

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 378357

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
		3. API Number 30-025-54641
4. Property Code 333771	5. Property Name CORIANDER 1 12 STATE COM	6. Well No. 154H

7. Surface Location

UL - Lot A	Section 1	Township 23S	Range 32E	Lot Idn 1	Feet From 211	N/S Line N	Feet From 691	E/W Line E	County Lea
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8. Proposed Bottom Hole Location

UL - Lot P	Section 12	Township 23S	Range 32E	Lot Idn P	Feet From 100	N/S Line S	Feet From 330	E/W Line E	County Lea
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9. Pool Information

DIAMONDTAIL;BONE SPRING	17644
RED TANK;BONE SPRING	51683

Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3749
16. Multiple Y	17. Proposed Depth 20346	18. Formation 1st Bone Spring Sand	19. Contractor	20. Spud Date 5/1/2025
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	48	1306	802	0
Int1	12.25	9.625	40	4978	1038	0
Prod	8.75	7	29	10379	423	4767
Liner1	6	4.5	11.6	20346	740	10179

Casing/Cement Program: Additional Comments

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22. Proposed Blowout Prevention Program

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

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. 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: Matthew Gomez
Title: Regulatory Compliance Manager	Title:
Email Address: phillip.levasseur@coterra.com	Approved Date: 5/13/2025
Date: 5/13/2025	Expiration Date: 5/13/2027
Phone: 412-759-4585	Conditions of Approval Attached

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

WELL LOCATION INFORMATION

API Number 30-025-54641	Pool Code 17644	Pool Name DIAMONDTAIL, BONE SPRING
Property Code 333771	Property Name CORIANDER 1-12 STATE COM	Well Number 154H
OGRID No. 215099	Operator Name COTERRA ENERGY OPERATING CO.	Ground Level Elevation 3749.2'
Surface Owner: ☒ State ☐ Fee ☐ Tribal ☐ Federal		Mineral Owner: ☒ State ☐ Fee ☐ Tribal ☐ Federal

Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
1	1	23S	32E		211' NORTH	691' EAST	32.340485°	-103.622011°	LEA

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
P	12	23S	32E		100' SOUTH	330' EAST	32.312313°	-103.620842°	LEA

Dedicated Acres 240	Infill or Defining Well Infill	Defining Well API 1H 30-025-43736	Overlapping Spacing Unit (Y/N) Y	Consolidation Code C
Order Numbers. N/A		Well setbacks are under Common Ownership: ☒ Yes ☐ No		

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
1	1	23S	32E		100' NORTH	330' EAST	32.340794°	-103.620843°	LEA

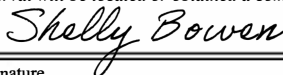
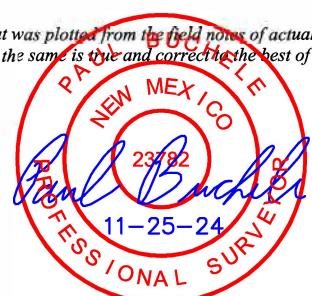
First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
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Last Take Point (LTP)

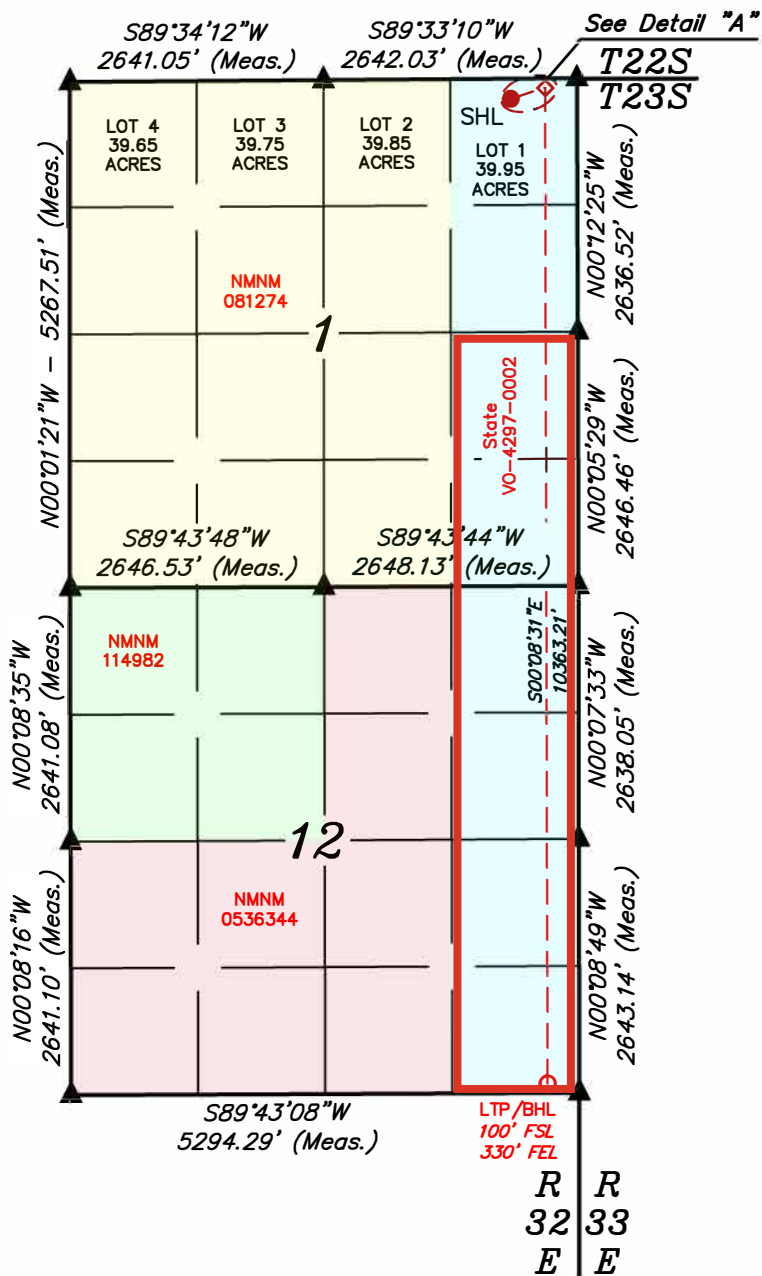
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Unitized Area or Area of Uniform Interest N/A	Spacing Unit Type ☒ Horizontal ☐ Vertical	Ground Floor Elevation: 3749
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OPERATOR CERTIFICATIONS <i>I hereby certify that the information contained herein 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> <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>  Signature _____ Date 5/13/2025 Shelly Bowen Printed Name shelly.bowen@coterra.com Email Address	SURVEYOR CERTIFICATIONS <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>  Signature and Seal of Professional Surveyor 23782 September 9, 2021 Certificate Number Date of Survey
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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 CORIANDER 1-12 STATE COM	Well Number 154H	Drawn By N.R. 10-17-23	Revised By REV. 1 E.C. 11-25-24 (UPDATE C-102 FORMAT)
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NAD 83 (SURFACE HOLE LOCATION)	
LATITUDE = 32°20'25.74" (32.340485°)	
LONGITUDE = -103°37'19.24" (-103.622011°)	
NAD 27 (SURFACE HOLE LOCATION)	
LATITUDE = 32°20'25.30" (32.340361°)	
LONGITUDE = -103°37'17.50" (-103.621527°)	
STATE PLANE NAD 83 (N.M. EAST)	
N: 488329.83' E: 761022.48'	
STATE PLANE NAD 27 (N.M. EAST)	
N: 488269.82' E: 719839.52'	

NAD 83 (KOP/LP/FTP)	
LATITUDE = 32°20'26.86" (32.340794°)	
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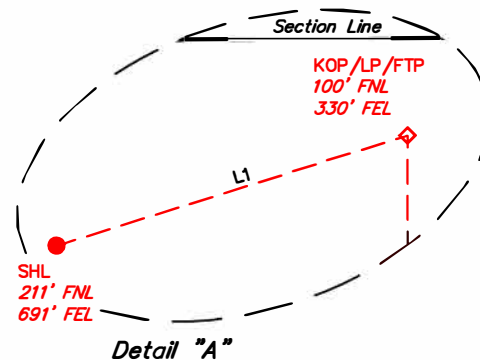
LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N72°33'17"E	378.11'

- = SURFACE HOLE LOCATION
- ◆ = KICK OFF POINT/LANDING POINT /FIRST TAKE POINT
- = LAST TAKE POINT/BOTTOM HOLE LOCATION
- ▲ = SECTION CORNER LOCATED



NOTE:

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



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			Submittal Type:	☒ Initial Submittal
				☐ Amended Report
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WELL LOCATION INFORMATION

API Number 30-025-54641	Pool Code 51683	Pool Name RED TANK; BONE SPRING
Property Code 333771	Property Name CORIANDER 1-12 STATE COM	Well Number 154H
OGRID No. 215099	Operator Name COTERRA ENERGY OPERATING CO.	Ground Level Elevation 3749.2'
Surface Owner: ☒ State ☐ Fee ☐ Tribal ☐ Federal		Mineral Owner: ☒ State ☐ Fee ☐ Tribal ☐ Federal

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Dedicated Acres 79.95	Infill or Defining Well Infill	Defining Well API 1H-30-025-43736	Overlapping Spacing Unit (Y/N) N	Consolidation Code C
Order Numbers. N/A		Well setbacks are under Common Ownership: ☒ Yes ☐ No		

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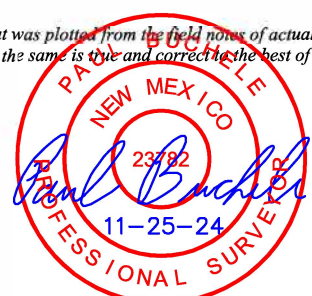
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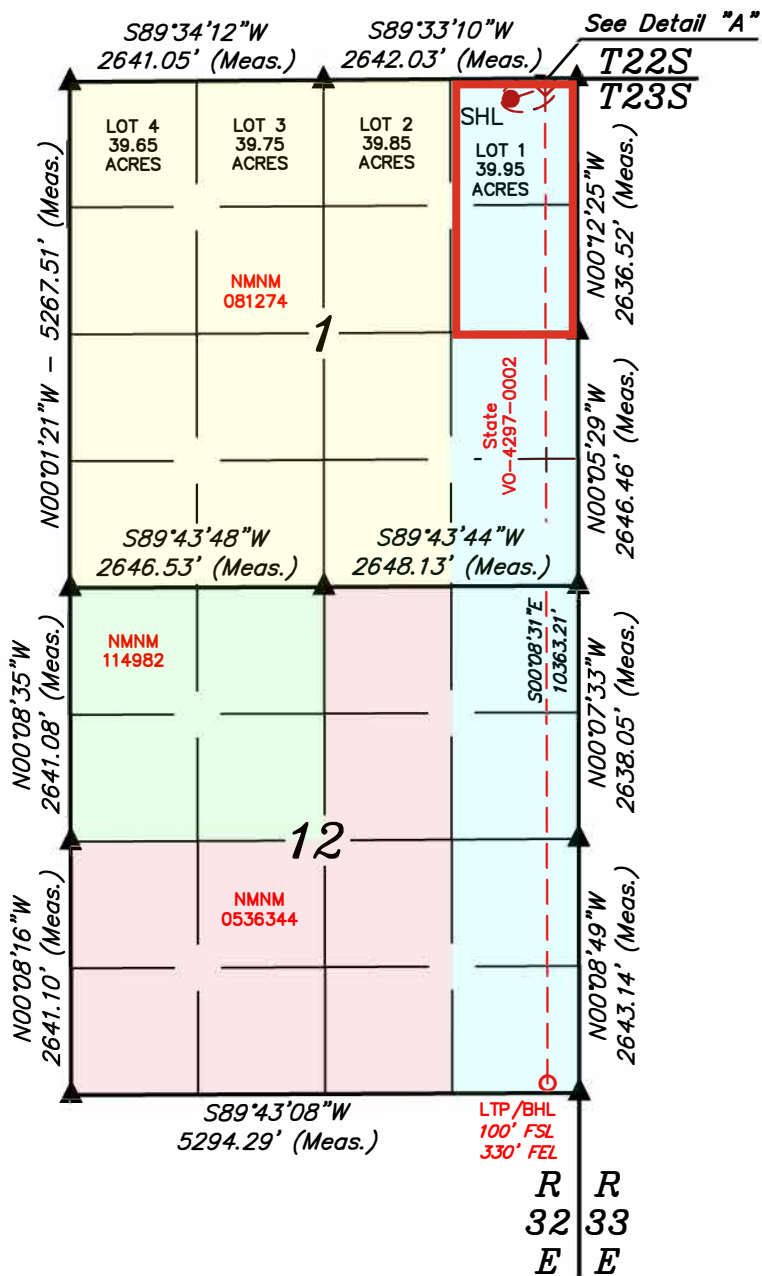
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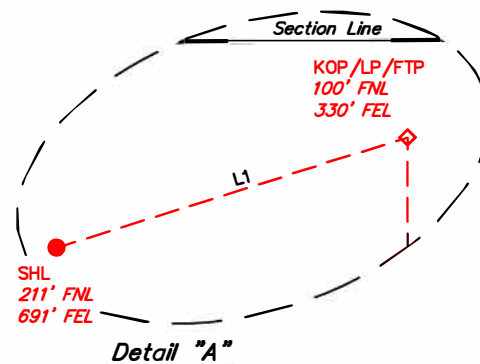
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Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form APD Comments

Permit 378357

PERMIT COMMENTS

Operator Name and Address: Coterra Energy Operating Co. [215099] 6001 Deauville Blvd Midland, TX 79706		API Number: 30-025-54641
		Well: CORIANDER 1 12 STATE COM #154H

Created By	Comment	Comment Date
matthew.gomez	This well is within two pools and will need a complete form C-102 for each. A new completion section must be entered to capture the second pool. The N/2 of Sec. 1 T23S R32E is within the Red Tank; Bone Spring [51683] pool. Fully complete each C-102.	5/13/2025

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

Form APD Conditions

Permit 378357

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: Coterra Energy Operating Co. [215099] 6001 Deauville Blvd Midland, TX 79706	API Number: 30-025-54641
	Well: CORIANDER 1 12 STATE COM #154H

OCD Reviewer	Condition
matthew.gomez	A [C-103] Sub. Drilling (C-103N) is required within (10) days of spud.
matthew.gomez	Notify the OCD 24 hours prior to casing & cement.
matthew.gomez	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.
matthew.gomez	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.
matthew.gomez	Cement is required to circulate on both surface and intermediate1 strings of casing.
matthew.gomez	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.
matthew.gomez	File As Drilled C-102 and a directional Survey with C-104 completion packet.
matthew.gomez	Prior to production of this well a change to the well name/number is required to comply with the OCD well naming convention. Infill horizontal wells must have the same well name as the well defining the spacing unit.

1. Geological Formations

TVD of target 10,220

Pilot Hole TD N/A

MD at TD 20,346

Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	1256	N/A	
Top Salt	1790	N/A	
Base Salt	4970	N/A	
Cherry Canyon	6130	Hydrocarbons	
Brushy Canyon	7201	Hydrocarbons	
Basal Brushy Canyon	8532	N/A	
Bone Spring Lime	8825	N/A	
Leonard/Avalon Sand	8940	Hydrocarbons	
Avalon Shale	9360	Hydrocarbons	
1st Bone Spring Sand	9995	Hydrocarbons	
1st Bone Spring Sand - Target	10170	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	1306	1306	13-3/8"	48.00	H-40	ST&C	1.31	3.06	5.14
12 1/4	0	4978	4967	9-5/8"	40.00	HCK-55	LT&C	1.48	1.53	2.82
8 3/4	0	9629	9629	7"						
8 3/4	9629	10379	10171	7"	29.00	L-80	BT&C	1.47	1.71	43.01
6	9129	20346	10220	4-1/2"	11.60	L-80	BT&C	1.26	1.54	21.10
BLM Minimum Safety Factor								1.125	1	1.6 Dry 1.8 Wet

TVD was used on all calculations.

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Cimarex Energy Co., Coriander 1-12 State Com 154H

	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	# Sk	Wt. lb/gal	Yld ft ³ /sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	632	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	170	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate	931	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
	107	10.30	3.64	22.18	9.5	Tail: Tuned Light + LCM
Production	298	10.30	3.64	22.18	12	Lead: Tuned Light + LCM
	125	14.80	1.36	6.57	9.5	Tail: Class C + Retarder
Completion System	740	14.20	1.30	5.86	14:30	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS

Casing String	TOC	% Excess
Surface	0	45
Intermediate	0	51
Production	4767	25
Completion System	10179	10

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

4. Pressure Control Equipment

A variance is requested for the use of a diverter on the surface casing. See attached for schematic.					
BOP installed and tested before drilling which hole?	Size	Min Required WP	Type		Tested To
12 1/4	13 5/8	5M	Annular	X	100% of working pressure
			Blind Ram		5M
			Pipe Ram	X	
			Double Ram	X	
			Other		
8 3/4	13 5/8	5M	Annular	X	100% of working pressure
			Blind Ram		5M
			Pipe Ram	X	
			Double Ram	X	
			Other		
6	13 5/8	5M	Annular	X	100% of working pressure
			Blind Ram		5M
			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 1306'	Fresh Water	7.83 - 8.33	28	N/C
1306' to 4978'	Brine Water	9.50 - 10.00	30-32	N/C
4978' to 10379'	Cut Brine or OBM	8.50 - 9.00	27-70	N/C
10750' to 20346'	OBM	9.00 - 9.50	50-70	N/C

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

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

Condition	
BH Pressure at deepest TVD	5048 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	H ₂ S is present
X	H ₂ S plan is attached

8. Other Facets of Operation**9. Wellhead**

1. After running the first string of casing, a 5M 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 (5K for all BOPE, including the annular). 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.

Wellhead

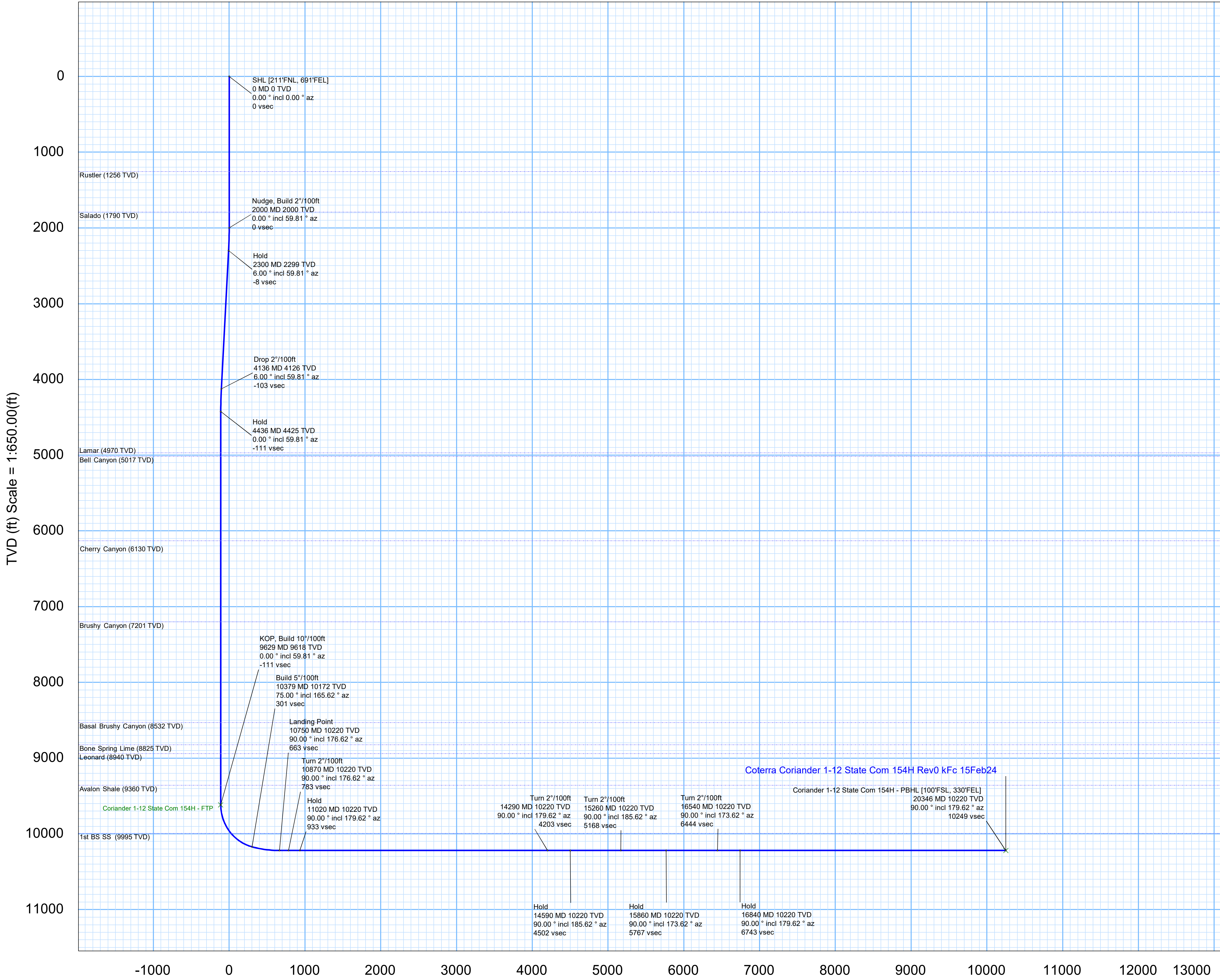
1. The multi-bowl wellhead will be installed by a vendor representative. A copy of the installation instructions has been sent to the BLM field office.
2. A packoff will be installed after running and cementing the production casing. This packoff will be tested to 5K psi.

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.

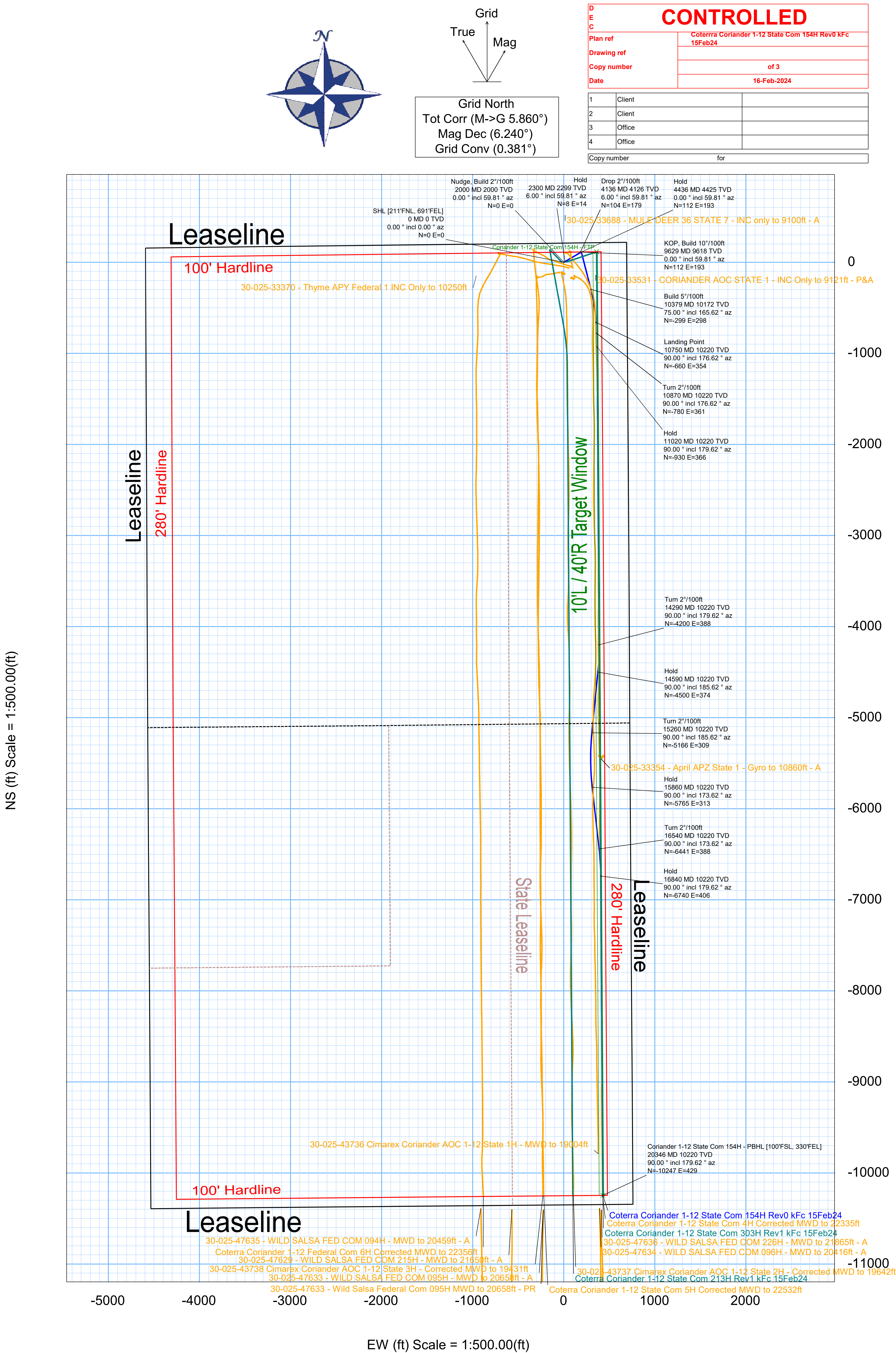
Borehole: Coriander 1-12 State Com 154H		Well: Coriander 1-12 State Com 154H		Field: NM Lea County (NAD 83)		Structure: Cimarex Coriander 1-12 State Com Lot 1 Pad	
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Gravity & Magnetic Parameters				Surface Location				NAD83 New Mexico State Plane, Eastern Zone, US Feet				Miscellaneous			
Model:	HDGM 2024	Dip:	59.907°	Date:	15-Feb-2024	Lat:	N 32 20 25.74	Northing:	488329.83ftUS	Grid Conv:	0.3805°	Slot:	Coriander 1-12 State	TVD Ref:	RKB (3772.200 ft above MSL)
MagDec:	6.24°	FS:	47468.378nT	Gravity FS:	998.44mgN (9.80665 Based)	Lon:	W 103 37 19.24	Easting:	761022.48ftUS	Scale Fact:	0.99996436	Plan:	Com 154H	Coterra Coriander 1-12 State Com 154H Rev0 kFc 15Feb24	

Critical Point		MD	INCL	AZIM	TVD	VSEC	N(+)S(-)	E(+)W(-)	DLS
SHL [211°FNL, 691°FEL]		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler		1256.00	0.00	59.81	1256.00	0.00	0.00	0.00	0.00
Salado		1790.00	0.00	59.81	1790.00	0.00	0.00	0.00	0.00
Nudge, Build 2°/100ft		2000.00	0.00	59.81	2000.00	0.00	0.00	0.00	0.00
Hold		2299.93	6.00	59.81	2299.38	-7.80	7.89	13.56	2.00
Drop 2°/100ft		4136.41	6.00	59.81	4125.81	-103.22	104.41	179.44	0.00
Hold		4436.34	0.00	59.81	4425.19	-111.02	112.30	193.00	2.00
Lamar		4981.15	0.00	59.81	4970.00	-111.02	112.30	193.00	0.00
Bell Canyon		5028.15	0.00	59.81	5017.00	-111.02	112.30	193.00	0.00
Cherry Canyon		6141.15	0.00	59.81	6130.00	-111.02	112.30	193.00	0.00
Brushy Canyon		7212.15	0.00	59.81	7201.00	-111.02	112.30	193.00	0.00
Basal Brushy Canyon		8543.15	0.00	59.81	8532.00	-111.02	112.30	193.00	0.00
Bone Spring Lime		8836.15	0.00	59.81	8825.00	-111.02	112.30	193.00	0.00
Leonard		8951.15	0.00	59.81	8940.00	-111.02	112.30	193.00	0.00
Avalon Shale		9371.15	0.00	59.81	9360.00	-111.02	112.30	193.00	0.00
KOP, Build 10°/100ft		9629.34	0.00	59.81	9618.19	-111.02	112.30	193.00	0.00
1st BS SS		10040.56	41.12	165.62	9995.00	26.12	-24.61	228.10	10.00
Build 5°/100ft		10379.34	75.00	165.62	10171.62	301.03	-299.06	298.47	10.00
Landing Point		10749.86	90.00	176.62	10220.00	662.83	-660.50	354.32	5.00
Turn 2°/100ft		10869.86	90.00	176.62	10220.00	782.67	-780.29	361.39	0.00
Hold		11019.86	90.00	179.62	10220.00	932.60	-930.19	366.31	2.00
Turn 2°/100ft		14289.86	90.00	179.62	10220.00	4202.60	-4200.12	388.00	0.00
Hold		14589.86	90.00	185.62	10220.00	4502.05	-4499.67	374.29	2.00
Turn 2°/100ft		15259.86	90.00	185.62	10220.00	5168.38	-5166.45	308.68	0.00
Hold		15859.86	90.00	173.62	10220.00	5767.28	-5765.34	312.65	2.00
Turn 2°/100ft		16539.86	90.00	173.62	10220.00	6443.56	-6441.13	388.22	0.00
Hold		16839.66	90.00	179.62	10220.00	6742.81	-6740.27	405.89	2.00
Coriander 1-12 State Com 154H - PBHL		20346.18	90.00	179.62	10220.00	10249.33	-10246.71	429.40	0.00
[100°FSL, 330°FEL]									



Vertical Section (ft) Azim = 179.62° Scale = 1:650.00(ft) Origin = 0N/-S, 0E/-W



EW (ft) Scale = 1:500.00(ft)



Coterra Coriander 1-12 State Com 154H Rev0 kFc 15Feb24 Proposal Geodetic Report

Def Plan

Report Date:	February 16, 2024 - 03:47 PM (UTC 0)	Survey / DLS Computation:	Minimum Curvature / Lubinski
Client:	COTERRA	Vertical Section Azimuth:	179.620 °(GRID North)
Field:	NM Lea County (NAD 83)	Vertical Section Origin:	0.000 ft, 0.000 ft
Structure / Slot:	Cimarex Coriander 1-12 State Com Lot 1 Pad / Coriander 1-12 State	TVD Reference Datum:	RKB
Well:	Coriander 1-12 State Com 154H	TVD Reference Elevation:	3772.200 ft above MSL
Borehole:	Coriander 1-12 State Com 154H	Seabed / Ground Elevation:	3749.200 ft above MSL
UBHI / API#:	Unknown / Unknown	Magnetic Declination:	6.240°
Survey Name:	Coterra Coriander 1-12 State Com 154H Rev0 kFc 15Feb24	Total Gravity Field Strength:	998.44mgm (9.80665 Based)
Survey Date:	February 16, 2024	Gravity Model:	G49M
Tort / AHD / DDI / ERD Ratio:	132.519 ' / 10610.560 ft / 6.447 / 1.038	Total Magnetic Field Strength:	47468.378 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Magnetic Dip Angle:	59.907°
Location Lat / Long:	32°20'25.74470"N , 103°37'19.24134"W	Declination Date:	February 15, 2024
Location Grid N/E Y/X:	N 488329.830 RUS , E 761022.480 RUS	Magnetic Declination Model:	HDGM 2024
CRS Grid Convergence Angle:	0.381°	North Reference:	Grid North
Grid Scale Factor:	0.99996436	Grid Convergence Used:	0.381°
Version / Patch:	2023.1.0.1	Total Corr Mag North->Grid North:	5.88°
		Local Coord Referenced To:	Well Head

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (RUS)	Easting (RUS)	Latitude (°)	Longitude (°)	DLS (°/100ft)	BR (°/100ft)	TR (°/100ft)
SHL [211°FNL, 691°FEL]	0.00	0.00	0.00	0.00	-3,772.20	0.00	0.00	0.00	488,329.83	761,022.48	32.34048464	-103.62201148			
Nudge, Build 2"/100ft	2,000.00	0.00	59.81	2,000.00	-1,772.20	0.00	0.00	0.00	488,329.83	761,022.48	32.34048464	-103.62201148	0.00	0.00	0.00
Hold	2,299.93	6.00	59.81	2,299.38	-1,472.82	-7.80	7.89	13.56	488,337.72	761,036.04	32.34030607	-103.62196742	2.00	2.00	0.00
Drop 2"/100ft	4,136.41	6.00	59.81	4,125.81	353.61	-103.22	104.41	178.44	488,434.24	761,201.91	32.34076834	-103.62142828	0.00	0.00	0.00
Hold	4,436.34	0.00	59.81	4,425.19	652.99	-111.02	112.30	193.00	488,442.13	761,215.47	32.34078977	-103.62138421	2.00	-2.00	0.00
KOP, Build 10"/100ft	9,629.34	0.00	59.81	9,618.19	5,845.99	-111.02	112.30	193.00	488,442.13	761,215.47	32.34078977	-103.62138421	0.00	0.00	0.00
Build 5"/100ft	10,379.34	75.00	165.62	10,171.62	6,399.42	301.03	-299.06	296.47	488,030.78	761,320.94	32.33965721	-103.62105161	10.00	0.00	0.00
Landing Point	10,740.86	90.00	176.62	10,220.00	6,447.80	662.83	-660.50	354.32	487,669.36	761,376.79	32.33866277	-103.62087657	5.00	4.05	2.97
Turn 2"/100ft	10,869.86	90.00	176.62	10,220.00	6,447.80	782.67	-780.29	361.39	487,549.67	761,383.86	32.33833339	-103.62085825	0.00	0.00	0.00
Hold	11,019.86	90.00	179.62	10,220.00	6,447.80	932.60	-930.19	366.31	487,399.68	761,388.78	32.33792128	-103.62084555	2.00	0.00	2.00
Turn 2"/100ft	14,289.86	90.00	179.62	10,220.00	6,447.80	4,202.60	-4,200.12	388.00	484,129.87	761,410.47	32.32893335	-103.62084575	0.00	0.00	0.00
Hold	14,589.86	90.00	185.62	10,220.00	6,447.80	4,502.05	-4,499.67	374.29	483,830.33	761,396.76	32.32811028	-103.62089657	2.00	0.00	2.00
Turn 2"/100ft	15,259.86	90.00	185.62	10,220.00	6,447.80	5,168.38	-5,166.45	308.68	483,163.58	761,331.15	32.32627880	-103.62112332	0.00	0.00	0.00
Hold	15,859.86	90.00	173.62	10,220.00	6,447.80	5,767.28	-5,765.34	312.65	482,564.71	761,335.12	32.32463265	-103.62112334	2.00	0.00	-2.00
Turn 2"/100ft	16,539.86	90.00	173.62	10,220.00	6,447.80	6,443.56	-6,441.13	388.22	481,888.95	761,410.68	32.32277383	-103.62089329	0.00	0.00	0.00
Hold	16,839.66	90.00	179.62	10,220.00	6,447.80	6,742.81	-6,740.27	405.89	481,589.62	761,428.36	32.32195131	-103.62084251	2.00	0.00	2.00
Coriander 1-12 State Com 154H - PBHL [100°FSL, 330°FEL]	20,346.18	90.00	179.62	10,220.00	6,447.80	10,249.33	-10,246.71	429.40	478,083.51	761,451.86	32.31231325	-103.62084189	0.00	0.00	0.00

Survey Type: Def Plan

Survey Error Model: ISCWSA0 3 - D 95 % Confidence 2.7955 sigma

Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Code	Vendor / Tool	Borehole / Survey
	1	0.000	9,600.000	1/100.000 '5 - 12.25 - 8.75 3.375 - 9.625 - 7				A001Mb_MWD		Coriander 1-12 State Com 154H / Coterra Coriand
	1	9,600.000	20,111.817	1/100.000	8.75 - 6	7 - 4.5		A008Mb_MWD+IFR1+MS		Coriander 1-12 State Com 154H / Coterra Coriand

EOU Geometry:

End MD (ft)	Hole Size (in)	Casing Size (in)	Name
1,346.900	17.500	13.375	
5,007.900	12.250	9.625	
12,259.900	8.750	7.000	
20,346.181	6.000	4.500	



Coterra Coriander 1-12 State Com 154H Rev0 kFc 15Feb24 Anti-Collision Summary Report

Analysis Date-24hr Time:	February 16, 2024 - 03:48 PM (UTC 0)	Analysis Method:	3D Least Distance
Client:	COTERRA	Reference Trajectory:	Coterra Coriander 1-12 State Com 154H Rev0 kFc 15Feb24 (Def Plan)
Field:	NM Lea County (NAD 83)	Depth Interval:	Every 10.00 Measured Depth (ft)
Structure:	Cimarex Coriander 1-12 State Com Lot 1 Pad	Rule Set:	NAL Procedure: D&M AntiCollision Standard S002
Slot:	Coriander 1-12 State Com 154H	Min Pts:	Absolute minima indicated.
Well:	Coriander 1-12 State Com 154H	Engine Version:	2023.1.0.1
Borehole:	Coriander 1-12 State Com 154H	Database 1 Project:	Coriander 1-12 State Com 154H-COTERRA
Scan MD Range:	0.00ft ~ 20346.18ft		

Trajectory Error Model: ISCSWA0 3 - D 95 % Confidence 2.7955 sigma

Offset Trajectories Summary

Offset Selection Criteria

Bounding box scan: minimum Ct-Ct separation <= 2000ft

Selection filters: Definitive Surveys - Definitive Plans - Definitive surveys exclude definitive plans

- All Non-Def Surveys when no Def-Survey is set in a borehole - All Non-Def Plans when no Def-Plan is set in a borehole

18 out of 30 are selected

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		

Results highlighted in red: Sep-Factor <= 1.5

Result highlighted in boxed, red and bold: all local minima indicated.

30-025-33354 - April APZ State 1 - Gyro to 10860ft - A (DefinitiveSurvey)													Fail Major
5428.57	32.81	5427.59	5395.77	N/A	MAS = 10.00 (m)	0.00	0.00						Surface
5428.44	32.81	5427.44	5395.63	321268.20	MAS = 10.00 (m)	23.00	23.00						WRP
5428.40	32.81	5427.32	5395.60	55573.53	MAS = 10.00 (m)	50.00	50.00						MinPts
5428.60	32.81	5413.44	5395.69	385.60	MAS = 10.00 (m)	1500.00	1500.00						MinPts
5430.31	32.81	5409.86	5397.50	278.90	MAS = 10.00 (m)	2050.00	2050.00						MinPt-EOU
5542.08	68.01	5496.42	5474.07	124.00	OSF1.50	4590.00	4578.85						MinPt-EOU
5542.52	68.67	5496.41	5473.84	122.80	OSF1.50	4640.00	4628.85						MinPt-EOU
5542.90	69.25	5496.41	5473.65	121.78	OSF1.50	4680.00	4668.85						MinPt-EOU
5543.39	69.98	5496.41	5473.41	120.49	OSF1.50	4730.00	4718.85						MinPt-EOU
5530.74	101.70	5462.61	5429.04	82.35	OSF1.50	6860.00	6848.85						MinPt-CtCt
5530.76	103.02	5461.75	5427.74	81.29	OSF1.50	6950.00	6938.85						MinPt-CtCt
5531.42	111.14	5457.00	5420.28	75.31	OSF1.50	7500.00	7488.85						MinPt-CtCt
5531.35	112.77	5455.89	5418.63	74.21	OSF1.50	7610.00	7598.85						MinPt-CtCt
5534.14	132.54	5445.45	5401.60	63.09	OSF1.50	8970.00	8958.85						MinPt-EOU
5534.41	132.86	5445.51	5401.55	62.94	OSF1.50	9000.00	8988.85						MinPt-ADP
5535.53	133.84	5445.97	5401.68	62.49	OSF1.50	9080.00	9068.85						MinPt-ADP
494.43	151.35	393.20	343.08	4.92	OSF1.50	15050.00	10220.00	OSF<5.00					Enter Alert
171.72	173.75	55.56	-2.02	1.48	OSF1.50	15420.00	10220.00		OSF<1.50				Enter Minor
128.47	193.81	-1.06	-65.34	0.99	OSF1.50	15530.00	10220.00			OSF<1.00			Enter Major
128.30	194.07	-1.41	-65.77	0.99	OSF1.50	15536.74	10220.00						MinPts
128.34	194.12	-1.41	-66.78	0.99	OSF1.50	15540.00	10220.00						MinPt-ADP
128.94	193.97	-0.70	-65.03	0.99	OSF1.50	15550.00	10220.00			OSF>1.00			Exit Alert
175.91	175.94	58.29	-0.03	1.50	OSF1.50	15660.00	10220.00		OSF>1.50				Exit Minor
509.25	153.69	406.46	355.56	4.99	OSF1.50	16040.00	10220.00	OSF>5.00					Exit Alert
4802.58	159.63	4695.84	4642.96	45.40	OSF1.50	20346.18	10220.00						TD

30-025-33531 - CORIANDEAR AOC STATE 1 - INC Only to 9121ft - P&A (DefinitiveSurvey)													Fail Major
379.13	32.81	377.15	346.33	N/A	MAS = 10.00 (m)	0.00	0.00						Surface
378.52	32.81	376.45	345.71	3967.42	MAS = 10.00 (m)	10.00	10.00						MinPt-SF
378.12	32.81	376.08	345.31	6024.53	MAS = 10.00 (m)	23.00	23.00						WRP
378.04	114.66	301.01	263.38	5.00	OSF1.50	2020.00	2020.00	OSF<5.00					Enter Alert
299.08	299.73	98.67	-0.65	1.50	OSF1.50	4820.00	4808.85		OSF<1.50				Enter Minor
299.08	448.16	-0.22	-149.07	1.00	OSF1.50	7020.00	7008.85			OSF<1.00			Enter Major
299.08	574.86	-84.70	-275.78	0.78	OSF1.50	9150.00	9138.85						MinPt-CtCt
299.09	575.44	-85.09	-276.35	0.78	OSF1.50	9160.00	9148.85						MinPts
339.80	509.26	-0.26	-169.46	1.00	OSF1.50	9320.00	9308.85			OSF>1.00			Exit Major
417.49	419.35	137.39	-1.85	1.49	OSF1.50	9450.00	9438.85						Exit Minor
733.27	227.39	581.14	505.88	4.86	OSF1.50	9850.00	9833.43	OSF>5.00					Exit Alert
1492.82	409.71	1219.14	1083.10	5.48	OSF1.50	11270.00	10220.00						MinPt-SF
10161.75	577.15	9776.48	9584.60	26.48	OSF1.50	20346.18	10220.00						TD

Coterra Coriander 1-12 State Com 213H Rev1 kFc 15Feb24 (DefinitivePlan)													Fail Minor
19.99	16.25	18.71	3.74	N/A	MAS = 4.95 (m)	0.00	0.00	CtCt<=15m<15.00					Enter Alert
19.99	16.25	18.71	3.74	N/A	MAS = 4.95 (m)	23.00	23.00						WRP
19.99	19.75	6.39	0.24	1.52	OSF1.50	1290.00	1290.00						MinPts
19.99	20.05	6.30	-0.06	1.50	OSF1.50	1330.00	1330.00	OSF<1.50					Enter Minor
19.99	27.12	1.59	-7.13	1.09	OSF1.50	1800.00	1800.00						MinPt-CtCt
20.18	27.79	1.38	-7.53	1.08	OSF1.50	1840.00	1840.00						MinPts
20.42	28.01	1.42	-7.59	1.08	OSF1.50	1860.00	1860.00						MinPt-ADP
30.66	31.05	9.63	-0.40	1.48	OSF1.50	2070.00	2069.99		OSF>1.50				Exit Minor
133.07	40.94	105.45	92.13	4.96	OSF1.50	2740.00	2737.04	OSF>5.00					Exit Alert
322.57	59.88	282.32	262.69	8.19	OSF1.50	3970.00	3960.31						MinPt-SF
349.15	105.56	278.45	243.59	4.99	OSF1.50	7040.00	7028.85	OSF<5.00					Enter Alert
349.18	144.26	252.68	204.92	3.65	OSF1.50	9640.00	9628.85						MinPts
349.42	144.41	252.82	205.01	3.64	OSF1.50	9660.00	9648.83						MinPt-SF
487.53	148.11	388.46	339.42	4.96	OSF1.50	10180.00	10087.91	OSF>5.00					Exit Alert
598.01	115.91	520.41	482.10	7.79	OSF1.50	11250.00	10220.00						MinPt-CtCt
597.35	180.05	476.98	417.29	5.00	OSF1.50	14380.00	10220.00	OSF<5.00					Enter Alert
549.08	207.51	410.42	341.58	3.98	OSF1.50	15560.00	10220.00						MinPt-CtCt
550.51	211.71	409.04	338.80	3.91	OSF1.50	15700.00	10220.00						MinPt-EOU
552.64	214.25	409.47	338.38	3.88	OSF1.50	15780.00	10220.00						MinPt-ADP
599.06	355.93	361.44	243.13	2.53	OSF1.50	20346.18	10220.00						MinPts

Coterra Coriander 1-12 State Com 303H Rev1 kFc 15Feb24 (DefinitivePlan)													Fail Minor
20.00	16.26	18.72	3.74	N/A	MAS = 4.96 (m)	0.00	0.00	CtCt<=15m<15.00					Enter Alert
20.00	16.26	18.72	3.74	N/A	MAS = 4.96 (m)	23.00	23.00						WRP
20.00	19.75	6.40	0.25	1.52	OSF1.50	1290.00	1290.00						MinPts
20.00	20.05	6.31	-0.05	1.50	OSF1.50	1330.00	1330.00	OSF<1.50					Enter Minor
20.00	27.12	1.59	-7.12	1.09	OSF1.50	1800.00	1800.00						MinPt-CtCt
20.15	27.50	1.45	-7.41	1.08	OSF1.50	1830.00	1830.00						MinPts
20.27	27.71	1.46	-7.44	1.08	OSF1.50	1840.00	1840.00						MinPt-ADP
30.76	30.86	9.86	-0.10	1.50	OSF1.50	2060.00	2060.00		OSF>1.50				Exit Minor
44.32	39.84	17.43	4.48	1.67	OSF1.50	2670.00	2667.43						MinPt-EOU
59.12	57.03	20.77	2.09	1.56	OSF1.50	3780.00	3771.35						MinPt-ADP
62.84	60.68	22.05	2.15	1.55	OSF1.50	4010.00	4000.09						MinPt-SF
162.58	145.29	65.39	17.29	1.68	OSF1.50	9840.00	9824.13						MinPt-CtCt

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
	162.60	145.36	65.37	17.25	1.68	OSF1.50	9850.00	9833.43	OSF>5.00			MinPts	Exit Alert
	492.26	149.74	392.11	342.52	4.95	OSF1.50	10460.00	10190.29				MinPt-CtCt	
	1110.01	165.81	999.14	944.20	10.09	OSF1.50	14290.00	10220.00	OSF<5.00			Enter Alert	
	1110.00	333.99	887.01	776.01	5.00	OSF1.50	19840.00	10220.00				MinPts	
	1110.00	350.06	876.30	759.94	4.77	OSF1.50	20346.18	10220.00					
30-025-33688 - MULE DEER 36 STATE 7 - INC only to 9100ft - A (DefinitiveSurvey)													Fail Minor
515.59	32.81	513.62	482.79		N/A	MAS = 10.00 (m)	0.00	0.00	OSF<5.00			Surface	
515.34	32.81	513.33	482.53	16344.65		MAS = 10.00 (m)	10.00	10.00				MinPt-SF	
515.27	32.81	513.21	482.46	6142.11		MAS = 10.00 (m)	23.00	23.00				WRP	
498.86	151.42	397.33	347.44	4.98		OSF1.50	2460.00	2458.58				Enter Alert	
439.85	440.35	145.74	-0.50	1.50		OSF1.50	6630.00	6618.85				Enter Minor	
439.85	590.46	45.67	-150.61	1.12		OSF1.50	9120.00	9108.85				MinPt-CtCt	
439.86	590.91	45.38	-151.05	1.12		OSF1.50	9130.00	9118.85	OSF>1.50			MinPts	
507.23	515.60	162.96	-8.37	1.48		OSF1.50	9380.00	9368.85				Exit Minor	
1149.62	347.19	917.62	802.43	4.98		OSF1.50	10140.00	10063.88				Exit Alert	
10826.07	592.62	10430.49	10233.45	27.47		OSF1.50	20346.18	10220.00				TD	
Coterra Coriander 1-12 State Com 5H Corrected MWD to 22532ft (DefinitiveSurvey)													Warning Alert
99.99	32.81	98.81	67.18	3528595.70		MAS = 10.00 (m)	0.00	0.00	OSF<5.00			MinPts	
100.00	32.81	98.82	67.19	18778.30		MAS = 10.00 (m)	23.00	23.00				WRP	
101.04	32.81	98.38	68.23	67.42		MAS = 10.00 (m)	220.00	220.00				MinPt-EOU	
100.36	32.81	87.11	67.55	8.22		MAS = 10.00 (m)	1290.00	1290.00				MinPt-EOU	
86.42	32.81	68.24	53.61	4.97		MAS = 10.00 (m)	1810.00	1810.00				Enter Alert	
38.42	34.59	15.03	3.83	1.67		OSF1.50	2332.84	2332.12				MinPt-CtCt	
38.44	34.70	14.98	3.75	1.67		OSF1.50	2340.00	2339.23	OSF>5.00			MinPt-EOU	
38.56	34.85	15.00	3.71	1.66		OSF1.50	2350.00	2349.18				MinPts	
147.91	45.44	117.29	102.47	4.96		OSF1.50	3080.00	3075.18				Exit Alert	
504.48	119.39	424.55	385.08	6.38		OSF1.50	8000.00	7988.85				MinPt-ADP	
510.83	125.98	426.51	384.84	6.12		OSF1.50	8440.00	8428.85				MinPt-EOU	
516.04	137.49	424.06	378.55	5.66		OSF1.50	9210.00	9198.85				MinPt-EOU	
516.91	138.52	424.23	378.39	5.63		OSF1.50	9280.00	9268.85	OSF1.50			MinPt-ADP	
519.90	143.65	423.80	376.25	5.46		OSF1.50	9629.34	9618.19				MinPt-EOU	
519.90	143.65	423.81	376.25	5.46		OSF1.50	9630.00	9618.85				MinPt-ADP	
520.35	143.87	424.10	376.48	5.48		OSF1.50	9660.00	9648.83				MinPt-SF	
2318.87	129.23	2232.39	2189.64	27.11		OSF1.50	12370.00	10220.00				MinPt-ADP	
2323.43	132.81	2234.57	2190.63	26.43		OSF1.50	12550.00	10220.00				MinPt-EOU	
2326.07	135.78	2235.23	2190.30	25.87		OSF1.50	12700.00	10220.00	OSF1.50			MinPt-ADP	
2316.56	165.35	2206.00	2151.21	21.13		OSF1.50	13940.00	10220.00				MinPt-CtCt	
2306.49	204.39	2169.91	2102.11	17.00		OSF1.50	15440.00	10220.00				MinPt-CtCt	
2308.70	211.85	2167.14	2096.85	16.42		OSF1.50	15690.00	10220.00				MinPt-EOU	
2309.20	212.49	2167.21	2096.71	16.37		OSF1.50	15720.00	10220.00				MinPt-ADP	
2322.55	222.11	2174.15	2100.44	15.75		OSF1.50	16050.00	10220.00				MinPt-ADP	
2338.90	233.39	2182.98	2105.51	15.09		OSF1.50	16420.00	10220.00	OSF1.50			MinPts	
2345.01	250.53	2177.67	2094.49	14.09		OSF1.50	16990.00	10220.00				MinPt-CtCt	
2345.61	252.49	2176.96	2093.13	13.98		OSF1.50	17080.00	10220.00				MinPt-EOU	
2343.25	299.94	2142.96	2043.31	11.75		OSF1.50	18620.00	10220.00				MinPt-CtCt	
2344.23	312.00	2135.90	2032.23	11.30		OSF1.50	19010.00	10220.00				MinPt-CtCt	
2344.87	313.95	2135.25	2030.93	11.23		OSF1.50	19100.00	10220.00				MinPt-EOU	
2347.50	326.86	2129.26	2020.64	10.80		OSF1.50	19490.00	10220.00	OSF1.50			MinPt-CtCt	
2345.30	348.06	2112.93	1997.24	10.13		OSF1.50	20170.00	10220.00				MinPt-CtCt	
2345.99	353.61	2109.92	1992.37	9.98		OSF1.50	20346.18	10220.00				MinPts	
Coterra Coriander 1-12 Federal Com 6H Corrected MWD to 22356ft (DefinitiveSurvey)													Warning Alert
84.84	32.81	83.55	52.03		N/A	MAS = 10.00 (m)	0.00	0.00	OSF<5.00			Surface	
84.84	32.81	83.55	52.03	35916.35		MAS = 10.00 (m)	23.00	23.00				WRP	
84.77	32.81	83.04	51.96	186.43		MAS = 10.00 (m)	100.00	100.00				MinPts	
82.89	32.81	69.48	50.08	6.73		MAS = 10.00 (m)	1280.00	1280.00				MinPt-EOU	
75.60	32.81	59.60	42.79	4.97		MAS = 10.00 (m)	1720.00	1720.00				Enter Alert	
48.18	32.81	29.39	15.37	2.65		MAS = 10.00 (m)	2096.26	2096.24				MinPts	
48.19	32.81	29.37	15.38	2.65		MAS = 10.00 (m)	2100.00	2099.98	OSF>5.00			MinPt-EOU	
48.47	32.81	29.48	15.66	2.64		MAS = 10.00 (m)	2120.00	2119.96				MinPt-SF	
69.23	32.81	48.88	36.42	3.52		MAS = 10.00 (m)	2300.00	2299.45				MinPt-SF	
103.89	32.81	82.30	71.08	5.00		MAS = 10.00 (m)	2460.00	2458.58				Exit Alert	
577.20	64.32	533.99	512.88	13.65		OSF1.50	4790.00	4778.85				MinPt-SF	
623.78	68.83	577.57	554.95	13.77		OSF1.50	5120.00	5108.85				MinPt-SF	
748.67	81.59	693.95	667.08	13.91		OSF1.50	5980.00	5968.85	OSF1.50			MinPt-SF	
906.65	110.84	832.42	795.80	12.37		OSF1.50	7910.00	7898.85				MinPt-CtCt	
902.18	127.78	816.66	774.40	10.66		OSF1.50	9100.00	9088.85				MinPt-CtCt	
903.11	130.96	815.48	772.15	10.41		OSF1.50	9320.00	9308.85				MinPt-EOU	
903.72	131.67	815.62	772.05	10.36		OSF1.50	9370.00	9358.85				MinPt-ADP	
910.97	135.75	820.14	775.22	10.13		OSF1.50	9690.00	9678.74				MinPt-SF	
2391.21	142.02	2296.20	2249.19	25.42		OSF1.50	12680.00	10220.00	OSF1.50			MinPt-CtCt	
2390.40	148.73	2290.92	2241.67	24.26		OSF1.50	13030.00	10220.00				MinPt-CtCt	
2389.54	153.45	2286.91	2236.09	23.50		OSF1.50	13260.00	10220.00				MinPt-CtCt	
2390.08	155.03	2286.40	2235.06	23.26		OSF1.50	13350.00	10220.00				MinPt-EOU	
2393.91	159.63	2287.16	2234.28	22.63		OSF1.50	13570.00	10220.00				MinPt-ADP	
2396.06	162.48	2287.41	2233.58	22.25		OSF1.50	13680.00	10220.00				MinPt-EOU	
2397.69	164.39	2287.76	2233.29	22.00		OSF1.50	13770.00	10220.00	OSF1.50			MinPt-ADP	
2400.49	168.36	2287.92	2232.13	21.50		OSF1.50	13930.00	10220.00				MinPt-EOU	
2401.47	169.63	2288.06	2231.84	21.35		OSF1.50	13990.00	10220.00				MinPt-ADP	
2409.04	175.96	2291.41	2233.08	20.64		OSF1.50	14250.00	10220.00				MinPt-EOU	
2360.17	201.47	2225.53	2158.70	17.65		OSF1.50	15320.00	10220.00				MinPt-CtCt	
2360.27	201.78	2225.42	2158.49	17.62		OSF1.50	15340.00	10220.00				MinPt-EOU	
2360.38	201.93	2225.44	2158.45	17.61		OSF1.50	15350.00	10220.00	OSF1.50			MinPt-ADP	
2362.99	212.08	2221.27	2150.90	16.78		OSF1.50	15630.00	10220.00				MinPt-CtCt	
2364.21	216.58	2219.50	2147.63	16.44		OSF1.50	15780.00	10220.00				MinPt-EOU	
2365.14	217.68	2219.70	2147.46	16.37		OSF1.50	15820.00	10220.00				MinPt-ADP	
2410.19	248.64	2244.11	2161.56	14.59		OSF1.50	16920.00	10220.00				MinPt-CtCt	
2386.69	307.16	2181.59	2079.53	11.69		OSF1.50	18890.00	10220.00				MinPt-CtCt	
2387.96	312.87	2179.05	2075.08	11.48		OSF1.50	19100.00	10220.00	OSF1.50			MinPt-EOU	
2388.90	314.03	2179.22	2074.87	11.44		OSF1.50	19150.00	10220.00				MinPt-ADP	
2387.74	325.76	2170.24	2061.98	11.02		OSF1.50	19500.00	10220.00				MinPt-CtCt	
2387.96	326.49	2169.97	2061.47	11.00		OSF1.50	19540.00	10220.00				MinPt-EOU	
2388.23	326.84	2170.00	2061.38	10.99		OSF1.50	19560.00	10220.00				MinPt-ADP	
2394.01	334.27	2170.83	2059.74	10.77		OSF1.50	19800.00	10220.00				MinPt-EOU	
2394.95	335.41	2171.02	2059.55	10.74		OSF1.50	19850.00	10220.00	OSF1.50			MinPt-ADP	
2381.54	351.81	2146.67	2029.73	10.18		OSF1.50	20346.18	10220.00				MinPts	
Coterra Coriander 1-12 State Com 4H Corrected MWD to 22335ft (DefinitiveSurvey)													Warning Alert
116.60	32.81	115.32	83.80		N/A	MAS = 10.00 (m)	0.00	0.00	OSF1.50			Surface	
116.60	32.81	115.32	83.80		N/A	MAS = 10.00 (m)	10.00	10.00				MinPts	
116.60	32.81	115.32	83.80	42115.43		MAS = 10.00 (m)	23.00	23.00				WRP	

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
120.35	32.81	107.06	87.54	9.92		MAS = 10.00 (m)	1280.00	1280.00				MinPt-EOU	
116.32	32.81	99.79	83.51	7.42		MAS = 10.00 (m)	1640.00	1640.00				MinPts	
116.51	32.81	99.59	83.70	7.25		MAS = 10.00 (m)	1680.00	1680.00				MinPt-EOU	
112.80	34.64	89.38	78.16	4.98		OSF1.50	2340.00	2339.23	OSF<5.00			Enter Alert	
66.97	49.17	33.86	17.80	2.05		OSF1.50	3320.77	3314.63				MinPt-CtCi	
67.25	50.04	33.56	17.21	2.03		OSF1.50	3380.00	3373.54				MinPt-EOU	
67.74	50.62	33.67	17.12	2.02		OSF1.50	3420.00	3413.32				MinPt-ADP	
68.26	51.06	33.89	17.20	2.02		OSF1.50	3450.00	3443.15				MinPt-SF	
109.80	77.25	57.97	32.55	2.14		OSF1.50	5220.00	5208.85				MinPt-CtCi	
110.24	78.57	57.54	31.68	2.11		OSF1.50	5310.00	5298.85				MinPt-EOU	
111.68	80.19	57.89	31.49	2.10		OSF1.50	5420.00	5408.85				MinPt-ADP	
116.53	84.52	59.85	32.01	2.07		OSF1.50	5710.00	5698.85				MinPt-ADP	
122.75	89.43	62.80	33.32	2.07		OSF1.50	6040.00	6028.85				MinPt-SF	
130.90	96.46	66.27	34.44	2.04		OSF1.50	6510.00	6498.85				MinPt-CtCi	
131.23	101.74	63.08	29.50	1.94		OSF1.50	6870.00	6858.85				MinPt-CtCi	
136.10	118.17	56.99	17.93	1.73		OSF1.50	7990.00	7978.85				MinPt-EOU	
138.67	121.11	57.60	17.56	1.72		OSF1.50	8190.00	8178.85				MinPt-ADP	
139.30	121.70	57.84	17.60	1.72		OSF1.50	8230.00	8218.85				MinPt-SF	
141.29	123.48	58.64	17.81	1.72		OSF1.50	8350.00	8338.85				MinPt-ADP	
146.15	127.92	60.54	18.23	1.72		OSF1.50	8650.00	8638.85				MinPt-SF	
149.24	130.44	61.95	18.80	1.72		OSF1.50	8820.00	8808.85				MinPt-SF	
161.68	140.40	67.75	21.27	1.73		OSF1.50	9490.00	9478.85				MinPt-SF	
481.09	147.30	382.56	333.79	4.92		OSF1.50	10370.00	10169.13	OSF>5.00			Exit Alert	
1948.54	115.94	1870.91	1832.59	25.41		OSF1.50	11950.00	10220.00				MinPt-EOU	
1949.47	117.04	1871.12	1832.44	25.18		OSF1.50	12020.00	10220.00				MinPt-ADP	
1982.65	142.02	1887.68	1840.67	21.08		OSF1.50	13160.00	10220.00				MinPt-CtCi	
1982.82	142.41	1887.55	1840.40	21.02		OSF1.50	13190.00	10220.00				MinPt-EOU	
1983.05	142.68	1887.60	1840.37	20.98		OSF1.50	13210.00	10220.00				MinPt-ADP	
1984.77	144.27	1888.27	1840.50	20.77		OSF1.50	13290.00	10220.00				MinPt-ADP	
1987.04	148.64	1887.61	1838.39	20.18		OSF1.50	13450.00	10220.00				MinPt-EOU	
1987.83	149.60	1887.77	1838.23	20.05		OSF1.50	13500.00	10220.00				MinPt-ADP	
1990.85	153.02	1888.51	1837.83	19.63		OSF1.50	13640.00	10220.00				MinPt-ADP	
1995.31	159.83	1888.43	1835.48	18.83		OSF1.50	13870.00	10220.00				MinPt-CtCi	
1995.78	161.17	1888.01	1834.62	18.68		OSF1.50	13940.00	10220.00				MinPt-EOU	
1996.44	161.93	1888.16	1834.51	18.60		OSF1.50	13980.00	10220.00				MinPt-ADP	
1997.04	166.73	1885.56	1830.32	18.06		OSF1.50	14130.00	10220.00				MinPt-CtCi	
1993.26	173.41	1877.32	1819.84	17.33		OSF1.50	14380.00	10220.00				MinPt-CtCi	
1993.66	174.53	1876.98	1819.13	17.22		OSF1.50	14440.00	10220.00				MinPt-EOU	
1997.81	181.87	1876.23	1815.93	16.56		OSF1.50	14710.00	10220.00				MinPt-EOU	
2002.62	187.56	1877.25	1815.06	16.09		OSF1.50	14930.00	10220.00				MinPt-ADP	
2005.08	190.63	1877.67	1814.46	15.85		OSF1.50	15030.00	10220.00				MinPt-EOU	
2005.29	190.87	1877.71	1814.42	15.83		OSF1.50	15040.00	10220.00				MinPt-ADP	
2012.10	196.05	1881.07	1816.05	15.46		OSF1.50	15230.00	10220.00				MinPt-EOU	
2012.63	196.66	1881.20	1815.97	15.42		OSF1.50	15250.00	10220.00				MinPt-ADP	
2019.71	207.10	1881.32	1812.62	14.69		OSF1.50	15600.00	10220.00				MinPt-EOU	
2020.82	208.45	1881.53	1812.37	14.60		OSF1.50	15660.00	10220.00				MinPt-ADP	
2024.64	213.87	1881.73	1810.77	14.26		OSF1.50	15840.00	10220.00				MinPt-EOU	
2025.81	215.28	1881.96	1810.53	14.17		OSF1.50	15900.00	10220.00				MinPt-ADP	
2026.14	218.79	1879.96	1807.36	13.95		OSF1.50	15980.00	10220.00				MinPt-CtCi	
2026.59	220.22	1879.45	1806.37	13.86		OSF1.50	16050.00	10220.00				MinPt-EOU	
2031.41	232.83	1875.87	1798.59	13.14		OSF1.50	16450.00	10220.00				MinPt-CtCi	
2032.45	238.58	1873.06	1793.86	12.82		OSF1.50	16640.00	10220.00				MinPt-CtCi	
2032.77	244.63	1869.36	1788.15	12.51		OSF1.50	16840.00	10220.00				MinPt-CtCi	
2033.70	247.81	1868.17	1785.89	12.35		OSF1.50	16970.00	10220.00				MinPt-EOU	
2034.87	249.22	1868.40	1785.65	12.29		OSF1.50	17030.00	10220.00				MinPt-ADP	
2032.20	259.79	1858.68	1772.41	11.77		OSF1.50	17340.00	10220.00				MinPt-CtCi	
2032.58	261.92	1857.64	1770.66	11.68		OSF1.50	17430.00	10220.00				MinPt-EOU	
2033.07	262.50	1857.74	1770.57	11.66		OSF1.50	17460.00	10220.00				MinPt-ADP	
2034.57	282.53	1845.89	1752.05	10.83		OSF1.50	18080.00	10220.00				MinPt-CtCi	
2033.60	293.99	1837.28	1739.61	10.41		OSF1.50	18450.00	10220.00				MinPt-CtCi	
2034.06	295.48	1836.74	1738.58	10.36		OSF1.50	18520.00	10220.00				MinPt-EOU	
2022.17	323.94	1805.89	1698.24	9.39		OSF1.50	19410.00	10220.00				MinPt-CtCi	
2022.84	326.01	1805.17	1696.83	9.33		OSF1.50	19500.00	10220.00				MinPt-EOU	
2023.58	326.90	1805.32	1696.68	9.31		OSF1.50	19540.00	10220.00				MinPt-ADP	
2020.45	353.41	1784.52	1667.05	8.60		OSF1.50	20346.18	10220.00				MinPts	
30-025-43737 Cimarex Coriander AOC 1-12 State 2H - Corrected MWD to 19642ft (DefinitiveSurvey)													Warning Alert
121.53	32.81	120.25	88.72	741241.35		MAS = 10.00 (m)	0.00	0.00				Surface	
121.52	32.81	120.23	88.71	13394.06		MAS = 10.00 (m)	23.00	23.00				WRP	
120.49	32.81	116.64	87.69	46.43		MAS = 10.00 (m)	350.00	350.00				MinPts	
120.24	32.81	108.16	87.43	11.02		MAS = 10.00 (m)	1180.00	1180.00				MinPts	
120.24	32.81	107.96	87.43	10.82		MAS = 10.00 (m)	1200.00	1200.00				MinPt-EOU	
120.21	32.81	107.18	87.40	10.01		MAS = 10.00 (m)	1290.00	1290.00				MinPt-EOU	
120.09	32.81	106.07	87.28	9.14		MAS = 10.00 (m)	1404.17	1404.17				MinPts	
122.84	32.81	103.60	90.03	6.68		MAS = 10.00 (m)	1930.00	1930.00				MinPt-EOU	
131.44	32.81	109.45	98.63	6.21		MAS = 10.00 (m)	2210.00	2209.81				MinPt-SF	
138.12	33.82	115.24	104.30	6.26		OSF1.50	2300.00	2299.45				MinPt-SF	
251.60	53.74	215.45	197.87	7.13		OSF1.50	3640.00	3632.11				MinPt-SF	
300.29	73.73	250.81	226.56	6.17		OSF1.50	4990.00	4978.85				MinPt-CtCi	
300.74	83.37	244.83	217.37	5.46		OSF1.50	5650.00	5638.85				MinPt-CtCi	
301.39	91.11	240.32	210.28	5.00		OSF1.50	6180.00	6168.85	OSF<5.00			Enter Alert	
299.85	99.46	233.22	200.39	4									

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
491.09	204.70	354.30	286.39	3.61		OSF1.50	15680.00	10220.00				MinPt-EOU	
491.80	205.58	354.42	286.22	3.60		OSF1.50	15710.00	10220.00				MinPt-ADP	
499.91	211.52	358.57	288.39	3.55		OSF1.50	15900.00	10220.00				MinPt-ADP	
520.53	231.80	365.67	288.73	3.38		OSF1.50	16500.00	10220.00				MinPt-ADP	
536.78	259.90	363.18	276.88	3.10		OSF1.50	17420.00	10220.00				MinPt-CtCt	
537.96	263.08	362.24	274.87	3.07		OSF1.50	17530.00	10220.00				MinPt-EOU	
539.56	265.15	362.47	274.41	3.06		OSF1.50	17600.00	10220.00				MinPt-ADP	
548.90	273.41	366.30	275.49	3.02		OSF1.50	17870.00	10220.00				MinPt-ADP	
551.68	279.84	364.78	271.82	2.96		OSF1.50	18080.00	10220.00				MinPt-CtCt	
551.10	289.01	358.10	262.09	2.86		OSF1.50	18400.00	10220.00				MinPt-CtCt	
553.28	297.73	354.46	255.55	2.79		OSF1.50	18710.00	10220.00				MinPt-EOU	
554.23	298.86	354.66	255.37	2.79		OSF1.50	18750.00	10220.00				MinPt-ADP	
571.24	313.90	361.65	257.34	2.73		OSF1.50	19230.00	10220.00				MinPt-EOU	
574.34	342.34	345.79	232.01	2.52		OSF1.50	20160.00	10220.00				MinPt-CtCt	
576.64	348.05	344.28	228.59	2.49		OSF1.50	20346.18	10220.00				MinPts	

30-025-43738 Cimarex Coriander AOC 1-12 State 3H - Corrected MWD to 19431ft (DefinitiveSurvey)

Warning Alert

126.40	32.81	125.12	93.59	#####	MAS = 10.00 (m)	0.00	0.00					Surface	
126.40	32.81	125.11	93.59	11600.99	MAS = 10.00 (m)	23.00	23.00					WRP	
122.57	32.81	112.35	89.77	13.57	MAS = 10.00 (m)	970.00	970.00					MinPts	
122.51	32.81	110.09	89.71	10.88	MAS = 10.00 (m)	1190.00	1190.00					MinPt-EOU	
122.39	32.81	109.11	89.58	9.99	MAS = 10.00 (m)	1290.00	1290.00					MinPt-EOU	
122.28	32.81	107.90	89.44	9.08	MAS = 10.00 (m)	1411.44	1411.44					MinPts	
122.64	32.81	107.52	89.83	8.61	MAS = 10.00 (m)	1490.00	1490.00					MinPt-EOU	
126.91	32.81	106.71	94.10	6.55	MAS = 10.00 (m)	2000.00	2000.00					MinPt-EOU	
131.93	32.81	110.25	99.12	6.33	MAS = 10.00 (m)	2150.00	2149.93					MinPt-SF	
145.01	34.24	121.85	110.76	6.50	OSF1.50	2300.00	2299.45					MinPt-SF	
550.22	110.87	475.98	439.35	7.50	OSF1.50	7480.00	7468.85					MinPt-CtCt	
550.33	113.55	474.30	436.78	7.32	OSF1.50	7660.00	7648.85					MinPt-CtCt	
554.95	128.11	469.22	426.84	6.54	OSF1.50	8640.00	8628.85					MinPt-EOU	
558.71	132.57	470.01	426.15	6.36	OSF1.50	8940.00	8928.85					MinPt-ADP	
559.31	133.17	470.20	426.14	6.34	OSF1.50	8980.00	8968.85					MinPt-ADP	
562.26	134.61	472.20	427.66	6.30	OSF1.50	9090.00	9078.85					MinPt-SF	
939.99	115.93	862.38	824.06	12.25	OSF1.50	10770.00	10220.00					MinPt-CtCt	
940.11	116.22	862.30	823.88	12.22	OSF1.50	10800.00	10220.00					MinPt-EOU	
940.19	116.32	862.32	823.87	12.22	OSF1.50	10810.00	10220.00					MinPt-ADP	
943.30	118.27	864.12	825.03	12.05	OSF1.50	11030.00	10220.00					MinPt-ADP	
906.55	145.37	809.31	761.18	9.41	OSF1.50	12770.00	10220.00					MinPt-CtCt	
900.42	157.72	794.94	742.70	8.61	OSF1.50	13320.00	10220.00					MinPt-CtCt	
901.62	162.32	793.08	739.30	8.37	OSF1.50	13520.00	10220.00					MinPt-CtCt	
901.94	163.38	792.69	738.56	8.32	OSF1.50	13570.00	10220.00					MinPt-EOU	
902.29	163.80	792.76	738.49	8.30	OSF1.50	13590.00	10220.00					MinPt-ADP	
855.67	206.77	717.49	648.90	6.23	OSF1.50	15460.00	10220.00					MinPt-CtCt	
856.46	208.91	716.86	647.55	6.17	OSF1.50	15540.00	10220.00					MinPt-EOU	
858.12	210.89	717.20	647.23	6.13	OSF1.50	15610.00	10220.00					MinPt-ADP	
939.84	271.13	758.76	668.71	5.21	OSF1.50	17640.00	10220.00					MinPt-CtCt	
940.49	273.04	758.14	667.45	5.18	OSF1.50	17710.00	10220.00					MinPt-EOU	
943.97	277.15	758.88	666.82	5.12	OSF1.50	17850.00	10220.00					MinPt-ADP	
949.47	284.54	759.45	664.94	5.02	OSF1.50	18090.00	10220.00					MinPt-EOU	
950.19	285.80	759.32	664.38	5.00	OSF1.50	18130.00	10220.00		OSF<5.00			Enter Alert	
920.75	329.24	700.93	591.51	4.20	OSF1.50	19560.00	10220.00					MinPt-CtCt	
922.37	333.95	699.41	588.42	4.15	OSF1.50	19720.00	10220.00					MinPt-EOU	
923.27	335.06	699.57	588.21	4.14	OSF1.50	19760.00	10220.00					MinPt-ADP	
922.94	353.38	687.02	569.55	3.92	OSF1.50	20346.18	10220.00					MinPts	

30-025-43736 Cimarex Coriander AOC 1-12 State 1H - MWD to 19004ft (DefinitiveSurvey)

Warning Alert

205.80	32.81	203.83	173.00	2154791.10	MAS = 10.00 (m)	0.00	0.00					Surface	
205.79	32.81	203.80	172.98	29833.47	MAS = 10.00 (m)	23.00	23.00					WRP	
198.50	32.81	184.42	165.69	16.24	MAS = 10.00 (m)	1290.00	1290.00					MinPt-EOU	
198.22	32.81	183.26	165.41	14.88	MAS = 10.00 (m)	1400.00	1400.00					MinPts	
195.28	33.41	172.42	161.86	9.17	OSF1.50	2190.00	2189.86					MinPt-CtCt	
195.75	34.88	171.91	160.87	8.79	OSF1.50	2290.00	2289.50					MinPt-EOU	
197.83	37.38	172.33	160.45	8.26	OSF1.50	2460.00	2458.58					MinPt-ADP	
243.62	54.37	206.78	189.25	6.90	OSF1.50	3610.00	3602.28					MinPt-SF	
304.24	67.02	258.97	237.22	6.95	OSF1.50	4470.00	4458.85					MinPt-ADP	
312.31	74.65	261.95	237.65	6.39	OSF1.50	4990.00	4978.85					MinPt-ADP	
299.91	91.11	238.64	208.81	5.00	OSF1.50	6110.00	6098.85		OSF<5.00			Enter Alert	
269.57	120.40	188.76	149.16	3.38	OSF1.50	8090.00	8078.85					MinPt-CtCt	
273.68	132.94	184.52	140.74	3.11	OSF1.50	8940.00	8928.85					MinPt-EOU	
274.17	133.51	184.62	140.66	3.10	OSF1.50	8980.00	8968.85					MinPt-ADP	
276.34	135.09	185.74	141.25	3.09	OSF1.50	9090.00	9078.85					MinPt-SF	
399.81	122.96	317.30	276.85	4.92	OSF1.50	9540.00	9528.85		OSF<5.00			Exit Alert	
698.73	83.97	642.21	614.76	12.70	OSF1.50	10410.00	10179.24					MinPt-CtCt	
636.15	105.65	565.22	530.50	9.14	OSF1.50	12280.00	10220.00					MinPt-CtCt	
639.13	112.76	563.45	526.37	8.60	OSF1.50	12590.00	10220.00					MinPt-EOU	
643.37	137.02	551.52	506.35	7.10	OSF1.50	13550.00	10220.00					MinPt-CtCt	
645.86	143.61	549.62	502.25	6.80	OSF1.50	13790.00	10220.00					MinPt-EOU	
648.68	146.92	550.23	501.76	6.68	OSF1.50	13910.00	10220.00					MinPt-ADP	
646.91	173.95	530.44	472.96	5.61	OSF1.50	14860.00	10220.00					MinPt-CtCt	
647.37	175.38	529.95	471.99	5.57	OSF1.50	14910.00	10220.00					MinPt-EOU	
648.09	176.24	530.10	471.85	5.55	OSF1.50	14940.00	10220.00					MinPt-ADP	
655.54	190.94	527.75	464.60	5.18	OSF1.50	15410.00	10220.00					MinPt-CtCt	
657.31	196.20	526.01	461.11	5.05	OSF1.50	15580.00	10220.00					MinPt-EOU	
659.27	198.53	526.41	460.73	5.01	OSF1.50	15660.00	10220.00					MinPt-ADP	
659.87	199.09	526.64	460.77	5.00	OSF1.50	15680.00	10220.00		OSF<5.00			Enter Alert	
657.01	228.72	504.02	428.28	4.33	OSF1.50	16640.00	10220.00					MinPt-CtCt	
659.55	233.89	503.13	425.66	4.25	OSF1.50	16800.00	10220.00					MinPt-EOU	
654.95	268.27	475.60	386.68	3.67	OSF1.50	17900.00	10220.00					MinPt-CtCt	
660.44	280.69	472.81	379.75	3.54	OSF1.50	18300.00	10220.00					MinPt-EOU	
662.87	301.50	461.37	361.37	3.31	OSF1.50	18960.00	10220.00					MinPt-CtCt	
661.58	312.54	452.72	349.04	3.18	OSF1.50	19310.00	10220.00					MinPt-CtCt	
661.85	317.61	449.65	344.28	3.13	OSF1.50	19470.00	10220.00					MinPt-CtCt	
662.89	321.62	447.98	341.27	3.10	OSF1.50	19600.00	10220.00					MinPt-EOU	
663.88	322.79	448.18	341.09	3.09	OSF1.50	19640.00	10220.00					MinPt-ADP	
665.25	327.98	446.10	337.27	3.05	OSF1.50	19800.00	10220.00					MinPt-CtCt	
665.28	330.92	444.14	334.33	3.02	OSF1.50	19890.00	10220.00					MinPt-EOU	
665.35	331.16	444.08	334.19	3.02	OSF1.50	19900.00	10220.00					MinPt-CtCt	
665.60	331.35	444.20	334.25	3.02	OSF1.50	19910.00	10220.00					MinPt-EOU	
807.64	298.22	608.33	509.42	4.08	OSF1.50	20346.18	10220.00					MinPt-SF	

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
	12809.96	182.32	12687.63	12627.64	106.40	OSF1.50	2110.00	2109.97				MinPt-SF	
	10601.66	157.68	10396.01	10343.99	100.92	OSF1.50	9610.00	9598.85				MinPt-CtCt	
	10501.69	157.74	10395.99	10343.95	100.88	OSF1.50	9629.34	9618.19				MinPts	
	893.18	270.27	712.50	622.91	4.98	OSF1.50	19850.00	10220.00	OSF<5.00			Enter Alert	
	641.99	351.03	407.47	290.96	2.75	OSF1.50	20346.18	10220.00				MinPts	
30-025-47633 - Wild Salsa Federal Com 095H MWD to 20658ft - PR (DefinitiveSurvey)													Warning Alert
14351.64	200.98	14216.99	14150.66	108.16		OSF1.50	0.00	0.00				Surface	
14335.81	200.88	14201.23	14134.93	108.10		OSF1.50	23.00	23.00				WRP	
12883.40	184.51	12759.81	12696.89	105.73		OSF1.50	2299.93	2299.38				MinPt-SF	
12414.50	178.01	12295.24	12236.49	105.64		OSF1.50	3210.00	3204.47				MinPt-SF	
11961.93	171.53	11846.99	11790.40	105.67		OSF1.50	4200.00	4189.12				MinPt-SF	
11917.84	170.91	11803.32	11746.93	105.67		OSF1.50	4300.00	4288.90				MinPt-SF	
11611.62	166.58	11499.98	11445.04	105.66		OSF1.50	4990.00	4978.85				MinPt-SF	
10528.93	163.23	10419.56	10365.69	97.70		OSF1.50	9629.34	9618.19				MinPt-SF	
1226.23	370.55	978.70	855.68	4.98		OSF1.50	19520.00	10220.00	OSF<5.00			Enter Alert	
752.76	560.41	378.66	192.37	2.02		OSF1.50	20346.18	10220.00				MinPts	
30-025-47633 - WILD SALSA FED COM 095H - MWD to 20658ft - A (DefinitiveSurvey)													Warning Alert
14349.69	200.93	14215.08	14148.77	108.18		OSF1.50	0.00	0.00				Surface	
14333.87	200.83	14199.32	14133.04	108.11		OSF1.50	23.00	23.00				WRP	
12881.72	184.46	12758.17	12697.27	105.76		OSF1.50	2299.93	2299.38				MinPt-SF	
12432.52	178.22	12313.12	12254.30	105.67		OSF1.50	3170.00	3164.69				MinPt-SF	
11960.54	171.47	11845.64	11789.07	105.70		OSF1.50	4200.00	4189.12				MinPt-SF	
11916.47	170.85	11801.99	11745.63	105.70		OSF1.50	4300.00	4288.90				MinPt-SF	
11825.54	169.56	11711.91	11655.98	105.70		OSF1.50	4500.00	4488.85				MinPt-SF	
11610.37	166.51	11498.78	11443.86	105.69		OSF1.50	4990.00	4978.85				MinPt-SF	
10528.75	163.20	10419.41	10365.55	97.72		OSF1.50	9629.34	9618.19				MinPt-SF	
1226.55	370.30	979.18	856.25	4.98		OSF1.50	19520.00	10220.00	OSF<5.00			Enter Alert	
753.36	559.77	379.70	193.61	2.02		OSF1.50	20346.18	10220.00				MinPts	
30-025-47636 - WILD SALSA FED COM 226H - MWD to 21865ft - A (DefinitiveSurvey)													Warning Alert
15228.51	212.16	15086.40	15016.34	108.67		OSF1.50	0.00	0.00				Surface	
15211.73	212.10	15069.67	14999.63	108.58		OSF1.50	23.00	23.00				WRP	
13647.09	198.94	13513.88	13448.16	103.81		OSF1.50	2299.93	2299.38				MinPt-SF	
10624.32	173.21	10508.31	10451.11	92.86		OSF1.50	9629.34	9618.19				MinPt-SF	
1050.41	316.65	838.82	733.77	4.99		OSF1.50	19950.00	10220.00	OSF<5.00			Enter Alert	
906.54	356.50	668.37	550.04	3.82		OSF1.50	20346.18	10220.00				MinPts	
30-025-33370 - Thyme APY Federal 1 INC Only to 10250ft (DefinitiveSurvey)													Warning Alert
971.50	32.81	969.52	938.69	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
971.35	32.81	969.35	938.54	46766.84		MAS = 10.00 (m)	10.00	10.00				MinPt-SF	
971.29	32.81	969.26	938.48	18948.10		MAS = 10.00 (m)	23.00	23.00				WRP	
971.29	111.27	896.53	860.02	13.28		OSF1.50	2000.00	2000.00				MinPt-CtCt	
973.63	118.39	894.12	855.24	12.50		OSF1.50	2120.00	2119.96				MinPt-EOU	
976.55	121.94	894.67	854.61	12.17		OSF1.50	2180.00	2179.88				MinPt-ADP	
1181.87	356.26	943.82	825.61	4.99		OSF1.50	5800.00	5788.85	OSF<5.00			Enter Alert	
1185.06	603.69	782.06	581.37	2.95		OSF1.50	9890.00	9869.95				MinPt-EOU	
1187.19	606.25	782.49	580.94	2.94		OSF1.50	9940.00	9913.85				MinPt-ADP	
1192.63	610.06	785.38	582.56	2.94		OSF1.50	10020.00	9979.28				MinPt-SF	
2084.76	627.19	1666.09	1457.57	4.99		OSF1.50	11840.00	10220.00	OSF>5.00			Exit Alert	
10195.34	629.94	9774.88	9565.40	24.33		OSF1.50	20346.18	10220.00				TD	
30-025-47629 - WILD SALSA FED COM 215H - MWD to 21650ft - A (DefinitiveSurvey)													Warning Alert
14920.35	206.64	14781.93	14713.71	109.34		OSF1.50	0.00	0.00				Surface	
14903.88	206.56	14765.52	14697.33	109.26		OSF1.50	23.00	23.00				WRP	
13377.21	191.71	13248.82	13185.50	105.63		OSF1.50	2299.93	2299.38				MinPt-SF	
1456.31	441.07	1161.76	1015.24	4.96		OSF1.50	19540.00	10220.00	OSF<5.00			Enter Alert	
1111.73	574.70	728.10	637.03	2.91		OSF1.50	20346.18	10220.00				MinPts	
30-025-47635 - WILD SALSA FED COM 094H - MWD to 20459ft - A (DefinitiveSurvey)													Warning Alert
14231.31	201.12	14096.57	14030.19	107.18		OSF1.50	0.00	0.00				Surface	
14215.67	201.02	14080.99	14014.65	107.12		OSF1.50	23.00	23.00				WRP	
12785.84	184.77	12662.07	12601.07	104.78		OSF1.50	2299.93	2299.38				MinPt-SF	
10560.04	166.83	10448.28	10393.21	95.86		OSF1.50	9629.34	9618.19				MinPt-SF	
1671.00	505.27	1333.65	1165.73	4.97		OSF1.50	19640.00	10220.00	OSF<5.00			Enter Alert	
1450.59	581.49	1062.43	869.10	3.76		OSF1.50	20346.18	10220.00				MinPts	



Coterra Coriander 1-12 State Com 154H Rev0 kFc 15Feb24 Proposal Geodetic

Report
Def Plan

Report Date:	February 16, 2024 - 03:48 PM (UTC 0)	Survey / DLS Computation:	Minimum Curvature / Lubinski
Client:	COTERRA	Vertical Section Azimuth:	179.620 (°GRD North)
Field:	NM Lea County (NAD 83)	Vertical Section Origin:	0.000 ft, 0.000 ft
Structure / Slot:	Cimarex Coriander 1-12 State Com Lot 1 Pad / Coriander 1-12 State Com	TVD Reference Datum:	RKB
Well:	Coriander 1-12 State Com 154H	TVD Reference Elevation:	3772.200 ft above MSL
Borehole:	Coriander 1-12 State Com 154H	Sealed / Ground Elevation:	3749.200 ft above MSL
UBH / AP#:	Unknown / Unknown	Magnetic Declination:	6.240°
Survey Name:	Coterra Coriander 1-12 State Com 154H Rev0 kFc 15Feb24	Total Gravity Field Strength:	998.44mgn (9.80665 Based)
Survey Date:	February 16, 2024	Gravity Model:	GARM
Tort / AHD / DDI / ERD Ratio:	132.519 ' / 10610.560 ft / 6.447 / 1.038	Total Magnetic Field Strength:	47468.378 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Magnetic Dip Angle:	59.907°
Location Lat / Long:	32°20'25.744"N , 103°37'19.241"W	Declination Date:	February 15, 2024
Location Grid N/E Y/X:	N 488329.830 R/LS , E 761022.480 R/LS	Magnetic Declination Model:	HDGM 2024
CRS Grid Convergence Angle:	0.381°	North Reference:	Grid North
Grid Scale Factor:	0.99996436	Grid Convergence Used:	0.381°
Version / Patch:	2023.1.0.1	Local Corr Mag North->Grid North:	5.86"
		Local Coord Referenced To:	Well Head

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (RUS)	Easting (RUS)	Latitude (°)	Longitude (°)	DLS (°/100ft)	BR (°/100ft)	TR (°/100ft)
SHL [211\FNL, 691\FEL]	0.00	0.00	0.00	0.00	-3.772.20	0.00	0.00	0.00	488.329.83	761.022.48	32.34048464	-103.62201148			
	100.00	0.00	59.81	100.00	-3.672.20	0.00	0.00	0.00	488.329.83	761.022.48	32.34048464	-103.62201148	0.00	0.00	0.00
	200.00	0.00	59.81	200.00	-3.572.20	0.00	0.00	0.00	488.329.83	761.022.48	32.34048464	-103.62201148	0.00	0.00	0.00
	300.00	0.00	59.81	300.00	-3.472.20	0.00	0.00	0.00	488.329.83	761.022.48	32.34048464	-103.62201148	0.00	0.00	0.00
	400.00	0.00	59.81	400.00	-3.372.20	0.00	0.00	0.00	488.329.83	761.022.48	32.34048464	-103.62201148	0.00	0.00	0.00
	500.00	0.00	59.81	500.00	-3.272.20	0.00	0.00	0.00	488.329.83	761.022.48	32.34048464	-103.62201148	0.00	0.00	0.00
	600.00	0.00	59.81	600.00	-3.172.20	0.00	0.00	0.00	488.329.83	761.022.48	32.34048464	-103.62201148	0.00	0.00	0.00
	700.00	0.00	59.81	700.00	-3.072.20	0.00	0.00	0.00	488.329.83	761.022.48	32.34048464	-103.62201148	0.00	0.00	0.00
	800.00	0.00	59.81	800.00	-2.972.20	0.00	0.00	0.00	488.329.83	761.022.48	32.34048464	-103.62201148	0.00	0.00	0.00
	900.00	0.00	59.81	900.00	-2.872.20	0.00	0.00	0.00	488.329.83	761.022.48	32.34048464	-103.62201148	0.00	0.00	0.00
	1,000.00	0.00	59.81	1,000.00	-2.772.20	0.00	0.00	0.00	488.329.83	761.022.48	32.34048464	-103.62201148	0.00	0.00	0.00
	1,100.00	0.00	59.81	1,100.00	-2.672.20	0.00	0.00	0.00	488.329.83	761.022.48	32.34048464	-103.62201148	0.00	0.00	0.00
	1,200.00	0.00	59.81	1,200.00	-2.572.20	0.00	0.00	0.00	488.329.83	761.022.48	32.34048464	-103.62201148	0.00	0.00	0.00
Ruster	1,256.00	0.00	59.81	1,256.00	-2.516.20	0.00	0.00	0.00	488.329.83	761.022.48	32.34048464	-103.62201148	0.00	0.00	0.00
	1,300.00	0.00	59.81	1,300.00	-2.472.20	0.00	0.00	0.00	488.329.83	761.022.48	32.34048464	-103.62201148	0.00	0.00	0.00
	1,400.00	0.00	59.81	1,400.00	-2.372.20	0.00	0.00	0.00	488.329.83	761.022.48	32.34048464	-103.62201148	0.00	0.00	0.00
	1,500.00	0.00	59.81	1,500.00	-2.272.20	0.00	0.00	0.00	488.329.83	761.022.48	32.34048464	-103.62201148	0.00	0.00	0.00
	1,600.00	0.00	59.81	1,600.00	-2.172.20	0.00	0.00	0.00	488.329.83	761.022.48	32.34048464	-103.62201148	0.00	0.00	0.00
	1,700.00	0.00	59.81	1,700.00	-2.072.20	0.00	0.00	0.00	488.329.83	761.022.48	32.34048464	-103.62201148	0.00	0.00	0.00
	1,790.00	0.00	59.81	1,790.00	-1.982.20	0.00	0.00	0.00	488.329.83	761.022.48	32.34048464	-103.62201148	0.00	0.00	0.00
	1,800.00	0.00	59.81	1,800.00	-1.972.20	0.00	0.00	0.00	488.329.83	761.022.48	32.34048464	-103.62201148	0.00	0.00	0.00
	1,900.00	0.00	59.81	1,900.00	-1.872.20	0.00	0.00	0.00	488.329.83	761.022.48	32.34048464	-103.62201148	0.00	0.00	0.00
	2,000.00	0.00	59.81	2,000.00	-1.772.20	0.00	0.00	0.00	488.329.83	761.022.48	32.34048464	-103.62201148	0.00	0.00	0.00
	2,100.00	2.00	59.81	2,099.98	-1.672.22	-0.87	0.88	1.51	488.330.71	761.023.99	32.34048702	-103.62200658	2.00	2.00	0.00
	2,200.00	4.00	59.81	2,199.84	-1.572.36	-3.47	3.51	6.03	488.333.34	761.028.51	32.34049417	-103.62199188	2.00	2.00	0.00
	2,299.93	6.00	59.81	2,299.38	-1.472.82	-7.80	7.89	13.56	488.337.72	761.036.04	32.34050638	-103.62196742	2.00	2.00	0.00
Nudge, Build 2°/100ft	2,300.00	6.00	59.81	2,299.45	-1.472.75	-7.80	7.89	13.56	488.337.72	761.036.04	32.34050608	-103.62196740	0.00	0.00	0.00
	2,400.00	6.00	59.81	2,398.90	-1.373.30	-13.00	13.15	22.60	488.342.98	761.045.08	32.34052037	-103.62193804	0.00	0.00	0.00
	2,500.00	6.00	59.81	2,498.36	-1.273.84	-18.19	18.40	31.63	488.348.23	761.054.11	32.34053465	-103.62190868	0.00	0.00	0.00
	2,600.00	6.00	59.81	2,597.81	-1.174.39	-23.39	23.66	40.66	488.353.49	761.063.14	32.34054893	-103.62187933	0.00	0.00	0.00
	2,700.00	6.00	59.81	2,697.26	-1.074.94	-28.59	28.92	49.70	488.358.74	761.072.17	32.34056321	-103.62184997	0.00	0.00	0.00
	2,800.00	6.00	59.81	2,796.71	-975.49	-33.78	34.17	58.73	488.364.00	761.081.21	32.34057749	-103.62182061	0.00	0.00	0.00
	2,900.00	6.00	59.81	2,896.17	-876.03	-38.98	39.43	67.76	488.369.26	761.090.24	32.34059177	-103.62179125	0.00	0.00	0.00
	3,000.00	6.00	59.81	2,995.62	-776.58	-44.17	44.68	76.79	488.374.51	761.099.27	32.34060605	-103.62176190	0.00	0.00	0.00
	3,100.00	6.00	59.81	3,095.07	-677.13	-49.37	49.94	85.83	488.379.77	761.108.30	32.34062033	-103.62173254	0.00	0.00	0.00
	3,200.00	6.00	59.81	3,194.52	-577.68	-54.56	55.19	94.86	488.385.02	761.117.34	32.34063461	-103.62170318	0.00	0.00	0.00
	3,300.00	6.00	59.81	3,293.98	-478.22	-59.76	60.45	103.89	488.390.28	761.126.37	32.34064889	-103.62167383	0.00	0.00	0.00
	3,400.00	6.00	59.81	3,393.43	-378.77	-64.96	65.71	112.92	488.395.53	761.135.40	32.34066317	-103.62164447	0.00	0.00	0.00
	3,500.00	6.00	59.81	3,492.88	-279.32	-70.15	70.96	121.96	488.400.79	761.144.43	32.34067745	-103.62161511	0.00	0.00	0.00
Drop 2°/100ft	3,600.00	6.00	59.81	3,592.33	-179.87	-75.35	76.22	130.99	488.406.05	761.153.46	32.34069177	-103.62158575	0.00	0.00	0.00
	3,700.00	6.00	59.81	3,691.79	-80.41	-80.54	81.47	140.02	488.411.30	761.162.50	32.34070602	-103.62155640	0.00	0.00	0.00
	3,800.00	6.00	59.81	3,791.24	19.04	-85.74	86.73	149.05	488.416.56	761.171.53	32.34072030	-103.62152704	0.00	0.00	0.00
	3,900.00	6.00	59.81	3,890.69	118.49	-90.94	91.99	158.09	488.421.81	761.180.56	32.34073458	-103.62149768	0.00	0.00	0.00
	4,000.00	6.00	59.81	3,990.14	217.94	-96.13	97.24	167.12	488.427.07	761.189.59	32.34074886	-103.62146833	0.00	0.00	0.00
	4,100.00	6.00	59.81	4,089.60	317.40	-101.33	102.50	176.15	488.432.32	761.198.63	32.34076314	-103.62143897	0.00	0.00	0.00
	4,136.41	6.00	59.81	4,125.81	353.61	-103.22	104.41	179.44	488.434.24	761.201.91	32.34076834	-103.62142828	0.00	0.00	0.00
	4,200.00	4.73	59.81	4,189.12	416.92	-106.17	107.40	184.58	488.437.23	761.207.05	32.34077646	-103.62141588	2.00	-2.00	0.00
	4,300.00	2.73	59.81	4,288.90	516.70	-109.40	110.67	190.20	488.440.49	761.212.67	32.34078534	-103.62139333	2.00	-2.00	0.00
	4,400.00	0.73	59.81	4,388.85	616.65	-110.90	112.18	192.80	488.442.01	761.215.27	32.34078946	-103.62138486	2.00	-2.00	0.00
	4,436.34	0.00	59.81	4,425.19	652.99	-111.02	112.30	193.00	488.442.13	761.215.47	32.34078977	-103.62138421	2.00	-2.00	0.00
	4,500.00	0.00	59.81	4,488.85	716.65	-111.02	112.30	193.00	488.442.13	761.215.47	32.34078977	-103.62138421	0.00	0.00	0.00
	4,600.00	0.00	59.81	4,588.85	816.65	-111.02	112.30	193.00	488.442.13	761.215.47	32.34078977	-103.62138421	0.00	0.00	0.00
Lamar	4,700.00	0.00	59.81	4,688.85	916.65	-111.02	112.30	193.00	488.442.13	761.215.47	32.34078977	-103.62138421	0.00	0.00	0.00
	4,800.00	0.00	59.81	4,788.85	1,016.65	-111.02	112.30	193.00	488.442.13	761.215.47	32.34078977	-103.62138421	0.00	0.00	0.00
	4,900.00	0.00	59.81	4,888.85	1,116.65	-111.02	112.30	193.00	488.442.13	761.215.47	32.34078977	-103.62138421	0.00	0.00	0.00
	4,981.15	0.00	59.81	4,970.00	1,197.80	-111.02	112.30	193.00	488.442.13	761.215.47	32.34078977	-103.62138421	0.00	0.00	0.00
	5,000.00	0.00	59.81	4,988.85	1,216.65	-111.02	112.30	193.00	488.442.13	761.215.47	32.34078977	-103.62138421	0.00	0.00	0.00
	5,028.15	0.00	59.81	5,017.00	1,244.80	-111.02	112.30	193.00	488.442.13	761.215.47	32.34078977	-103.62138421	0.00	0.00	0.00
	5,100.00	0.00	59.81	5,088.85	1,316.65	-111.02	112.30	193.00	488.442.13	761.215.47	32.34078977	-103.62138421	0.00	0.00	0.00
	5,200.00	0.00	59.81	5,188.85	1,416.65	-111.02	112.30	193.00	488.442.13	761.215.47	32.34078977	-103.62138421	0.00	0.00	0.00
	5,300.00	0.00	59.81	5,288.85	1,516.65	-111.02	112.30	193.00	488.442.13	761.215.47	32.34078977	-103.62138421	0.00	0.00	0.00
	5,400.00	0.00	59.81	5,388.85	1,616.65	-111.02	112.30	193.00	488.442.13	761.215.47	32.34078977	-103.62138421	0.00	0.00	0.00
	5,500.00	0.00	59.81	5,488.85	1,716.65	-111.02	112.30	193.00	488.442.13	761.215.47	32.34078977	-103.62138421	0.00	0.00	0.00
	5,600.00	0.00	59.81	5,588.85	1,816.65	-111.02	112.30	193.00	488.442.13	761.215.47	32.34078977				

Comments	MD (ft)	Incl (°)	Azin (°)	TVD (ft)	TVSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)	DLS (°/100ft)	BR (°/100ft)	TR (°/100ft)
Avalon Shale	9,100.00	0.00	59.81	9,088.85	5,316.65	-111.02	112.30	193.00	488,442.13	761,215.47	32.34078977	-103.62138421	0.00	0.00	0.00
	9,200.00	0.00	59.81	9,188.85	5,416.65	-111.02	112.30	193.00	488,442.13	761,215.47	32.34078977	-103.62138421	0.00	0.00	0.00
	9,300.00	0.00	59.81	9,288.85	5,516.65	-111.02	112.30	193.00	488,442.13	761,215.47	32.34078977	-103.62138421	0.00	0.00	0.00
	9,371.15	0.00	59.81	9,360.00	5,587.80	-111.02	112.30	193.00	488,442.13	761,215.47	32.34078977	-103.62138421	0.00	0.00	0.00
	9,400.00	0.00	59.81	9,388.85	5,616.65	-111.02	112.30	193.00	488,442.13	761,215.47	32.34078977	-103.62138421	0.00	0.00	0.00
KOP, Build 10°/100ft	9,500.00	0.00	59.81	9,488.85	5,716.65	-111.02	112.30	193.00	488,442.13	761,215.47	32.34078977	-103.62138421	0.00	0.00	0.00
	9,600.00	0.00	59.81	9,588.85	5,816.65	-111.02	112.30	193.00	488,442.13	761,215.47	32.34078977	-103.62138421	0.00	0.00	0.00
	9,629.34	0.00	59.81	9,618.19	5,845.99	-111.02	112.30	193.00	488,442.13	761,215.47	32.34078977	-103.62138421	0.00	0.00	0.00
	9,700.00	7.07	165.62	9,688.67	5,916.47	-106.80	108.08	194.08	488,437.91	761,216.55	32.34077817	-103.62138081	10.00	10.00	0.00
	9,800.00	17.07	165.62	9,786.34	6,014.14	-86.54	87.86	199.27	488,417.69	761,221.74	32.34072249	-103.62136445	10.00	10.00	0.00
1st BS SS	9,900.00	27.07	165.62	9,878.89	6,106.69	-50.13	51.52	208.58	488,381.35	761,231.06	32.34062243	-103.62133507	10.00	10.00	0.00
	10,000.00	37.07	165.62	9,963.53	6,191.33	1.31	0.16	221.75	488,329.99	761,244.22	32.34048102	-103.62129354	10.00	10.00	0.00
	10,040.56	41.12	165.62	9,995.00	6,222.80	26.12	-24.61	228.10	488,305.22	761,250.57	32.34041283	-103.62127351	10.00	10.00	0.00
	10,100.00	47.07	165.62	10,037.67	6,265.47	66.24	-64.66	238.37	488,265.17	761,260.84	32.34030256	-103.62124113	10.00	10.00	0.00
	10,200.00	57.07	165.62	10,099.07	6,326.87	142.67	-140.96	257.93	488,188.87	761,280.40	32.34009248	-103.62117944	10.00	10.00	0.00
Build 5°/100ft	10,300.00	67.07	165.62	10,145.86	6,373.66	228.29	-226.44	279.85	488,103.40	761,302.32	32.33985716	-103.62111033	10.00	10.00	0.00
	10,379.34	75.00	165.62	10,171.62	6,399.42	301.03	-299.06	298.47	488,030.78	761,320.94	32.33965721	-103.62105161	10.00	10.00	0.00
	10,400.00	75.83	166.26	10,176.83	6,404.63	320.46	-318.45	303.32	488,011.39	761,325.79	32.33960381	-103.62103631	5.00	4.00	3.10
	10,500.00	79.85	169.30	10,197.89	6,425.69	416.11	-413.97	323.99	487,915.88	761,346.46	32.33934092	-103.62097145	5.00	4.02	3.04
	10,600.00	83.90	172.26	10,212.02	6,439.82	513.90	-511.65	339.84	487,818.20	761,362.31	32.33907213	-103.62092224	5.00	4.05	2.96
Landing Point	10,700.00	87.87	175.17	10,219.11	6,446.91	613.08	-610.77	350.75	487,719.08	761,373.22	32.33879950	-103.62088995	5.00	4.07	2.92
	10,749.86	90.00	176.62	10,220.00	6,447.80	682.83	-660.50	354.32	487,669.36	761,376.79	32.33866277	-103.62087857	5.00	4.07	2.90
	10,800.00	90.00	176.62	10,220.00	6,447.80	712.90	-710.55	357.27	487,619.31	761,379.74	32.33852515	-103.62087008	0.00	0.00	0.00
	10,869.86	90.00	176.62	10,220.00	6,447.80	782.67	-780.29	361.39	487,549.57	761,383.86	32.33833339	-103.62085825	0.00	0.00	0.00
	10,900.00	90.00	177.22	10,220.00	6,447.80	812.77	-810.38	363.01	487,519.48	761,385.48	32.33825064	-103.62085366	2.00	0.00	2.00
Hold	11,000.00	90.00	179.22	10,220.00	6,447.80	912.74	-910.33	366.11	487,419.54	761,388.58	32.33797588	-103.62084577	0.00	0.00	0.00
	11,019.86	90.00	179.62	10,220.00	6,447.80	932.60	-930.19	366.31	487,399.68	761,388.78	32.33792128	-103.62084555	2.00	0.00	2.00
	11,100.00	90.00	179.62	10,220.00	6,447.80	1,012.73	-1,010.32	366.85	487,319.54	761,389.31	32.33770102	-103.62084555	0.00	0.00	0.00
	11,200.00	90.00	179.62	10,220.00	6,447.80	1,112.73	-1,110.32	367.51	487,219.55	761,389.97	32.33742616	-103.62084556	0.00	0.00	0.00
	11,300.00	90.00	179.62	10,220.00	6,447.80	1,212.73	-1,210.32	368.17	487,119.56	761,390.64	32.33715130	-103.62084556	0.00	0.00	0.00
Hold	11,400.00	90.00	179.62	10,220.00	6,447.80	1,312.73	-1,310.32	368.84	487,019.56	761,391.30	32.33687644	-103.62084557	0.00	0.00	0.00
	11,500.00	90.00	179.62	10,220.00	6,447.80	1,412.73	-1,410.32	369.50	486,919.57	761,391.96	32.33660158	-103.62084558	0.00	0.00	0.00
	11,600.00	90.00	179.62	10,220.00	6,447.80	1,512.73	-1,510.31	370.16	486,819.57	761,392.63	32.33632672	-103.62084558	0.00	0.00	0.00
	11,700.00	90.00	179.62	10,220.00	6,447.80	1,612.73	-1,610.31	370.82	486,719.58	761,393.29	32.33605186	-103.62084559	0.00	0.00	0.00
	11,800.00	90.00	179.62	10,220.00	6,447.80	1,712.73	-1,710.31	371.49	486,619.59	761,393.95	32.33577700	-103.62084560	0.00	0.00	0.00
Hold	11,900.00	90.00	179.62	10,220.00	6,447.80	1,812.73	-1,810.31	372.15	486,519.59	761,394.62	32.33550214	-103.62084560	0.00	0.00	0.00
	12,000.00	90.00	179.62	10,220.00	6,447.80	1,912.73	-1,910.30	372.81	486,419.60	761,395.28	32.33522728	-103.62084561	0.00	0.00	0.00
	12,100.00	90.00	179.62	10,220.00	6,447.80	2,012.73	-2,010.30	373.48	486,319.60	761,395.94	32.33495242	-103.62084561	0.00	0.00	0.00
	12,200.00	90.00	179.62	10,220.00	6,447.80	2,112.73	-2,110.30	374.14	486,219.61	761,396.61	32.33467756	-103.62084562	0.00	0.00	0.00
	12,300.00	90.00	179.62	10,220.00	6,447.80	2,212.73	-2,210.30	374.80	486,119.62	761,397.27	32.33440270	-103.62084563	0.00	0.00	0.00
Hold	12,400.00	90.00	179.62	10,220.00	6,447.80	2,312.73	-2,310.30	375.47	486,019.62	761,397.93	32.33412784	-103.62084563	0.00	0.00	0.00
	12,500.00	90.00	179.62	10,220.00	6,447.80	2,412.73	-2,410.29	376.13	485,919.63	761,398.60	32.33385298	-103.62084564	0.00	0.00	0.00
	12,600.00	90.00	179.62	10,220.00	6,447.80	2,512.73	-2,510.29	376.79	485,819.63	761,399.26	32.33357812	-103.62084565	0.00	0.00	0.00
	12,700.00	90.00	179.62	10,220.00	6,447.80	2,612.73	-2,610.29	377.46	485,719.64	761,399.92	32.33330326	-103.62084565	0.00	0.00	0.00
	12,800.00	90.00	179.62	10,220.00	6,447.80	2,712.73	-2,710.29	378.12	485,619.65	761,400.59	32.33302840	-103.62084566	0.00	0.00	0.00
Hold	12,900.00	90.00	179.62	10,220.00	6,447.80	2,812.73	-2,810.28	378.78	485,519.65	761,401.25	32.33275354	-103.62084566	0.00	0.00	0.00
	13,000.00	90.00	179.62	10,220.00	6,447.80	2,912.73	-2,910.28	379.45	485,419.66	761,401.91	32.33247867	-103.62084567	0.00	0.00	0.00
	13,100.00	90.00	179.62	10,220.00	6,447.80	3,012.73	-3,010.28	380.11	485,319.66	761,402.58	32.33220381	-103.62084568	0.00	0.00	0.00
	13,200.00	90.00	179.62	10,220.00	6,447.80	3,112.73	-3,110.28	380.77	485,219.67	761,403.24	32.33192895	-103.62084568	0.00	0.00	0.00
	13,300.00	90.00	179.62	10,220.00	6,447.80	3,212.73	-3,210.28	381.44	485,119.68	761,403.90	32.33165409	-103.62084569	0.00	0.00	0.00
Hold	13,400.00	90.00	179.62	10,220.00	6,447.80	3,312.73	-3,310.27	382.10	485,019.68	761,404.57	32.33137923	-103.62084569	0.00	0.00	0.00
	13,500.00	90.00	179.62	10,220.00	6,447.80	3,412.73	-3,410.27	382.76	484,919.69	761,405.23	32.33110437	-103.62084570	0.00	0.00	0.00
	13,600														

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)	DLS (°/100ft)	BR (°/100ft)	TR (°/100ft)
Survey Type:	Def Plan														
Survey Error Model:	ISCWSA0 3 - D 95 % Confidence 2.7955 sigma														
Survey Program:															
Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Code	Vendor / Tool	Borehole / Survey					
	1	0.000	9,600.000	1/100.000	5 – 12.25	8.75 3.375 – 9.625	7	A001Mb_MWD		Coriander 1-12 State Com 154H / Coterra Coriander					
	1	9,600.000	20,111.817	1/100.000	8.75 – 6	7 – 4.5		A008Mb_MWD+IFR1+MS		Coriander 1-12 State Com 154H / Coterra Coriander					
EOU Geometry:															
End MD (ft)	Hole Size (in)		Casing Size (in)		Name										
1,346.900	17.500		13.375												
5,007.900	12.250		9.625												
12,259.900	8.750		7.000												
20,346.181	6.000		4.500												

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

Submit Electronically
Via E-permitting

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: Cimarex Energy Company **OGRID:** 215099 **Date:** 11/26/24

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
Coriander 1-12 Fed Com 154H		1, Sec 1 T23S, R32E	211 FNL/691 FEL	1584	2534	3690

IV. Central Delivery Point Name: Coriander CTB _____ [See 19.15.27.9(D)(1) NMAC]

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

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Coriander 1-12 Fed Com 154H		9/22/25	10/13/25	11/13/25	12/11/25	12/11/25

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

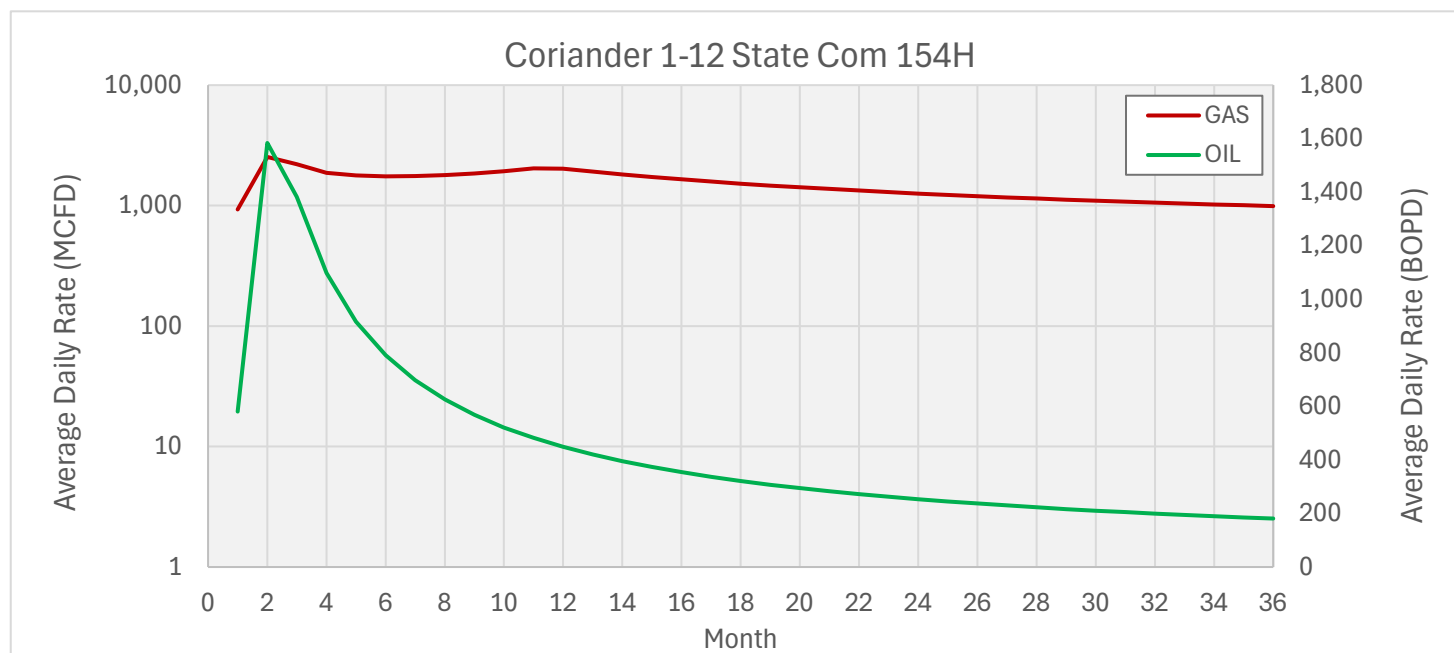
(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural 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:	Shelly Bowen
Title:	Sr. Regulatory Analyst
E-mail Address:	shelly.bowen@coterra.com
Date:	11/26/24
Phone:	432/6201644
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)	
Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	

	Coriander 1-12 1st Bone Spring	
Month	Coriander 1 Fed Com 154H GAS MCFD	Coriander 1-12 State Com 154H OIL BOPD
1	929	581
2	2534	1584
3	2212	1382
4	1875	1098
5	1783	917
6	1750	791
7	1757	698
8	1793	626
9	1853	568
10	1934	521
11	2036	482
12	2028	449
13	1914	420
14	1816	395
15	1729	374
16	1653	354
17	1585	337
18	1524	321
19	1469	307
20	1419	295
21	1374	283
22	1333	272
23	1295	263
24	1260	253
25	1228	245
26	1199	237
27	1171	230
28	1145	223
29	1122	217
30	1099	211
31	1078	205
32	1059	200
33	1040	195
34	1023	190
35	1007	185
36	992	181



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.

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.

Coterra: H2S Plan



H2S Drilling Operations Plan

Training

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

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

H2S Detection and Alarm Systems

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

Windsock and/or wind streamers

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

Condition Flags & Signs

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

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

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 (SO₂). 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	Mertzon			
Ward County	432-943-6703	Monahans	432-943-2211	Ward Memorial Hospital	432-943-2511
Ector County	432-335-3050	Odessa	432-335-4650	Odessa Regional Hosp.	432-582-8340
Crocket County	325-392-2661	Ozona	325-392-2626		
Reeves County	432-445-4901	Pecos	505-757-6511	Reeves County Hospital	432-447-3551
Yoakum County	806-456-2377	Plains	806-456-2288		
Garza County	806-495-3595	Post			
Upton County	432-693-2422	Rankin			
Coke County	915-453-2717	Robert Lee			
		Roscoe	325-766-3931		
Hockley County	806-894-3126	Levelland	806-894-3155	Covenant Health	806-894-4963
Tom Green County	325-655-8111	San Angelo	325-657-4355	San Angelo Comm. Med.	325-949-9511
Gaines County	432-758-9871	Seminole	432-758-3621	Memorial Hospital	432-758-5811
Terrell County	432-345-2525	Sanderson			
Scurry County	325-573-3551	Snyder	325-573-3546	DM Cogdell Memorial	325-573-6374
Sterling County	325-378-4771	Sterling City			
Nolan County	325-235-5471	Sweetwater	325-235-8130	Rolling Plains Memorial	325-235-1701
Culberson County	432-283-2060	Van Horn		Culberson Hospital	432-283-2760
New Mexico					
Lea County	505-396-3611	Knowles	505-392-7469	Lea Reg Med Ctr	575-492-5000
Eddy County	575-887-7551	Carlsbad	575-885-3125	Carlsbad Medical	575-887-4100
		Artesia	575-746-5050	Artesia Hospital	575-748-3333
Roosevelt County	575-356-4408				
Chaves County	575-624-7590				
Ground Ambulance Services					
	Reeves County Medical		Pecos, TX		432-447-3551