	90.46	2,244.90	2,314.16	1,376.41	1,300.55	75.86	18.143		
11,300.00	9,570.00	11,256.39	9,581.00	38.66	37.99	90.46	2,344.90	2,313.09	1,376.19	1,299.67	76.52	17.985		
11,400.00	9,570.00	11,356.39	9,581.00	39.00	38.33	90.46	2,444.89	2,312.03	1,375.97	1,298.77	77.20	17.823		
11,500.00	9,570.00	11,456.39	9,581.00	39.36	38.68	90.46	2,544.88	2,310.96	1,375.75	1,297.85	77.91	17.659		
11,600.00	9,570.00	11,556.39	9,581.00	39.73	39.05	90.46	2,644.88	2,309.89	1,375.53	1,296.90	78.64	17.492		
11,700.00	9,570.00	11,656.39	9,581.00	40.11	39.43	90.46	2,744.87	2,308.83	1,375.31	1,295.92	79.39	17.324		
11,800.00	9,570.00	11,756.39	9,581.00	40.50	39.81	90.46	2,844.87	2,307.76	1,375.09	1,294.93	80.16	17.153		
11,900.00	9,570.00	11,856.39	9,581.00	40.90	40.21	90.46	2,944.86	2,306.70	1,374.87	1,293.91	80.96	16.982		
12,000.00	9,570.00	11,956.39	9,581.00	41.31	40.62	90.46	3,044.85	2,305.63	1,374.65	1,292.87	81.78	16.809		
12,100.00	9,570.00	12,056.39	9,581.00	41.74	41.04	90.46	3,144.85	2,304.56	1,374.43	1,291.81	82.62	16.636		
12,200.00	9,570.00	12,156.39	9,581.00	42.17	41.48	90.46	3,244.84	2,303.50	1,374.21	1,290.73	83.48	16.462		
12,300.00	9,570.00	12,256.39	9,581.00	42.61	41.92	90.46	3,344.84	2,302.43	1,373.99	1,289.63	84.36	16.288		
12,400.00	9,570.00	12,356.39	9,581.00	43.06	42.36	90.46	3,444.83	2,301.36	1,373.77	1,288.52	85.25	16.114		
12,500.00	9,570.00	12,456.39	9,581.00	43.52	42.82	90.46	3,544.82	2,300.30	1,373.55	1,287.38	86.17	15.941		
12,600.00	9,570.00	12,556.39	9,581.00	43.99	43.29	90.46	3,644.82	2,299.23	1,373.33	1,286.23	87.10	15.767		
12,700.00	9,570.00	12,656.39	9,581.00	44.46	43.77	90.46	3,744.81	2,298.16	1,373.11	1,285.06	88.05	15.595		
12,800.00	9,570.00	12,756.39	9,581.00	44.94	44.25	90.46	3,844.81	2,297.10	1,372.89	1,283.87	89.02	15.423		
12,900.00	9,570.00	12,856.39	9,581.00	45.44	44.74	90.46	3,944.80	2,296.03	1,372.67	1,282.67	90.00	15.252		
13,000.00	9,570.00	12,956.39	9,581.00	45.94	45.24	90.46	4,044.79	2,294.96	1,372.45	1,281.45	91.00	15.083		
13,100.00	9,570.00	13,056.39	9,581.00	46.44	45.75	90.46	4,144.79	2,293.90	1,372.23	1,280.22	92.01	14.914		
13,200.00	9,570.00	13,156.39	9,581.00	46.95	46.27	90.46	4,244.78	2,292.83	1,372.01	1,278.97	93.04	14.747		
13,300.00	9,570.00	13,256.39	9,581.00	47.47	46.79	90.46	4,344.78	2,291.77	1,371.79	1,277.71	94.08	14.582		
13,400.00	9,570.00	13,356.39	9,581.00	48.00	47.32	90.46	4,444.77	2,290.70	1,371.57	1,276.43	95.13	14.418		
13,500.00	9,570.00	13,456.39	9,581.00	48.54	47.85	90.46	4,544.76	2,289.63	1,371.35	1,275.15	96.20	14.255		
13,600.00	9,570.00	13,556.39	9,581.00	49.07	48.39	90.46	4,644.76	2,288.57	1,371.13	1,273.85	97.28	14.095		
13,700.00	9,570.00	13,656.38	9,581.00	49.62	48.94	90.46	4,744.75	2,287.50	1,370.90	1,272.53	98.37	13.936		
13,800.00	9,570.00	13,756.38	9,581.00	50.17	49.49	90.46	4,844.75	2,286.43	1,370.68	1,271.21	99.48	13.779		
13,900.00	9,570.00	13,856.38	9,581.00	50.73	50.05	90.46	4,944.74	2,285.37	1,370.46	1,269.87	100.59	13.624		
14,000.00	9,570.00	13,956.38	9,581.00	51.29	50.62	90.46	5,044.74	2,284.30	1,370.24	1,268.53	101.72	13.471		
14,100.00	9,570.00	14,056.38	9,581.00	51.86	51.19	90.46	5,144.73	2,283.23	1,370.02	1,267.17	102.86	13.320		
14,200.00	9,570.00	14,156.38	9,581.00	52.43	51.76	90.46	5,244.72	2,282.17	1,369.80	1,265.80	104.00	13.171		
14,300.00	9,570.00	14,256.38	9,581.00	53.01	52.34	90.46	5,344.72	2,281.10	1,369.58	1,264.42	105.16	13.024		
14,400.00	9,570.00	14,356.38	9,581.00	53.59	52.93	90.46	5,444.71	2,280.04	1,369.36	1,263.03	106.33	12.878		
14,500.00	9,570.00	14,456.38	9,581.00	54.18	53.52	90.46	5,544.71	2,278.97	1,369.14	1,261.64	107.51	12.735		
14,600.00	9,570.00	14,556.38	9,581.00	54.77	54.11	90.46	5,644.70	2,277.90	1,368.92	1,260.23	108.69	12.594		
14,700.00	9,570.00	14,656.38	9,581.00	55.37	54.71	90.46	5,744.69	2,276.84	1,368.70	1,258.81	109.89	12.456		
14,800.00	9,570.00	14,756.38	9,581.00	55.97	55.31	90.46	5,844.69	2,275.77	1,368.48	1,257.39	111.09	12.319		
14,900.00	9,570.00	14,856.38	9,581.00	56.57	55.92	90.46	5,944.68	2,274.70	1,368.26	1,255.96	112.30	12.184		
15,000.00	9,570.00	14,956.38	9,581.00	57.18	56.53	90.46	6,044.68	2,273.64	1,368.04	1,254.52	113.52	12.051		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - Sombrero State Com 223H - OH - Plan #1

Survey Program: 0-MWD+IFR1+MS													Offset Site Error:	0.00 usft
Reference Offset													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance				Warning	
				Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,100.00	9,570.00	15,056.38	9,581.00	57.79	57.15	90.46	6,144.67	2,272.57	1,367.82	1,253.07	114.75	11.920		
15,200.00	9,570.00	15,156.38	9,581.00	58.41	57.77	90.46	6,244.66	2,271.50	1,367.60	1,251.62	115.98	11.791		
15,300.00	9,570.00	15,256.38	9,581.00	59.03	58.39	90.46	6,344.66	2,270.44	1,367.38	1,250.15	117.22	11.665		
15,400.00	9,570.00	15,356.38	9,581.00	59.65	59.01	90.46	6,444.65	2,269.37	1,367.16	1,248.68	118.47	11.540		
15,500.00	9,570.00	15,456.38	9,581.00	60.27	59.64	90.46	6,544.65	2,268.30	1,366.94	1,247.21	119.73	11.417		
15,600.00	9,570.00	15,556.38	9,581.00	60.90	60.27	90.46	6,644.64	2,267.24	1,366.72	1,245.73	120.99	11.296		
15,700.00	9,570.00	15,656.38	9,581.00	61.54	60.91	90.46	6,744.63	2,266.17	1,366.50	1,244.24	122.26	11.177		
15,800.00	9,570.00	15,756.38	9,581.00	62.17	61.55	90.46	6,844.63	2,265.11	1,366.28	1,242.74	123.53	11.060		
15,900.00	9,570.00	15,856.38	9,581.00	62.81	62.19	90.46	6,944.62	2,264.04	1,366.06	1,241.24	124.82	10.945		
16,000.00	9,570.00	15,956.38	9,581.00	63.45	62.83	90.46	7,044.62	2,262.97	1,365.84	1,239.73	126.10	10.831		
16,100.00	9,570.00	16,056.38	9,581.00	64.10	63.48	90.46	7,144.61	2,261.91	1,365.62	1,238.22	127.39	10.720		
16,200.00	9,570.00	16,156.38	9,581.00	64.74	64.13	90.46	7,244.60	2,260.84	1,365.40	1,236.70	128.69	10.610		
16,300.00	9,570.00	16,256.38	9,581.00	65.39	64.78	90.46	7,344.60	2,259.77	1,365.18	1,235.18	129.99	10.502		
16,400.00	9,570.00	16,356.38	9,581.00	66.05	65.44	90.46	7,444.59	2,258.71	1,364.95	1,233.65	131.30	10.396		
16,500.00	9,570.00	16,456.38	9,581.00	66.70	66.10	90.46	7,544.59	2,257.64	1,364.73	1,232.12	132.61	10.291		
16,600.00	9,570.00	16,556.38	9,581.00	67.36	66.76	90.46	7,644.58	2,256.57	1,364.51	1,230.58	133.93	10.188		
16,700.00	9,570.00	16,656.38	9,581.00	68.02	67.42	90.46	7,744.58	2,255.51	1,364.29	1,229.04	135.25	10.087		
16,800.00	9,570.00	16,756.38	9,581.00	68.68	68.08	90.46	7,844.57	2,254.44	1,364.07	1,227.49	136.58	9.987		
16,900.00	9,570.00	16,856.38	9,581.00	69.34	68.75	90.46	7,944.56	2,253.37	1,363.85	1,225.94	137.91	9.889		
17,000.00	9,570.00	16,956.38	9,581.00	70.01	69.42	90.46	8,044.56	2,252.31	1,363.63	1,224.38	139.25	9.793		
17,100.00	9,570.00	17,056.38	9,581.00	70.68	70.09	90.46	8,144.55	2,251.24	1,363.41	1,222.82	140.59	9.698		
17,200.00	9,570.00	17,156.38	9,581.00	71.35	70.76	90.46	8,244.55	2,250.18	1,363.19	1,221.26	141.93	9.605		
17,300.00	9,570.00	17,256.38	9,581.00	72.02	71.44	90.46	8,344.54	2,249.11	1,362.97	1,219.69	143.28	9.513		
17,400.00	9,570.00	17,356.38	9,581.00	72.69	72.11	90.46	8,444.53	2,248.04	1,362.75	1,218.12	144.63	9.422		
17,500.00	9,570.00	17,456.38	9,581.00	73.37	72.79	90.46	8,544.53	2,246.98	1,362.53	1,216.54	145.99	9.333		
17,600.00	9,570.00	17,556.38	9,581.00	74.05	73.47	90.46	8,644.52	2,245.91	1,362.31	1,214.96	147.35	9.246		
17,700.00	9,570.00	17,656.38	9,581.00	74.73	74.16	90.46	8,744.52	2,244.84	1,362.09	1,213.38	148.71	9.159		
17,800.00	9,570.00	17,756.38	9,581.00	75.41	74.84	90.46	8,844.51	2,243.78	1,361.87	1,211.80	150.07	9.075		
17,900.00	9,570.00	17,856.37	9,581.00	76.09	75.52	90.46	8,944.50	2,242.71	1,361.65	1,210.21	151.44	8.991		
18,000.00	9,570.00	17,956.37	9,581.00	76.78	76.21	90.46	9,044.50	2,241.64	1,361.43	1,208.61	152.82	8.909		
18,100.00	9,570.00	18,056.37	9,581.00	77.46	76.90	90.46	9,144.49	2,240.58	1,361.21	1,207.02	154.19	8.828		
18,200.00	9,570.00	18,156.37	9,581.00	78.15	77.59	90.46	9,244.49	2,239.51	1,360.99	1,205.42	155.57	8.748		
18,300.00	9,570.00	18,256.37	9,581.00	78.84	78.28	90.46	9,344.48	2,238.45	1,360.77	1,203.82	156.95	8.670		
18,400.00	9,570.00	18,356.37	9,581.00	79.53	78.98	90.46	9,444.47	2,237.38	1,360.55	1,202.21	158.34	8.593		
18,500.00	9,570.00	18,456.37	9,581.00	80.22	79.67	90.46	9,544.47	2,236.31	1,360.33	1,200.60	159.72	8.517		
18,600.00	9,570.00	18,556.37	9,581.00	80.92	80.37	90.46	9,644.46	2,235.25	1,360.11	1,198.99	161.11	8.442		
18,700.00	9,570.00	18,656.37	9,581.00	81.61	81.06	90.46	9,744.46	2,234.18	1,359.89	1,197.38	162.51	8.368		
18,800.00	9,570.00	18,756.37	9,581.00	82.31	81.76	90.46	9,844.45	2,233.11	1,359.67	1,195.76	163.90	8.296		
18,900.00	9,570.00	18,856.37	9,581.00	83.01	82.46	90.46	9,944.44	2,232.05	1,359.45	1,194.15	165.30	8.224		
19,000.00	9,570.00	18,956.37	9,581.00	83.70	83.16	90.46	10,044.44	2,230.98	1,359.23	1,192.52	166.70	8.154		
19,100.00	9,570.00	19,056.37	9,581.00	84.40	83.87	90.46	10,144.43	2,229.91	1,359.01	1,190.90	168.10	8.084		
19,200.00	9,570.00	19,156.37	9,581.00	85.11	84.57	90.46	10,244.43	2,228.85	1,358.78	1,189.28	169.51	8.016		
19,300.00	9,570.00	19,256.37	9,581.00	85.81	85.27	90.46	10,344.42	2,227.78	1,358.56	1,187.65	170.92	7.949		
19,400.00	9,570.00	19,356.37	9,581.00	86.51	85.98	90.46	10,444.42	2,226.71	1,358.34	1,186.02	172.33	7.882		
19,500.00	9,570.00	19,456.37	9,581.00	87.22	86.69	90.46	10,544.41	2,225.65	1,358.12	1,184.38	173.74	7.817		
19,600.00	9,570.00	19,556.37	9,581.00	87.92	87.39	90.46	10,644.40	2,224.58	1,357.90	1,182.75	175.15	7.753		
19,700.00	9,570.00	19,656.37	9,581.00	88.63	88.10	90.46	10,744.40	2,223.52	1,357.68	1,181.11	176.57	7.689		
19,800.00	9,570.00	19,756.37	9,581.00	89.34	88.81	90.46	10,844.39	2,222.45	1,357.46	1,179.47	177.99	7.627		
19,900.00	9,570.00	19,856.37	9,581.00	90.05	89.52	90.46	10,944.39	2,221.38	1,357.24	1,177.83	179.41	7.565		
20,000.00	9,570.00	19,956.37	9,581.00	90.76	90.24	90.46	11,044.38	2,220.32	1,357.02	1,176.19	180.83	7.504		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - Sombrero State Com 223H - OH - Plan #1

Survey Program:		0-MWD+IFR1+MS		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Site Error:
Measured Reference	Vertical	Measured	Vertical	Reference	Offset	Highside	+N/-S	+E/-W	Between	Between	Minimum	Separation	Warning	
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	(usft)	(usft)	Toolface (°)	(usft)	(usft)	Centres (usft)	Ellipses (usft)	Separation (usft)	Factor		
20,100.00	9,570.00	20,056.37	9,581.00	91.47	90.95	90.46	11,144.37	2,219.25	1,356.80	1,174.55	182.26	7.445		
20,200.00	9,570.00	20,156.37	9,581.00	92.18	91.66	90.46	11,244.37	2,218.18	1,356.58	1,172.90	183.68	7.386		
20,300.00	9,570.00	20,256.37	9,581.00	92.89	92.38	90.46	11,344.36	2,217.12	1,356.36	1,171.25	185.11	7.327		
20,400.00	9,570.00	20,356.37	9,581.00	93.60	93.09	90.46	11,444.36	2,216.05	1,356.14	1,169.60	186.54	7.270		
20,500.00	9,570.00	20,456.37	9,581.00	94.32	93.81	90.46	11,544.35	2,214.98	1,355.92	1,167.95	187.97	7.213		
20,600.00	9,570.00	20,556.37	9,581.00	95.03	94.53	90.46	11,644.34	2,213.92	1,355.70	1,166.30	189.40	7.158		
20,700.00	9,570.00	20,656.37	9,581.00	95.75	95.24	90.46	11,744.34	2,212.85	1,355.48	1,164.64	190.84	7.103		
20,800.00	9,570.00	20,756.37	9,581.00	96.47	95.96	90.47	11,844.33	2,211.79	1,355.26	1,162.98	192.27	7.049		
20,900.00	9,570.00	20,856.37	9,581.00	97.19	96.68	90.47	11,944.33	2,210.72	1,355.04	1,161.33	193.71	6.995		
21,000.00	9,570.00	20,956.37	9,581.00	97.90	97.40	90.47	12,044.32	2,209.65	1,354.82	1,159.67	195.15	6.942		
21,100.00	9,570.00	21,056.37	9,581.00	98.62	98.13	90.47	12,144.31	2,208.59	1,354.60	1,158.00	196.59	6.890		
21,200.00	9,570.00	21,156.37	9,581.00	99.34	98.85	90.47	12,244.31	2,207.52	1,354.38	1,156.34	198.04	6.839		
21,300.00	9,570.00	21,256.37	9,581.00	100.06	99.57	90.47	12,344.30	2,206.45	1,354.16	1,154.68	199.48	6.788		
21,400.00	9,570.00	21,356.37	9,581.00	100.79	100.29	90.47	12,444.30	2,205.39	1,353.94	1,153.01	200.93	6.739		
21,500.00	9,570.00	21,456.37	9,581.00	101.51	101.02	90.47	12,544.29	2,204.32	1,353.72	1,151.34	202.37	6.689		
21,600.00	9,570.00	21,556.37	9,581.00	102.23	101.74	90.47	12,644.28	2,203.25	1,353.50	1,149.68	203.82	6.641		
21,700.00	9,570.00	21,656.37	9,581.00	102.95	102.47	90.47	12,744.28	2,202.19	1,353.28	1,148.01	205.27	6.593		
21,800.00	9,570.00	21,756.37	9,581.00	103.68	103.19	90.47	12,844.27	2,201.12	1,353.06	1,146.33	206.72	6.545		
21,900.00	9,570.00	21,856.37	9,581.00	104.40	103.92	90.47	12,944.27	2,200.05	1,352.83	1,144.66	208.17	6.499		
22,000.00	9,570.00	21,956.36	9,581.00	105.13	104.65	90.47	13,044.26	2,198.99	1,352.61	1,142.99	209.63	6.453		
22,100.00	9,570.00	22,056.36	9,581.00	105.86	105.38	90.47	13,144.26	2,197.92	1,352.39	1,141.31	211.08	6.407		
22,200.00	9,570.00	22,156.36	9,581.00	106.58	106.10	90.47	13,244.25	2,196.86	1,352.17	1,139.64	212.54	6.362		
22,300.00	9,570.00	22,256.36	9,581.00	107.31	106.83	90.47	13,344.24	2,195.79	1,351.95	1,137.96	213.99	6.318		
22,400.00	9,570.00	22,356.36	9,581.00	108.04	107.56	90.47	13,444.24	2,194.72	1,351.73	1,136.28	215.45	6.274		
22,500.00	9,570.00	22,456.36	9,581.00	108.77	108.29	90.47	13,544.23	2,193.66	1,351.51	1,134.60	216.91	6.231		
22,600.00	9,570.00	22,556.36	9,581.00	109.50	109.02	90.47	13,644.23	2,192.59	1,351.29	1,132.92	218.37	6.188		
22,700.00	9,570.00	22,656.36	9,581.00	110.22	109.75	90.47	13,744.22	2,191.52	1,351.07	1,131.24	219.83	6.146		
22,800.00	9,570.00	22,756.36	9,581.00	110.96	110.49	90.47	13,844.21	2,190.46	1,350.85	1,129.56	221.29	6.104		
22,900.00	9,570.00	22,856.36	9,581.00	111.69	111.22	90.47	13,944.21	2,189.39	1,350.63	1,127.87	222.76	6.063		
23,000.00	9,570.00	22,956.36	9,581.00	112.42	111.95	90.47	14,044.20	2,188.32	1,350.41	1,126.19	224.22	6.023		
23,100.00	9,570.00	23,056.36	9,581.00	113.15	112.68	90.47	14,144.20	2,187.26	1,350.19	1,124.50	225.69	5.983		
23,200.00	9,570.00	23,156.36	9,581.00	113.88	113.42	90.47	14,244.19	2,186.19	1,349.97	1,122.82	227.15	5.943		
23,300.00	9,570.00	23,256.36	9,581.00	114.61	114.15	90.47	14,344.18	2,185.12	1,349.75	1,121.13	228.62	5.904		
23,400.00	9,570.00	23,356.36	9,581.00	115.35	114.89	90.47	14,444.18	2,184.06	1,349.53	1,119.44	230.09	5.865		
23,500.00	9,570.00	23,456.36	9,581.00	116.08	115.62	90.47	14,544.17	2,182.99	1,349.31	1,117.75	231.56	5.827		
23,600.00	9,570.00	23,556.36	9,581.00	116.81	116.36	90.47	14,644.17	2,181.93	1,349.09	1,116.06	233.03	5.789		
23,700.00	9,570.00	23,656.36	9,581.00	117.55	117.09	90.47	14,744.16	2,180.86	1,348.87	1,114.37	234.50	5.752		
23,800.00	9,570.00	23,756.36	9,581.00	118.28	117.83	90.47	14,844.15	2,179.79	1,348.65	1,112.67	235.97	5.715		
23,900.00	9,570.00	23,856.36	9,581.00	119.02	118.57	90.47	14,944.15	2,178.73	1,348.43	1,110.98	237.45	5.679		
24,000.00	9,570.00	23,956.36	9,581.00	119.76	119.31	90.47	15,044.14	2,177.66	1,348.21	1,109.29	238.92	5.643		
24,100.00	9,570.00	24,056.36	9,581.00	120.49	120.04	90.47	15,144.14	2,176.59	1,347.99	1,107.59	240.39	5.607		
24,200.00	9,570.00	24,156.36	9,581.00	121.23	120.78	90.47	15,244.13	2,175.53	1,347.77	1,105.90	241.87	5.572		
24,300.00	9,570.00	24,256.36	9,581.00	121.97	121.52	90.47	15,344.12	2,174.46	1,347.55	1,104.20	243.35	5.538		
24,400.00	9,570.00	24,356.36	9,581.00	122.70	122.26	90.47	15,444.12	2,173.39	1,347.33	1,102.50	244.82	5.503		
24,500.00	9,570.00	24,456.36	9,581.00	123.44	123.00	90.47	15,544.11	2,172.33	1,347.11	1,100.81	246.30	5.469		
24,600.00	9,570.00	24,556.36	9,581.00	124.18	123.74	90.47	15,644.11	2,171.26	1,346.88	1,099.11	247.78	5.436		
24,700.00	9,570.00	24,656.36	9,581.00	124.92	124.48	90.47	15,744.10	2,170.20	1,346.66	1,097.41	249.26	5.403		
24,800.00	9,570.00	24,756.36	9,581.00	125.66	125.22	90.47	15,844.09	2,169.13	1,346.44	1,095.71	250.74	5.370		
24,900.00	9,570.00	24,856.36	9,581.00	126.40	125.96	90.47	15,944.09	2,168.06	1,346.22	1,094.01	252.22	5.338		
25,000.00	9,570.00	24,956.36	9,581.00	127.14	126.70	90.47	16,044.08	2,167.00	1,346.00	1,092.30	253.70	5.306		
25,100.00	9,570.00	25,056.36	9,581.00	127.88	127.44	90.47	16,144.08	2,165.93	1,345.78	1,090.60	255.18	5.274		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - Sombrero State Com 223H - OH - Plan #1

Survey Program: 0-MWD+IFR1+MS													Offset Site Error:	0.00 usft
Reference Offset													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance				Warning	
				Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
25,200.00	9,570.00	25,156.36	9,581.00	128.62	128.18	90.47	16,244.07	2,164.86	1,345.56	1,088.90	256.66	5.243		
25,300.00	9,570.00	25,256.36	9,581.00	129.36	128.93	90.47	16,344.07	2,163.80	1,345.34	1,087.20	258.15	5.212		
25,400.00	9,570.00	25,356.36	9,581.00	130.10	129.67	90.47	16,444.06	2,162.73	1,345.12	1,085.49	259.63	5.181		
25,500.00	9,570.00	25,456.36	9,581.00	130.84	130.41	90.47	16,544.05	2,161.66	1,344.90	1,083.79	261.12	5.151		
25,600.00	9,570.00	25,556.36	9,581.00	131.58	131.15	90.47	16,644.05	2,160.60	1,344.68	1,082.08	262.60	5.121		
25,700.00	9,570.00	25,656.36	9,581.00	132.33	131.90	90.47	16,744.04	2,159.53	1,344.46	1,080.37	264.09	5.091		
25,800.00	9,570.00	25,756.36	9,581.00	133.07	132.64	90.47	16,844.04	2,158.46	1,344.24	1,078.67	265.57	5.062		
25,900.00	9,570.00	25,856.36	9,581.00	133.81	133.39	90.47	16,944.03	2,157.40	1,344.02	1,076.96	267.06	5.033		
26,000.00	9,570.00	25,956.36	9,581.00	134.55	134.13	90.47	17,044.02	2,156.33	1,343.80	1,075.25	268.55	5.004		
26,100.00	9,570.00	26,056.36	9,581.00	135.30	134.87	90.47	17,144.02	2,155.27	1,343.58	1,073.54	270.04	4.976		
26,200.00	9,570.00	26,156.35	9,581.00	136.04	135.62	90.47	17,244.01	2,154.20	1,343.36	1,071.83	271.53	4.947		
26,300.00	9,570.00	26,256.35	9,581.00	136.78	136.36	90.47	17,344.01	2,153.13	1,343.14	1,070.12	273.01	4.920		
26,400.00	9,570.00	26,356.35	9,581.00	137.53	137.11	90.47	17,444.00	2,152.07	1,342.92	1,068.41	274.50	4.892		
26,500.00	9,570.00	26,456.35	9,581.00	138.27	137.86	90.47	17,543.99	2,151.00	1,342.70	1,066.70	276.00	4.865		
26,600.00	9,570.00	26,556.35	9,581.00	139.02	138.60	90.47	17,643.99	2,149.93	1,342.48	1,064.99	277.49	4.838		
26,700.00	9,570.00	26,656.35	9,581.00	139.76	139.35	90.47	17,743.98	2,148.87	1,342.26	1,063.28	278.98	4.811		
26,800.00	9,570.00	26,756.35	9,581.00	140.51	140.09	90.47	17,843.98	2,147.80	1,342.04	1,061.57	280.47	4.785		
26,900.00	9,570.00	26,856.35	9,581.00	141.25	140.84	90.47	17,943.97	2,146.73	1,341.82	1,059.85	281.96	4.759		
27,000.00	9,570.00	26,956.35	9,581.00	142.00	141.59	90.47	18,043.96	2,145.67	1,341.60	1,058.14	283.46	4.733		
27,100.00	9,570.00	27,056.35	9,581.00	142.75	142.33	90.47	18,143.96	2,144.60	1,341.38	1,056.43	284.95	4.707		
27,200.00	9,570.00	27,156.35	9,581.00	143.49	143.08	90.47	18,243.95	2,143.54	1,341.16	1,054.71	286.44	4.682		
27,300.00	9,570.00	27,256.35	9,581.00	144.24	143.83	90.47	18,343.95	2,142.47	1,340.94	1,053.00	287.94	4.657		
27,400.00	9,570.00	27,356.35	9,581.00	144.99	144.58	90.47	18,443.94	2,141.40	1,340.71	1,051.28	289.43	4.632		
27,500.00	9,570.00	27,456.35	9,581.00	145.73	145.33	90.47	18,543.93	2,140.34	1,340.49	1,049.57	290.93	4.608		
27,600.00	9,570.00	27,556.35	9,581.00	146.48	146.07	90.47	18,643.93	2,139.27	1,340.27	1,047.85	292.42	4.583		
27,700.00	9,570.00	27,656.35	9,581.00	147.23	146.82	90.47	18,743.92	2,138.20	1,340.05	1,046.13	293.92	4.559		
27,800.00	9,570.00	27,756.35	9,581.00	147.97	147.57	90.47	18,843.92	2,137.14	1,339.83	1,044.42	295.42	4.535		
27,900.00	9,570.00	27,856.35	9,581.00	148.72	148.32	90.47	18,943.91	2,136.07	1,339.61	1,042.70	296.91	4.512		
28,000.00	9,570.00	27,956.35	9,581.00	149.47	149.07	90.47	19,043.91	2,135.00	1,339.39	1,040.98	298.41	4.488		
28,100.00	9,570.00	28,056.35	9,581.00	150.22	149.82	90.47	19,143.90	2,133.94	1,339.17	1,039.26	299.91	4.465		
28,200.00	9,570.00	28,156.35	9,581.00	150.97	150.57	90.47	19,243.89	2,132.87	1,338.95	1,037.54	301.41	4.442		
28,300.00	9,570.00	28,256.35	9,581.00	151.72	151.32	90.47	19,343.89	2,131.80	1,338.73	1,035.82	302.91	4.420		
28,400.00	9,570.00	28,356.35	9,581.00	152.47	152.07	90.47	19,443.88	2,130.74	1,338.51	1,034.10	304.41	4.397		
28,500.00	9,570.00	28,456.35	9,581.00	153.22	152.82	90.47	19,543.88	2,129.67	1,338.29	1,032.38	305.91	4.375		
28,600.00	9,570.00	28,556.35	9,581.00	153.96	153.57	90.47	19,643.87	2,128.61	1,338.07	1,030.66	307.41	4.353		
28,700.00	9,570.00	28,656.35	9,581.00	154.71	154.32	90.47	19,743.86	2,127.54	1,337.85	1,028.94	308.91	4.331		
28,800.00	9,570.00	28,756.35	9,581.00	155.46	155.07	90.47	19,843.86	2,126.47	1,337.63	1,027.22	310.41	4.309		
28,900.00	9,570.00	28,856.35	9,581.00	156.21	155.82	90.47	19,943.85	2,125.41	1,337.41	1,025.50	311.91	4.288		
29,000.00	9,570.00	28,956.35	9,581.00	156.96	156.57	90.47	20,043.85	2,124.34	1,337.19	1,023.78	313.41	4.267		
29,100.00	9,570.00	29,056.35	9,581.00	157.71	157.33	90.47	20,143.84	2,123.27	1,336.97	1,022.06	314.91	4.246		
29,200.00	9,570.00	29,156.35	9,581.00	158.47	158.08	90.47	20,243.83	2,122.21	1,336.75	1,020.33	316.42	4.225		
29,300.00	9,570.00	29,256.35	9,581.00	159.22	158.83	90.47	20,343.83	2,121.14	1,336.53	1,018.61	317.92	4.204		
29,400.00	9,570.00	29,356.35	9,581.00	159.97	159.58	90.47	20,443.82	2,120.07	1,336.31	1,016.89	319.42	4.184		
29,500.00	9,570.00	29,456.35	9,581.00	160.72	160.33	90.47	20,543.82	2,119.01	1,336.09	1,015.16	320.93	4.163		
29,600.00	9,570.00	29,556.35	9,581.00	161.47	161.08	90.47	20,643.81	2,117.94	1,335.87	1,013.44	322.43	4.143		
29,700.00	9,570.00	29,656.35	9,581.00	162.22	161.84	90.47	20,743.80	2,116.87	1,335.65	1,011.71	323.93	4.123		
29,800.00	9,570.00	29,756.35	9,581.00	162.97	162.59	90.47	20,843.80	2,115.81	1,335.43	1,009.99	325.44	4.103		
29,900.00	9,570.00	29,856.35	9,581.00	163.72	163.34	90.47	20,943.79	2,114.74	1,335.21	1,008.26	326.94	4.084		
30,000.00	9,570.00	29,956.35	9,581.00	164.48	164.10	90.47	21,043.79	2,113.68	1,334.99	1,006.54	328.45	4.065		
30,100.00	9,570.00	30,056.35	9,581.00	165.23	164.85	90.47	21,143.78	2,112.61	1,334.76	1,004.81	329.95	4.045		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - Sombrero State Com 223H - OH - Plan #1

Survey Program:		Reference		Offset		Semi Major Axis		Highside		Offset Wellbore Centre		Distance		Rule Assigned:		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
30,200.00	9,570.00	30,156.35	9,581.00	165.98	165.60	165.98	165.60	90.47	21,243.77	2,111.54	1,334.54	1,003.09	331.46	4.026			
30,264.95	9,570.00	30,219.49	9,581.00	166.47	166.08	166.47	166.08	90.47	21,306.92	2,110.87	1,334.40	1,001.98	332.43	4.014	CC, ES, SF		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - Sombrero State Com 224H - OH - Plan #1

Survey Program: 0-MWD+IFR1+MS													Offset Site Error:	0.00 usft
Reference Offset													Offset Well Error:	0.00 usft
Measured Reference Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance				Warning	
				Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	11.20	0.00	0.00	89.79	9.82	2,652.80	2,652.84					
100.00	100.00	88.80	100.00	0.26	0.25	89.79	9.82	2,652.80	2,652.82	2,652.31	0.51	5,216.069		
200.00	200.00	188.80	200.00	0.62	0.59	89.79	9.82	2,652.80	2,652.82	2,651.60	1.22	2,181.065		
300.00	300.00	288.80	300.00	0.98	0.95	89.79	9.82	2,652.80	2,652.82	2,650.88	1.93	1,372.215		
400.00	400.00	388.80	400.00	1.34	1.31	89.79	9.82	2,652.80	2,652.82	2,650.17	2.65	1,000.995		
500.00	500.00	488.80	500.00	1.70	1.67	89.79	9.82	2,652.80	2,652.82	2,649.45	3.37	787.859		
600.00	599.98	547.68	558.88	2.05	1.88	23.12	9.97	2,653.17	2,651.90	2,647.97	3.93	674.937		
700.00	699.84	600.00	611.18	2.41	2.06	23.16	10.46	2,654.42	2,649.51	2,645.05	4.46	593.544		
800.00	799.45	655.08	666.21	2.76	2.26	23.21	11.36	2,656.70	2,645.65	2,640.65	5.01	528.201		
900.00	898.74	700.00	711.04	3.12	2.42	23.25	12.39	2,659.29	2,640.66	2,635.15	5.52	478.595		
1,000.00	997.97	762.61	773.44	3.48	2.64	23.28	14.24	2,663.98	2,636.85	2,630.76	6.09	432.931		
1,100.00	1,097.19	800.00	810.65	3.84	2.77	23.29	15.59	2,667.39	2,634.91	2,628.33	6.57	400.898		
1,166.55	1,163.23	852.35	862.66	4.08	2.96	23.30	17.78	2,672.92	2,634.42	2,627.43	6.99	376.667	CC	
1,200.00	1,196.42	882.95	893.01	4.20	3.07	23.30	19.22	2,676.57	2,634.58	2,627.35	7.22	364.695		
1,300.00	1,295.65	959.62	968.99	4.56	3.35	23.30	22.98	2,686.07	2,635.47	2,627.61	7.86	335.494		
1,400.00	1,394.87	1,059.61	1,068.10	4.93	3.71	23.30	27.88	2,698.46	2,636.46	2,627.88	8.58	307.379		
1,500.00	1,494.10	1,159.61	1,167.20	5.29	4.07	23.30	32.78	2,710.85	2,637.45	2,628.16	9.30	283.657		
1,600.00	1,593.32	1,259.60	1,266.30	5.66	4.43	23.30	37.68	2,723.25	2,638.45	2,628.42	10.03	263.175		
1,700.00	1,692.55	1,359.60	1,365.41	6.02	4.80	23.30	42.58	2,735.64	2,639.44	2,628.69	10.75	245.466		
1,800.00	1,791.77	1,459.59	1,464.51	6.39	5.16	23.30	47.48	2,748.03	2,640.43	2,628.95	11.48	229.978		
1,900.00	1,891.00	1,559.59	1,563.61	6.75	5.53	23.30	52.39	2,760.43	2,641.43	2,629.22	12.21	216.321		
2,000.00	1,990.22	1,659.58	1,662.72	7.12	5.89	23.30	57.29	2,772.82	2,642.42	2,629.48	12.94	204.192		
2,100.00	2,089.45	1,759.58	1,761.82	7.48	6.26	23.30	62.19	2,785.21	2,643.42	2,629.74	13.67	193.348		
2,200.00	2,188.67	1,859.57	1,860.92	7.85	6.62	23.30	67.09	2,797.61	2,644.41	2,630.01	14.40	183.598		
2,300.00	2,287.90	1,959.57	1,960.02	8.22	6.99	23.30	71.99	2,810.00	2,645.40	2,630.27	15.14	174.785		
2,400.00	2,387.13	2,059.56	2,059.13	8.58	7.36	23.30	76.89	2,822.39	2,646.40	2,630.53	15.87	166.780		
2,500.00	2,486.35	2,159.56	2,158.23	8.95	7.73	23.30	81.79	2,834.78	2,647.39	2,630.79	16.60	159.478		
2,600.00	2,585.58	2,259.55	2,257.33	9.32	8.09	23.30	86.70	2,847.18	2,648.38	2,631.05	17.33	152.791		
2,700.00	2,684.80	2,359.55	2,356.44	9.69	8.46	23.30	91.60	2,859.57	2,649.38	2,631.31	18.07	146.645		
2,800.00	2,784.03	2,459.54	2,455.54	10.05	8.83	23.30	96.50	2,871.96	2,650.37	2,631.57	18.80	140.976		
2,900.00	2,883.25	2,559.54	2,554.64	10.42	9.20	23.30	101.40	2,884.36	2,651.36	2,631.83	19.53	135.731		
3,000.00	2,982.48	2,659.53	2,653.75	10.79	9.57	23.31	106.30	2,896.75	2,652.36	2,632.09	20.27	130.865		
3,100.00	3,081.70	2,759.53	2,752.85	11.15	9.93	23.31	111.20	2,909.14	2,653.35	2,632.35	21.00	126.338		
3,200.00	3,180.93	2,859.52	2,851.95	11.52	10.30	23.31	116.11	2,921.54	2,654.34	2,632.61	21.74	122.116		
3,300.00	3,280.15	2,959.52	2,951.05	11.89	10.67	23.31	121.01	2,933.93	2,655.34	2,632.87	22.47	118.169		
3,400.00	3,379.38	3,059.51	3,050.16	12.26	11.04	23.31	125.91	2,946.32	2,656.33	2,633.13	23.21	114.471		
3,500.00	3,478.61	3,159.51	3,149.26	12.62	11.41	23.31	130.81	2,958.71	2,657.32	2,633.38	23.94	111.000		
3,600.00	3,577.83	3,259.50	3,248.36	12.99	11.78	23.31	135.71	2,971.11	2,658.32	2,633.64	24.67	107.735		
3,700.00	3,677.06	3,359.50	3,347.47	13.36	12.15	23.31	140.61	2,983.50	2,659.31	2,633.90	25.41	104.658		
3,800.00	3,776.28	3,459.49	3,446.57	13.73	12.52	23.31	145.51	2,995.89	2,660.30	2,634.16	26.14	101.754		
3,900.00	3,875.51	3,559.49	3,545.67	14.09	12.88	23.31	150.42	3,008.29	2,661.30	2,634.42	26.88	99.009		
4,000.00	3,974.73	3,659.48	3,644.77	14.46	13.25	23.31	155.32	3,020.68	2,662.29	2,634.68	27.61	96.409		
4,100.00	4,073.96	3,759.48	3,743.88	14.83	13.62	23.31	160.22	3,033.07	2,663.28	2,634.94	28.35	93.944		
4,200.00	4,173.18	3,859.47	3,842.98	15.20	13.99	23.31	165.12	3,045.47	2,664.28	2,635.19	29.08	91.604		
4,300.00	4,272.41	3,959.47	3,942.08	15.56	14.36	23.31	170.02	3,057.86	2,665.27	2,635.45	29.82	89.379		
4,400.00	4,371.63	4,059.46	4,041.19	15.93	14.73	23.31	174.92	3,070.25	2,666.27	2,635.71	30.56	87.260		
4,500.00	4,470.86	4,159.46	4,140.29	16.30	15.10	23.31	179.82	3,082.64	2,667.26	2,635.97	31.29	85.241		
4,600.00	4,570.08	4,259.45	4,239.39	16.67	15.47	23.31	184.73	3,095.04	2,668.25	2,636.23	32.03	83.315		
4,700.00	4,669.31	4,359.45	4,338.50	17.04	15.84	23.31	189.63	3,107.43	2,669.25	2,636.48	32.76	81.475		
4,800.00	4,768.54	4,459.45	4,437.60	17.40	16.21	23.31	194.53	3,119.82	2,670.24	2,636.74	33.50	79.716		
4,900.00	4,867.76	4,559.44	4,536.70	17.77	16.57	23.31	199.43	3,132.22	2,671.23	2,637.00	34.23	78.032		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - Sombrero State Com 224H - OH - Plan #1

Survey Program: 0-MWD+IFR1+MS													Offset Site Error:	0.00 usft
Reference Offset													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance				Warning	
				Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,966.99	4,659.44	4,635.80	18.14	16.94	23.31	204.33	3,144.61	2,672.23	2,637.26	34.97	76.419		
5,100.00	5,066.21	4,759.43	4,734.91	18.51	17.31	23.31	209.23	3,157.00	2,673.22	2,637.52	35.70	74.873		
5,200.00	5,165.44	4,859.43	4,834.01	18.88	17.68	23.31	214.13	3,169.40	2,674.21	2,637.77	36.44	73.388		
5,300.00	5,264.66	4,959.42	4,933.11	19.24	18.05	23.31	219.04	3,181.79	2,675.21	2,638.03	37.17	71.963		
5,400.00	5,363.89	5,059.42	5,032.22	19.61	18.42	23.31	223.94	3,194.18	2,676.20	2,638.29	37.91	70.593		
5,500.00	5,463.11	5,159.41	5,131.32	19.98	18.79	23.31	228.84	3,206.57	2,677.19	2,638.55	38.65	69.274		
5,600.00	5,562.34	5,259.41	5,230.42	20.35	19.16	23.31	233.74	3,218.97	2,678.19	2,638.81	39.38	68.005		
5,700.00	5,661.56	5,359.40	5,329.53	20.72	19.53	23.31	238.64	3,231.36	2,679.18	2,639.06	40.12	66.783		
5,800.00	5,760.79	5,459.40	5,428.63	21.08	19.90	23.31	243.54	3,243.75	2,680.17	2,639.32	40.85	65.605		
5,900.00	5,860.02	5,559.39	5,527.73	21.45	20.27	23.31	248.44	3,256.15	2,681.17	2,639.58	41.59	64.468		
6,000.00	5,959.24	5,659.39	5,626.83	21.82	20.64	23.31	253.35	3,268.54	2,682.16	2,639.84	42.33	63.371		
6,100.00	6,058.47	5,759.38	5,725.94	22.19	21.01	23.31	258.25	3,280.93	2,683.15	2,640.09	43.06	62.311		
6,200.00	6,157.69	5,859.38	5,825.04	22.56	21.38	23.31	263.15	3,293.33	2,684.15	2,640.35	43.80	61.287		
6,300.00	6,256.92	5,959.37	5,924.14	22.93	21.75	23.32	268.05	3,305.72	2,685.14	2,640.61	44.53	60.296		
6,400.00	6,356.14	6,059.37	6,023.25	23.29	22.12	23.32	272.95	3,318.11	2,686.14	2,640.87	45.27	59.338		
6,500.00	6,455.37	6,159.36	6,122.35	23.66	22.49	23.32	277.85	3,330.50	2,687.13	2,641.12	46.00	58.410		
6,600.00	6,554.59	6,259.36	6,221.45	24.03	22.86	23.32	282.75	3,342.90	2,688.12	2,641.38	46.74	57.512		
6,700.00	6,653.82	6,359.35	6,320.56	24.40	23.23	23.32	287.66	3,355.29	2,689.12	2,641.64	47.48	56.642		
6,800.00	6,753.04	6,459.35	6,419.66	24.77	23.60	23.32	292.56	3,367.68	2,690.11	2,641.90	48.21	55.798		
6,900.00	6,852.27	6,559.34	6,518.76	25.14	23.96	23.32	297.46	3,380.08	2,691.10	2,642.15	48.95	54.979		
7,000.00	6,951.50	6,659.34	6,617.86	25.50	24.33	23.32	302.36	3,392.47	2,692.10	2,642.41	49.68	54.185		
7,100.00	7,050.72	6,759.33	6,716.97	25.87	24.70	23.32	307.26	3,404.86	2,693.09	2,642.67	50.42	53.413		
7,200.00	7,149.95	6,859.33	6,816.07	26.24	25.07	23.32	312.16	3,417.26	2,694.08	2,642.93	51.16	52.664		
7,300.00	7,249.17	6,959.32	6,915.17	26.61	25.44	23.32	317.06	3,429.65	2,695.08	2,643.18	51.89	51.937		
7,400.00	7,348.40	7,059.32	7,014.28	26.98	25.81	23.32	321.97	3,442.04	2,696.07	2,643.44	52.63	51.229		
7,500.00	7,447.62	7,159.31	7,113.38	27.35	26.18	23.32	326.87	3,454.43	2,697.06	2,643.70	53.36	50.541		
7,600.00	7,546.85	7,259.31	7,212.48	27.71	26.55	23.32	331.77	3,466.83	2,698.06	2,643.96	54.10	49.872		
7,700.00	7,646.07	7,359.30	7,311.59	28.08	26.92	23.32	336.67	3,479.22	2,699.05	2,644.21	54.84	49.221		
7,800.00	7,745.30	7,459.30	7,410.69	28.45	27.29	23.32	341.57	3,491.61	2,700.04	2,644.47	55.57	48.587		
7,900.00	7,844.52	7,559.29	7,509.79	28.82	27.66	23.32	346.47	3,504.01	2,701.04	2,644.73	56.31	47.969		
8,000.00	7,943.75	7,659.29	7,608.89	29.19	28.03	23.32	351.37	3,516.40	2,702.03	2,644.99	57.04	47.368		
8,100.00	8,042.98	7,759.28	7,708.00	29.56	28.40	23.32	356.28	3,528.79	2,703.02	2,645.24	57.78	46.781		
8,200.00	8,142.20	7,859.28	7,807.10	29.92	28.77	23.32	361.18	3,541.19	2,704.02	2,645.50	58.52	46.210		
8,300.00	8,241.43	7,959.27	7,906.20	30.29	29.14	23.32	366.08	3,553.58	2,705.01	2,645.76	59.25	45.653		
8,400.00	8,340.65	8,059.27	8,005.31	30.66	29.51	23.32	370.98	3,565.97	2,706.00	2,646.02	59.99	45.109		
8,500.00	8,439.88	8,159.26	8,104.41	31.03	29.88	23.32	375.88	3,578.36	2,707.00	2,646.27	60.72	44.579		
8,600.00	8,539.10	8,259.26	8,203.51	31.40	30.25	23.32	380.78	3,590.76	2,707.99	2,646.53	61.46	44.061		
8,700.00	8,638.33	8,359.25	8,302.62	31.77	30.62	23.32	385.69	3,603.15	2,708.99	2,646.79	62.20	43.555		
8,800.00	8,737.55	8,459.25	8,401.72	32.14	30.99	23.32	390.59	3,615.54	2,709.98	2,647.05	62.93	43.062		
8,900.00	8,836.78	8,559.24	8,500.82	32.51	31.36	23.32	395.49	3,627.94	2,710.97	2,647.30	63.67	42.580		
9,000.00	8,936.08	8,659.20	8,599.89	32.87	31.73	43.81	400.39	3,640.33	2,713.17	2,648.76	64.40	42.128		
9,100.00	9,035.51	8,758.79	8,698.59	33.23	32.10	80.20	405.27	3,652.67	2,720.79	2,655.67	65.12	41.780		
9,200.00	9,134.12	8,857.33	8,796.25	33.58	32.47	89.28	410.10	3,664.88	2,732.92	2,667.09	65.82	41.518		
9,300.00	9,228.64	8,956.43	8,894.67	33.93	32.84	90.35	414.94	3,677.09	2,745.08	2,678.41	66.51	41.266		
9,400.00	9,316.12	9,055.97	8,993.03	34.28	33.21	90.37	419.78	3,689.30	2,757.27	2,689.74	67.20	41.014		
9,500.00	9,393.91	9,155.51	9,091.39	34.63	33.58	90.37	424.62	3,701.51	2,769.46	2,701.07	67.89	40.762		
9,600.00	9,459.64	9,255.05	9,189.75	34.98	33.95	90.35	429.46	3,713.74	2,781.65	2,712.30	68.58	40.510		
9,700.00	9,511.32	9,354.59	9,288.11	35.33	34.32	90.33	434.30	3,725.97	2,793.84	2,723.53	69.27	40.258		
9,800.00	9,547.36	9,454.13	9,386.47	35.68	34.69	90.30	439.14	3,738.20	2,806.03	2,734.76	69.96	40.006		
9,900.00	9,566.69	9,553.67	9,484.83	36.03	35.06	90.26	443.98	3,750.43	2,818.22	2,745.99	70.65	39.754		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design: Sun-Sombrero Pad - Sombrero State Com 224H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+MS													Offset Well Error:	0.00 usft
Reference				Semi Major Axis		Offset Wellbore Centre			Rule Assigned:				Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,000.00	9,570.00	10,032.00	9,581.20	35.39	35.54	90.23	1,062.10	3,680.01	2,732.19	2,661.30	70.89	38.540		
10,100.00	9,570.00	10,132.00	9,581.20	35.54	35.70	90.23	1,162.09	3,678.84	2,731.87	2,660.67	71.21	38.366		
10,200.00	9,570.00	10,232.00	9,581.20	35.71	35.88	90.23	1,262.08	3,677.68	2,731.55	2,660.01	71.55	38.177		
10,300.00	9,570.00	10,332.00	9,581.20	35.91	36.08	90.24	1,362.07	3,676.51	2,731.24	2,659.31	71.92	37.974		
10,400.00	9,570.00	10,432.00	9,581.20	36.12	36.29	90.24	1,462.07	3,675.35	2,730.92	2,658.59	72.33	37.756		
10,500.00	9,570.00	10,532.00	9,581.20	36.34	36.52	90.24	1,562.06	3,674.18	2,730.60	2,657.83	72.77	37.525		
10,600.00	9,570.00	10,632.00	9,581.20	36.58	36.77	90.24	1,662.05	3,673.02	2,730.28	2,657.05	73.23	37.282		
10,700.00	9,570.00	10,732.00	9,581.20	36.84	37.03	90.24	1,762.04	3,671.85	2,729.96	2,656.23	73.73	37.027		
10,800.00	9,570.00	10,832.00	9,581.20	37.11	37.30	90.24	1,862.04	3,670.69	2,729.64	2,655.39	74.25	36.761		
10,900.00	9,570.00	10,932.00	9,581.20	37.39	37.59	90.24	1,962.03	3,669.52	2,729.32	2,654.52	74.81	36.486		
11,000.00	9,570.00	11,031.99	9,581.20	37.69	37.89	90.24	2,062.02	3,668.36	2,729.00	2,653.62	75.38	36.201		
11,100.00	9,570.00	11,131.99	9,581.20	38.00	38.20	90.24	2,162.02	3,667.19	2,728.68	2,652.69	75.99	35.908		
11,200.00	9,570.00	11,231.99	9,581.20	38.32	38.53	90.24	2,262.01	3,666.03	2,728.37	2,651.74	76.62	35.607		
11,300.00	9,570.00	11,331.99	9,581.20	38.66	38.87	90.24	2,362.00	3,664.86	2,728.05	2,650.76	77.28	35.300		
11,400.00	9,570.00	11,431.99	9,581.20	39.00	39.21	90.24	2,461.99	3,663.70	2,727.73	2,649.76	77.96	34.987		
11,500.00	9,570.00	11,531.99	9,581.20	39.36	39.57	90.24	2,561.99	3,662.53	2,727.41	2,648.74	78.67	34.668		
11,600.00	9,570.00	11,631.99	9,581.20	39.73	39.95	90.24	2,661.98	3,661.37	2,727.09	2,647.69	79.40	34.345		
11,700.00	9,570.00	11,731.99	9,581.20	40.11	40.33	90.24	2,761.97	3,660.20	2,726.77	2,646.61	80.16	34.018		
11,800.00	9,570.00	11,831.99	9,581.20	40.50	40.72	90.24	2,861.96	3,659.04	2,726.45	2,645.52	80.93	33.688		
11,900.00	9,570.00	11,931.99	9,581.20	40.90	41.13	90.24	2,961.96	3,657.87	2,726.13	2,644.40	81.73	33.356		
12,000.00	9,570.00	12,031.99	9,581.20	41.31	41.54	90.24	3,061.95	3,656.71	2,725.81	2,643.27	82.55	33.021		
12,100.00	9,570.00	12,131.99	9,581.20	41.74	41.96	90.24	3,161.94	3,655.54	2,725.49	2,642.11	83.39	32.685		
12,200.00	9,570.00	12,231.99	9,581.20	42.17	42.40	90.24	3,261.94	3,654.38	2,725.18	2,640.93	84.24	32.348		
12,300.00	9,570.00	12,331.99	9,581.20	42.61	42.84	90.24	3,361.93	3,653.21	2,724.86	2,639.73	85.12	32.011		
12,400.00	9,570.00	12,431.99	9,581.20	43.06	43.29	90.24	3,461.92	3,652.05	2,724.54	2,638.52	86.02	31.674		
12,500.00	9,570.00	12,531.99	9,581.20	43.52	43.75	90.24	3,561.91	3,650.88	2,724.22	2,637.29	86.93	31.337		
12,600.00	9,570.00	12,631.99	9,581.20	43.99	44.22	90.24	3,661.91	3,649.72	2,723.90	2,636.03	87.87	31.001		
12,700.00	9,570.00	12,731.99	9,581.20	44.46	44.70	90.24	3,761.90	3,648.55	2,723.58	2,634.77	88.81	30.666		
12,800.00	9,570.00	12,831.99	9,581.20	44.94	45.18	90.24	3,861.89	3,647.39	2,723.26	2,633.48	89.78	30.333		
12,900.00	9,570.00	12,931.99	9,581.20	45.44	45.67	90.24	3,961.88	3,646.22	2,722.94	2,632.18	90.76	30.001		
13,000.00	9,570.00	13,031.98	9,581.20	45.94	46.17	90.24	4,061.88	3,645.06	2,722.62	2,630.87	91.76	29.672		
13,100.00	9,570.00	13,131.98	9,581.20	46.44	46.68	90.24	4,161.87	3,643.89	2,722.31	2,629.54	92.77	29.345		
13,200.00	9,570.00	13,231.98	9,581.20	46.95	47.20	90.24	4,261.86	3,642.73	2,721.99	2,628.19	93.79	29.021		
13,300.00	9,570.00	13,331.98	9,581.20	47.47	47.72	90.24	4,361.85	3,641.56	2,721.67	2,626.83	94.83	28.699		
13,400.00	9,570.00	13,431.98	9,581.20	48.00	48.24	90.24	4,461.85	3,640.40	2,721.35	2,625.46	95.89	28.381		
13,500.00	9,570.00	13,531.98	9,581.20	48.54	48.78	90.24	4,561.84	3,639.23	2,721.03	2,624.08	96.95	28.066		
13,600.00	9,570.00	13,631.98	9,581.20	49.07	49.32	90.24	4,661.83	3,638.07	2,720.71	2,622.68	98.03	27.754		
13,700.00	9,570.00	13,731.98	9,581.20	49.62	49.86	90.24	4,761.83	3,636.90	2,720.39	2,621.27	99.12	27.445		
13,800.00	9,570.00	13,831.98	9,581.20	50.17	50.42	90.24	4,861.82	3,635.74	2,720.07	2,619.85	100.22	27.140		
13,900.00	9,570.00	13,931.98	9,581.20	50.73	50.97	90.24	4,961.81	3,634.57	2,719.75	2,618.42	101.34	26.838		
14,000.00	9,570.00	14,031.98	9,581.20	51.29	51.54	90.24	5,061.80	3,633.41	2,719.43	2,616.97	102.46	26.541		
14,100.00	9,570.00	14,131.98	9,581.20	51.86	52.11	90.24	5,161.80	3,632.24	2,719.12	2,615.52	103.60	26.247		
14,200.00	9,570.00	14,231.98	9,581.20	52.43	52.68	90.24	5,261.79	3,631.08	2,718.80	2,614.05	104.74	25.956		
14,300.00	9,570.00	14,331.98	9,581.20	53.01	53.26	90.24	5,361.78	3,629.91	2,718.48	2,612.58	105.90	25.670		
14,400.00	9,570.00	14,431.98	9,581.20	53.59	53.84	90.24	5,461.77	3,628.75	2,718.16	2,611.09	107.07	25.388		
14,500.00	9,570.00	14,531.98	9,581.20	54.18	54.43	90.24	5,561.77	3,627.58	2,717.84	2,609.60	108.24	25.109		
14,600.00	9,570.00	14,631.98	9,581.20	54.77	55.02	90.24	5,661.76	3,626.42	2,717.52	2,608.10	109.43	24.834		
14,700.00	9,570.00	14,731.98	9,581.20	55.37	55.62	90.24	5,761.75	3,625.25	2,717.20	2,606.58	110.62	24.564		
14,800.00	9,570.00	14,831.98	9,581.20	55.97	56.22	90.24	5,861.75	3,624.09	2,716.88	2,605.06	111.82	24.297		
14,900.00	9,570.00	14,931.97	9,581.20	56.57	56.82	90.24	5,961.74	3,622.92	2,716.56	2,603.53	113.03	24.034		
15,000.00	9,570.00	15,031.97	9,581.20	57.18	57.43	90.24	6,061.73	3,621.76	2,716.24	2,602.00	114.25	23.775		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - Sombrero State Com 224H - OH - Plan #1

Survey Program: 0-MWD+IFR1+MS													Offset Site Error:	0.00 usft
Reference Offset													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance				Warning	
				Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,100.00	9,570.00	15,131.97	9,581.20	57.79	58.04	90.24	6,161.72	3,620.59	2,715.93	2,600.45	115.47	23.520		
15,200.00	9,570.00	15,231.97	9,581.20	58.41	58.66	90.24	6,261.72	3,619.43	2,715.61	2,598.90	116.70	23.269		
15,300.00	9,570.00	15,331.97	9,581.20	59.03	59.28	90.24	6,361.71	3,618.26	2,715.29	2,597.34	117.94	23.022		
15,400.00	9,570.00	15,431.97	9,581.20	59.65	59.90	90.24	6,461.70	3,617.10	2,714.97	2,595.78	119.19	22.778		
15,500.00	9,570.00	15,531.97	9,581.20	60.27	60.53	90.24	6,561.69	3,615.93	2,714.65	2,594.21	120.44	22.539		
15,600.00	9,570.00	15,631.97	9,581.20	60.90	61.16	90.24	6,661.69	3,614.77	2,714.33	2,592.63	121.70	22.303		
15,700.00	9,570.00	15,731.97	9,581.20	61.54	61.79	90.24	6,761.68	3,613.60	2,714.01	2,591.04	122.97	22.070		
15,800.00	9,570.00	15,831.97	9,581.20	62.17	62.42	90.24	6,861.67	3,612.44	2,713.69	2,589.45	124.24	21.842		
15,900.00	9,570.00	15,931.97	9,581.20	62.81	63.06	90.24	6,961.67	3,611.27	2,713.37	2,587.85	125.52	21.617		
16,000.00	9,570.00	16,031.97	9,581.20	63.45	63.70	90.24	7,061.66	3,610.11	2,713.06	2,586.25	126.81	21.395		
16,100.00	9,570.00	16,131.97	9,581.20	64.10	64.35	90.24	7,161.65	3,608.94	2,712.74	2,584.64	128.10	21.177		
16,200.00	9,570.00	16,231.97	9,581.20	64.74	65.00	90.24	7,261.64	3,607.78	2,712.42	2,583.03	129.39	20.963		
16,300.00	9,570.00	16,331.97	9,581.20	65.39	65.65	90.24	7,361.64	3,606.61	2,712.10	2,581.41	130.69	20.752		
16,400.00	9,570.00	16,431.97	9,581.20	66.05	66.30	90.24	7,461.63	3,605.45	2,711.78	2,579.78	132.00	20.544		
16,500.00	9,570.00	16,531.97	9,581.20	66.70	66.95	90.24	7,561.62	3,604.28	2,711.46	2,578.15	133.31	20.340		
16,600.00	9,570.00	16,631.97	9,581.20	67.36	67.61	90.24	7,661.61	3,603.12	2,711.14	2,576.52	134.63	20.138		
16,700.00	9,570.00	16,731.97	9,581.20	68.02	68.27	90.24	7,761.61	3,601.95	2,710.82	2,574.88	135.95	19.940		
16,800.00	9,570.00	16,831.97	9,581.20	68.68	68.93	90.24	7,861.60	3,600.79	2,710.50	2,573.23	137.27	19.746		
16,900.00	9,570.00	16,931.96	9,581.20	69.34	69.60	90.24	7,961.59	3,599.62	2,710.18	2,571.58	138.60	19.554		
17,000.00	9,570.00	17,031.96	9,581.20	70.01	70.26	90.24	8,061.59	3,598.46	2,709.87	2,569.93	139.93	19.365		
17,100.00	9,570.00	17,131.96	9,581.20	70.68	70.93	90.24	8,161.58	3,597.29	2,709.55	2,568.27	141.27	19.180		
17,200.00	9,570.00	17,231.96	9,581.20	71.35	71.60	90.24	8,261.57	3,596.13	2,709.23	2,566.61	142.61	18.997		
17,300.00	9,570.00	17,331.96	9,581.20	72.02	72.27	90.24	8,361.56	3,594.96	2,708.91	2,564.95	143.96	18.817		
17,400.00	9,570.00	17,431.96	9,581.20	72.69	72.95	90.24	8,461.56	3,593.80	2,708.59	2,563.28	145.31	18.640		
17,500.00	9,570.00	17,531.96	9,581.20	73.37	73.62	90.24	8,561.55	3,592.63	2,708.27	2,561.61	146.66	18.466		
17,600.00	9,570.00	17,631.96	9,581.20	74.05	74.30	90.24	8,661.54	3,591.47	2,707.95	2,559.93	148.02	18.294		
17,700.00	9,570.00	17,731.96	9,581.20	74.73	74.98	90.24	8,761.53	3,590.30	2,707.63	2,558.25	149.38	18.126		
17,800.00	9,570.00	17,831.96	9,581.20	75.41	75.66	90.24	8,861.53	3,589.14	2,707.31	2,556.57	150.75	17.959		
17,900.00	9,570.00	17,931.96	9,581.20	76.09	76.35	90.24	8,961.52	3,587.97	2,707.00	2,554.88	152.11	17.796		
18,000.00	9,570.00	18,031.96	9,581.20	76.78	77.03	90.24	9,061.51	3,586.81	2,706.68	2,553.19	153.48	17.635		
18,100.00	9,570.00	18,131.96	9,581.20	77.46	77.72	90.24	9,161.50	3,585.64	2,706.36	2,551.50	154.86	17.476		
18,200.00	9,570.00	18,231.96	9,581.20	78.15	78.40	90.24	9,261.50	3,584.48	2,706.04	2,549.80	156.24	17.320		
18,300.00	9,570.00	18,331.96	9,581.20	78.84	79.09	90.24	9,361.49	3,583.31	2,705.72	2,548.10	157.62	17.167		
18,400.00	9,570.00	18,431.96	9,581.20	79.53	79.79	90.24	9,461.48	3,582.15	2,705.40	2,546.40	159.00	17.015		
18,500.00	9,570.00	18,531.96	9,581.20	80.22	80.48	90.24	9,561.48	3,580.98	2,705.08	2,544.70	160.38	16.866		
18,600.00	9,570.00	18,631.96	9,581.20	80.92	81.17	90.24	9,661.47	3,579.82	2,704.76	2,542.99	161.77	16.720		
18,700.00	9,570.00	18,731.96	9,581.20	81.61	81.87	90.24	9,761.46	3,578.65	2,704.44	2,541.28	163.16	16.575		
18,800.00	9,570.00	18,831.96	9,581.20	82.31	82.56	90.24	9,861.45	3,577.49	2,704.12	2,539.57	164.56	16.433		
18,900.00	9,570.00	18,931.95	9,581.20	83.01	83.26	90.24	9,961.45	3,576.32	2,703.81	2,537.85	165.95	16.292		
19,000.00	9,570.00	19,031.95	9,581.20	83.70	83.96	90.24	10,061.44	3,575.16	2,703.49	2,536.13	167.35	16.154		
19,100.00	9,570.00	19,131.95	9,581.20	84.40	84.66	90.24	10,161.43	3,573.99	2,703.17	2,534.41	168.76	16.018		
19,200.00	9,570.00	19,231.95	9,581.20	85.11	85.36	90.24	10,261.42	3,572.83	2,702.85	2,532.69	170.16	15.884		
19,300.00	9,570.00	19,331.95	9,581.20	85.81	86.06	90.24	10,361.42	3,571.66	2,702.53	2,530.96	171.57	15.752		
19,400.00	9,570.00	19,431.95	9,581.20	86.51	86.77	90.24	10,461.41	3,570.50	2,702.21	2,529.24	172.97	15.622		
19,500.00	9,570.00	19,531.95	9,581.20	87.22	87.47	90.24	10,561.40	3,569.33	2,701.89	2,527.51	174.38	15.494		
19,600.00	9,570.00	19,631.95	9,581.20	87.92	88.18	90.24	10,661.40	3,568.17	2,701.57	2,525.78	175.80	15.368		
19,700.00	9,570.00	19,731.95	9,581.20	88.63	88.88	90.24	10,761.39	3,567.00	2,701.25	2,524.04	177.21	15.243		
19,800.00	9,570.00	19,831.95	9,581.20	89.34	89.59	90.24	10,861.38	3,565.84	2,700.94	2,522.31	178.63	15.120		
19,900.00	9,570.00	19,931.95	9,581.20	90.05	90.30	90.24	10,961.37	3,564.67	2,700.62	2,520.57	180.05	14.999		
20,000.00	9,570.00	20,031.95	9,581.20	90.76	91.01	90.24	11,061.37	3,563.51	2,700.30	2,518.83	181.47	14.880		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - Sombrero State Com 224H - OH - Plan #1

Survey Program: 0-MWD+IFR1+MS														Offset Site Error:	0.00 usft
Reference Offset														Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance				Warning		
				Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
20,100.00	9,570.00	20,131.95	9,581.20	91.47	91.72	90.24	11,161.36	3,562.34	2,699.98	2,517.09	182.89	14.763			
20,200.00	9,570.00	20,231.95	9,581.20	92.18	92.43	90.24	11,261.35	3,561.18	2,699.66	2,515.34	184.32	14.647			
20,300.00	9,570.00	20,331.95	9,581.20	92.89	93.15	90.24	11,361.34	3,560.01	2,699.34	2,513.60	185.74	14.533			
20,400.00	9,570.00	20,431.95	9,581.20	93.60	93.86	90.24	11,461.34	3,558.85	2,699.02	2,511.85	187.17	14.420			
20,500.00	9,570.00	20,531.95	9,581.20	94.32	94.58	90.24	11,561.33	3,557.68	2,698.70	2,510.10	188.60	14.309			
20,600.00	9,570.00	20,631.95	9,581.20	95.03	95.29	90.24	11,661.32	3,556.52	2,698.38	2,508.35	190.03	14.199			
20,700.00	9,570.00	20,731.95	9,581.20	95.75	96.01	90.24	11,761.32	3,555.35	2,698.06	2,506.60	191.47	14.091			
20,800.00	9,570.00	20,831.94	9,581.20	96.47	96.72	90.24	11,861.31	3,554.19	2,697.75	2,504.84	192.90	13.985			
20,900.00	9,570.00	20,931.94	9,581.20	97.19	97.44	90.24	11,961.30	3,553.02	2,697.43	2,503.09	194.34	13.880			
21,000.00	9,570.00	21,031.94	9,581.20	97.90	98.16	90.24	12,061.29	3,551.86	2,697.11	2,501.33	195.78	13.776			
21,100.00	9,570.00	21,131.94	9,581.20	98.62	98.88	90.24	12,161.29	3,550.69	2,696.79	2,499.57	197.22	13.674			
21,200.00	9,570.00	21,231.94	9,581.20	99.34	99.60	90.24	12,261.28	3,549.53	2,696.47	2,497.81	198.66	13.573			
21,300.00	9,570.00	21,331.94	9,581.20	100.06	100.32	90.24	12,361.27	3,548.36	2,696.15	2,496.05	200.10	13.474			
21,400.00	9,570.00	21,431.94	9,581.20	100.79	101.04	90.24	12,461.26	3,547.20	2,695.83	2,494.28	201.55	13.376			
21,500.00	9,570.00	21,531.94	9,581.20	101.51	101.77	90.24	12,561.26	3,546.03	2,695.51	2,492.52	202.99	13.279			
21,600.00	9,570.00	21,631.94	9,581.20	102.23	102.49	90.24	12,661.25	3,544.87	2,695.19	2,490.75	204.44	13.183			
21,700.00	9,570.00	21,731.94	9,581.20	102.95	103.21	90.24	12,761.24	3,543.70	2,694.88	2,488.99	205.89	13.089			
21,800.00	9,570.00	21,831.94	9,581.20	103.68	103.94	90.24	12,861.24	3,542.54	2,694.56	2,487.22	207.34	12.996			
21,900.00	9,570.00	21,931.94	9,581.20	104.40	104.66	90.24	12,961.23	3,541.37	2,694.24	2,485.45	208.79	12.904			
22,000.00	9,570.00	22,031.94	9,581.20	105.13	105.39	90.24	13,061.22	3,540.21	2,693.92	2,483.68	210.24	12.813			
22,100.00	9,570.00	22,131.94	9,581.20	105.86	106.11	90.24	13,161.21	3,539.04	2,693.60	2,481.90	211.70	12.724			
22,200.00	9,570.00	22,231.94	9,581.20	106.58	106.84	90.24	13,261.21	3,537.88	2,693.28	2,480.13	213.15	12.636			
22,300.00	9,570.00	22,331.94	9,581.20	107.31	107.57	90.24	13,361.20	3,536.71	2,692.96	2,478.36	214.61	12.548			
22,400.00	9,570.00	22,431.94	9,581.20	108.04	108.30	90.24	13,461.19	3,535.55	2,692.64	2,476.58	216.06	12.462			
22,500.00	9,570.00	22,531.94	9,581.20	108.77	109.02	90.24	13,561.18	3,534.38	2,692.32	2,474.80	217.52	12.377			
22,600.00	9,570.00	22,631.94	9,581.20	109.50	109.75	90.24	13,661.18	3,533.22	2,692.00	2,473.02	218.98	12.293			
22,700.00	9,570.00	22,731.94	9,581.20	110.22	110.48	90.24	13,761.17	3,532.05	2,691.69	2,471.24	220.44	12.210			
22,800.00	9,570.00	22,831.93	9,581.20	110.96	111.21	90.24	13,861.16	3,530.89	2,691.37	2,469.46	221.90	12.129			
22,900.00	9,570.00	22,931.93	9,581.20	111.69	111.95	90.24	13,961.15	3,529.72	2,691.05	2,467.68	223.37	12.048			
23,000.00	9,570.00	23,031.93	9,581.20	112.42	112.68	90.24	14,061.15	3,528.56	2,690.73	2,465.90	224.83	11.968			
23,100.00	9,570.00	23,131.93	9,581.20	113.15	113.41	90.24	14,161.14	3,527.39	2,690.41	2,464.12	226.29	11.889			
23,200.00	9,570.00	23,231.93	9,581.20	113.88	114.14	90.24	14,261.13	3,526.23	2,690.09	2,462.33	227.76	11.811			
23,300.00	9,570.00	23,331.93	9,581.20	114.61	114.87	90.24	14,361.13	3,525.06	2,689.77	2,460.55	229.23	11.734			
23,400.00	9,570.00	23,431.93	9,581.20	115.35	115.61	90.24	14,461.12	3,523.90	2,689.45	2,458.76	230.69	11.658			
23,500.00	9,570.00	23,531.93	9,581.20	116.08	116.34	90.24	14,561.11	3,522.73	2,689.13	2,456.97	232.16	11.583			
23,600.00	9,570.00	23,631.93	9,581.20	116.81	117.08	90.24	14,661.10	3,521.57	2,688.82	2,455.18	233.63	11.509			
23,700.00	9,570.00	23,731.93	9,581.20	117.55	117.81	90.24	14,761.10	3,520.40	2,688.50	2,453.40	235.10	11.435			
23,800.00	9,570.00	23,831.93	9,581.20	118.28	118.55	90.24	14,861.09	3,519.24	2,688.18	2,451.61	236.57	11.363			
23,900.00	9,570.00	23,931.93	9,581.20	119.02	119.28	90.24	14,961.08	3,518.07	2,687.86	2,449.81	238.04	11.291			
24,000.00	9,570.00	24,031.93	9,581.20	119.76	120.02	90.24	15,061.07	3,516.91	2,687.54	2,448.02	239.52	11.221			
24,100.00	9,570.00	24,131.93	9,581.20	120.49	120.75	90.24	15,161.07	3,515.74	2,687.22	2,446.23	240.99	11.151			
24,200.00	9,570.00	24,231.93	9,581.20	121.23	121.49	90.24	15,261.06	3,514.58	2,686.90	2,444.44	242.47	11.082			
24,300.00	9,570.00	24,331.93	9,581.20	121.97	122.23	90.24	15,361.05	3,513.41	2,686.58	2,442.64	243.94	11.013			
24,400.00	9,570.00	24,431.93	9,581.20	122.70	122.97	90.24	15,461.05	3,512.25	2,686.26	2,440.85	245.42	10.946			
24,500.00	9,570.00	24,531.93	9,581.20	123.44	123.70	90.24	15,561.04	3,511.08	2,685.94	2,439.05	246.89	10.879			
24,600.00	9,570.00	24,631.93	9,581.20	124.18	124.44	90.24	15,661.03	3,509.92	2,685.63	2,437.25	248.37	10.813			
24,700.00	9,570.00	24,731.93	9,581.20	124.92	125.18	90.24	15,761.02	3,508.75	2,685.31	2,435.46	249.85	10.748			
24,800.00	9,570.00	24,831.92	9,581.20	125.66	125.92	90.24	15,861.02	3,507.59	2,684.99	2,433.66	251.33	10.683			
24,900.00	9,570.00	24,931.92	9,581.20	126.40	126.66	90.24	15,961.01	3,506.42	2,684.67	2,431.86	252.81	10.619			
25,000.00	9,570.00	25,031.92	9,581.20	127.14	127.40	90.24	16,061.00	3,505.26	2,684.35	2,430.06	254.29	10.556			
25,100.00	9,570.00	25,131.92	9,581.20	127.88	128.08	90.24	16,162.95	3,504.21	2,684.07	2,428.33	255.74	10.495			

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - Sombrero State Com 224H - OH - Plan #1

Survey Program:		0-MWD+IFR1+MS		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
25,100.52	9,570.00	25,123.88	9,581.20	127.88	128.08	90.24	16,152.95	3,504.21	2,684.07	2,428.32	255.74	10.495		
25,200.00	9,570.00	25,221.22	9,581.20	128.62	128.80	90.24	16,250.29	3,503.46	2,684.14	2,426.94	257.21	10.436		
25,300.00	9,570.00	25,321.22	9,581.20	129.36	129.54	90.24	16,350.29	3,502.70	2,684.22	2,425.54	258.69	10.376		
25,400.00	9,570.00	25,421.22	9,581.20	130.10	130.28	90.24	16,450.29	3,501.93	2,684.30	2,424.13	260.17	10.317		
25,500.00	9,570.00	25,521.22	9,581.20	130.84	131.02	90.24	16,550.28	3,501.16	2,684.38	2,422.73	261.65	10.259		
25,600.00	9,570.00	25,621.22	9,581.20	131.58	131.77	90.24	16,650.28	3,500.40	2,684.46	2,421.32	263.14	10.202		
25,700.00	9,570.00	25,721.22	9,581.20	132.33	132.51	90.24	16,750.28	3,499.63	2,684.54	2,419.92	264.62	10.145		
25,800.00	9,570.00	25,821.22	9,581.20	133.07	133.25	90.24	16,850.27	3,498.87	2,684.62	2,418.51	266.11	10.088		
25,900.00	9,570.00	25,921.22	9,581.20	133.81	133.99	90.24	16,950.27	3,498.10	2,684.70	2,417.11	267.60	10.033		
26,000.00	9,570.00	26,021.22	9,581.20	134.55	134.74	90.24	17,050.27	3,497.33	2,684.78	2,415.70	269.08	9.978		
26,100.00	9,570.00	26,121.22	9,581.20	135.30	135.48	90.24	17,150.27	3,496.57	2,684.86	2,414.29	270.57	9.923		
26,200.00	9,570.00	26,221.22	9,581.20	136.04	136.22	90.24	17,250.26	3,495.80	2,684.94	2,412.88	272.06	9.869		
26,300.00	9,570.00	26,321.22	9,581.20	136.78	136.97	90.24	17,350.26	3,495.03	2,685.02	2,411.48	273.55	9.816		
26,400.00	9,570.00	26,421.22	9,581.20	137.53	137.71	90.24	17,450.26	3,494.27	2,685.10	2,410.07	275.03	9.763		
26,500.00	9,570.00	26,521.22	9,581.20	138.27	138.45	90.24	17,550.25	3,493.50	2,685.18	2,408.66	276.52	9.710		
26,600.00	9,570.00	26,621.22	9,581.20	139.02	139.20	90.24	17,650.25	3,492.73	2,685.26	2,407.25	278.01	9.659		
26,700.00	9,570.00	26,721.22	9,581.20	139.76	139.94	90.24	17,750.25	3,491.97	2,685.34	2,405.84	279.50	9.608		
26,800.00	9,570.00	26,821.22	9,581.20	140.51	140.69	90.24	17,850.24	3,491.20	2,685.42	2,404.42	281.00	9.557		
26,900.00	9,570.00	26,921.22	9,581.20	141.25	141.43	90.24	17,950.24	3,490.44	2,685.50	2,403.01	282.49	9.507		
27,000.00	9,570.00	27,021.22	9,581.20	142.00	142.18	90.24	18,050.24	3,489.67	2,685.58	2,401.60	283.98	9.457		
27,100.00	9,570.00	27,121.22	9,581.20	142.75	142.93	90.24	18,150.24	3,488.90	2,685.66	2,400.19	285.47	9.408		
27,200.00	9,570.00	27,221.22	9,581.20	143.49	143.67	90.24	18,250.23	3,488.14	2,685.74	2,398.77	286.96	9.359		
27,300.00	9,570.00	27,321.22	9,581.20	144.24	144.42	90.24	18,350.23	3,487.37	2,685.82	2,397.36	288.46	9.311		
27,400.00	9,570.00	27,421.22	9,581.20	144.99	145.17	90.24	18,450.23	3,486.60	2,685.90	2,395.94	289.95	9.263		
27,500.00	9,570.00	27,521.22	9,581.20	145.73	145.91	90.24	18,550.22	3,485.84	2,685.98	2,394.53	291.45	9.216		
27,600.00	9,570.00	27,621.22	9,581.20	146.48	146.66	90.24	18,650.22	3,485.07	2,686.06	2,393.11	292.94	9.169		
27,700.00	9,570.00	27,721.22	9,581.20	147.23	147.41	90.24	18,750.22	3,484.31	2,686.14	2,391.70	294.44	9.123		
27,800.00	9,570.00	27,821.22	9,581.20	147.97	148.15	90.24	18,850.22	3,483.54	2,686.22	2,390.28	295.93	9.077		
27,900.00	9,570.00	27,921.22	9,581.20	148.72	148.90	90.24	18,950.21	3,482.77	2,686.30	2,388.87	297.43	9.032		
28,000.00	9,570.00	28,021.22	9,581.20	149.47	149.65	90.24	19,050.21	3,482.01	2,686.38	2,387.45	298.93	8.987		
28,100.00	9,570.00	28,121.22	9,581.20	150.22	150.40	90.24	19,150.21	3,481.24	2,686.46	2,386.03	300.42	8.942		
28,200.00	9,570.00	28,221.22	9,581.20	150.97	151.15	90.24	19,250.20	3,480.47	2,686.54	2,384.61	301.92	8.898		
28,300.00	9,570.00	28,321.22	9,581.20	151.72	151.90	90.24	19,350.20	3,479.71	2,686.61	2,383.20	303.42	8.854		
28,400.00	9,570.00	28,421.22	9,581.20	152.47	152.65	90.24	19,450.20	3,478.94	2,686.69	2,381.78	304.92	8.811		
28,500.00	9,570.00	28,521.22	9,581.20	153.22	153.39	90.24	19,550.19	3,478.17	2,686.77	2,380.36	306.42	8.768		
28,600.00	9,570.00	28,621.22	9,581.20	153.96	154.14	90.24	19,650.19	3,477.41	2,686.85	2,378.94	307.92	8.726		
28,700.00	9,570.00	28,721.22	9,581.20	154.71	154.89	90.24	19,750.19	3,476.64	2,686.93	2,377.52	309.42	8.684		
28,800.00	9,570.00	28,821.22	9,581.20	155.46	155.64	90.24	19,850.19	3,475.88	2,687.01	2,376.10	310.92	8.642		
28,900.00	9,570.00	28,921.22	9,581.20	156.21	156.39	90.24	19,950.18	3,475.11	2,687.09	2,374.68	312.42	8.601		
29,000.00	9,570.00	29,021.22	9,581.20	156.96	157.14	90.24	20,050.18	3,474.34	2,687.17	2,373.26	313.92	8.560		
29,100.00	9,570.00	29,121.22	9,581.20	157.71	157.89	90.24	20,150.18	3,473.58	2,687.25	2,371.83	315.42	8.520		
29,200.00	9,570.00	29,221.22	9,581.20	158.47	158.64	90.24	20,250.17	3,472.81	2,687.33	2,370.41	316.92	8.480		
29,300.00	9,570.00	29,321.22	9,581.20	159.22	159.39	90.24	20,350.17	3,472.04	2,687.41	2,368.99	318.42	8.440		
29,400.00	9,570.00	29,421.22	9,581.20	159.97	160.15	90.24	20,450.17	3,471.28	2,687.49	2,367.57	319.92	8.400		
29,500.00	9,570.00	29,521.22	9,581.20	160.72	160.90	90.24	20,550.16	3,470.51	2,687.57	2,366.14	321.43	8.361		
29,600.00	9,570.00	29,621.22	9,581.20	161.47	161.65	90.24	20,650.16	3,469.74	2,687.65	2,364.72	322.93	8.323		
29,700.00	9,570.00	29,721.22	9,581.20	162.22	162.40	90.24	20,750.16	3,468.98	2,687.73	2,363.30	324.43	8.284		
29,800.00	9,570.00	29,821.22	9,581.20	162.97	163.15	90.24	20,850.16	3,468.21	2,687.81	2,361.87	325.94	8.246		
29,900.00	9,570.00	29,921.22	9,581.20	163.72	163.90	90.24	20,950.15	3,467.45	2,687.89	2,360.45	327.44	8.209		
30,000.00	9,570.00	30,021.22	9,581.20	164.48	164.65	90.24	21,050.15	3,466.68	2,687.97	2,359.02	328.95	8.171		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - Sombrero State Com 224H - OH - Plan #1

Survey Program:		Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
30,100.00	9,570.00	30,121.22	9,581.20	165.23	165.41	90.24	21,150.15	3,465.91	2,688.05	2,357.60	330.45	8.135			
30,200.00	9,570.00	30,221.22	9,581.20	165.98	166.16	90.24	21,250.14	3,465.15	2,688.13	2,356.17	331.95	8.098			
30,264.95	9,570.00	30,286.17	9,581.20	166.47	166.65	90.24	21,315.09	3,464.65	2,688.18	2,355.25	332.93	8.074	ES, SF		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - Sun Federal Com 224H - OH - Plan #1

Survey Program:		0-MWD+IFR1+MS		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Site Error:
Reference	Vertical	Measured	Vertical	Reference	Offset	Highside		+N/-S	+E/-W	Between	Between	Minimum	Separation	Warning
Depth	Depth	Depth	Depth	(usft)	(usft)	Toolface	(°)	(usft)	(usft)	Centres	Ellipses	Separation	Factor	
(usft)	(usft)	(usft)	(usft)							(usft)	(usft)	(usft)		
0.00	0.00	0.00	11.30	0.00	0.00	89.79		9.90	2,672.80	2,672.84				
100.00	100.00	88.70	100.00	0.26	0.24	89.79		9.90	2,672.80	2,672.82	2,672.31	0.51	5,258.248	
200.00	200.00	188.70	200.00	0.62	0.59	89.79		9.90	2,672.80	2,672.82	2,671.60	1.22	2,198.157	
300.00	300.00	288.70	300.00	0.98	0.95	89.79		9.90	2,672.80	2,672.82	2,670.89	1.93	1,382.817	
400.00	400.00	388.70	400.00	1.34	1.31	89.79		9.90	2,672.80	2,672.82	2,670.17	2.65	1,008.678	
500.00	500.00	488.70	500.00	1.70	1.67	89.79		9.90	2,672.80	2,672.82	2,669.45	3.37	793.883	
600.00	599.98	546.47	557.77	2.05	1.87	23.12		9.99	2,673.17	2,671.91	2,667.99	3.92	680.857	
700.00	699.84	600.00	611.28	2.41	2.06	23.16		10.30	2,674.50	2,669.57	2,665.11	4.46	598.183	
800.00	799.45	651.26	662.49	2.76	2.24	23.22		10.82	2,676.68	2,665.80	2,660.81	4.99	533.868	
900.00	898.74	700.00	711.14	3.12	2.41	23.27		11.51	2,679.59	2,660.91	2,655.39	5.51	482.487	
1,000.00	997.97	756.15	767.11	3.48	2.61	23.31		12.54	2,683.94	2,657.27	2,651.21	6.06	438.191	
1,100.00	1,097.19	800.00	810.75	3.84	2.77	23.34		13.52	2,688.07	2,655.46	2,648.89	6.57	404.230	
1,153.23	1,150.01	836.68	847.20	4.03	2.90	23.36		14.46	2,692.03	2,655.18	2,648.29	6.89	385.571	CC
1,200.00	1,196.42	861.75	872.09	4.20	2.99	23.37		15.16	2,694.99	2,655.37	2,648.23	7.14	371.831	ES
1,300.00	1,295.65	961.72	971.27	4.56	3.35	23.41		18.05	2,707.21	2,656.19	2,648.33	7.86	337.963	
1,400.00	1,394.87	1,061.70	1,070.46	4.93	3.71	23.45		20.95	2,719.43	2,657.01	2,648.43	8.58	309.646	
1,500.00	1,494.10	1,161.68	1,169.64	5.29	4.07	23.50		23.84	2,731.65	2,657.83	2,648.53	9.30	285.761	
1,600.00	1,593.32	1,261.65	1,268.83	5.66	4.43	23.54		26.74	2,743.87	2,658.65	2,648.63	10.03	265.132	
1,700.00	1,692.55	1,361.63	1,368.01	6.02	4.79	23.58		29.63	2,756.08	2,659.48	2,648.72	10.75	247.294	
1,800.00	1,791.77	1,461.61	1,467.20	6.39	5.16	23.63		32.53	2,768.30	2,660.30	2,648.82	11.48	231.692	
1,900.00	1,891.00	1,561.58	1,566.38	6.75	5.52	23.67		35.42	2,780.52	2,661.13	2,648.92	12.21	217.932	
2,000.00	1,990.22	1,661.56	1,665.56	7.12	5.89	23.71		38.32	2,792.74	2,661.96	2,649.02	12.94	205.710	
2,100.00	2,089.45	1,761.53	1,764.75	7.48	6.25	23.76		41.21	2,804.95	2,662.79	2,649.12	13.67	194.784	
2,200.00	2,188.67	1,861.51	1,863.93	7.85	6.62	23.80		44.11	2,817.17	2,663.62	2,649.22	14.40	184.958	
2,300.00	2,287.90	1,961.49	1,963.12	8.22	6.99	23.84		47.00	2,829.39	2,664.46	2,649.32	15.13	176.076	
2,400.00	2,387.13	2,061.46	2,062.30	8.58	7.35	23.89		49.90	2,841.61	2,665.29	2,649.43	15.86	168.009	
2,500.00	2,486.35	2,161.44	2,161.49	8.95	7.72	23.93		52.79	2,853.82	2,666.13	2,649.53	16.60	160.650	
2,600.00	2,585.58	2,261.42	2,260.67	9.32	8.09	23.97		55.69	2,866.04	2,666.97	2,649.64	17.33	153.910	
2,700.00	2,684.80	2,361.39	2,359.86	9.69	8.45	24.02		58.58	2,878.26	2,667.80	2,649.74	18.06	147.714	
2,800.00	2,784.03	2,461.37	2,459.04	10.05	8.82	24.06		61.48	2,890.48	2,668.65	2,649.85	18.79	142.000	
2,900.00	2,883.25	2,561.34	2,558.23	10.42	9.19	24.10		64.37	2,902.69	2,669.49	2,649.96	19.53	136.713	
3,000.00	2,982.48	2,661.32	2,657.41	10.79	9.55	24.15		67.27	2,914.91	2,670.33	2,650.07	20.26	131.808	
3,100.00	3,081.70	2,761.30	2,756.60	11.15	9.92	24.19		70.16	2,927.13	2,671.18	2,650.19	20.99	127.244	
3,200.00	3,180.93	2,861.27	2,855.78	11.52	10.29	24.23		73.06	2,939.35	2,672.03	2,650.30	21.73	122.988	
3,300.00	3,280.15	2,961.25	2,954.96	11.89	10.66	24.28		75.95	2,951.57	2,672.87	2,650.41	22.46	119.009	
3,400.00	3,379.38	3,061.22	3,054.15	12.26	11.03	24.32		78.85	2,963.78	2,673.72	2,650.53	23.19	115.282	
3,500.00	3,478.61	3,161.20	3,153.33	12.62	11.39	24.36		81.74	2,976.00	2,674.58	2,650.65	23.93	111.782	
3,600.00	3,577.83	3,261.18	3,252.52	12.99	11.76	24.41		84.64	2,988.22	2,675.43	2,650.77	24.66	108.491	
3,700.00	3,677.06	3,361.15	3,351.70	13.36	12.13	24.45		87.53	3,000.44	2,676.28	2,650.89	25.39	105.389	
3,800.00	3,776.28	3,461.13	3,450.89	13.73	12.50	24.49		90.43	3,012.65	2,677.14	2,651.01	26.13	102.462	
3,900.00	3,875.51	3,561.11	3,550.07	14.09	12.86	24.53		93.32	3,024.87	2,678.00	2,651.14	26.86	99.694	
4,000.00	3,974.73	3,661.08	3,649.26	14.46	13.23	24.58		96.22	3,037.09	2,678.86	2,651.26	27.60	97.073	
4,100.00	4,073.96	3,761.06	3,748.44	14.83	13.60	24.62		99.11	3,049.31	2,679.72	2,651.39	28.33	94.588	
4,200.00	4,173.18	3,861.03	3,847.63	15.20	13.97	24.66		102.01	3,061.52	2,680.58	2,651.52	29.06	92.229	
4,300.00	4,272.41	3,961.01	3,946.81	15.56	14.34	24.71		104.90	3,073.74	2,681.44	2,651.64	29.80	89.985	
4,400.00	4,371.63	4,060.99	4,046.00	15.93	14.71	24.75		107.80	3,085.96	2,682.31	2,651.78	30.53	87.850	
4,500.00	4,470.86	4,160.96	4,145.18	16.30	15.07	24.79		110.69	3,098.18	2,683.18	2,651.91	31.27	85.815	
4,600.00	4,570.08	4,260.94	4,244.37	16.67	15.44	24.83		113.59	3,110.40	2,684.04	2,652.04	32.00	83.873	
4,700.00	4,669.31	4,360.92	4,343.55	17.04	15.81	24.88		116.48	3,122.61	2,684.91	2,652.18	32.74	82.018	
4,800.00	4,768.54	4,460.89	4,442.73	17.40	16.18	24.92		119.38	3,134.83	2,685.78	2,652.31	33.47	80.244	
4,900.00	4,867.76	4,560.87	4,541.92	17.77	16.55	24.96		122.27	3,147.05	2,686.66	2,652.45	34.20	78.547	

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - Sun Federal Com 224H - OH - Plan #1

Survey Program:		0-MWD+IFR1+MS		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Site Error:
Measured Reference	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	+N/-S	+E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)			
5,000.00	4,966.99	4,660.84	4,641.10	18.14	16.92	25.00	125.17	3,159.27	2,687.53	2,652.59	34.94	76.921		
5,100.00	5,066.21	4,760.82	4,740.29	18.51	17.28	25.05	128.06	3,171.48	2,688.41	2,652.73	35.67	75.362		
5,200.00	5,165.44	4,860.80	4,839.47	18.88	17.65	25.09	130.96	3,183.70	2,689.28	2,652.88	36.41	73.866		
5,300.00	5,264.66	4,960.77	4,938.66	19.24	18.02	25.13	133.85	3,195.92	2,690.16	2,653.02	37.14	72.429		
5,400.00	5,363.89	5,060.75	5,037.84	19.61	18.39	25.17	136.75	3,208.14	2,691.04	2,653.17	37.88	71.048		
5,500.00	5,463.11	5,160.73	5,137.03	19.98	18.76	25.22	139.64	3,220.35	2,691.92	2,653.31	38.61	69.719		
5,600.00	5,562.34	5,260.70	5,236.21	20.35	19.13	25.26	142.54	3,232.57	2,692.81	2,653.46	39.35	68.440		
5,700.00	5,661.56	5,360.68	5,335.40	20.72	19.49	25.30	145.43	3,244.79	2,693.69	2,653.61	40.08	67.208		
5,800.00	5,760.79	5,460.65	5,434.58	21.08	19.86	25.34	148.33	3,257.01	2,694.58	2,653.76	40.81	66.020		
5,900.00	5,860.02	5,560.63	5,533.77	21.45	20.23	25.39	151.22	3,269.22	2,695.46	2,653.92	41.55	64.874		
6,000.00	5,959.24	5,660.61	5,632.95	21.82	20.60	25.43	154.12	3,281.44	2,696.35	2,654.07	42.28	63.769		
6,100.00	6,058.47	5,760.58	5,732.14	22.19	20.97	25.47	157.01	3,293.66	2,697.24	2,654.23	43.02	62.700		
6,200.00	6,157.69	5,860.56	5,831.32	22.56	21.34	25.51	159.91	3,305.88	2,698.14	2,654.38	43.75	61.668		
6,300.00	6,256.92	5,960.54	5,930.50	22.93	21.71	25.55	162.80	3,318.10	2,699.03	2,654.54	44.49	60.670		
6,400.00	6,356.14	6,060.51	6,029.69	23.29	22.08	25.60	165.70	3,330.31	2,699.92	2,654.70	45.22	59.704		
6,500.00	6,455.37	6,160.49	6,128.87	23.66	22.44	25.64	168.59	3,342.53	2,700.82	2,654.86	45.96	58.770		
6,600.00	6,554.59	6,260.46	6,228.06	24.03	22.81	25.68	171.49	3,354.75	2,701.72	2,655.03	46.69	57.864		
6,700.00	6,653.82	6,360.44	6,327.24	24.40	23.18	25.72	174.38	3,366.97	2,702.62	2,655.19	47.43	56.987		
6,800.00	6,753.04	6,460.42	6,426.43	24.77	23.55	25.77	177.28	3,379.18	2,703.52	2,655.36	48.16	56.137		
6,900.00	6,852.27	6,560.39	6,525.61	25.14	23.92	25.81	180.17	3,391.40	2,704.42	2,655.53	48.89	55.312		
7,000.00	6,951.50	6,660.37	6,624.80	25.50	24.29	25.85	183.06	3,403.62	2,705.32	2,655.69	49.63	54.511		
7,100.00	7,050.72	6,760.35	6,723.98	25.87	24.66	25.89	185.96	3,415.84	2,706.23	2,655.86	50.36	53.734		
7,200.00	7,149.95	6,860.32	6,823.17	26.24	25.03	25.93	188.85	3,428.05	2,707.13	2,656.04	51.10	52.980		
7,300.00	7,249.17	6,960.30	6,922.35	26.61	25.39	25.98	191.75	3,440.27	2,708.04	2,656.21	51.83	52.246		
7,400.00	7,348.40	7,060.27	7,021.54	26.98	25.76	26.02	194.64	3,452.49	2,708.95	2,656.38	52.57	51.534		
7,500.00	7,447.62	7,160.25	7,120.72	27.35	26.13	26.06	197.54	3,464.71	2,709.86	2,656.56	53.30	50.841		
7,600.00	7,546.85	7,260.23	7,219.91	27.71	26.50	26.10	200.43	3,476.92	2,710.77	2,656.74	54.04	50.166		
7,700.00	7,646.07	7,360.20	7,319.09	28.08	26.87	26.14	203.33	3,489.14	2,711.69	2,656.92	54.77	49.510		
7,800.00	7,745.30	7,460.18	7,418.27	28.45	27.24	26.18	206.22	3,501.36	2,712.60	2,657.10	55.50	48.872		
7,900.00	7,844.52	7,560.16	7,517.46	28.82	27.61	26.23	209.12	3,513.58	2,713.52	2,657.28	56.24	48.250		
8,000.00	7,943.75	7,660.13	7,616.64	29.19	27.98	26.27	212.01	3,525.80	2,714.44	2,657.46	56.97	47.644		
8,100.00	8,042.98	7,760.11	7,715.83	29.56	28.35	26.31	214.91	3,538.01	2,715.36	2,657.65	57.71	47.053		
8,200.00	8,142.20	7,860.08	7,815.01	29.92	28.71	26.35	217.80	3,550.23	2,716.28	2,657.84	58.44	46.478		
8,300.00	8,241.43	7,960.06	7,914.20	30.29	29.08	26.39	220.70	3,562.45	2,717.20	2,658.02	59.18	45.917		
8,400.00	8,340.65	8,060.04	8,013.38	30.66	29.45	26.43	223.59	3,574.67	2,718.12	2,658.21	59.91	45.369		
8,500.00	8,439.88	8,160.01	8,112.57	31.03	29.82	26.48	226.49	3,586.88	2,719.05	2,658.40	60.65	44.835		
8,600.00	8,539.10	8,259.99	8,211.75	31.40	30.19	26.52	229.38	3,599.10	2,719.98	2,658.60	61.38	44.314		
8,700.00	8,638.33	8,359.97	8,310.94	31.77	30.56	26.56	232.28	3,611.32	2,720.90	2,658.79	62.11	43.805		
8,800.00	8,737.55	8,459.94	8,410.12	32.14	30.93	26.60	235.17	3,623.54	2,721.83	2,658.98	62.85	43.307		
8,900.00	8,836.78	8,559.92	8,509.31	32.51	31.30	26.64	238.07	3,635.75	2,722.76	2,659.18	63.58	42.822		
9,000.00	8,936.08	8,659.85	8,608.44	32.87	31.67	26.68	240.96	3,647.97	2,724.94	2,660.63	64.32	42.368		
9,100.00	9,035.51	8,759.34	8,707.15	33.23	32.03	26.72	243.84	3,660.13	2,732.76	2,667.72	65.03	42.020		
9,200.00	9,134.12	9,150.00	9,095.62	33.58	33.40	26.76	231.25	3,688.96	2,743.80	2,677.27	66.53	41.240		
9,300.00	9,228.64	9,211.92	9,156.19	33.93	33.58	26.80	218.54	3,689.06	2,748.57	2,681.46	67.11	40.958		
9,400.00	9,316.12	9,250.00	9,192.62	34.26	33.69	26.84	207.50	3,689.15	2,756.88	2,689.28	67.60	40.782		
9,500.00	9,393.91	9,286.34	9,226.64	34.55	33.79	26.88	194.73	3,689.25	2,769.26	2,701.22	68.04	40.701	SF	
9,600.00	9,459.64	9,300.00	9,239.21	34.79	33.83	26.92	189.37	3,689.30	2,785.94	2,717.56	68.38	40.744		
9,700.00	9,511.32	9,300.00	9,239.21	34.99	33.83	26.96	189.37	3,689.30	2,806.69	2,738.07	68.63	40.898		
9,800.00	9,547.36	9,300.00	9,239.21	35.14	33.83	26.99	189.37	3,689.30	2,830.88	2,762.05	68.83	41.127		
9,900.00	9,566.69	9,300.00	9,239.21	35.27	33.83	27.02	189.37	3,689.30	2,857.68	2,788.67	69.00	41.413		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - Sun Federal Com 224H - OH - Plan #1

Survey Program:		0-MWD+IFR1+MS		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Site Error:	
Measured Reference Depth (usft)	Vertical Depth (usft)	Measured Offset Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,000.00	9,570.00	9,282.79	9,223.35	35.39	33.78	82.77	196.07	3,689.24	2,886.23	2,817.14	69.10	41.772	0.00 usft
10,100.00	9,570.00	9,269.27	9,210.76	35.54	33.75	82.51	201.00	3,689.20	2,917.41	2,848.21	69.21	42.155	0.00 usft
10,200.00	9,570.00	9,250.00	9,192.62	35.71	33.69	82.14	207.50	3,689.15	2,951.53	2,882.22	69.31	42.583	
10,300.00	9,570.00	9,250.00	9,192.62	35.91	33.69	82.14	207.50	3,689.15	2,988.43	2,918.94	69.49	43.005	
10,400.00	9,570.00	9,250.00	9,192.62	36.12	33.69	82.14	207.50	3,689.15	3,028.18	2,958.51	69.68	43.460	
10,500.00	9,570.00	9,228.11	9,171.77	36.34	33.63	81.71	214.14	3,689.10	3,070.41	3,000.62	69.80	43.991	
10,600.00	9,570.00	9,220.20	9,164.17	36.58	33.61	81.56	216.34	3,689.08	3,115.30	3,045.33	69.97	44.524	
10,700.00	9,570.00	9,200.00	9,144.64	36.84	33.55	81.16	221.49	3,689.04	3,162.74	3,092.64	70.10	45.117	
10,800.00	9,570.00	9,200.00	9,144.64	37.11	33.55	81.16	221.49	3,689.04	3,212.37	3,142.06	70.31	45.691	
10,900.00	9,570.00	9,200.00	9,144.64	37.39	33.55	81.16	221.49	3,689.04	3,264.31	3,193.79	70.51	46.294	

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - Sun State Com 221H - OH - Plan #1

Survey Program:		0-MWD+IFR1+MS		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Site Error:
Reference	Vertical	Measured	Vertical	Reference	Offset	Highside		+N/-S	+E/-W	Between	Between	Minimum	Separation	Warning
Depth	Depth	Depth	Depth	(usft)	(usft)	Toolface	(°)	(usft)	(usft)	Centres	Ellipses	Separation	Factor	
(usft)	(usft)	(usft)	(usft)							(usft)	(usft)	(usft)		
0.00	0.00	0.10	0.00	0.00	0.00	-90.23		-0.08	-20.00	20.00				
100.00	100.00	100.10	100.00	0.26	0.26	-90.23		-0.08	-20.00	20.00	19.47	0.53	37.928	
200.00	200.00	200.10	200.00	0.62	0.62	-90.23		-0.08	-20.00	20.00	18.76	1.24	16.074	
300.00	300.00	300.10	300.00	0.98	0.98	-90.23		-0.08	-20.00	20.00	18.04	1.96	10.198	
400.00	400.00	400.10	400.00	1.34	1.34	-90.23		-0.08	-20.00	20.00	17.32	2.68	7.468	
500.00	500.00	500.10	500.00	1.70	1.70	-90.23		-0.08	-20.00	20.00	16.61	3.40	5.891	CC, ES
600.00	599.98	600.08	599.98	2.05	2.06	-158.71		-0.08	-20.00	21.62	17.51	4.11	5.263	SF
700.00	699.84	699.94	699.84	2.41	2.41	-162.78		-0.08	-20.00	26.56	21.74	4.82	5.512	
800.00	799.45	799.55	799.45	2.76	2.77	-166.97		-0.08	-20.00	34.98	29.45	5.53	6.323	
900.00	898.74	898.84	898.74	3.12	3.13	-170.24		-0.08	-20.00	46.62	40.37	6.25	7.461	
1,000.00	997.97	998.07	997.97	3.48	3.48	-172.29		-0.08	-20.00	58.90	51.94	6.96	8.465	
1,100.00	1,097.19	1,097.29	1,097.19	3.84	3.84	-173.63		-0.08	-20.00	71.23	63.56	7.67	9.286	
1,200.00	1,196.42	1,196.52	1,196.42	4.20	4.19	-174.57		-0.08	-20.00	83.59	75.20	8.39	9.969	
1,300.00	1,295.65	1,295.75	1,295.65	4.56	4.55	-175.27		-0.08	-20.00	95.96	86.86	9.10	10.545	
1,400.00	1,394.87	1,394.97	1,394.87	4.93	4.91	-175.82		-0.08	-20.00	108.35	98.53	9.82	11.037	
1,500.00	1,494.10	1,494.20	1,494.10	5.29	5.26	-176.25		-0.08	-20.00	120.74	110.21	10.53	11.462	
1,600.00	1,593.32	1,593.42	1,593.32	5.66	5.62	-176.60		-0.08	-20.00	133.14	121.89	11.25	11.832	
1,700.00	1,692.55	1,692.65	1,692.55	6.02	5.97	-176.89		-0.08	-20.00	145.54	133.57	11.97	12.158	
1,800.00	1,791.77	1,791.87	1,791.77	6.39	6.33	-177.13		-0.08	-20.00	157.95	145.26	12.69	12.447	
1,900.00	1,891.00	1,887.80	1,887.69	6.75	6.67	-176.98		0.60	-21.16	171.24	157.85	13.38	12.795	
2,000.00	1,990.22	1,983.00	1,982.78	7.12	7.00	-176.09		2.89	-25.03	186.61	172.55	14.06	13.270	
2,100.00	2,089.45	2,081.58	2,081.17	7.48	7.35	-174.99		5.99	-30.29	202.99	188.23	14.77	13.745	
2,200.00	2,188.67	2,180.16	2,179.56	7.85	7.70	-174.05		9.10	-35.56	219.44	203.96	15.47	14.180	
2,300.00	2,287.90	2,278.74	2,277.95	8.22	8.05	-173.24		12.21	-40.82	235.93	219.75	16.18	14.579	
2,400.00	2,387.13	2,377.32	2,376.34	8.58	8.40	-172.54		15.32	-46.09	252.46	235.57	16.89	14.946	
2,500.00	2,486.35	2,475.90	2,474.73	8.95	8.75	-171.93		18.42	-51.36	269.02	251.42	17.60	15.285	
2,600.00	2,585.58	2,574.48	2,573.12	9.32	9.10	-171.38		21.53	-56.62	285.61	267.30	18.31	15.599	
2,700.00	2,684.80	2,673.06	2,671.51	9.69	9.45	-170.90		24.64	-61.89	302.22	283.20	19.02	15.889	
2,800.00	2,784.03	2,771.64	2,769.90	10.05	9.80	-170.47		27.75	-67.15	318.86	299.12	19.73	16.160	
2,900.00	2,883.25	2,870.22	2,868.29	10.42	10.15	-170.08		30.85	-72.42	335.50	315.06	20.44	16.411	
3,000.00	2,982.48	2,968.80	2,966.68	10.79	10.50	-169.72		33.96	-77.68	352.16	331.01	21.16	16.647	
3,100.00	3,081.70	3,067.38	3,065.07	11.15	10.85	-169.40		37.07	-82.95	368.84	346.97	21.87	16.867	
3,200.00	3,180.93	3,165.96	3,163.46	11.52	11.20	-169.11		40.18	-88.21	385.52	362.94	22.58	17.073	
3,300.00	3,280.15	3,264.54	3,261.85	11.89	11.56	-168.84		43.28	-93.48	402.21	378.92	23.29	17.267	
3,400.00	3,379.38	3,363.12	3,360.24	12.26	11.91	-168.59		46.39	-98.74	418.91	394.90	24.01	17.449	
3,500.00	3,478.61	3,461.70	3,458.63	12.62	12.26	-168.36		49.50	-104.01	435.62	410.90	24.72	17.621	
3,600.00	3,577.83	3,560.28	3,557.02	12.99	12.61	-168.15		52.61	-109.28	452.33	426.90	25.44	17.784	
3,700.00	3,677.06	3,658.86	3,655.41	13.36	12.97	-167.95		55.71	-114.54	469.05	442.90	26.15	17.937	
3,800.00	3,776.28	3,757.44	3,753.80	13.73	13.32	-167.77		58.82	-119.81	485.77	458.91	26.86	18.083	
3,900.00	3,875.51	3,856.02	3,852.19	14.09	13.67	-167.60		61.93	-125.07	502.50	474.92	27.58	18.221	
4,000.00	3,974.73	3,954.60	3,950.58	14.46	14.03	-167.44		65.04	-130.34	519.23	490.94	28.29	18.352	
4,100.00	4,073.96	4,053.18	4,048.97	14.83	14.38	-167.29		68.14	-135.60	535.97	506.96	29.01	18.476	
4,200.00	4,173.18	4,151.76	4,147.36	15.20	14.73	-167.15		71.25	-140.87	552.71	522.99	29.72	18.595	
4,300.00	4,272.41	4,250.34	4,245.76	15.56	15.09	-167.02		74.36	-146.13	569.45	539.01	30.44	18.708	
4,400.00	4,371.63	4,348.92	4,344.15	15.93	15.44	-166.89		77.47	-151.40	586.20	555.04	31.15	18.816	
4,500.00	4,470.86	4,447.50	4,442.54	16.30	15.80	-166.77		80.57	-156.67	602.95	571.08	31.87	18.918	
4,600.00	4,570.08	4,546.08	4,540.93	16.67	16.15	-166.66		83.68	-161.93	619.70	587.11	32.59	19.017	
4,700.00	4,669.31	4,644.67	4,639.32	17.04	16.50	-166.55		86.79	-167.20	636.45	603.15	33.30	19.111	
4,800.00	4,768.54	4,743.25	4,737.71	17.40	16.86	-166.45		89.90	-172.46	653.20	619.18	34.02	19.201	
4,900.00	4,867.76	4,841.83	4,836.10	17.77	17.21	-166.36		93.00	-177.73	669.96	635.22	34.74	19.288	
5,000.00	4,966.99	4,940.41	4,934.49	18.14	17.57	-166.27		96.11	-182.99	686.72	651.27	35.45	19.371	

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - Sun State Com 221H - OH - Plan #1

Survey Program:		0-MWD+IFR1+MS		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Site Error:
Reference	Vertical	Measured	Vertical	Reference	Offset	Highside		+N/-S	+E/-W	Between	Between	Minimum	Separation	Warning
Depth	Depth	Depth	Depth	(usft)	(usft)	Toolface	(°)	(usft)	(usft)	Centres	Ellipses	Separation	Factor	
(usft)	(usft)	(usft)	(usft)							(usft)	(usft)	(usft)		
5,100.00	5,066.21	5,038.99	5,032.88	18.51	17.92	-166.18		99.22	-188.26	703.48	667.31	36.17	19.450	
5,200.00	5,165.44	5,137.57	5,131.27	18.88	18.28	-166.10		102.33	-193.52	720.24	683.35	36.88	19.527	
5,300.00	5,264.66	5,236.15	5,229.66	19.24	18.63	-166.02		105.43	-198.79	737.00	699.40	37.60	19.600	
5,400.00	5,363.89	5,334.73	5,328.05	19.61	18.99	-165.94		108.54	-204.05	753.76	715.45	38.32	19.671	
5,500.00	5,463.11	5,433.31	5,426.44	19.98	19.34	-165.87		111.65	-209.32	770.53	731.49	39.04	19.739	
5,600.00	5,562.34	5,531.89	5,524.83	20.35	19.70	-165.80		114.76	-214.59	787.30	747.54	39.75	19.805	
5,700.00	5,661.56	5,630.47	5,623.22	20.72	20.05	-165.74		117.86	-219.85	804.06	763.59	40.47	19.868	
5,800.00	5,760.79	5,729.05	5,721.61	21.08	20.41	-165.67		120.97	-225.12	820.83	779.64	41.19	19.930	
5,900.00	5,860.02	5,827.63	5,820.00	21.45	20.76	-165.61		124.08	-230.38	837.60	795.70	41.90	19.989	
6,000.00	5,959.24	5,926.21	5,918.39	21.82	21.12	-165.56		127.19	-235.65	854.37	811.75	42.62	20.046	
6,100.00	6,058.47	6,024.79	6,016.78	22.19	21.47	-165.50		130.29	-240.91	871.14	827.80	43.34	20.101	
6,200.00	6,157.69	6,123.37	6,115.17	22.56	21.83	-165.45		133.40	-246.18	887.91	843.86	44.06	20.154	
6,300.00	6,256.92	6,221.95	6,213.56	22.93	22.18	-165.39		136.51	-251.44	904.68	859.91	44.77	20.206	
6,400.00	6,356.14	6,320.53	6,311.95	23.29	22.54	-165.34		139.62	-256.71	921.46	875.97	45.49	20.256	
6,500.00	6,455.37	6,419.11	6,410.34	23.66	22.89	-165.30		142.72	-261.98	938.23	892.02	46.21	20.304	
6,600.00	6,554.59	6,517.69	6,508.73	24.03	23.25	-165.25		145.83	-267.24	955.01	908.08	46.93	20.351	
6,700.00	6,653.82	6,616.27	6,607.12	24.40	23.60	-165.20		148.94	-272.51	971.78	924.14	47.64	20.396	
6,800.00	6,753.04	6,714.85	6,705.51	24.77	23.96	-165.16		152.05	-277.77	988.56	940.19	48.36	20.440	
6,900.00	6,852.27	6,813.43	6,803.90	25.14	24.31	-165.12		155.15	-283.04	1,005.33	956.25	49.08	20.483	
7,000.00	6,951.50	6,912.01	6,902.30	25.50	24.67	-165.08		158.26	-288.30	1,022.11	972.31	49.80	20.525	
7,100.00	7,050.72	7,010.59	7,000.69	25.87	25.02	-165.04		161.37	-293.57	1,038.88	988.37	50.52	20.565	
7,200.00	7,149.95	7,109.17	7,099.08	26.24	25.38	-165.00		164.48	-298.83	1,055.66	1,004.43	51.24	20.604	
7,300.00	7,249.17	7,207.75	7,197.47	26.61	25.73	-164.96		167.58	-304.10	1,072.44	1,020.49	51.95	20.642	
7,400.00	7,348.40	7,306.33	7,295.86	26.98	26.09	-164.93		170.69	-309.36	1,089.22	1,036.55	52.67	20.679	
7,500.00	7,447.62	7,404.91	7,394.25	27.35	26.44	-164.89		173.80	-314.63	1,106.00	1,052.61	53.39	20.715	
7,600.00	7,546.85	7,503.49	7,492.64	27.71	26.80	-164.86		176.91	-319.90	1,122.78	1,068.67	54.11	20.750	
7,700.00	7,646.07	7,602.07	7,591.03	28.08	27.16	-164.83		180.01	-325.16	1,139.56	1,084.73	54.83	20.784	
7,800.00	7,745.30	7,700.65	7,689.42	28.45	27.51	-164.79		183.12	-330.43	1,156.34	1,100.79	55.55	20.818	
7,900.00	7,844.52	7,799.23	7,787.81	28.82	27.87	-164.76		186.23	-335.69	1,173.12	1,116.85	56.26	20.850	
8,000.00	7,943.75	7,897.81	7,886.20	29.19	28.22	-164.73		189.34	-340.96	1,189.90	1,132.91	56.98	20.881	
8,100.00	8,042.98	7,996.39	7,984.59	29.56	28.58	-164.70		192.44	-346.22	1,206.68	1,148.97	57.70	20.912	
8,200.00	8,142.20	8,094.97	8,082.98	29.92	28.93	-164.68		195.55	-351.49	1,223.46	1,165.04	58.42	20.942	
8,300.00	8,241.43	8,193.55	8,181.37	30.29	29.29	-164.65		198.66	-356.75	1,240.24	1,181.10	59.14	20.971	
8,400.00	8,340.65	8,292.13	8,279.76	30.66	29.64	-164.62		201.77	-362.02	1,257.02	1,197.16	59.86	21.000	
8,500.00	8,439.88	8,390.71	8,378.15	31.03	30.00	-164.60		204.87	-367.29	1,273.80	1,213.22	60.58	21.027	
8,600.00	8,539.10	8,489.29	8,476.54	31.40	30.36	-164.57		207.98	-372.55	1,290.58	1,229.29	61.30	21.055	
8,700.00	8,638.33	8,587.87	8,574.93	31.77	30.71	-164.55		211.09	-377.82	1,307.37	1,245.35	62.02	21.081	
8,800.00	8,737.55	8,686.45	8,673.32	32.14	31.07	-164.52		214.20	-383.08	1,324.15	1,261.41	62.74	21.107	
8,900.00	8,836.78	8,785.03	8,771.71	32.51	31.42	-164.50		217.30	-388.35	1,340.93	1,277.48	63.46	21.132	
9,000.00	8,936.08	8,883.78	8,870.27	32.87	31.78	-143.74		220.42	-393.62	1,356.65	1,292.47	64.17	21.140	
9,100.00	9,035.51	9,033.18	9,019.53	33.23	32.29	-107.61		219.12	-398.11	1,365.83	1,300.66	65.17	20.959	
9,200.00	9,134.12	9,110.59	9,096.43	33.58	32.54	-98.33		210.77	-398.07	1,370.20	1,304.48	65.72	20.850	
9,300.00	9,228.64	9,170.17	9,154.47	33.93	32.72	-98.70		197.40	-397.96	1,379.53	1,313.38	66.15	20.856	
9,400.00	9,316.12	9,214.55	9,196.62	34.26	32.85	-98.41		183.56	-397.85	1,395.66	1,329.22	66.44	21.007	
9,500.00	9,393.91	9,250.00	9,229.45	34.55	32.95	-97.26		170.18	-397.74	1,419.58	1,352.95	66.63	21.304	
9,600.00	9,459.64	9,250.00	9,229.45	34.79	32.95	-93.92		170.18	-397.74	1,451.39	1,384.88	66.50	21.825	
9,700.00	9,511.32	9,264.91	9,242.99	34.99	32.99	-90.33		163.96	-397.68	1,490.15	1,423.63	66.51	22.403	
9,800.00	9,547.36	9,250.00	9,229.45	35.14	32.95	-84.75		170.18	-397.74	1,534.66	1,468.39	66.27	23.157	
9,900.00	9,566.69	9,250.00	9,229.45	35.27	32.95	-79.33		170.18	-397.74	1,582.71	1,516.44	66.27	23.883	
10,000.00	9,570.00	9,250.00	9,229.45	35.39	32.95	-75.87		170.18	-397.74	1,633.03	1,566.67	66.35	24.611	

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - Sun State Com 221H - OH - Plan #1

Survey Program:		0-MWD+IFR1+MS		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:				Offset Site Error:
Reference	Offset	Reference	Offset	+N/-S (usft)	+E/-W (usft)		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	(usft)	(usft)							0.00 usft	
10,100.00	9,570.00	9,223.21	9,204.71	35.54	32.88	-74.89	180.48	-397.82	1,686.57	1,620.40	66.17	25.487	
10,200.00	9,570.00	9,200.00	9,182.92	35.71	32.81	-74.03	188.46	-397.89	1,744.16	1,678.12	66.04	26.410	
10,300.00	9,570.00	9,200.00	9,182.92	35.91	32.81	-74.03	188.46	-397.89	1,805.04	1,738.87	66.17	27.280	
10,400.00	9,570.00	9,200.00	9,182.92	36.12	32.81	-74.03	188.46	-397.89	1,869.29	1,803.00	66.29	28.200	
10,500.00	9,570.00	9,180.73	9,164.59	36.34	32.75	-73.32	194.40	-397.93	1,936.25	1,870.04	66.21	29.243	
10,600.00	9,570.00	9,172.57	9,156.77	36.58	32.73	-73.02	196.73	-397.95	2,005.92	1,939.67	66.25	30.277	
10,700.00	9,570.00	9,150.00	9,134.98	36.84	32.66	-72.18	202.60	-398.00	2,078.17	2,012.02	66.15	31.415	
10,800.00	9,570.00	9,150.00	9,134.98	37.11	32.66	-72.18	202.60	-398.00	2,152.22	2,085.94	66.27	32.474	
10,900.00	9,570.00	9,150.00	9,134.98	37.39	32.66	-72.18	202.60	-398.00	2,228.29	2,161.90	66.39	33.564	
11,000.00	9,570.00	9,150.00	9,134.98	37.69	32.66	-72.18	202.60	-398.00	2,306.19	2,239.70	66.50	34.680	
11,100.00	9,570.00	9,150.00	9,134.98	38.00	32.66	-72.18	202.60	-398.00	2,385.75	2,319.14	66.60	35.820	
11,200.00	9,570.00	9,150.00	9,134.98	38.32	32.66	-72.18	202.60	-398.00	2,466.79	2,400.08	66.70	36.981	
11,300.00	9,570.00	9,150.00	9,134.98	38.66	32.66	-72.18	202.60	-398.00	2,549.17	2,482.37	66.80	38.162	
11,400.00	9,570.00	9,127.36	9,112.91	39.00	32.59	-71.33	207.62	-398.04	2,632.30	2,565.59	66.71	39.456	
11,500.00	9,570.00	9,123.40	9,109.03	39.36	32.58	-71.19	208.41	-398.05	2,716.83	2,650.05	66.78	40.685	
11,600.00	9,570.00	9,100.00	9,085.99	39.73	32.51	-70.32	212.52	-398.08	2,802.72	2,736.03	66.69	42.024	
11,700.00	9,570.00	9,100.00	9,085.99	40.11	32.51	-70.32	212.52	-398.08	2,889.03	2,822.25	66.78	43.259	
11,800.00	9,570.00	9,100.00	9,085.99	40.50	32.51	-70.32	212.52	-398.08	2,976.20	2,909.33	66.87	44.506	
11,900.00	9,570.00	9,100.00	9,085.99	40.90	32.51	-70.32	212.52	-398.08	3,064.15	2,997.20	66.96	45.764	
12,000.00	9,570.00	9,100.00	9,085.99	41.31	32.51	-70.32	212.52	-398.08	3,152.82	3,085.79	67.04	47.031	
12,100.00	9,570.00	9,100.00	9,085.99	41.74	32.51	-70.32	212.52	-398.08	3,242.15	3,175.04	67.12	48.307	

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - Sun State Com 223H - OH - Plan #1

Survey Program:		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Warning	
Measured Reference Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	10.90	0.00	0.00	89.79	9.74	2,632.81	2,632.85				
100.00	100.00	89.10	100.00	0.26	0.25	89.79	9.74	2,632.81	2,632.83	2,632.32	0.51	5,168.348	
200.00	200.00	189.10	200.00	0.62	0.60	89.79	9.74	2,632.81	2,632.83	2,631.61	1.22	2,162.718	
300.00	300.00	289.10	300.00	0.98	0.95	89.79	9.74	2,632.81	2,632.83	2,630.89	1.93	1,361.118	
400.00	400.00	389.10	400.00	1.34	1.31	89.79	9.74	2,632.81	2,632.83	2,630.18	2.65	993.049	
500.00	500.00	489.10	500.00	1.70	1.67	89.79	9.74	2,632.81	2,632.83	2,629.46	3.37	781.672	
600.00	599.98	589.08	599.98	2.05	2.03	23.14	9.74	2,632.81	2,631.22	2,627.14	4.08	644.853	
700.00	699.84	688.94	699.84	2.41	2.39	23.22	9.74	2,632.81	2,626.41	2,621.62	4.79	548.162	
800.00	799.45	788.55	799.45	2.76	2.74	23.36	9.74	2,632.81	2,618.40	2,612.90	5.50	475.708	
900.00	898.74	887.84	898.74	3.12	3.10	23.51	9.74	2,632.81	2,607.51	2,601.29	6.22	419.318	
1,000.00	997.97	987.07	997.97	3.48	3.46	23.62	9.74	2,632.81	2,596.11	2,589.18	6.93	374.718	
1,100.00	1,097.19	1,086.29	1,097.19	3.84	3.81	23.73	9.74	2,632.81	2,584.71	2,577.07	7.64	338.315	
1,200.00	1,196.42	1,185.52	1,196.42	4.20	4.17	23.84	9.74	2,632.81	2,573.33	2,564.98	8.35	308.061	
1,300.00	1,295.65	1,284.75	1,295.65	4.56	4.52	23.96	9.74	2,632.81	2,561.96	2,552.89	9.07	282.531	
1,400.00	1,394.87	1,383.97	1,394.87	4.93	4.88	24.07	9.74	2,632.81	2,550.60	2,540.82	9.78	260.707	
1,500.00	1,494.10	1,483.20	1,494.10	5.29	5.23	24.18	9.74	2,632.81	2,539.25	2,528.75	10.50	241.842	
1,600.00	1,593.32	1,582.42	1,593.32	5.66	5.59	24.30	9.74	2,632.81	2,527.91	2,516.69	11.22	225.375	
1,700.00	1,692.55	1,681.65	1,692.55	6.02	5.95	24.41	9.74	2,632.81	2,516.57	2,504.64	11.93	210.879	
1,800.00	1,791.77	1,780.87	1,791.77	6.39	6.30	24.53	9.74	2,632.81	2,505.25	2,492.60	12.65	198.021	
1,900.00	1,891.00	1,886.26	1,997.04	6.75	7.03	24.70	13.23	2,628.14	2,491.47	2,477.75	13.71	181.666	
2,000.00	1,990.22	2,085.03	2,095.67	7.12	7.38	24.75	16.32	2,624.00	2,475.94	2,461.52	14.42	171.674	
2,100.00	2,089.45	2,183.79	2,194.30	7.48	7.73	24.80	19.42	2,619.85	2,460.42	2,445.29	15.13	162.608	
2,200.00	2,188.67	2,282.55	2,292.93	7.85	8.08	24.85	22.51	2,615.71	2,444.90	2,429.06	15.84	154.344	
2,300.00	2,287.90	2,381.32	2,391.56	8.22	8.43	24.90	25.61	2,611.57	2,429.38	2,412.83	16.55	146.782	
2,400.00	2,387.13	2,480.08	2,490.19	8.58	8.78	24.95	28.71	2,607.42	2,413.86	2,396.60	17.26	139.838	
2,500.00	2,486.35	2,578.85	2,588.82	8.95	9.13	25.01	31.80	2,603.28	2,398.35	2,380.37	17.97	133.439	
2,600.00	2,585.58	2,677.61	2,687.45	9.32	9.48	25.06	34.90	2,599.13	2,382.83	2,364.15	18.69	127.524	
2,700.00	2,684.80	2,776.38	2,786.08	9.69	9.83	25.11	38.00	2,594.99	2,367.32	2,347.92	19.40	122.040	
2,800.00	2,784.03	2,875.14	2,884.70	10.05	10.19	25.17	41.09	2,590.85	2,351.81	2,331.70	20.11	116.943	
2,900.00	2,883.25	2,973.91	2,983.33	10.42	10.54	25.22	44.19	2,586.70	2,336.31	2,315.48	20.82	112.193	
3,000.00	2,982.48	3,072.67	3,081.96	10.79	10.89	25.28	47.28	2,582.56	2,320.80	2,299.26	21.54	107.756	
3,100.00	3,081.70	3,171.44	3,180.59	11.15	11.24	25.34	50.38	2,578.41	2,305.30	2,283.05	22.25	103.602	
3,200.00	3,180.93	3,270.20	3,279.22	11.52	11.60	25.40	53.48	2,574.27	2,289.80	2,266.83	22.97	99.705	
3,300.00	3,280.15	3,368.97	3,377.85	11.89	11.95	25.45	56.57	2,570.12	2,274.30	2,250.62	23.68	96.042	
3,400.00	3,379.38	3,467.73	3,476.48	12.26	12.30	25.51	59.67	2,565.98	2,258.81	2,234.41	24.39	92.594	
3,500.00	3,478.61	3,566.50	3,575.11	12.62	12.66	25.57	62.76	2,561.84	2,243.31	2,218.20	25.11	89.340	
3,600.00	3,577.83	3,665.26	3,673.74	12.99	13.01	25.63	65.86	2,557.69	2,227.82	2,202.00	25.82	86.267	
3,700.00	3,677.06	3,764.03	3,772.37	13.36	13.36	25.70	68.96	2,553.55	2,212.33	2,185.79	26.54	83.358	
3,800.00	3,776.28	3,862.79	3,871.00	13.73	13.72	25.76	72.05	2,549.40	2,196.85	2,169.59	27.26	80.602	
3,900.00	3,875.51	3,961.56	3,969.63	14.09	14.07	25.82	75.15	2,545.26	2,181.36	2,153.39	27.97	77.987	
4,000.00	3,974.73	4,060.32	4,068.26	14.46	14.42	25.89	78.24	2,541.12	2,165.88	2,137.20	28.69	75.501	
4,100.00	4,073.96	4,159.09	4,166.88	14.83	14.78	25.95	81.34	2,536.97	2,150.41	2,121.00	29.40	73.137	
4,200.00	4,173.18	4,257.85	4,265.51	15.20	15.13	26.02	84.44	2,532.83	2,134.93	2,104.81	30.12	70.884	
4,300.00	4,272.41	4,356.61	4,364.14	15.56	15.49	26.09	87.53	2,528.68	2,119.46	2,088.63	30.83	68.736	
4,400.00	4,371.63	4,455.38	4,462.77	15.93	15.84	26.16	90.63	2,524.54	2,103.99	2,072.44	31.55	66.685	
4,500.00	4,470.86	4,554.14	4,561.40	16.30	16.23	26.23	93.72	2,520.39	2,088.53	2,056.26	32.27	64.726	
4,600.00	4,570.08	4,652.91	4,660.03	16.67	16.55	26.30	96.82	2,516.25	2,073.06	2,040.08	32.98	62.851	
4,700.00	4,669.31	4,751.67	4,758.66	17.04	16.91	26.37	99.92	2,512.11	2,057.60	2,023.90	33.70	61.056	
4,800.00	4,768.54	4,850.44	4,857.29	17.40	17.26	26.44	103.01	2,507.96	2,042.15	2,007.73	34.42	59.335	
4,900.00	4,867.76	4,949.20	4,955.92	17.77	17.61	26.51	106.11	2,503.82	2,026.69	1,991.56	35.13	57.685	
5,000.00	4,966.99	5,047.97	5,054.55	18.14	17.97	26.59	109.21	2,499.67	2,011.24	1,975.39	35.85	56.101	

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - Sun State Com 223H - OH - Plan #1

Survey Program: 0-MWD+IFR1+MS													Offset Site Error:	0.00 usft
Reference Offset													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:				Warning	
				Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,100.00	5,066.21	5,146.73	5,153.18	18.51	18.32	26.67	112.30	2,495.53	1,995.80	1,959.23	36.57	54.579		
5,200.00	5,165.44	5,245.50	5,251.81	18.88	18.68	26.74	115.40	2,491.38	1,980.35	1,943.07	37.28	53.115		
5,300.00	5,264.66	5,344.26	5,350.44	19.24	19.03	26.82	118.49	2,487.24	1,964.91	1,926.91	38.00	51.706		
5,400.00	5,363.89	5,443.03	5,449.06	19.61	19.39	26.90	121.59	2,483.10	1,949.48	1,910.76	38.72	50.350		
5,500.00	5,463.11	5,541.79	5,547.69	19.98	19.74	26.98	124.69	2,478.95	1,934.05	1,894.61	39.44	49.043		
5,600.00	5,562.34	5,640.56	5,646.32	20.35	20.10	27.06	127.78	2,474.81	1,918.62	1,878.46	40.15	47.783		
5,700.00	5,661.56	5,739.32	5,744.95	20.72	20.45	27.15	130.88	2,470.66	1,903.19	1,862.32	40.87	46.567		
5,800.00	5,760.79	5,838.09	5,843.58	21.08	20.81	27.23	133.97	2,466.52	1,887.77	1,846.18	41.59	45.393		
5,900.00	5,860.02	5,936.85	5,942.21	21.45	21.16	27.32	137.07	2,462.38	1,872.36	1,830.05	42.31	44.258		
6,000.00	5,959.24	6,035.62	6,040.84	21.82	21.52	27.41	140.17	2,458.23	1,856.94	1,813.92	43.02	43.162		
6,100.00	6,058.47	6,134.38	6,139.47	22.19	21.87	27.50	143.26	2,454.09	1,841.54	1,797.80	43.74	42.102		
6,200.00	6,157.69	6,233.15	6,238.10	22.56	22.23	27.59	146.36	2,449.94	1,826.13	1,781.68	44.46	41.076		
6,300.00	6,256.92	6,331.91	6,336.73	22.93	22.58	27.68	149.45	2,445.80	1,810.73	1,765.56	45.18	40.082		
6,400.00	6,356.14	6,430.68	6,435.36	23.29	22.94	27.77	152.55	2,441.65	1,795.34	1,749.45	45.89	39.120		
6,500.00	6,455.37	6,529.44	6,533.99	23.66	23.30	27.87	155.65	2,437.51	1,779.95	1,733.34	46.61	38.187		
6,600.00	6,554.59	6,628.20	6,632.61	24.03	23.65	27.97	158.74	2,433.37	1,764.57	1,717.24	47.33	37.283		
6,700.00	6,653.82	6,726.97	6,731.24	24.40	24.01	28.07	161.84	2,429.22	1,749.19	1,701.14	48.05	36.406		
6,800.00	6,753.04	6,825.73	6,829.87	24.77	24.36	28.17	164.93	2,425.08	1,733.81	1,685.05	48.76	35.555		
6,900.00	6,852.27	6,924.50	6,928.50	25.14	24.72	28.27	168.03	2,420.93	1,718.45	1,668.96	49.48	34.728		
7,000.00	6,951.50	7,023.26	7,027.13	25.50	25.07	28.37	171.13	2,416.79	1,703.08	1,652.88	50.20	33.926		
7,100.00	7,050.72	7,122.03	7,125.76	25.87	25.43	28.48	174.22	2,412.65	1,687.73	1,636.81	50.92	33.146		
7,200.00	7,149.95	7,220.79	7,224.39	26.24	25.78	28.59	177.32	2,408.50	1,672.37	1,620.74	51.64	32.387		
7,300.00	7,249.17	7,319.56	7,323.02	26.61	26.14	28.70	180.42	2,404.36	1,657.03	1,604.67	52.35	31.650		
7,400.00	7,348.40	7,418.32	7,421.65	26.98	26.49	28.81	183.51	2,400.21	1,641.69	1,588.61	53.07	30.933		
7,500.00	7,447.62	7,517.09	7,520.28	27.35	26.85	28.93	186.61	2,396.07	1,626.35	1,572.56	53.79	30.235		
7,600.00	7,546.85	7,615.85	7,618.91	27.71	27.20	29.04	189.70	2,391.92	1,611.03	1,556.52	54.51	29.555		
7,700.00	7,646.07	7,714.62	7,717.54	28.08	27.56	29.16	192.80	2,387.78	1,595.71	1,540.48	55.23	28.893		
7,800.00	7,745.30	7,813.38	7,816.17	28.45	27.92	29.28	195.90	2,383.64	1,580.39	1,524.45	55.95	28.248		
7,900.00	7,844.52	7,912.15	7,914.79	28.82	28.27	29.41	198.99	2,379.49	1,565.09	1,508.42	56.66	27.620		
8,000.00	7,943.75	8,010.91	8,013.42	29.19	28.63	29.53	202.09	2,375.35	1,549.79	1,492.41	57.38	27.008		
8,100.00	8,042.98	8,109.68	8,112.05	29.56	28.98	29.66	205.18	2,371.20	1,534.50	1,476.39	58.10	26.411		
8,200.00	8,142.20	8,208.44	8,210.68	29.92	29.34	29.79	208.28	2,367.06	1,519.21	1,460.39	58.82	25.828		
8,300.00	8,241.43	8,307.21	8,309.31	30.29	29.69	29.92	211.38	2,362.91	1,503.94	1,444.40	59.54	25.260		
8,400.00	8,340.65	8,405.97	8,407.94	30.66	30.05	30.06	214.47	2,358.77	1,488.67	1,428.41	60.26	24.705		
8,500.00	8,439.88	8,504.74	8,506.57	31.03	30.40	30.20	217.57	2,354.63	1,473.41	1,412.43	60.98	24.164		
8,600.00	8,539.10	8,603.50	8,605.20	31.40	30.76	30.34	220.66	2,350.48	1,458.16	1,396.46	61.69	23.635		
8,700.00	8,638.33	8,702.26	8,703.83	31.77	31.12	30.49	223.76	2,346.34	1,442.92	1,380.50	62.41	23.119		
8,800.00	8,737.55	8,801.03	8,802.46	32.14	31.47	30.64	226.86	2,342.19	1,427.68	1,364.55	63.13	22.614		
8,900.00	8,836.78	8,899.79	8,901.09	32.51	31.83	30.79	229.95	2,338.05	1,412.46	1,348.61	63.85	22.121		
9,000.00	8,936.08	8,964.55	8,965.79	32.87	32.05	31.60	230.78	2,333.94	1,399.71	1,335.19	64.52	21.695		
9,098.67	9,034.18	9,027.53	9,028.74	33.23	32.26	88.03	229.08	2,335.16	1,395.36	1,330.24	65.13	21.425	CC	
9,100.00	9,035.51	9,028.38	9,029.59	33.23	32.27	88.47	229.04	2,335.16	1,395.37	1,330.23	65.14	21.422	ES	
9,200.00	9,134.12	9,100.00	9,100.81	33.58	32.50	98.68	221.83	2,335.20	1,398.98	1,333.25	65.72	21.286		
9,300.00	9,228.64	9,150.00	9,149.73	33.93	32.65	98.78	211.59	2,335.29	1,408.27	1,342.07	66.20	21.274	SF	
9,400.00	9,316.12	9,200.00	9,197.57	34.26	32.80	98.59	197.12	2,335.40	1,424.26	1,357.65	66.60	21.384		
9,500.00	9,393.91	9,231.40	9,226.91	34.55	32.89	97.27	185.92	2,335.49	1,447.96	1,381.10	66.87	21.655		
9,600.00	9,459.64	9,250.00	9,243.97	34.79	32.94	94.69	178.53	2,335.55	1,479.47	1,412.45	67.01	22.077		
9,700.00	9,511.32	9,250.00	9,243.97	34.99	32.94	90.51	178.53	2,335.55	1,518.00	1,450.97	67.03	22.647		
9,800.00	9,547.36	9,250.00	9,243.97	35.14	32.94	85.60	178.53	2,335.55	1,562.11	1,495.05	67.07	23.292		
9,900.00	9,566.69	9,250.00	9,243.97	35.27	32.94	80.18	178.53	2,335.55	1,610.07	1,542.91	67.16	23.973		

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

### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

**Offset Design:** Sun-Sombrero Pad - Sun State Com 223H - OH - Plan #1

Survey Program: 0-MWD+IFR1+MS													Offset Site Error:	0.00 usft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Rule Assigned:				Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
10,000.00	9,570.00	9,227.61	9,223.40	35.39	32.87	75.90	187.35	2,335.48	1,660.02	1,592.88	67.15	24.722		
10,100.00	9,570.00	9,200.00	9,197.57	35.54	32.80	74.90	197.12	2,335.40	1,713.66	1,646.55	67.12	25.533		
10,200.00	9,570.00	9,200.00	9,197.57	35.71	32.80	74.90	197.12	2,335.40	1,770.77	1,703.45	67.31	26.306		
10,300.00	9,570.00	9,200.00	9,197.57	35.91	32.80	74.90	197.12	2,335.40	1,831.55	1,764.04	67.51	27.130		
10,400.00	9,570.00	9,181.51	9,180.03	36.12	32.74	74.22	202.95	2,335.36	1,895.37	1,827.81	67.56	28.054		
10,500.00	9,570.00	9,172.76	9,171.66	36.34	32.72	73.90	205.52	2,335.34	1,962.14	1,894.45	67.69	28.988		
10,600.00	9,570.00	9,150.00	9,149.73	36.58	32.65	73.07	211.59	2,335.29	2,031.71	1,964.00	67.71	30.008		
10,700.00	9,570.00	9,150.00	9,149.73	36.84	32.65	73.07	211.59	2,335.29	2,103.31	2,035.42	67.89	30.982		
10,800.00	9,570.00	9,150.00	9,149.73	37.11	32.65	73.07	211.59	2,335.29	2,177.15	2,109.09	68.06	31.988		
10,900.00	9,570.00	9,150.00	9,149.73	37.39	32.65	73.07	211.59	2,335.29	2,253.01	2,184.79	68.23	33.023		
11,000.00	9,570.00	9,150.00	9,149.73	37.69	32.65	73.07	211.59	2,335.29	2,330.70	2,262.32	68.38	34.084		
11,100.00	9,570.00	9,150.00	9,149.73	38.00	32.65	73.07	211.59	2,335.29	2,410.03	2,341.50	68.53	35.169		
11,200.00	9,570.00	9,129.40	9,129.68	38.32	32.59	72.31	216.32	2,335.25	2,490.45	2,421.91	68.54	36.336		
11,300.00	9,570.00	9,124.96	9,125.34	38.66	32.57	72.14	217.25	2,335.24	2,572.43	2,503.78	68.65	37.472		
11,400.00	9,570.00	9,120.83	9,121.29	39.00	32.56	71.99	218.08	2,335.23	2,655.61	2,586.85	68.75	38.625		
11,500.00	9,570.00	9,100.00	9,100.81	39.36	32.50	71.23	221.83	2,335.20	2,740.15	2,671.39	68.76	39.853		
11,600.00	9,570.00	9,100.00	9,100.81	39.73	32.50	71.23	221.83	2,335.20	2,825.32	2,756.45	68.88	41.020		
11,700.00	9,570.00	9,100.00	9,100.81	40.11	32.50	71.23	221.83	2,335.20	2,911.44	2,842.45	68.99	42.201		
11,800.00	9,570.00	9,100.00	9,100.81	40.50	32.50	71.23	221.83	2,335.20	2,998.42	2,929.32	69.10	43.393		
11,900.00	9,570.00	9,100.00	9,100.81	40.90	32.50	71.23	221.83	2,335.20	3,086.18	3,016.98	69.20	44.597		
12,000.00	9,570.00	9,100.00	9,100.81	41.31	32.50	71.23	221.83	2,335.20	3,174.68	3,105.37	69.30	45.810		
12,100.00	9,570.00	9,100.00	9,100.81	41.74	32.50	71.23	221.83	2,335.20	3,263.83	3,194.44	69.40	47.032		

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

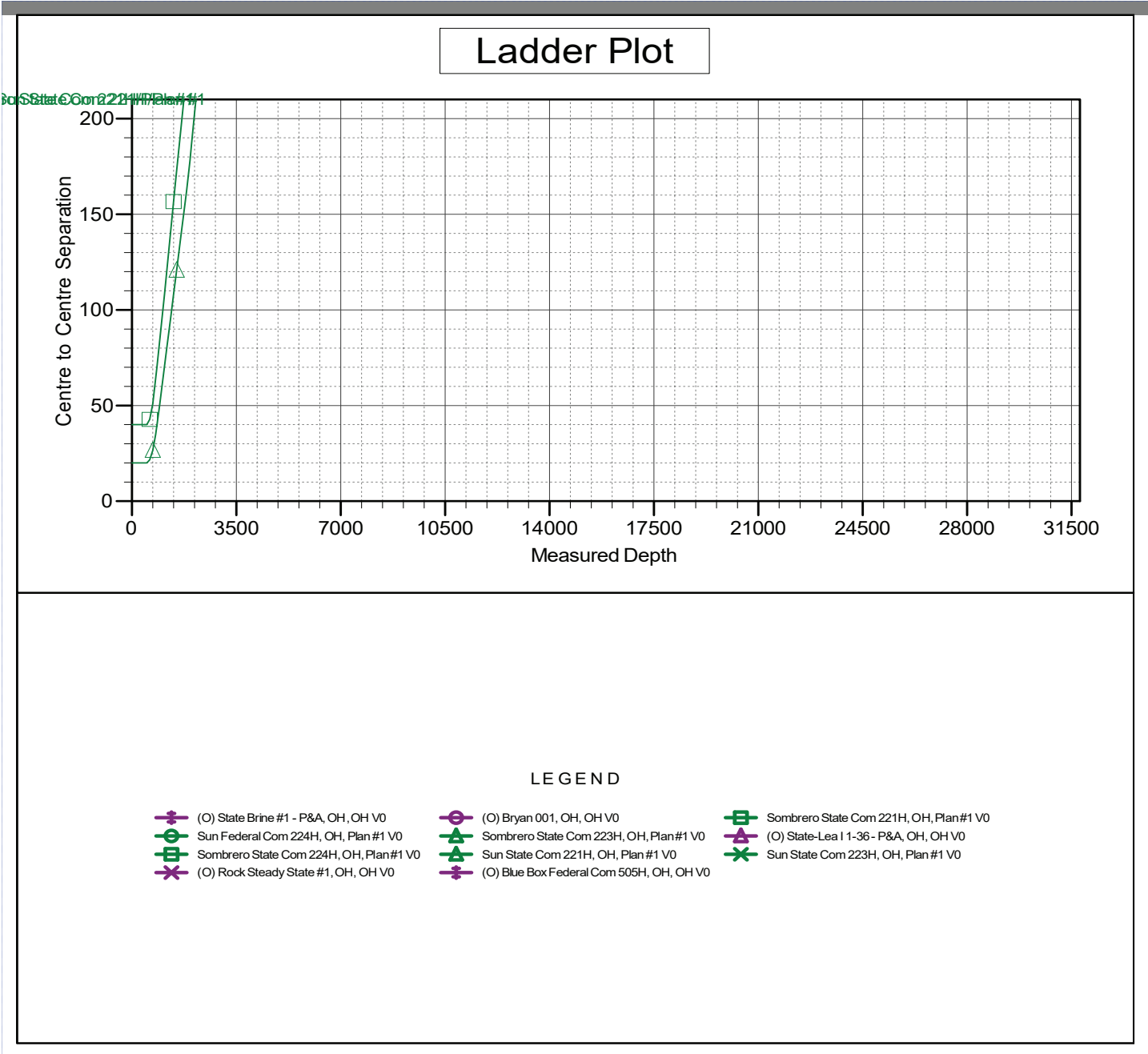
### Total Directional Anticollision Report



<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

Reference Depths are relative to GE 3746.7' + KB 26.5' @ 3773.20usft (H  
Offset Depths are relative to Offset Datum  
Central Meridian is -104.3333333

Coordinates are relative to: Sombrero State Com 222H  
Coordinate System is US State Plane 1983, New Mexico Eastern Zone  
Grid Convergence at Surface is: 0.50°



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

### Total Directional Anticollision Report

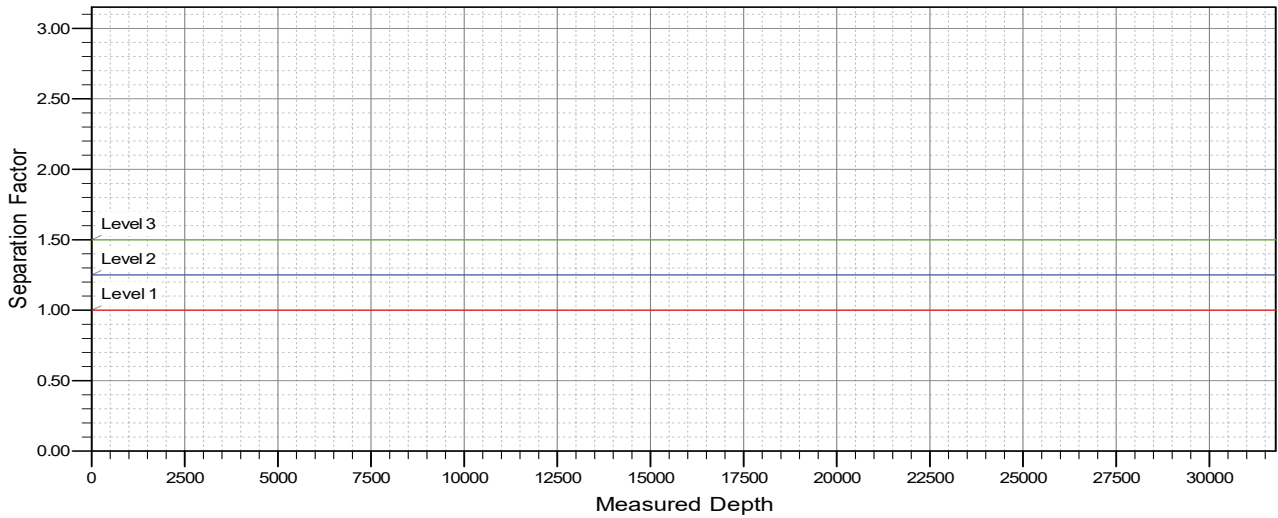


<b>Company:</b>	Coterra Energy	<b>Local Co-ordinate Reference:</b>	Well Sombrero State Com 222H
<b>Project:</b>	Lea County, NM (NAD 83)	<b>TVD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Reference Site:</b>	Sun-Sombrero Pad	<b>MD Reference:</b>	GE 3746.7' + KB 26.5' @ 3773.20usft (H&P 448)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Sombrero State Com 222H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	.Total Directional Production DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

Reference Depths are relative to GE 3746.7' + KB 26.5' @ 3773.20usft (H  
Offset Depths are relative to Offset Datum  
Central Meridian is -104.3333333

Coordinates are relative to: Sombrero State Com 222H  
Coordinate System is US State Plane 1983, New Mexico Eastern Zone  
Grid Convergence at Surface is: 0.50°

### Separation Factor Plot



#### LEGEND

- ✱ (O) State Brine #1 - P&A, OH, OH V0
- ⊖ (O) Bryan 001, OH, OH V0
- ⊖ Sombrero State Com 221H, OH, Plan#1 V0
- ⊖ Sun Federal Com 224H, OH, Plan#1 V0
- ⊖ Sombrero State Com 223H, OH, Plan#1 V0
- ⊖ (O) State-Lea I 1-36- P&A, OH, OH V0
- ⊖ Sun State Com 221H, OH, Plan#1 V0
- ✱ (O) Rock Steady State #1, OH, OH V0
- ✱ (O) Blue Box Federal Com 505H, OH, OH V0
- ✱ Sun State Com 223H, OH, Plan#1 V0

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

Coterra: H2S Plan



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# H2S Drilling Operations Plan

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## Training

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

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

## H2S Detection and Alarm Systems

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

## Windsock and/or wind streamers

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

## Condition Flags & Signs

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

## Coterra: H2S Plan

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

## Well Control Equipment

1. See the pressure control section of this submission.

## Communication

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

## Drillstem Testing

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

Coterra: H2S Plan

# H2S Contingency Plan

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## Emergency Procedures

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

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

## Ignition of the Gas Source

1. Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO<sub>2</sub>). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

## Contacting Authorities

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

Coterra: H2S Plan

# Emergency Contacts

## Coterra Energy

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

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

## Third Party

PERMIAN REGION CONTACT NUMBERS					
CALL 911					
Air Ambulance Services					
Reeves County Medical - Pecos, TX		432-447-3551			
Aero Care - Midland, TX		800-627-2376			
Tri State Care Flight- Artesia, NM		800-800-0900			
Air Methods - Hobbs, NM		800-242-6199			
Fire / Police / Medical Care					
Sheriff's Office		Fire Departments		Hospital / Medical Care Facilities	
Andrews County	432-523-5545	Andrews	432-523-3111	Permian Regional Med.	432-523-2200
Reagan County	325-884-2929	Big Lake	325-884-3650	Reagan Memorial Hosp.	325-884-2561
Howard County	432-264-2244	Big Springs	432-264-2303	Scenic Mountain Med Ctr	432-263-1211
Terry County	806-637-2212	Brownfield	806-637-6633		
Crane County	432-558-3571	Crane	432-558-2361	Crane Memorial Hosp.	432-558-3555
Val Verde County	830-774-7513	Del Rio	830-774-8648	Val Verde Regional Med.	830-775-8566
		Denver City	806-592-3516	Yoakum County Hospital	806-592-2121
Pecos County	432-336-3521	Ft Stockton	432-336-8525		
Glasscock County	432-354-2361	Garden City			
Winkler County	432-586-3461	Kernit	432-586-2577	Winkler County Memorial	432-586-5864
		McCamey	432-652-8232	McCamey Hospital	432-652-8626
Loving County	432-377-2411	Mentone			
Irion County	325-835-2551	Mertzton			
Ward County	432-943-6703	Monahans	432-943-2211	Ward Memorial Hospital	432-943-2511
Ector County	432-335-3050	Odessa	432-335-4650	Odessa Regional Hosp.	432-582-8340
Crocket County	325-392-2661	Ozona	325-392-2626		
Reeves County	432-445-4901	Pecos	505-757-6511	Reeves County Hospital	432-447-3551
Yoakum County	806-456-2377	Plains	806-456-2288		
Garza County	806-495-3595	Post			
Upton County	432-693-2422	Rankin			
Coke County	915-453-2717	Robert Lee			
		Roscoe	325-766-3931		
Hockley County	806-894-3126	Levelland	806-894-3155	Covenant Health	806-894-4963
Tom Green County	325-655-8111	San Angelo	325-657-4355	San Angelo Comm. Med.	325-949-9511
Gaines County	432-758-9871	Seminole	432-758-3621	Memorial Hospital	432-758-5811
Terrell County	432-345-2525	Sanderson			
Scurry County	325-573-3551	Snyder	325-573-3546	DM Cogdell Memorial	325-573-6374
Sterling County	325-378-4771	Sterling City			
Nolan County	325-235-5471	Sweetwater	325-235-8130	Rolling Plains Memorial	325-235-1701
Culberson County	432-283-2060	Van Horn		Culberson Hospital	432-283-2760
New Mexico					
Lea County	505-396-3611	Knowles	505-392-7469	Lea Reg Med Ctr	575-492-5000
Eddy County	575-887-7551	Carlsbad	575-885-3125	Carlsbad Medical	575-887-4100
		Artesia	575-746-5050	Artesia Hospital	575-748-3333
Roosevelt County	575-356-4408				
Chaves County	575-624-7590				
Ground Ambulance Services					
Reeves County Medical			Pecos, TX	432-447-3551	

State of New Mexico  
 Energy, Minerals and Natural Resources Department

Submit Electronically  
 Via E-permitting

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

## NATURAL GAS MANAGEMENT PLAN

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

### Section 1 – Plan Description Effective May 25, 2021

**I. Operator:** Coterra Energy Operating Co **OGRID:** 215099 **Date:** 02/10/2026

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

If Other, please describe: \_\_\_\_\_

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Sun Federal Com 221H	NWNE Sec 13 T19S, R35E	320 FNL/1263 FWL	1233	740	4920	

**IV. Central Delivery Point Name** Chile/ Yeti CTB (New) \_\_\_\_\_ [See 19.15.27.9(D)(1) NMAC]

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

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Sun Federal Com 221H		8/22/26	11/13/26	12/6/26	4/8/27	4/8/27

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

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

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

**Section 2 – Enhanced Plan**

**EFFECTIVE APRIL 1, 2022**

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

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

**IX. Anticipated Natural Gas Production:**

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

**X. Natural Gas Gathering System (NGGS):**

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

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

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

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

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

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

### Section 3 - Certifications

Effective May 25, 2021

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

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

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

***If Operator checks this box, Operator will select one of the following:***

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

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

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

### Section 4 - Notices

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

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

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

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

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

Signature:	<i>Shelly Bowen</i>
Printed Name:	<input type="text" value="Shelly Bowen"/>
Title:	<input type="text" value="Sr. Regulatory Analyst"/>
E-mail Address:	<input type="text" value="shelly.bowen@coterra.com"/>
Date:	2/10/2026
Phone:	<input type="text" value="432/620-1644"/>

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

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

**From State of New Mexico, Natural Gas Management Plan**

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

**XEC Standard Response**

Standard facility gas process flow begins at the inlet separator. These vessels are designed based off of forecasted rates and residence times in accordance with, and often greater than, API 12J. The separated gas is then routed to an additional separation vessel (ie sales scrubber) in order to extract liquids that may have carried over or developed due to the decrease in pressure. The sales scrubber is sized based on API 521. From the sales scrubber, the gas leaves the facility and enters the gas midstream gathering network.

	<b>SOMBRERO STATE COM 222H</b>	<b>SOMBRERO STATE COM 222H</b>
<b>Labels</b>	<b>GAS MCFD</b>	<b>OIL BOPD</b>
1	357	596
2	715	1,191
3	635	1,058
4	550	917
5	487	811
6	448	728
7	428	661
8	413	606
9	401	559
10	392	520
11	386	486
12	381	456
13	378	430
14	377	407
15	376	386
16	369	367
17	355	350
18	343	335
19	332	321
20	322	309
21	312	297
22	304	286
23	296	276
24	288	267
25	282	258
26	275	250
27	269	242
28	264	235
29	259	228
30	254	222
31	250	216
32	245	210
33	241	205
34	238	200
35	234	195
36	231	191

## **Cimarex**

### **VII. Operational Practices**

Cimarex values the sustainable development of New Mexico's natural resources. Venting and flaring of natural gas is a source of waste in the industry, and Cimarex will ensure that its values are aligned with those of NMOCD. As such, Cimarex plans to take pointed steps to ensure compliance with Subsection A through F of 19.15.27.8 NMAC.

Specifically, below are the steps Cimarex will plan to follow under routine well commissioning and operations.

1. Capture or combust natural gas during drilling operations where technically feasible, using the best industry practices and control technologies.
  - a. All flares during these operations will be a minimum of 100ft away from the nearest surface-hole location.
2. All gas present during post-completion drill-out and flow back will be routed through separation equipment, and, if technically feasible, flare unsellable vapors rather than vent. Lastly, formal sales separator commissioning to process well-stream fluids and send gas to a gas flow line/collection system or use the gas for on-site fuel or beneficial usage, gas as soon as is safe and technically feasible.
3. Cimarex will ensure the flare or combustion equipment is properly sized to handle expected flow rates, ensure this equipment is equipped with an automatic or continuous ignition source, and ensure this equipment is designed for proper combustion efficiency.
4. If Cimarex must flare because gas is not meeting pipeline specifications, Cimarex will limit flaring to <60 days, analyze gas composition at least twice per week, and route gas into a gathering pipeline as soon as pipeline specifications are met.
5. Under routine production operations, Cimarex will not flare/vent unless:
  - a. Venting or flaring occurs due to an emergency or equipment malfunction.
  - b. Venting or flaring occurs as a result of unloading practices, and an operator is onsite (or within 30 minutes of drive time and posts contact information at the wellsite) until the end of unloading practice.
  - c. The venting or flaring occurs during automated plungerlift operations, in which case the Cimarex operator will work to optimize the plungerlift system to minimize venting/flaring.
  - d. The venting or flaring occurs during downhole well maintenance, in which case Cimarex will work to minimize venting or flaring operations to the extent that it does not pose a risk to safe operations.
  - e. The well is an exploratory well, the division has approved the well as an exploratory well, venting or flaring is limited to 12 months, as approved by the division, and venting/flaring does not cause Cimarex to breach its State-wide 98% gas capture requirement.
  - f. Venting or flaring occurs because the stock tanks or other low-pressure vessels are being gauged, sampled, or liquids are being loaded out.
  - g. The venting or flaring occurs because pressurized vessels are being maintained and are being blown-down or depressurized.
  - h. Venting or flaring occurs as a result of normal dehydration unit operations.

- i. Venting or flaring occurs as a result of bradenhead testing.
  - j. Venting or flaring occurs as a result of normal compressor operations, including general compressor operations, compressor engines and turbines.
  - k. Venting or flaring occurs as a result of a packer leakage test.
  - l. Venting or flaring occurs as a result of a production test lasting less than 24 hours unless otherwise approved by the division.
  - m. Venting or flaring occurs as a result of new equipment commissioning and is necessary to purge impurities from the pipeline or production equipment.
6. Cimarex will maintain its equipment in accordance with its Operations and Maintenance Program, to ensure venting or flaring events are minimized and that equipment is properly functioning.
7. Cimarex will install automatic tank gauging equipment on all production facilities constructed after May 25, 2021, to ensure minimal emissions from tank gauging practices.
8. By November 25, 2022, all Cimarex facilities equipped with flares or combustors will be equipped with continuous pilots or automatic igniters, and technology to ensure proper function, i.e. thermocouple, fire-eye, etc...
9. Cimarex will perform AVO (audio, visual, olfactory) facility inspections in accordance with NMOCD requirements. Specifically, Cimarex will:
  - a. Perform weekly inspections during the first year of production, and so long as production is greater than 60 MCFD.
  - b. If production is less than 60 MCFD, Cimarex will perform weekly AVO inspections when an operator is present on location, and inspections at least once per calendar month with at least 20 calendar days between inspections.
10. Cimarex will measure or estimate the volume of vented, flared or beneficially used natural gas, regardless of the reason or authorization for such venting or flaring.
11. On all facilities constructed after May 25, 2021, Cimarex will install metering where feasible and in accordance with available technology and best engineering practices, in an effort to measure how much gas could have been vented or flared.
  - a. In areas where metering is not technically feasible, such as low-pressure/low volume venting or flaring applications, engineering estimates will be used such that the methodology could be independently verified.
12. Cimarex will fulfill the division's requirements for reporting and filing of venting or flaring that exceeds 50 MCF in volume or last eight hours or more cumulatively within any 24-hour period.

## VIII. Best Management Practices to minimize venting during active and planned maintenance

Cimarex strives to ensure minimal venting occurs during active and planned maintenance activities. Below is a description of common maintenance practices, and the steps Cimarex takes to limit venting exposure.

- **Workovers:**
  - Always strive to kill well when performing downhole maintenance.
  - If vapors or trapped pressure is present and must be relieved then:
    - Initial blowdown to production facility:
      - Route vapors to LP flare if possible/applicable
    - Blowdown to portable gas buster tank:
      - Vent to existing or portable flare if applicable.
- **Stock tank servicing:**
  - Minimize time spent with thief hatches open.
  - When cleaning or servicing via manway, suck tank bottoms to ensure minimal volatiles exposed to atmosphere.
    - Connect vacuum truck to low pressure flare while cleaning bottoms to limit venting.
  - Isolate the vent lines and overflows on the tank being serviced from other tanks.
- **Pressure vessel/compressor servicing and associated blowdowns:**
  - Route to flare where possible.
  - Blow vessel down to minimum available pressure via pipeline, prior to venting vessel.
  - Preemptively changing anodes to reduce failures and extended corrosion related servicing.
  - When cleaning or servicing via manway, suck vessel bottoms to ensure minimal volatiles exposed to atmosphere.
- **Flare/combustor maintenance:**
  - Minimize downtime by coordinating with vendor and Cimarex staff travel logistics.
  - Utilizing preventative and predictive maintenance programs to replace high wear components before failure.
  - Because the flare/combustor is the primary equipment used to limit venting practices, ensure flare/combustor is properly maintained and fully operational at all times via routine maintenance, temperature telemetry, onsite visual inspections.

*The Cimarex expectation is to limit all venting exposure. Equipment that may not be listed on this document is still expected to be maintained and associated venting during such maintenance minimized.*