District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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 373762

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

1. Operator Name and Address	2. OGRID Number
CIMAREX ENERGY CO. 6001 Deauville Blvd Midland, TX 79706	215099
	3. API Number 30-025-53708

4. Property Code	5. Property Name	6. Well No.
336378	TRES EQUIS 5 8 STATE COM	401H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
C	5	24S	33E	3	387	N	1498	W	Lea

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
M	8	24S	33E	M	100	S	1498	W	Lea

9. Pool Information

WC-025 G-09 S243310P;UPPER WOLFCAMP	98135

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
New Well	OIL		State	3657
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	22705	Wolfcamp		11/1/2024
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	14.75	10.75	40.5	1370	674	0
Int1	9.875	7.625	29.7	12759	1206	0
Prod	6.75	5.5	23	11959	692	12559
Prod	6.75	5	18	22705	692	12559

Casing/Cement Program: Additional Comments

Tapered design production string 5 1/2 x 5.00"

22. Proposed Blowout Prevention Program

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

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.

Signature:

OIL CONSERVATION DIVISION

Printed Name:	Electronically filed by Phillip Levasseur	Approved By:	Paul F Kautz
Title:	Regulatory Compliance Manager	Title:	Geologist
Email Address:	phillip.levasseur@coterra.com	Approved Date:	10/12/2024 Expiration Date: 10/12/2026
Date:	9/27/2024 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	Pool Code	Pool Name	
Property Code	Property Name TRES EQUIS 5 8 STATE COM		Well Number 401H
OGRID No. 215099	Operator Name CIMAREX ENERGY CO.		Ground Level Elevation 3658.4'
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
3	5	24S	33E		387 NORTH	1498 WEST	32.252881°	-103.598041°	LEA

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
M	8	24S	33E		100 SOUTH	330 WEST	32.225211°	-103.601819°	LEA

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
319.82				
Order Numbers.			Well setbacks are under Common Ownership: ☐Yes ☐No	

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
4	5	24S	33E		100 NORTH	330 WEST	32.253677°	-103.601817°	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
4	5	24S	33E		100 NORTH	330 WEST	32.253677°	-103.601817°	LEA

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
M	8	24S	33E		100 SOUTH	330 WEST	32.225211°	-103.601819°	LEA

Unitized Area or Area of Uniform Interest	Spacing Unit Type ☐ Horizontal ☐ Vertical	Ground Floor Elevation:

OPERATOR CERTIFICATIONS

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

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

Signature Date

Shelly Bowen

Printed Name

shelly.bowen@coterra.com

Email Address

SURVEYOR CERTIFICATIONS

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

PAUL BUCHELE NEW MEXICO 23782 PROFESSIONAL SURVEYOR 09-09-24

Signature and Seal of Professional Surveyor

23782 April 08, 2024

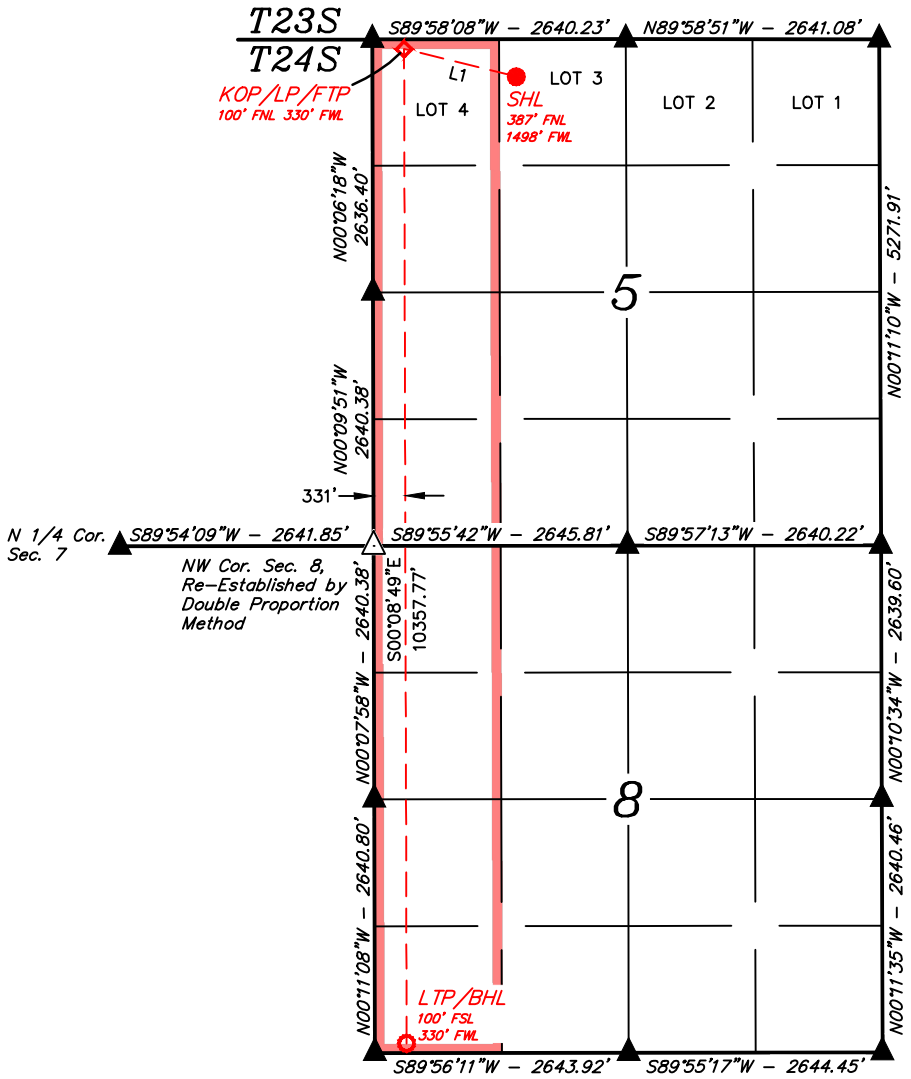
Certificate Number Date of Survey

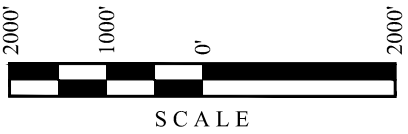
Note: No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

Property Name	Well Number	Drawn By	Revised By
TRES EQUIS 5 8 STATE COM	401H	D.M.C. 07-24-24	REV.: 1 L.T.T. 09-09-24 (WELL NAME CHANGE & ADD DEDICATED ACREAGE)

● = SURFACE HOLE LOCATION
◇ = KICK OFF POINT/LANDING POINT/FIRST TAKE POINT
○ = LAST TAKE POINT/ BOTTOM HOLE LOCATION
▲ = SECTION CORNER LOCATED
△ = SECTION CORNER RE-ESTABLISHED. (Not Set on Ground.)
▬ = DEDICATED ACREAGE

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)





LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N76°12'26"W	1202.81'

NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°15'10.37" (32.252881°)
LONGITUDE = -103°35'52.95" (-103.598041°)
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32°15'09.93" (32.252757°)
LONGITUDE = -103°35'51.22" (-103.597561°)
STATE PLANE NAD 83 (N.M. EAST)
N: 456509.69' E: 768644.15'
STATE PLANE NAD 27 (N.M. EAST)
N: 456450.60' E: 727460.38'

NAD 83 (KOP/LP/FTP)
LATITUDE = 32°15'13.24" (32.253677°)
LONGITUDE = -103°36'06.54" (-103.601817°)
NAD 27 (KOP/LP/FTP)
LATITUDE = 32°15'12.79" (32.253554°)
LONGITUDE = -103°36'04.81" (-103.601336°)
STATE PLANE NAD 83 (N.M. EAST)
N: 456791.50' E: 767475.04'
STATE PLANE NAD 27 (N.M. EAST)
N: 456732.41' E: 726291.28'

NAD 83 (LTP/BHL)
LATITUDE = 32°13'30.76" (32.225211°)
LONGITUDE = -103°36'06.55" (-103.601819°)
NAD 27 (LTP/BHL)
LATITUDE = 32°13'30.32" (32.225088°)
LONGITUDE = -103°36'04.82" (-103.601340°)
STATE PLANE NAD 83 (N.M. EAST)
N: 446435.76' E: 767544.99'
STATE PLANE NAD 27 (N.M. EAST)
N: 446376.93' E: 726360.78'

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District IV
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Phone:(505) 476-3470 Fax:(505) 476-3462

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 373762

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
CIMAREX ENERGY CO. [215099] 6001 Deauville Blvd Midland, TX 79706	30-025-53708
	Well: TRES EQUIS 5 8 STATE COM #401H

OCD Reviewer	Condition
pkautz	Notify OCD 24 hours prior to casing & cement
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	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
pkautz	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
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing
pkautz	If cement does not circulate on any string, a CBL is required for that string of casing
pkautz	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud

H2S Drilling Operations Plan

Training

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

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

H2S Detection and Alarm Systems

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

Windsock and/or wind streamers

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

Condition Flags & Signs

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

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

Well Control Equipment

1. See the pressure control section of this submission.

Communication

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

Drillstem Testing

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

H2S Contingency Plan

Emergency Procedures

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

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

Ignition of the Gas Source

1. Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO_2). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Contacting Authorities

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

Coterra: H2S Plan

Emergency Contacts

Coterra Energy

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

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

Third Party

PERMIAN REGION CONTACT NUMBERS

CALL 911

Air Ambulance Services

Reeves County Medical - Pecos, TX	432-447-3551
Aero Care - Midland, TX	800-627-2376
Tri State Care Flight - Artesia, NM	800-800-0900
Air Methods - Hobbs, NM	800-242-6199

Fire / Police / Medical Care

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

Ground Ambulance Services

Reeves County Medical		Pecos, TX	432-447-3551

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: Cimarex Energy Company **OGRID:** 215099 **Date:** 9/23/24

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
Tres Equis 5 8 State Com 401H		NENW Sec 5 T24S, R33E	387FNL/ 1498FWL	2211	4643	4176

IV. Central Delivery Point Name: _Tres Equis 5 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
Tres Equis 5 8 State Com 401H		12/7/24	1/22/25	3/19/25	4/30/25	4/30/25

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:	Shelly Bowen
Printed Name:	Shelly Bowen
Title:	Sr. Regulatory Analyst
E-mail Address:	shelly.bowen@coterra.com
Date:	9/23/24
Phone:	432/620-1644

OIL CONSERVATION DIVISION

(Only applicable when submitted as a standalone form)

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

From State of New Mexico, Natural Gas Management Plan

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

XEC Standard Response

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

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.

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

WELL LOCATION INFORMATION

API Number	Pool Code 98135	Pool Name WC-025 G-09 S243310P;UPPER WOLFCAMP
Property Code	Property Name TRES EQUIS 5 8 STATE COM	Well Number 401H
OGRID No. 215099	Operator Name CIMAREX ENERGY CO.	Ground Level Elevation 3658.4'
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
3	5	24S	33E		387 NORTH	1498 WEST	32.252881°	-103.598041°	LEA

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
M	8	24S	33E		100 SOUTH	330 WEST	32.225211°	-103.601819°	LEA

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
319.82				
Order Numbers.			Well setbacks are under Common Ownership: ☐ Yes ☐ No	

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
4	5	24S	33E		100 NORTH	330 WEST	32.253677°	-103.601817°	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
4	5	24S	33E		100 NORTH	330 WEST	32.253677°	-103.601817°	LEA

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD 83)	Longitude (NAD 83)	County
M	8	24S	33E		100 SOUTH	330 WEST	32.225211°	-103.601819°	LEA

Unitized Area or Area of Uniform Interest	Spacing Unit Type ☐ Horizontal ☐ Vertical	Ground Floor Elevation:

OPERATOR CERTIFICATIONS

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

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

Shelly Bowen 9/23/2024

Signature Date

Shelly Bowen

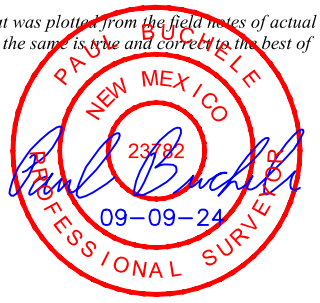
Printed Name

shelly.bowen@coterra.com

Email Address

SURVEYOR CERTIFICATIONS

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



Signature and Seal of Professional Surveyor

23782 April 08, 2024

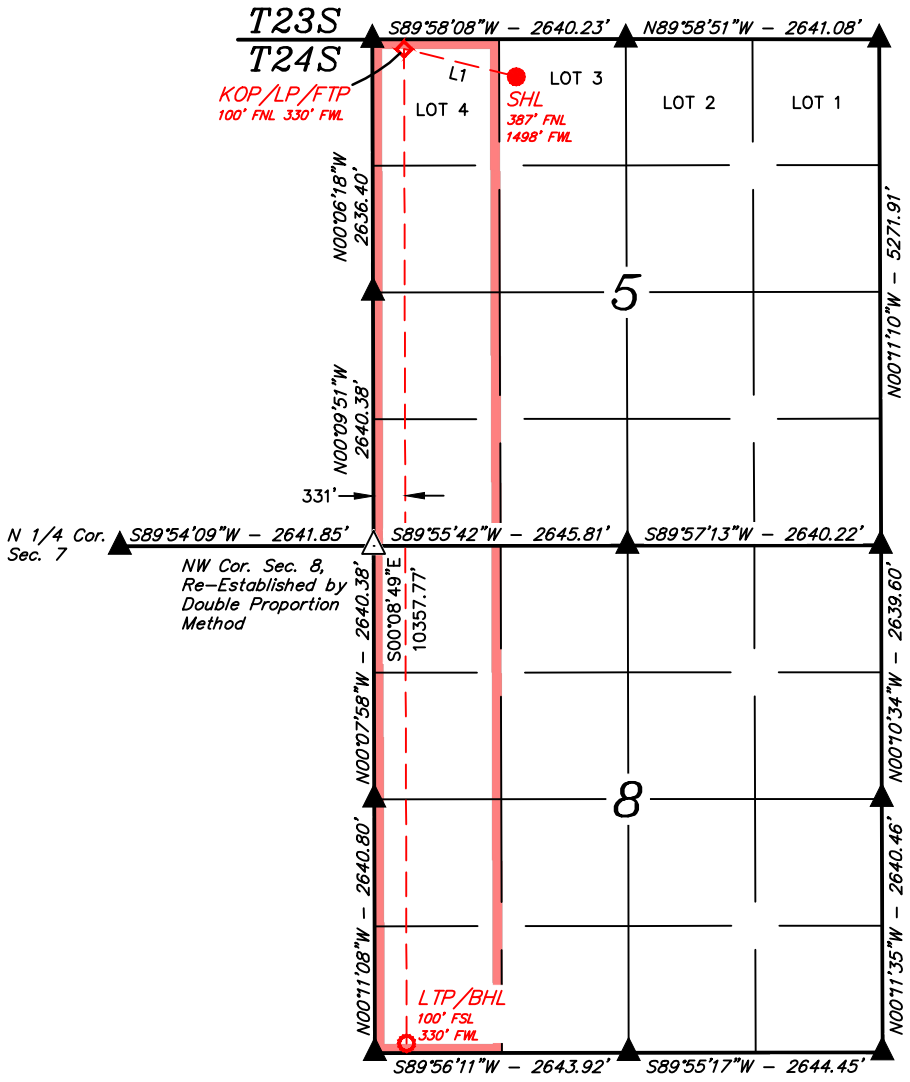
Certificate Number Date of Survey

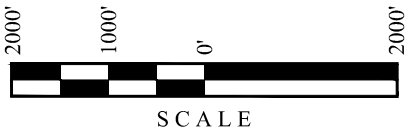
Note: No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

Property Name	Well Number	Drawn By	Revised By
TRES EQUIS 5 8 STATE COM	401H	D.M.C. 07-24-24	REV.: 1 L.T.T. 09-09-24 (WELL NAME CHANGE & ADD DEDICATED ACREAGE)

● = SURFACE HOLE LOCATION
◇ = KICK OFF POINT/LANDING POINT/FIRST TAKE POINT
○ = LAST TAKE POINT/ BOTTOM HOLE LOCATION
▲ = SECTION CORNER LOCATED
△ = SECTION CORNER RE-ESTABLISHED. (Not Set on Ground.)
▬ = DEDICATED ACREAGE

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)





LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N76°12'26"W	1202.81'

NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°15'10.37" (32.252881°)
LONGITUDE = -103°35'52.95" (-103.598041°)
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32°15'09.93" (32.252757°)
LONGITUDE = -103°35'51.22" (-103.597561°)
STATE PLANE NAD 83 (N.M. EAST)
N: 456509.69' E: 768644.15'
STATE PLANE NAD 27 (N.M. EAST)
N: 456450.60' E: 727460.38'

NAD 83 (KOP/LP/FTP)
LATITUDE = 32°15'13.24" (32.253677°)
LONGITUDE = -103°36'06.54" (-103.601817°)
NAD 27 (KOP/LP/FTP)
LATITUDE = 32°15'12.79" (32.253554°)
LONGITUDE = -103°36'04.81" (-103.601336°)
STATE PLANE NAD 83 (N.M. EAST)
N: 456791.50' E: 767475.04'
STATE PLANE NAD 27 (N.M. EAST)
N: 456732.41' E: 726291.28'

NAD 83 (LTP/BHL)
LATITUDE = 32°13'30.76" (32.225211°)
LONGITUDE = -103°36'06.55" (-103.601819°)
NAD 27 (LTP/BHL)
LATITUDE = 32°13'30.32" (32.225088°)
LONGITUDE = -103°36'04.82" (-103.601340°)
STATE PLANE NAD 83 (N.M. EAST)
N: 446435.76' E: 767544.99'
STATE PLANE NAD 27 (N.M. EAST)
N: 446376.93' E: 726360.78'

Coterra Tres Equis 5-8 State 401H Rev0 kFc 09Sep24 Anti-Collision Summary Report

Analysis Date-24hr Time:	September 10, 2024 - 05:15 PM (UTC 0)	**Analysis Method:**	3D Least Distance
Client:	COTERRA	**Reference Trajectory:**	Coterra Tres Equis 5-8 State 401H Rev0 kFc 09Sep24 (Def
Field:	NM Lea County (NAD 83)	**Depth Interval:**	Every 10.00 Measured Depth (ft)
Structure:	Coterra Tres Equis 5 State Pad Lot 3	**Rule Set:**	NAL Procedure: D&M AntiCollision Standard S002
Slot:	Tres Equis 5-8 State 401H	**Min Pts:**	Absolute minima indicated.
Well:	Tres Equis 5-8 State 401H	**Engine Version:**	2024.4.0.4
Borehole:	Tres Equis 5-8 State 401H	**Database \ Project:**	Tres Equis 5-8 State 401H–COTERRA
Scan MD Range:	0.00ft ~ 22705.32ft		

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

Offset Trajectories Summary

Offset Selection Criteria

Bounding box scan: minimum Ct-Ct separation <= 3000ft

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

15 out of 29 are selected

Offset Trajectory	Separation			Allow	Sep.	Controlling	Reference Trajectory		Risk Level			Alert
	Ct-Ct (ft)	MAS (ft)	EOU (ft)	Dev. (ft)	Fact.	Rule	MD (ft)	TVD (ft)	Alert	Minor	Major	
30-025-39882 - MACHO NACHO STATE 1H - Gyro to 11373, Blind to 12500ft - A (DefinitiveSurvey) - **Fail Major**												
	5574.95	32.81	5572.97	5542.14	N/A	MAS = 10.00 (m)	0.00	0.00				Surface
	5574.87	32.81	5572.88	5542.06	587294.33	MAS = 10.00 (m)	20.00	20.00				MinPt-SF
	5574.86	32.81	5572.87	5542.05	658003.84	MAS = 10.00 (m)	23.00	23.00				WRP
	5573.71	32.81	5567.94	5540.90	1468.56	MAS = 10.00 (m)	460.00	460.00				MinPts
	5577.05	32.81	5563.25	5544.24	471.65	MAS = 10.00 (m)	1290.00	1290.00				MinPt-EOU
	5528.86	61.11	5487.56	5467.78	139.70	OSF1.50	3890.00	3851.73				MinPt-CtCt
	5529.78	63.47	5486.88	5466.31	134.37	OSF1.50	4050.00	4008.52				MinPt-EOU
	5530.78	64.69	5487.07	5466.09	131.79	OSF1.50	4130.00	4086.91				MinPt-ADP
	5576.59	93.65	5513.62	5482.94	90.86	OSF1.50	5800.00	5723.40				MinPt-ADP
	5580.55	97.13	5515.26	5483.42	87.61	OSF1.50	6000.00	5919.38				MinPt-ADP
	5615.37	142.64	5519.73	5472.72	59.71	OSF1.50	9050.00	8947.92				MinPt-CtCt
	5615.50	146.64	5517.20	5468.86	58.07	OSF1.50	9340.00	9237.92				MinPt-CtCt
	5616.66	150.31	5515.91	5466.35	56.64	OSF1.50	9630.00	9527.92				MinPt-EOU
	5616.39	153.83	5513.30	5462.56	55.33	OSF1.50	9860.00	9757.92				MinPt-CtCt
	5616.64	154.54	5513.08	5462.10	55.08	OSF1.50	9930.00	9827.92				MinPt-EOU
	5616.89	154.84	5513.12	5462.05	54.97	OSF1.50	9960.00	9857.92				MinPt-ADP
	5673.41	1706.52	4535.19	3966.89	4.99	OSF1.50	11620.00	11517.92	OSF<=5.00			Enter Alert
	3908.54	3909.16	1301.93	-0.62	1.50	OSF1.50	14150.00	12500.70		OSF<=1.50		Enter Minor
	2683.72	4030.36	-3.69	-1346.64	1.00	OSF1.50	15390.00	12500.60			OSF<=1.00	Enter Major
	483.32	4274.98	-2367.16	-3791.66	0.17	OSF1.50	18032.62	12500.38				MinPts
	2838.74	4267.35	-6.66	-1428.61	1.00	OSF1.50	20830.00	12500.15			OSF>1.00	Exit Major
	4264.77	4269.99	1417.61	-5.22	1.50	OSF1.50	22270.00	12500.04		OSF>1.50		Exit Minor
	4697.54	4270.50	1850.04	427.04	1.65	OSF1.50	22705.32	12500.00				TD
Coterra Tres Equis 5-8 State 351H Rev0 kFc 09Sep24 (DefinitivePlan) - **Fail Minor**												
	20.02	16.26	18.73	3.76	N/A	MAS = 4.96 (m)	0.00	0.00	CtCt<=15.00m			Enter Alert
	20.00	16.26	18.71	3.74	N/A	MAS = 4.96 (m)	23.00	23.00				WRP
	20.00	19.75	6.41	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	24.11	3.60	-4.11	1.23	OSF1.50	1600.00	1600.00				MinPt-CtCt
	20.15	24.55	3.46	-4.40	1.22	OSF1.50	1630.00	1630.00				MinPt-EOU
	20.27	24.70	3.47	-4.43	1.22	OSF1.50	1640.00	1640.00				MinPts
	26.78	27.07	8.41	-0.29	1.48	OSF1.50	1800.00	1799.84		OSF>1.50		Exit Minor
	166.79	50.77	132.62	116.02	5.00	OSF1.50	3380.00	3351.96	OSF>5.00			Exit Alert
	504.76	152.24	402.94	352.52	5.00	OSF1.50	10130.00	10027.92	OSF<=5.00			Enter Alert
	504.76	176.39	386.84	328.37	4.31	OSF1.50	11790.00	11687.92				MinPt-CtCt
	504.86	177.10	386.46	327.76	4.29	OSF1.50	11900.00	11797.92				MinPt-EOU
	504.90	177.15	386.47	327.75	4.29	OSF1.50	11910.00	11807.92				MinPt-ADP
	505.19	177.31	386.65	327.88	4.29	OSF1.50	11950.00	11847.92				MinPt-SF
	567.26	171.27	452.76	396.00	4.99	OSF1.50	12500.00	12340.20	OSF>5.00			Exit Alert
	694.18	208.97	554.54	485.21	5.00	OSF1.50	16090.00	12500.54	OSF<=5.00			Enter Alert
	693.80	374.88	443.56	318.93	2.78	OSF1.50	22705.32	12500.00				MinPts
Coterra Tres Equis 5-8 State 402H Rev0 kFc 09Sep24 (DefinitivePlan) - **Warning Alert**												
	40.02	32.26	38.73	7.76	N/A	MAS = 9.83 (m)	0.00	0.00	CtCt<=15.00m			Enter Alert
	40.00	32.26	38.72	7.74	N/A	MAS = 9.83 (m)	23.00	23.00				WRP
	40.00	32.26	26.41	7.74	3.15	MAS = 9.83 (m)	1290.00	1290.00				MinPt-EOU
	40.00	32.26	23.60	7.74	2.53	MAS = 9.83 (m)	1600.00	1600.00				MinPts
	40.15	32.26	23.46	7.89	2.49	MAS = 9.83 (m)	1630.00	1630.00				MinPt-EOU
	40.83	32.26	23.73	8.57	2.47	MAS = 9.83 (m)	1670.00	1669.99				MinPt-SF
	109.50	33.56	86.80	75.94	5.00	OSF1.50	2240.00	2234.84	OSF>5.00			Exit Alert
	1197.01	179.69	1076.89	1017.32	10.04	OSF1.50	12010.00	11907.92				MinPts
	1197.05	179.70	1076.93	1017.35	10.04	OSF1.50	12030.00	11927.91				MinPt-SF
	1321.82	378.73	1069.01	943.09	5.24	OSF1.50	22705.32	12500.00				MinPts
Coterra Tres Equis 5-8 State 352H Rev0 kFc 09Sep24 (DefinitivePlan) - **Warning Alert**												
	60.01	32.81	58.72	27.20	N/A	MAS = 10.00 (m)	0.00	0.00				Surface
	59.99	32.81	58.71	27.18	N/A	MAS = 10.00 (m)	23.00	23.00				WRP
	59.99	32.81	46.90	27.18	4.97	MAS = 10.00 (m)	1240.00	1240.00	OSF<=5.00			Enter Alert
	59.99	32.81	46.40	27.18	4.77	MAS = 10.00 (m)	1290.00	1290.00				MinPt-EOU
	59.99	32.81	43.60	27.18	3.83	MAS = 10.00 (m)	1600.00	1600.00				MinPts
	60.14	32.81	43.45	27.34	3.77	MAS = 10.00 (m)	1630.00	1630.00				MinPt-EOU
	62.03	32.81	44.54	29.22	3.70	MAS = 10.00 (m)	1710.00	1709.97				MinPt-SF
	97.01	32.81	76.56	64.20	4.93	MAS = 10.00 (m)	2020.00	2018.50	OSF>5.00			Exit Alert

Results highlighted in red: Sep-Factor <= 1.5

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

Offset Trajectory	Separation			Allow	Sep.	Controlling	Reference Trajectory		Risk Level			Alert
	Ct-Ct (ft)	MAS (ft)	EOU (ft)	Dev. (ft)	Fact.	Rule	MD (ft)	TVD (ft)	Alert	Minor	Major	
	1720.07	176.50	1602.07	1543.56	14.69	OSF1.50	11810.00	11707.92				MinPt-EOU
	1720.12	176.57	1602.08	1543.55	14.69	OSF1.50	11820.00	11717.92				MinPt-ADP
	1724.63	177.71	1605.83	1546.92	14.63	OSF1.50	12000.00	11897.92				MinPt-SF
	1991.23	377.91	1738.96	1613.32	7.92	OSF1.50	22705.32	12500.00				MinPts
30-025-44343 - HEMLOCK 32 STATE 701H - MWD to 17540ft - A (DefinitiveSurvey) - **Warning Alert**												
	1150.51	32.81	1148.53	1117.70	7305003.16	MAS = 10.00 (m)	0.00	0.00				MinPts
	1150.52	32.81	1148.53	1117.71	223328.31	MAS = 10.00 (m)	23.00	23.00				WRP
	1152.92	32.81	1146.02	1120.11	234.25	MAS = 10.00 (m)	580.00	580.00				MinPt-EOU
	1157.83	32.81	1143.82	1125.03	96.04	MAS = 10.00 (m)	1290.00	1290.00				MinPt-EOU
	327.44	100.04	260.21	227.40	4.97	OSF1.50	6450.00	6360.35	OSF<=5.00			Enter Alert
	166.31	136.48	74.78	29.83	1.83	OSF1.50	8828.14	8726.06				MinPt-CtCt
	166.50	137.08	74.58	29.42	1.83	OSF1.50	8870.00	8767.92				MinPt-EOU
	166.73	137.36	74.62	29.37	1.82	OSF1.50	8890.00	8787.92				MinPt-ADP
	167.04	137.64	74.74	29.40	1.82	OSF1.50	8910.00	8807.92				MinPt-SF
	171.53	157.93	65.70	13.60	1.63	OSF1.50	10390.00	10287.92				MinPt-CtCt
	171.89	162.81	62.81	9.08	1.58	OSF1.50	10740.00	10637.92				MinPt-CtCt
	172.36	164.23	62.33	8.12	1.57	OSF1.50	10840.00	10737.92				MinPt-EOU
	174.25	166.33	62.82	7.92	1.57	OSF1.50	10990.00	10887.92				MinPt-ADP
	174.96	167.03	63.07	7.93	1.57	OSF1.50	11040.00	10937.92				MinPt-SF
	180.15	173.25	64.11	6.90	1.56	OSF1.50	11480.00	11377.92				MinPt-EOU
	183.28	177.62	64.33	5.66	1.55	OSF1.50	11790.00	11687.92				MinPts
	182.93	180.68	61.98	2.25	1.52	OSF1.50	12030.00	11927.91				MinPts
	592.79	179.66	472.52	413.14	4.98	OSF1.50	12730.00	12452.56	OSF>5.00			Exit Alert
	10492.79	199.13	10359.53	10293.66	79.63	OSF1.50	22705.32	12500.00				TD
30-025-40532 - TRES EQUIS 5 STATE 1H - Gyro+MWD to 15525ft - A (DefinitiveSurvey) - **Warning Alert**												
	833.46	32.81	831.48	800.65	2501537.37	MAS = 10.00 (m)	0.00	0.00				MinPts
	833.49	32.81	831.50	800.68	67829.41	MAS = 10.00 (m)	23.00	23.00				WRP
	841.45	32.81	827.16	808.64	68.16	MAS = 10.00 (m)	1290.00	1290.00				MinPt-EOU
	261.32	79.88	207.52	181.43	4.98	OSF1.50	5140.00	5076.64	OSF<=5.00			Enter Alert
	192.74	97.76	127.02	94.97	2.98	OSF1.50	6012.01	5931.15				MinPt-CtCt
	193.09	98.76	126.71	94.32	2.96	OSF1.50	6070.00	5987.98				MinPt-EOU
	193.37	99.10	126.77	94.28	2.95	OSF1.50	6090.00	6007.58				MinPt-ADP
	195.03	100.21	127.69	94.82	2.94	OSF1.50	6160.00	6076.17				MinPt-SF
	304.85	123.41	222.04	181.44	3.73	OSF1.50	7970.00	7867.92				MinPt-EOU
	304.31	159.57	197.39	144.74	2.87	OSF1.50	10530.00	10427.92				MinPt-CtCt
	303.64	161.89	195.18	141.75	2.83	OSF1.50	10750.00	10647.92				MinPts
	306.22	162.55	197.32	143.67	2.84	OSF1.50	10840.00	10737.92				MinPt-SF
	472.18	143.34	376.08	328.84	4.98	OSF1.50	11360.00	11257.92	OSF>5.00			Exit Alert
	1399.63	109.70	1326.00	1289.93	19.38	OSF1.50	13090.00	12500.77				MinPt-EOU
	1399.77	109.86	1326.03	1289.91	19.36	OSF1.50	13110.00	12500.77				MinPt-ADP
	1423.16	118.24	1343.84	1304.93	18.27	OSF1.50	13870.00	12500.72				MinPt-EOU
	1424.16	119.42	1344.04	1304.74	18.10	OSF1.50	13950.00	12500.72				MinPt-ADP
	1422.17	124.31	1338.79	1297.86	17.35	OSF1.50	14260.00	12500.69				MinPt-CtCt
	1423.92	130.64	1336.32	1293.28	16.52	OSF1.50	14620.00	12500.66				MinPt-EOU
	1424.39	131.22	1336.41	1293.17	16.45	OSF1.50	14650.00	12500.66				MinPt-ADP
	1428.74	138.51	1335.90	1290.23	15.63	OSF1.50	15010.00	12500.63				MinPt-CtCt
	1422.91	159.40	1316.14	1263.51	13.50	OSF1.50	15880.00	12500.56				MinPt-CtCt
	1423.93	162.24	1315.27	1261.69	13.27	OSF1.50	16000.00	12500.55				MinPt-EOU
	1420.92	171.35	1306.19	1249.57	12.54	OSF1.50	16380.00	12500.52				MinPt-CtCt
	1410.87	186.91	1285.76	1223.96	11.40	OSF1.50	16960.00	12500.47				MinPt-CtCt
	1411.78	189.77	1284.77	1222.01	11.24	OSF1.50	17060.00	12500.46				MinPt-EOU
	1413.24	191.51	1285.07	1221.73	11.14	OSF1.50	17120.00	12500.46				MinPt-ADP
	1435.21	199.17	1301.93	1236.04	10.88	OSF1.50	17410.00	12500.43				MinPt-SF
	5704.39	204.57	5567.50	5499.81	42.12	OSF1.50	22705.32	12500.00				TD
30-025-46752 - HEMLOCK 32 STATE 201H - MWD to 14523ft - A (DefinitiveSurvey) - **Warning Alert**												
	1214.40	32.81	1212.42	1181.60	#########	MAS = 10.00 (m)	0.00	0.00				MinPts
	1214.41	32.81	1212.42	1181.60	108758.20	MAS = 10.00 (m)	23.00	23.00				WRP
	1191.73	32.81	1175.17	1158.92	80.40	MAS = 10.00 (m)	1540.00	1540.00				MinPts
	1191.91	32.81	1175.00	1159.11	78.54	MAS = 10.00 (m)	1580.00	1580.00				MinPt-EOU
	340.27	103.81	270.52	236.45	4.97	OSF1.50	6740.00	6644.53	OSF<=5.00			Enter Alert
	239.91	138.10	147.31	101.81	2.62	OSF1.50	9096.44	8994.35				MinPt-CtCt
	240.08	138.63	147.13	101.46	2.61	OSF1.50	9130.00	9027.92				MinPt-EOU
	240.35	138.94	147.18	101.41	2.61	OSF1.50	9150.00	9047.92				MinPt-ADP
	240.74	139.25	147.37	101.49	2.61	OSF1.50	9170.00	9067.92				MinPt-SF
	434.14	131.82	345.72	302.31	4.98	OSF1.50	9800.00	9697.92	OSF>5.00			Exit Alert
	3513.31	130.18	3426.03	3383.14	40.94	OSF1.50	13850.00	12500.73				MinPt-SF
	11042.80	194.98	10912.31	10847.82	85.60	OSF1.50	22705.32	12500.00				TD
30-025-44344 - HEMLOCK 32 STATE 702H - MWD to 17526ft - A (DefinitiveSurvey) - **Warning Alert**												
	1125.95	32.81	1123.97	1093.14	#########	MAS = 10.00 (m)	0.00	0.00				Surface
	1125.95	32.81	1123.97	1093.14	176639.30	MAS = 10.00 (m)	23.00	23.00				WRP
	1125.35	32.81	1117.79	1092.55	201.19	MAS = 10.00 (m)	640.00	640.00				MinPts
	1127.37	32.81	1113.33	1094.56	93.33	MAS = 10.00 (m)	1290.00	1290.00				MinPt-EOU
	326.42	99.13	259.79	227.28	5.00	OSF1.50	6060.00	5978.18	OSF<=5.00			Enter Alert
	320.86	102.82	251.77	218.04	4.73	OSF1.50	6283.04	6196.74				MinPt-CtCt
	321.04	103.38	251.59	217.67	4.71	OSF1.50	6320.00	6232.96				MinPt-EOU
	321.29	103.67	251.64	217.62	4.70	OSF1.50	6340.00	6252.56				MinPt-ADP
	324.47	105.21	253.79	219.25	4.67	OSF1.50	6450.00	6360.35				MinPt-SF
	368.97	111.87	293.85	257.10	5.00	OSF1.50	7000.00	6899.80	OSF>5.00			Exit Alert
	381.41	115.57	303.83	265.84	5.00	OSF1.50	7310.00	7207.97	OSF<=5.00			Enter Alert
	347.63	145.28	250.24	202.36	3.61	OSF1.50	9480.00	9377.92				MinPt-CtCt
	348.54	148.34	249.11	200.20	3.55	OSF1.50	9700.00	9597.92				MinPt-EOU
	349.21	149.16	249.23	200.05	3.53	OSF1.50	9760.00	9657.92				MinPt-ADP
	360.00	161.80	251.59	198.19	3.36	OSF1.50	10640.00	10537.92				MinPt-EOU
	360.57	162.50	251.69	198.06	3.35	OSF1.50	10690.00	10587.92				MinPt-ADP
	365.60	165.60	254.66	200.00	3.33	OSF1.50	10910.00	10807.92				MinPt-SF
	377.02	173.33	260.93	203.69	3.28	OSF1.50	11430.00	11327.92				MinPt-EOU
	377.47	173.87	261.02	203.60	3.27	OSF1.50	11470.00	11367.92				MinPt-ADP

Offset Trajectory	Separation			Allow	Sep.	Controlling	Reference Trajectory		Risk Level			Alert
	Ct-Ct (ft)	MAS (ft)	EOU (ft)	Dev. (ft)	Fact.	Rule	MD (ft)	TVD (ft)	Alert	Minor	Major	
	383.19	178.44	263.69	204.75	3.24	OSF1.50	11790.00	11687.92				MinPt-ADP
	383.72	180.42	262.94	203.30	3.20	OSF1.50	11930.00	11827.92				MinPt-CtCt
	383.90	180.94	262.77	202.96	3.20	OSF1.50	11970.00	11867.92				MinPt-EOU
	384.23	181.33	262.84	202.90	3.19	OSF1.50	12000.00	11897.92				MinPt-ADP
	384.37	181.41	262.93	202.96	3.19	OSF1.50	12009.60	11907.52				MinPt-SF
	607.73	183.66	484.79	424.07	4.99	OSF1.50	12560.00	12377.09	OSF>5.00			Exit Alert
	10580.01	199.13	10446.76	10380.89	80.29	OSF1.50	22705.32	12500.00				TD
30-025-46753 - HEMLOCK 32 STATE 202H - MWD to 14813ft - A (DefinitiveSurvey) - **Pass**												
	1187.33	32.81	1185.35	1154.52	3490952.05	MAS = 10.00 (m)	0.00	0.00				MinPts
	1187.35	32.81	1185.36	1154.54	139598.36	MAS = 10.00 (m)	23.00	23.00				WRP
	1187.56	32.81	1185.25	1154.75	3590.35	MAS = 10.00 (m)	90.00	90.00				MinPt-EOU
	1187.93	32.81	1185.19	1155.12	1560.02	MAS = 10.00 (m)	150.00	150.00				MinPt-EOU
	1188.28	32.81	1185.21	1155.47	1087.11	MAS = 10.00 (m)	190.00	190.00				MinPt-EOU
	315.01	94.39	251.54	220.61	5.07	OSF1.50	5706.53	5631.80				MinPt-CtCt
	315.13	94.78	251.40	220.35	5.05	OSF1.50	5730.00	5654.80				MinPt-EOU
	315.26	94.94	251.43	220.32	5.04	OSF1.50	5740.00	5664.60				MinPt-ADP
	317.41	96.00	252.88	221.42	5.02	OSF1.50	5810.00	5733.19				MinPt-SF
	562.42	132.29	473.68	430.12	6.44	OSF1.50	8580.00	8477.92				MinPt-ADP
	551.31	151.18	449.99	400.13	5.51	OSF1.50	9770.00	9667.92				MinPt-CtCt
	551.36	151.28	449.97	400.08	5.51	OSF1.50	9780.00	9677.92				MinPts
	551.53	151.36	450.09	400.17	5.51	OSF1.50	9790.00	9687.92				MinPt-SF
	3100.55	126.69	3015.59	2973.86	37.13	OSF1.50	13340.00	12500.76				MinPt-SF
	11011.03	196.62	10879.45	10814.41	84.64	OSF1.50	22705.32	12500.00				TD
30-025-45523 - HEMLOCK 32 STATE 703H - MWD to 17405ft - A (DefinitiveSurvey) - **Pass**												
	780.82	32.81	778.84	748.01	4448744.33	MAS = 10.00 (m)	0.00	0.00				MinPts
	780.83	32.81	778.83	748.02	31786.67	MAS = 10.00 (m)	23.00	23.00				WRP
	783.53	32.81	777.65	750.72	200.15	MAS = 10.00 (m)	460.00	460.00				MinPt-EOU
	786.00	32.81	777.61	753.20	122.18	MAS = 10.00 (m)	710.00	710.00				MinPt-EOU
	760.54	32.81	739.33	727.73	39.01	MAS = 10.00 (m)	2019.55	2018.05				MinPts
	760.67	32.81	739.18	727.86	38.47	MAS = 10.00 (m)	2050.00	2048.15				MinPt-EOU
	794.56	47.40	762.40	747.19	26.06	OSF1.50	3060.00	3038.39				MinPt-CtCt
	795.67	51.43	760.80	744.24	23.98	OSF1.50	3310.00	3283.37				MinPt-EOU
	797.22	53.20	761.17	744.02	23.20	OSF1.50	3420.00	3391.16				MinPt-ADP
	805.68	61.94	763.80	743.74	20.04	OSF1.50	3960.00	3920.32				MinPt-EOU
	806.47	62.89	763.95	743.58	19.75	OSF1.50	4020.00	3979.12				MinPt-ADP
	1100.02	135.81	1008.95	964.21	12.28	OSF1.50	8960.00	8857.92				MinPt-CtCt
	1099.45	143.70	1003.11	955.75	11.59	OSF1.50	9520.00	9417.92				MinPt-CtCt
	1099.72	144.57	1002.81	955.16	11.52	OSF1.50	9590.00	9487.92				MinPt-EOU
	1100.13	145.06	1002.89	955.07	11.49	OSF1.50	9630.00	9527.92				MinPt-ADP
	1094.32	165.85	983.22	928.47	9.98	OSF1.50	11060.00	10957.92				MinPt-CtCt
	1094.80	167.31	982.72	927.49	9.90	OSF1.50	11170.00	11067.92				MinPt-EOU
	1095.34	167.96	982.83	927.38	9.86	OSF1.50	11220.00	11117.92				MinPt-ADP
	1102.05	176.33	983.96	925.72	9.45	OSF1.50	11790.00	11687.92				MinPt-EOU
	1098.17	181.71	976.53	916.46	9.13	OSF1.50	12170.00	12065.83				MinPt-CtCt
	1098.21	181.77	976.53	916.44	9.13	OSF1.50	12180.00	12075.42				MinPts
	1098.71	181.89	976.95	916.81	9.12	OSF1.50	12200.00	12094.43				MinPt-SF
	10577.21	200.60	10442.98	10376.61	79.68	OSF1.50	22705.32	12500.00				TD
30-025-46754 - HEMLOCK 32 STATE 203H - MWD to 14496ft - A (DefinitiveSurvey) - **Pass**												
	874.08	32.81	872.10	841.27	5515979.81	MAS = 10.00 (m)	0.00	0.00				Surface
	874.06	32.81	872.05	841.26	27034.07	MAS = 10.00 (m)	23.00	23.00				WRP
	863.28	32.81	845.33	830.47	53.20	MAS = 10.00 (m)	1699.95	1699.93				MinPts
	863.97	32.81	844.34	831.16	48.24	MAS = 10.00 (m)	1870.00	1869.60				MinPt-EOU
	917.00	54.15	880.32	862.86	26.21	OSF1.50	3470.00	3440.16				MinPt-CtCt
	917.24	56.42	879.04	860.82	25.12	OSF1.50	3610.00	3577.35				MinPt-CtCt
	917.62	57.52	878.68	860.10	24.64	OSF1.50	3680.00	3645.94				MinPt-EOU
	918.02	57.99	878.78	860.03	24.44	OSF1.50	3710.00	3675.34				MinPt-ADP
	1061.11	79.65	1007.47	981.45	20.37	OSF1.50	5170.00	5106.04				MinPt-SF
	1253.28	127.43	1167.79	1125.85	14.92	OSF1.50	8360.00	8257.92				MinPt-CtCt
	1236.74	139.67	1143.08	1097.06	13.42	OSF1.50	9220.00	9117.92				MinPt-CtCt
	1236.78	139.85	1143.00	1096.92	13.40	OSF1.50	9240.00	9137.92				MinPt-EOU
	1236.84	139.94	1143.01	1096.90	13.39	OSF1.50	9250.00	9147.92				MinPt-ADP
	1245.35	142.62	1149.73	1102.72	13.23	OSF1.50	9480.00	9377.92				MinPt-SF
	11116.48	196.89	10984.72	10919.59	85.33	OSF1.50	22705.32	12500.00				TD
30-025-40582 - EATA FAJITA STATE 1H - Gyro+MWD to 15607ft - A (DefinitiveSurvey) - **Pass**												
	10019.31	32.81	10017.33	9986.50	N/A	MAS = 10.00 (m)	0.00	0.00				Surface
	10019.09	32.81	10017.08	9986.28	271577.75	MAS = 10.00 (m)	23.00	23.00				WRP
	10018.76	32.81	10016.44	9985.95	29125.87	MAS = 10.00 (m)	110.00	110.00				MinPts
	10022.85	32.81	10010.81	9990.04	996.03	MAS = 10.00 (m)	1160.00	1160.00				MinPt-EOU
	10024.02	32.81	10010.68	9991.22	881.84	MAS = 10.00 (m)	1290.00	1290.00				MinPt-EOU
	10024.84	32.81	10010.75	9992.03	812.69	MAS = 10.00 (m)	1390.00	1390.00				MinPt-EOU
	5542.67	168.18	5430.01	5374.49	49.90	OSF1.50	11210.00	11107.92				MinPt-CtCt
	5542.75	168.43	5429.93	5374.32	49.83	OSF1.50	11240.00	11137.92				MinPt-EOU
	5542.90	168.60	5429.97	5374.30	49.78	OSF1.50	11260.00	11157.92				MinPt-ADP
	5598.83	174.31	5482.13	5424.53	48.59	OSF1.50	12000.00	11897.92				MinPt-SF
	1426.74	205.23	1289.42	1221.51	10.49	OSF1.50	17950.00	12500.39				MinPt-CtCt
	1426.81	205.41	1289.37	1221.40	10.49	OSF1.50	17990.00	12500.39				MinPt-EOU
	1426.85	205.45	1289.38	1221.39	10.48	OSF1.50	18000.00	12500.39				MinPt-ADP
	1427.65	205.88	1289.89	1221.77	10.47	OSF1.50	18090.00	12500.38				MinPt-SF
	1428.52	206.12	1290.60	1222.39	10.46	OSF1.50	18280.00	12500.36				MinPt-CtCt
	1428.61	206.43	1290.49	1222.18	10.45	OSF1.50	18360.00	12500.36				MinPt-EOU
	1428.83	206.69	1290.54	1222.14	10.43	OSF1.50	18430.00	12500.35				MinPt-ADP
	1428.91	206.77	1290.57	1222.14	10.43	OSF1.50	18450.00	12500.35				MinPt-SF
	1425.97	208.70	1286.33	1217.26	10.31	OSF1.50	18930.00	12500.31				MinPt-CtCt
	1426.11	209.19	1286.15	1216.92	10.29	OSF1.50	18990.00	12500.30				MinPt-EOU
	1426.49	209.65	1286.23	1216.84	10.27	OSF1.50	19040.00	12500.30				MinPt-ADP
	1429.24	210.97	1288.10	1218.27	10.22	OSF1.50	19160.00	12500.29				MinPt-SF
	1422.68	214.23	1279.35	1208.44	10.02	OSF1.50	19660.00	12500.25				MinPt-CtCt

Offset Trajectory	Separation			Allow	Sep.	Controlling	Reference Trajectory		Risk Level			Alert
	Ct-Ct (ft)	MAS (ft)	EOU (ft)	Dev. (ft)	Fact.	Rule	MD (ft)	TVD (ft)	Alert	Minor	Major	
	1421.50	219.22	1274.85	1202.28	9.78	OSF1.50	20125.91	12500.21				MinPt-CtCt
	1422.64	223.11	1273.40	1199.53	9.62	OSF1.50	20410.00	12500.19				MinPt-EOU
	1423.19	223.76	1273.51	1199.43	9.59	OSF1.50	20450.00	12500.18				MinPt-ADP
	1425.66	226.37	1274.25	1199.29	9.50	OSF1.50	20640.00	12500.17				MinPt-ADP
	1421.56	233.21	1265.58	1188.35	9.19	OSF1.50	21110.00	12500.13				MinPt-CtCt
	1422.00	234.56	1265.12	1187.44	9.14	OSF1.50	21180.00	12500.13				MinPt-EOU
	1422.65	235.33	1265.26	1187.32	9.12	OSF1.50	21220.00	12500.12				MinPt-ADP
	1427.50	238.05	1268.30	1189.45	9.04	OSF1.50	21360.00	12500.11				MinPt-SF
	1428.09	244.04	1264.90	1184.05	8.82	OSF1.50	21750.00	12500.08				MinPt-CtCt
	1428.69	245.95	1264.22	1182.74	8.76	OSF1.50	21840.00	12500.07				MinPt-EOU
	1429.35	246.78	1264.33	1182.57	8.73	OSF1.50	21880.00	12500.07				MinPt-ADP
	1448.44	256.41	1277.00	1192.03	8.51	OSF1.50	22340.00	12500.03				MinPt-SF
	1519.72	262.07	1344.51	1257.65	8.74	OSF1.50	22705.32	12500.00				TD
30-025-41056 - HEARTTHROB BSX STATE 1H - Gyro+MWD to 15815ft - A (DefinitiveSurvey) - **Pass**												
	10407.77	32.81	10405.79	10374.97	N/A	MAS = 10.00 (m)	0.00	0.00				Surface
	10407.62	32.81	10405.61	10374.81	408465.18	MAS = 10.00 (m)	23.00	23.00				WRP
	10407.46	32.81	10405.27	10374.65	51520.89	MAS = 10.00 (m)	80.00	80.00				MinPts
	10408.25	32.81	10403.97	10375.44	4511.34	MAS = 10.00 (m)	360.00	360.00				MinPt-EOU
	10408.60	32.81	10403.97	10375.79	3920.22	MAS = 10.00 (m)	400.00	400.00				MinPt-EOU
	10410.94	32.81	10402.79	10378.13	1687.72	MAS = 10.00 (m)	760.00	760.00				MinPt-EOU
	10411.16	32.81	10397.40	10378.36	883.21	MAS = 10.00 (m)	1290.00	1290.00				MinPt-EOU
	10411.11	32.81	10397.07	10378.30	847.38	MAS = 10.00 (m)	1360.00	1360.00				MinPts
	10411.78	32.81	10395.53	10378.97	718.82	MAS = 10.00 (m)	1700.00	1699.98				MinPt-EOU
	10568.05	74.69	10517.72	10493.36	216.91	OSF1.50	5110.00	5047.24				MinPt-ADP
	10623.77	91.71	10562.09	10532.06	176.85	OSF1.50	6080.00	5997.78				MinPts
	10638.89	152.17	10536.90	10486.72	105.98	OSF1.50	10320.00	10217.92				MinPt-CtCt
	10640.77	156.51	10535.89	10484.25	103.03	OSF1.50	10670.00	10567.92				MinPt-EOU
	10641.58	157.49	10536.04	10484.09	102.39	OSF1.50	10760.00	10657.92				MinPt-ADP
	10706.52	167.63	10594.27	10538.90	96.66	OSF1.50	12000.00	11897.92				MinPt-SF
	1479.52	246.93	1314.40	1232.59	9.03	OSF1.50	22705.32	12500.00				MinPts
30-025-42505 - EATA FAJITA STATE 11H - Gyro+MWD to 14201ft - A (DefinitiveSurvey) - **Pass**												
	10073.74	32.81	10071.76	10040.93	N/A	MAS = 10.00 (m)	0.00	0.00				Surface
	10073.59	32.81	10071.59	10040.78	410801.68	MAS = 10.00 (m)	23.00	23.00				WRP
	10073.45	32.81	10071.26	10040.64	49867.31	MAS = 10.00 (m)	80.00	80.00				MinPts
	5407.40	148.18	5308.07	5259.22	55.33	OSF1.50	9790.00	9687.92				MinPt-CtCt
	5407.45	148.33	5308.03	5259.12	55.27	OSF1.50	9810.00	9707.92				MinPt-EOU
	5407.58	148.48	5308.06	5259.10	55.22	OSF1.50	9830.00	9727.92				MinPt-ADP
	5560.28	157.25	5454.90	5403.02	53.57	OSF1.50	11080.00	10977.92				MinPt-SF
	2817.40	194.86	2686.99	2622.53	21.84	OSF1.50	17755.28	12500.41				MinPt-CtCt
	2817.61	195.51	2686.77	2622.10	21.77	OSF1.50	17790.00	12500.40				MinPt-EOU
	2817.93	195.88	2686.84	2622.05	21.73	OSF1.50	17810.00	12500.40				MinPt-ADP
	2820.61	197.31	2688.57	2623.30	21.60	OSF1.50	17890.00	12500.39				MinPt-SF
	2829.99	198.32	2697.28	2631.67	21.56	OSF1.50	18070.00	12500.38				MinPt-SF
	2843.64	199.34	2710.24	2644.30	21.55	OSF1.50	18280.00	12500.36				MinPt-SF
	2874.68	202.63	2739.10	2672.05	21.43	OSF1.50	19030.00	12500.30				MinPt-SF
	2874.74	201.02	2740.23	2673.72	21.60	OSF1.50	19060.00	12500.30				MinPt-CtCt
	2875.06	201.94	2739.94	2673.12	21.50	OSF1.50	19130.00	12500.29				MinPt-EOU
	2875.52	202.48	2740.03	2673.03	21.45	OSF1.50	19170.00	12500.29				MinPt-ADP
	2886.70	206.79	2748.34	2679.90	21.08	OSF1.50	19500.00	12500.26				MinPt-SF
	2887.01	205.94	2749.21	2681.07	21.17	OSF1.50	19580.00	12500.26				MinPt-CtCt
	2887.48	207.34	2748.76	2680.15	21.03	OSF1.50	19670.00	12500.25				MinPt-EOU
	2888.04	207.97	2748.89	2680.07	20.97	OSF1.50	19710.00	12500.25				MinPt-ADP
	2908.73	215.30	2764.70	2693.44	20.40	OSF1.50	20170.00	12500.21				MinPt-SF
	2912.54	216.36	2767.80	2696.17	20.32	OSF1.50	20370.00	12500.19				MinPt-ADP
	2914.83	218.60	2768.60	2696.23	20.13	OSF1.50	20520.00	12500.18				MinPt-ADP
	2918.32	221.53	2770.13	2696.79	19.88	OSF1.50	20730.00	12500.16				MinPts
	2916.37	223.52	2766.85	2692.84	19.69	OSF1.50	20870.00	12500.15				MinPt-CtCt
	2916.92	225.06	2766.38	2691.86	19.56	OSF1.50	20940.00	12500.14				MinPt-EOU
	2917.46	225.70	2766.49	2691.76	19.51	OSF1.50	20970.00	12500.14				MinPt-ADP
	2933.53	232.43	2778.08	2701.10	19.04	OSF1.50	21300.00	12500.12				MinPt-SF
	2946.08	237.76	2787.07	2708.32	18.69	OSF1.50	21620.00	12500.09				MinPt-SF
	2946.81	237.62	2787.89	2709.18	18.71	OSF1.50	21650.00	12500.09				MinPt-ADP
	2957.44	244.38	2794.02	2713.06	18.26	OSF1.50	22000.00	12500.06				MinPt-SF
	2955.04	247.44	2789.58	2707.60	18.01	OSF1.50	22170.00	12500.04				MinPt-CtCt
	2955.61	249.17	2788.99	2706.44	17.89	OSF1.50	22240.00	12500.04				MinPt-EOU
	2956.20	249.91	2789.10	2706.30	17.84	OSF1.50	22270.00	12500.04				MinPt-ADP
	2994.40	259.75	2820.73	2734.64	17.38	OSF1.50	22705.32	12500.00				MinPt-SF
30-025-42506 - EATA FAJITA STATE 12H - MWD to 14092ft - A (DefinitiveSurvey) - **Pass**												
	10067.58	32.81	10065.60	10034.77	N/A	MAS = 10.00 (m)	0.00	0.00				Surface
	10067.43	32.81	10065.42	10034.62	410298.94	MAS = 10.00 (m)	23.00	23.00				WRP
	5451.41	169.30	5338.00	5282.10	48.75	OSF1.50	9700.00	9597.92				MinPt-CtCt
	5451.45	169.42	5337.96	5282.03	48.72	OSF1.50	9720.00	9617.92				MinPt-EOU
	5451.50	169.48	5337.97	5282.02	48.70	OSF1.50	9730.00	9627.92				MinPt-ADP
	5509.91	173.47	5393.73	5336.45	48.08	OSF1.50	10500.00	10397.92				MinPt-SF
	3018.83	206.62	2880.59	2812.21	22.07	OSF1.50	18040.00	12500.38				MinPt-CtCt
	3018.89	206.75	2880.55	2812.14	22.05	OSF1.50	18070.00	12500.38				MinPt-EOU
	3018.93	206.79	2880.56	2812.13	22.05	OSF1.50	18080.00	12500.38				MinPt-ADP
	3020.86	207.55	2882.00	2813.31	21.98	OSF1.50	18220.00	12500.37				MinPt-SF
	3020.35	206.36	2882.28	2813.99	22.10	OSF1.50	18340.00	12500.36				MinPts
	3007.06	205.04	2869.86	2802.02	22.15	OSF1.50	18610.00	12500.34				MinPt-SF
	2992.21	208.91	2852.44	2783.30	21.63	OSF1.50	19020.00	12500.30				MinPt-CtCt
	2992.33	209.30	2852.30	2783.03	21.59	OSF1.50	19050.00	12500.30				MinPt-EOU
	2992.47	209.45	2852.34	2783.02	21.57	OSF1.50	19070.00	12500.30				MinPt-ADP
	2998.95	212.39	2856.86	2786.56	21.32	OSF1.50	19400.00	12500.27				MinPt-SF
	2999.49	211.85	2857.76	2787.64	21.38	OSF1.50	19470.00	12500.27				MinPt-EOU
	2999.81	212.24	2857.82	2787.57	21.34	OSF1.50	19510.00	12500.26				MinPt-ADP
	3002.63	214.08	2859.41	2788.55	21.18	OSF1.50	19670.00	12500.25				MinPt-SF
	2995.24	216.32	2850.53	2778.92	20.90	OSF1.50	20090.00	12500.21				MinPt-SF

Offset Trajectory	Separation			Allow	Sep.	Controlling	Reference Trajectory		Risk Level			Alert
	Ct-Ct (ft)	MAS (ft)	EOU (ft)	Dev. (ft)	Fact.	Rule	MD (ft)	TVD (ft)	Alert	Minor	Major	
	2988.90	218.72	2842.59	2770.18	**20.63**	OSF1.50	20300.00	12500.20				MinPt-SF
	2982.90	223.10	2833.67	2759.81	20.18	OSF1.50	20586.08	12500.17				MinPt-CtCt
	2983.38	224.49	**2833.21**	2758.88	20.06	OSF1.50	20660.00	12500.17				MinPt-EOU
	2984.03	225.27	2833.35	**2758.76**	19.99	OSF1.50	20700.00	12500.16				MinPt-ADP
	3005.24	233.09	2849.35	2772.15	**19.46**	OSF1.50	21160.00	12500.13				MinPt-SF
	3005.00	233.54	2848.80	2771.46	19.42	OSF1.50	21280.00	12500.12				MinPt-CtCt
	3005.19	235.25	2847.85	**2769.93**	**19.27**	OSF1.50	21390.00	12500.11				MinPts
	3005.10	235.12	**2847.85**	2769.97	19.28	OSF1.50	21400.00	12500.11				MinPt-EOU
	2985.78	243.75	2822.79	2742.04	18.48	OSF1.50	21890.00	12500.07				MinPt-CtCt
	2986.45	245.69	**2822.16**	2740.76	18.34	OSF1.50	21980.00	12500.06				MinPt-EOU
	2987.23	246.61	2822.33	**2740.63**	18.27	OSF1.50	22020.00	12500.06				MinPt-ADP
	3059.75	260.20	2885.79	2799.56	**17.73**	OSF1.50	22660.00	12500.00				MinPt-SF
	3069.38	260.98	2894.89	2808.40	17.73	OSF1.50	22705.32	12500.00				TD

Coterra Tres Equis 5-8 State 401H Rev0 kFc 09Sep24 Proposal Geodetic Report

Def Plan

Report Date:	September 10, 2024 - 05:16 PM (UTC 0)	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	COTERRA	**Vertical Section Azimuth:**	179.610 °(GRID North)
Field:	NM Lea County (NAD 83)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Coterra Tres Equis 5 State Pad Lot 3 / Tres Equis 5-8 State 401H	**TVD Reference Datum:**	RKB
Well:	Tres Equis 5-8 State 401H	**TVD Reference Elevation:**	3681.400 ft above MSL
Borehole:	Tres Equis 5-8 State 401H	**Seabed / Ground Elevation:**	3658.400 ft above MSL
UBHI / API#:	Unknown / Unknown	**Magnetic Declination:**	6.176°
Survey Name:	Coterra Tres Equis 5-8 State 401H Rev0 kFc 09Sep24	**Total Gravity Field Strength:**	998.438mgn (9.80665 Based)
Survey Date:	September 10, 2024	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	120.286 ° / 11419.329 ft / 6.397 / 0.913	**Total Magnetic Field Strength:**	47349.971 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	59.781°
Location Lat / Long:	32°15'10.37060"N , 103°35'52.94875"W	**Declination Date:**	May 06, 2024
Location Grid N/E Y/X:	N 456509.690 ftUS , E 768644.150 ftUS	**Magnetic Declination Model:**	HDGM 2024
CRS Grid Convergence Angle:	0.392°	**North Reference:**	Grid North
Grid Scale Factor:	0.99996827(Applied)	**Grid Convergence Used:**	0.392°
Version / Patch:	2024.4.0.4	**Total Corr Mag North->Grid North:**	5.783°
		Local Coord Referenced To:	Well Head

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)
SHL [387' FNL, 1498' FWL]	0.00	0.00	0.00	0.00	-3,681.40	0.00	0.00	0.00	456,509.69	768,644.15	32.25288072	-103.59804132			
Nudge, Build 2°/100ft	1,600.00	0.00	285.53	1,600.00	-2,081.40	0.00	0.00	0.00	456,509.69	768,644.15	32.25288072	-103.59804132	0.00	0.00	0.00
Hold	2,174.91	11.50	285.53	2,171.06	-1,510.34	-15.77	15.40	-55.39	456,525.09	768,588.76	32.25292408	-103.59822015	2.00	2.00	0.00
Drop 2°/100ft	6,877.69	11.50	285.53	6,779.46	3,098.06	-272.94	266.42	-958.61	456,776.10	767,685.58	32.25363102	-103.60113602	0.00	0.00	0.00
Hold	7,452.60	0.00	285.53	7,350.52	3,669.12	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	2.00	-2.00	0.00
KOP, Build 10°/100ft	12,009.60	0.00	285.53	11,907.52	8,226.12	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
Build 5°/100ft	12,759.60	75.00	189.61	12,460.95	8,779.55	129.50	-136.89	-1,084.89	456,372.81	767,559.29	32.25252485	-103.60155339	10.00	10.00	0.00
Landing Point	13,065.41	90.00	186.61	12,500.77	8,819.37	428.49	-436.17	-1,127.40	456,073.53	767,516.78	32.25170304	-103.60169748	5.00	4.91	-0.98
Turn 2°/100ft	13,195.41	90.00	186.61	12,500.77	8,819.37	557.52	-565.31	-1,142.37	455,944.40	767,501.82	32.25134838	-103.60174873	0.00	0.00	0.00
Hold	13,545.35	90.00	179.61	12,500.75	8,819.35	906.59	-914.51	-1,161.34	455,595.21	767,482.84	32.25038892	-103.60181780	2.00	0.00	-2.00
Tres Equis 5-8 State 401H - PBHL [100'FSL, 330'FWL]	22,705.32	90.00	179.61	12,500.00	8,818.60	10,066.55	-10,074.27	-1,099.20	446,435.76	767,544.99	32.22521140	-103.60181858	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	12,000.000	1/100.000	- 12.25 – 8.75 – 6 '5 – 9.625 – 7 – 5			A001Mb_MWD		Tres Equis 5-8 State 401H / Coterra Tres Equis 5-8
	1	12,000.000	22,724.050	1/100.000	6	5		A008Mb_MWD+IFR1+MS		Tres Equis 5-8 State 401H / Coterra Tres Equis 5-8

EOU Geometry:

End MD (ft)	Hole Size (in)	Casing Size (in)	Name
1,367.300	17.500	13.375	
5,001.300	12.250	9.625	
11,818.300	8.750	7.000	
22,705.316	6.000	5.000	

Coterra Tres Equis 5-8 State 401H Rev0 kFc 09Sep24 Proposal Geodetic Report

Def Plan

Report Date:	September 10, 2024 - 05:14 PM (UTC 0)	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	COTERRA	**Vertical Section Azimuth:**	179.610 °(GRID North)
Field:	NM Lea County (NAD 83)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Coterra Tres Equis 5 State Pad Lot 3 / Tres Equis 5-8 State 401H	**TVD Reference Datum:**	RKB
Well:	Tres Equis 5-8 State 401H	**TVD Reference Elevation:**	3681.400 ft above MSL
Borehole:	Tres Equis 5-8 State 401H	**Seabed / Ground Elevation:**	3658.400 ft above MSL
UBHI / API#:	Unknown / Unknown	**Magnetic Declination:**	6.176°
Survey Name:	Coterra Tres Equis 5-8 State 401H Rev0 kFc 09Sep24	**Total Gravity Field Strength:**	998.438mgn (9.80665 Based)
Survey Date:	September 09, 2024	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	120.286 ° / 11419.329 ft / 6.397 / 0.913	**Total Magnetic Field Strength:**	47349.971 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	59.781°
Location Lat / Long:	32°15'10.37060"N , 103°35'52.94875"W	**Declination Date:**	May 06, 2024
Location Grid N/E Y/X:	N 456509.690 ftUS , E 768644.150 ftUS	**Magnetic Declination Model:**	HDGM 2024
CRS Grid Convergence Angle:	0.392°	**North Reference:**	Grid North
Grid Scale Factor:	0.99996827(Applied)	**Grid Convergence Used:**	0.392°
Version / Patch:	2024.4.0.4	**Total Corr Mag North->Grid North:**	5.783°
		Local Coord Referenced To:	Well Head

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)
SHL [387' FNL, 1498' FWL]	0.00	0.00	0.00	0.00	-3,681.40	0.00	0.00	0.00	456,509.69	768,644.15	32.25288072	-103.59804132			
	100.00	0.00	285.53	100.00	-3,581.40	0.00	0.00	0.00	456,509.69	768,644.15	32.25288072	-103.59804132	0.00	0.00	0.00
	200.00	0.00	285.53	200.00	-3,481.40	0.00	0.00	0.00	456,509.69	768,644.15	32.25288072	-103.59804132	0.00	0.00	0.00
	300.00	0.00	285.53	300.00	-3,381.40	0.00	0.00	0.00	456,509.69	768,644.15	32.25288072	-103.59804132	0.00	0.00	0.00
	400.00	0.00	285.53	400.00	-3,281.40	0.00	0.00	0.00	456,509.69	768,644.15	32.25288072	-103.59804132	0.00	0.00	0.00
	500.00	0.00	285.53	500.00	-3,181.40	0.00	0.00	0.00	456,509.69	768,644.15	32.25288072	-103.59804132	0.00	0.00	0.00
	600.00	0.00	285.53	600.00	-3,081.40	0.00	0.00	0.00	456,509.69	768,644.15	32.25288072	-103.59804132	0.00	0.00	0.00
	700.00	0.00	285.53	700.00	-2,981.40	0.00	0.00	0.00	456,509.69	768,644.15	32.25288072	-103.59804132	0.00	0.00	0.00
	800.00	0.00	285.53	800.00	-2,881.40	0.00	0.00	0.00	456,509.69	768,644.15	32.25288072	-103.59804132	0.00	0.00	0.00
	900.00	0.00	285.53	900.00	-2,781.40	0.00	0.00	0.00	456,509.69	768,644.15	32.25288072	-103.59804132	0.00	0.00	0.00
	1,000.00	0.00	285.53	1,000.00	-2,681.40	0.00	0.00	0.00	456,509.69	768,644.15	32.25288072	-103.59804132	0.00	0.00	0.00
	1,100.00	0.00	285.53	1,100.00	-2,581.40	0.00	0.00	0.00	456,509.69	768,644.15	32.25288072	-103.59804132	0.00	0.00	0.00
	1,200.00	0.00	285.53	1,200.00	-2,481.40	0.00	0.00	0.00	456,509.69	768,644.15	32.25288072	-103.59804132	0.00	0.00	0.00
Rustler□	1,285.00	0.00	285.53	1,285.00	-2,396.40	0.00	0.00	0.00	456,509.69	768,644.15	32.25288072	-103.59804132	0.00	0.00	0.00
	1,300.00	0.00	285.53	1,300.00	-2,381.40	0.00	0.00	0.00	456,509.69	768,644.15	32.25288072	-103.59804132	0.00	0.00	0.00
A3 Top□	1,370.00	0.00	285.53	1,370.00	-2,311.40	0.00	0.00	0.00	456,509.69	768,644.15	32.25288072	-103.59804132	0.00	0.00	0.00
	1,400.00	0.00	285.53	1,400.00	-2,281.40	0.00	0.00	0.00	456,509.69	768,644.15	32.25288072	-103.59804132	0.00	0.00	0.00
	1,500.00	0.00	285.53	1,500.00	-2,181.40	0.00	0.00	0.00	456,509.69	768,644.15	32.25288072	-103.59804132	0.00	0.00	0.00
A3 Base□	1,510.00	0.00	285.53	1,510.00	-2,171.40	0.00	0.00	0.00	456,509.69	768,644.15	32.25288072	-103.59804132	0.00	0.00	0.00
Nudge, Build 2°/100ft	1,600.00	0.00	285.53	1,600.00	-2,081.40	0.00	0.00	0.00	456,509.69	768,644.15	32.25288072	-103.59804132	0.00	0.00	0.00
	1,700.00	2.00	285.53	1,699.98	-1,981.42	-0.48	0.47	-1.68	456,510.16	768,642.47	32.25288204	-103.59804675	2.00	2.00	0.00
Top Salt/Salado□	1,795.15	3.90	285.53	1,795.00	-1,886.40	-1.82	1.78	-6.40	456,511.47	768,637.75	32.25288573	-103.59806199	2.00	2.00	0.00
	1,800.00	4.00	285.53	1,799.84	-1,881.56	-1.91	1.87	-6.72	456,511.56	768,637.43	32.25288599	-103.59806303	2.00	2.00	0.00
	1,900.00	6.00	285.53	1,899.45	-1,781.95	-4.31	4.20	-15.12	456,513.89	768,629.03	32.25289256	-103.59809013	2.00	2.00	0.00
	2,000.00	8.00	285.53	1,998.70	-1,682.70	-7.65	7.47	-26.86	456,517.16	768,617.29	32.25290175	-103.59812804	2.00	2.00	0.00
	2,100.00	10.00	285.53	2,097.47	-1,583.93	-11.94	11.65	-41.93	456,521.34	768,602.22	32.25291355	-103.59817669	2.00	2.00	0.00
Hold	2,174.91	11.50	285.53	2,171.06	-1,510.34	-15.77	15.40	-55.39	456,525.09	768,588.76	32.25292408	-103.59822015	2.00	2.00	0.00
	2,200.00	11.50	285.53	2,195.65	-1,485.75	-17.14	16.73	-60.21	456,526.42	768,583.94	32.25292785	-103.59823571	0.00	0.00	0.00
	2,300.00	11.50	285.53	2,293.64	-1,387.76	-22.61	22.07	-79.42	456,531.76	768,564.73	32.25294289	-103.59829771	0.00	0.00	0.00
	2,400.00	11.50	285.53	2,391.63	-1,289.77	-28.08	27.41	-98.62	456,537.10	768,545.53	32.25295792	-103.59835971	0.00	0.00	0.00
	2,500.00	11.50	285.53	2,489.62	-1,191.78	-33.55	32.75	-117.83	456,542.44	768,526.32	32.25297295	-103.59842171	0.00	0.00	0.00
	2,600.00	11.50	285.53	2,587.62	-1,093.78	-39.02	38.09	-137.04	456,547.78	768,507.12	32.25298799	-103.59848372	0.00	0.00	0.00
	2,700.00	11.50	285.53	2,685.61	-995.79	-44.49	43.42	-156.24	456,553.11	768,487.91	32.25300302	-103.59854572	0.00	0.00	0.00
	2,800.00	11.50	285.53	2,783.60	-897.80	-49.96	48.76	-175.45	456,558.45	768,468.71	32.25301805	-103.59860772	0.00	0.00	0.00
	2,900.00	11.50	285.53	2,881.60	-799.80	-55.42	54.10	-194.65	456,563.79	768,449.50	32.25303308	-103.59866972	0.00	0.00	0.00
	3,000.00	11.50	285.53	2,979.59	-701.81	-60.89	59.44	-213.86	456,569.13	768,430.30	32.25304812	-103.59873173	0.00	0.00	0.00
	3,100.00	11.50	285.53	3,077.58	-603.82	-66.36	64.78	-233.07	456,574.46	768,411.09	32.25306315	-103.59879373	0.00	0.00	0.00
	3,200.00	11.50	285.53	3,175.58	-505.82	-71.83	70.11	-252.27	456,579.80	768,391.89	32.25307818	-103.59885573	0.00	0.00	0.00
	3,300.00	11.50	285.53	3,273.57	-407.83	-77.30	75.45	-271.48	456,585.14	768,372.68	32.25309321	-103.59891774	0.00	0.00	0.00
	3,400.00	11.50	285.53	3,371.56	-309.84	-82.77	80.79	-290.68	456,590.48	768,353.48	32.25310825	-103.59897974	0.00	0.00	0.00
	3,500.00	11.50	285.53	3,469.56	-211.84	-88.23	86.13	-309.89	456,595.81	768,334.27	32.25312328	-103.59904174	0.00	0.00	0.00
	3,600.00	11.50	285.53	3,567.55	-113.85	-93.70	91.46	-329.10	456,601.15	768,315.07	32.25313831	-103.59910374	0.00	0.00	0.00
	3,700.00	11.50	285.53	3,665.54	-15.86	-99.17	96.80	-348.30	456,606.49	768,295.86	32.25315334	-103.59916575	0.00	0.00	0.00
	3,800.00	11.50	285.53	3,763.53	82.13	-104.64	102.14	-367.51	456,611.83	768,276.66	32.25316838	-103.59922775	0.00	0.00	0.00
	3,900.00	11.50	285.53	3,861.53	180.13	-110.11	107.48	-386.71	456,617.16	768,257.45	32.25318341	-103.59928975	0.00	0.00	0.00
	4,000.00	11.50	285.53	3,959.52	278.12	-115.58	112.82	-405.92	456,622.50	768,238.24	32.25319844	-103.59935176	0.00	0.00	0.00
	4,100.00	11.50	285.53	4,057.51	376.11	-121.05	118.15	-425.12	456,627.84	768,219.04	32.25321347	-103.59941376	0.00	0.00	0.00
	4,200.00	11.50	285.53	4,155.51	474.11	-126.51	123.49	-444.33	456,633.18	768,199.83	32.25322851	-103.59947576	0.00	0.00	0.00
	4,300.00	11.50	285.53	4,253.50	572.10	-131.98	128.83	-463.54	456,638.52	768,180.63	32.25324354	-103.59953777	0.00	0.00	0.00
	4,400.00	11.50	285.53	4,351.49	670.09	-137.45	134.17	-482.74	456,643.85	768,161.42	32.25325857	-103.59959977	0.00	0.00	0.00
	4,500.00	11.50	285.53	4,449.49	768.09	-142.92	139.51	-501.95	456,649.19	768,142.22	32.25327360	-103.59966177	0.00	0.00	0.00
	4,600.00	11.50	285.53	4,547.48	866.08	-148.39	144.84	-521.15	456,654.53	768,123.01	32.25328864	-103.59972377	0.00	0.00	0.00
	4,700.00	11.50	285.53	4,645.47	964.07	-153.86	150.18	-540.36	456,659.87	768,103.81	32.25330367	-103.59978578	0.00	0.00	0.00
	4,800.00	11.50	285.53	4,743.46	1,062.06	-159.32	155.52	-559.57	456,665.20	768,084.60	32.25331870	-103.59984778	0.00	0.00	0.00
	4,900.00	11.50	285.53	4,841.46	1,160.06	-164.79	160.86	-578.77	456,670.54	768,065.40	32.25333373	-103.59990978	0.00	0.00	0.00
	5,000.00	11.50	285.53	4,939.45	1,258.05	-170.26	166.20	-597.98	456,675.88	768,046.19	32.25334877	-103.59997179	0.00	0.00	0.00
	5,100.00	11.50	285.53	5,037.44	1,356.04	-175.73	171.53	-617.18	456,681.22	768,026.99	32.25336380	-103.60003379	0.00	0.00	0.00
	5,200.00	11.50	285.53	5,135.44	1,454.04	-181.20	176.87	-636.39	456,686.55	768,007.78	32.25337883	-103.60009579	0.00	0.00	0.00
Base Salt/Lamar□	5,204.66	11.50	285.53	5,140.00	1,458.60	-181.45	177.12	-637.28	456,686.80	768,006.89	32.25337953	-103.60009868	0.00	0.00	0.00
Top Delaware Sands/Bell Canyor	5,235.27	11.50	285.53	5,170.00	1,488.60	-183.13	178.75	-643.16	456,688.44	768,001.01	32.25338413	-103.60011766	0.00	0.00	0.00
	5,300.00	11.50	285.53	5,233.43	1,552.03	-186.67	182.21	-655.60	456,691.89	767,988.58	32.25339386	-103.60015780	0.00	0.00	0.00
	5,400.00	11.50	285.53	5,331.42	1,650.02	-192.14	187.55	-674.80	456,697.23	767,969.37	32.25340889	-103.60021980	0.00	0.00	0.00
	5,500.00	11.50	285.53	5,429.42	1,748.02	-197.60	192.88	-694.01	456,702.57	767,950.17	32.25342393	-103.60028180	0.00	0.00	0.00
	5,600.00	11.50	285.53	5,527.41	1,846.01	-203.07	198.22	-713.21	456,707.91	767,930.96	32.25343896	-103.60034381	0.00	0.00	0.00
	5,700.00	11.50	285.53	5,625.40	1,944.00	-208.54	203.56	-732.42	456,713.24	767,911.76	32.25345399	-103.60040581	0.00	0.00	0.00
	5,800.00	11.50	285.53	5,723.40	2,042.00	-214.01	208.90	-751.63	456,718.58	767,892.55	32.25346902	-103.60046781	0.00	0.00	0.00
	5,900.00	11.50	285.53	5,821.39	2,139.99	-219.48	214.24	-770.83	456,723.92	767,873.34	32.25348405	-103.60052982	0.00	0.00	0.00
	6,000.00	11.50	285.53	5,919.38	2,237.98	-224.95	219.57	-790.04	456,729.26	767,854.14	32.25349909	-103.60059182	0.00	0.00	0.00
	6,100.00	11.50	285.53	6,017.37	2,335.97	-230.41	224.91	-809.24	456,734.59	767,834.93	32.25351412	-103.60065382	0.00	0.00	0.00
	6,200.00	11.50	285.53	6,115.37	2,433.97	-235.88	230.25	-828.45	456,739.93	767,815.73	32.25352915	-103.60071583	0.00	0.00	0.00
	6,300.00	11.50	285.53	6,213.36	2,531.96	-241.35	235.59	-847.65	456,745.27	767,796.52	32.25354418	-103.60077783	0.00	0.00	0.00
	6,400.00	11.50	285.53	6,311.35	2,629.95	-246.82	240.93	-866.86	456,750.61	767,777.32	32.25355921	-103.60083983	0.00	0.00	0.00
	6,500.00	11.50	285.53	6,409.35	2,727.95	-252.29	246.26	-886.07	456,755.94	767,758.11	32.25357424	-103.60090184	0.00	0.00	0.00
Cherry Canyon□	6,556.79	11.50	285.53	6,465.00	2,783.60	-255.39	249.29	-896.97	456,758.98	767,747.21	32.25358278	-103.60093705	0.00	0.00	0.00
	6,600.00	11.50	285.53	6,507.34	2,825.94	-257.76	251.60	-905.27	456,761.28	767,738.91	32.25358928	-103.60096384	0.00	0.00	0.00
	6,700.00	11.50	285.53	6,605.33	2,923.93	-263.23	256.94	-924.48	456,766.62	767,719.70	32.25360431	-103.60102584	0.00	0.00	0.00
	6,800.00	11.50	285.53	6,703.33	3,021.93	-268.69	262.28	-943.68	456,771.96	767,700.50	32.25361934	-103.60108785	0.00	0.00	0.00
Drop 2°/100ft	6,877.69	11.50	285.53	6,779.46	3,098.06	-272.94	266.42	-958.61	456,776.10	767,685.58	32.25363102	-103.60113602	0.00	0.00	0.00
	6,900.00	11.05	285.53	6,801.34	3,119.94	-274.14	267.59	-962.81	456,777.27	767,681.37	32.25363431	-103.60114959	2.00	-2.00	0.00
	7,000.00	9.05	285.53	6,899.80	3,218.40	-278.93	272.27	-979.62	456,781.95	767,664.56	32.25364747	-103.60120388	2.00	-2.00	0.00
	7,100.00	7.05	285.53	6,998.81	3,317.41	-282.77	276.02	-993.12	456,785.70	767,651.06	32.25365803	-103.60124744	2.00	-2.00	0.00
	7,200.00	5.05	285.53	7,098.24	3,416.84	-285.66	278.84	-1,003.28	456,788.52	767,640.91	32.25366598	-103.60128024	2.00	-2.00	0.00
	7,300.00	3.05	285.53	7,197.99	3,516.59	-287.60	280.73	-1,010.08	456,790.41	767,634.10	32.25367131	-103.60130221	2.00	-2.00	0.00
	7,400.00	1.05	285.53	7,297.92	3,616.52	-288.58	281.69	-1,013.53	456,791.37	767,630.65	32.25367401	-103.60131335	2.00	-2.00	0.00
Hold	7,452.60	0.00	285.53	7,350.52	3,669.12	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	2.00	-2.00	0.00
	7,500.00	0.00	285.53	7,397.92	3,716.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
Brushy Canyon□	7,587.08	0.00	285.53	7,485.00	3,803.60	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	7,600.00	0.00	285.53	7,497.92	3,816.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	7,700.00	0.00	285.53	7,597.92	3,916.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	7,800.00	0.00	285.53	7,697.92	4,016.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	7,900.00	0.00	285.53	7,797.92	4,116.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	8,000.00	0.00	285.53	7,897.92	4,216.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	8,100.00	0.00	285.53	7,997.92	4,316.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	8,200.00	0.00	285.53	8,097.92	4,416.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	8,300.00	0.00	285.53	8,197.92	4,516.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	8,400.00	0.00	285.53	8,297.92	4,616.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	8,500.00	0.00	285.53	8,397.92	4,716.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	8,600.00	0.00	285.53	8,497.92	4,816.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	8,700.00	0.00	285.53	8,597.92	4,916.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	8,800.00	0.00	285.53	8,697.92	5,016.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
Basal Brushy Canyon□	8,892.08	0.00	285.53	8,790.00	5,108.60	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	8,900.00	0.00	285.53	8,797.92	5,116.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	9,000.00	0.00	285.53	8,897.92	5,216.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00

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)
	9,100.00	0.00	285.53	8,997.92	5,316.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
Bone Spring Lime□	9,127.08	0.00	285.53	9,025.00	5,343.60	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	9,200.00	0.00	285.53	9,097.92	5,416.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	9,300.00	0.00	285.53	9,197.92	5,516.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
Leonard/Avalon Sand□	9,307.08	0.00	285.53	9,205.00	5,523.60	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
Avalon Shale□	9,322.08	0.00	285.53	9,220.00	5,538.60	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	9,400.00	0.00	285.53	9,297.92	5,616.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	9,500.00	0.00	285.53	9,397.92	5,716.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	9,600.00	0.00	285.53	9,497.92	5,816.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	9,700.00	0.00	285.53	9,597.92	5,916.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	9,800.00	0.00	285.53	9,697.92	6,016.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	9,900.00	0.00	285.53	9,797.92	6,116.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	10,000.00	0.00	285.53	9,897.92	6,216.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	10,100.00	0.00	285.53	9,997.92	6,316.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	10,200.00	0.00	285.53	10,097.92	6,416.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
1st Bone Spring Sand□	10,247.08	0.00	285.53	10,145.00	6,463.60	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	10,300.00	0.00	285.53	10,197.92	6,516.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	10,400.00	0.00	285.53	10,297.92	6,616.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	10,500.00	0.00	285.53	10,397.92	6,716.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	10,600.00	0.00	285.53	10,497.92	6,816.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	10,700.00	0.00	285.53	10,597.92	6,916.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	10,800.00	0.00	285.53	10,697.92	7,016.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	10,900.00	0.00	285.53	10,797.92	7,116.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
2nd Bone Spring Sand□	10,932.08	0.00	285.53	10,830.00	7,148.60	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	11,000.00	0.00	285.53	10,897.92	7,216.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	11,100.00	0.00	285.53	10,997.92	7,316.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	11,200.00	0.00	285.53	11,097.92	7,416.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	11,300.00	0.00	285.53	11,197.92	7,516.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	11,400.00	0.00	285.53	11,297.92	7,616.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	11,500.00	0.00	285.53	11,397.92	7,716.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	11,600.00	0.00	285.53	11,497.92	7,816.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	11,700.00	0.00	285.53	11,597.92	7,916.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	11,800.00	0.00	285.53	11,697.92	8,016.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	11,900.00	0.00	285.53	11,797.92	8,116.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	12,000.00	0.00	285.53	11,897.92	8,216.52	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
KOP, Build 10°/100ft	12,009.60	0.00	285.53	11,907.52	8,226.12	-288.72	281.82	-1,014.00	456,791.50	767,630.18	32.25367437	-103.60131485	0.00	0.00	0.00
	12,100.00	9.04	189.61	11,997.54	8,316.14	-281.71	274.80	-1,015.19	456,784.48	767,629.00	32.25365511	-103.60131885	10.00	10.00	0.00
3rd Bone Spring Sand□	12,117.72	10.81	189.61	12,015.00	8,333.60	-278.70	271.79	-1,015.70	456,781.47	767,628.49	32.25364684	-103.60132057	10.00	10.00	0.00
	12,200.00	19.04	189.61	12,094.43	8,413.03	-257.85	250.91	-1,019.23	456,760.60	767,624.95	32.25358953	-103.60133246	10.00	10.00	0.00
	12,300.00	29.04	189.61	12,185.64	8,504.24	-217.78	210.80	-1,026.02	456,720.48	767,618.16	32.25347940	-103.60135531	10.00	10.00	0.00
	12,400.00	39.04	189.61	12,268.40	8,587.00	-162.72	155.68	-1,035.36	456,665.36	767,608.83	32.25332807	-103.60138672	10.00	10.00	0.00
	12,500.00	49.04	189.61	12,340.20	8,658.80	-94.35	87.23	-1,046.95	456,596.91	767,597.24	32.25314014	-103.60142571	10.00	10.00	0.00
Wolfcamp□	12,539.43	52.98	189.61	12,365.00	8,683.60	-64.17	57.01	-1,052.06	456,566.70	767,592.12	32.25305719	-103.60144293	10.00	10.00	0.00
	12,600.00	59.04	189.61	12,398.84	8,717.44	-14.74	7.52	-1,060.44	456,517.21	767,583.74	32.25292131	-103.60147112	10.00	10.00	0.00
	12,700.00	69.04	189.61	12,442.56	8,761.16	73.69	-81.01	-1,075.43	456,428.68	767,568.75	32.25267825	-103.60152156	10.00	10.00	0.00
Build 5°/100ft	12,759.60	75.00	189.61	12,460.95	8,779.55	129.50	-136.89	-1,084.89	456,372.81	767,559.29	32.25252485	-103.60155339	10.00	10.00	0.00
	12,800.00	76.98	189.20	12,470.73	8,789.33	168.12	-175.55	-1,091.30	456,334.14	767,552.89	32.25241870	-103.60157495	5.00	4.90	-1.02
	12,900.00	81.88	188.21	12,489.07	8,807.67	265.16	-272.69	-1,106.16	456,237.01	767,538.03	32.25215198	-103.60162517	5.00	4.90	-0.99
	13,000.00	86.79	187.24	12,498.93	8,817.53	363.64	-371.27	-1,119.52	456,138.43	767,524.67	32.25188127	-103.60167056	5.00	4.91	-0.97
Landing Point	13,065.41	90.00	186.61	12,500.77	8,819.37	428.49	-436.17	-1,127.40	456,073.53	767,516.78	32.25170304	-103.60169748	5.00	4.91	-0.96
	13,100.00	90.00	186.61	12,500.77	8,819.37	462.82	-470.53	-1,131.38	456,039.17	767,512.80	32.25160868	-103.60171112	0.00	0.00	0.00
Turn 2°/100ft	13,195.41	90.00	186.61	12,500.77	8,819.37	557.52	-565.31	-1,142.37	455,944.40	767,501.82	32.25134838	-103.60174873	0.00	0.00	0.00
	13,200.00	90.00	186.52	12,500.77	8,819.37	562.07	-569.87	-1,142.89	455,939.84	767,501.30	32.25133586	-103.60175053	2.00	0.00	-2.00
	13,300.00	90.00	184.52	12,500.76	8,819.36	661.54	-669.40	-1,152.51	455,840.31	767,491.68	32.25106247	-103.60178382	2.00	0.00	-2.00
	13,400.00	90.00	182.52	12,500.76	8,819.36	761.30	-769.21	-1,158.64	455,740.51	767,485.54	32.25078826	-103.60180587	2.00	0.00	-2.00
	13,500.00	90.00	180.52	12,500.75	8,819.35	861.24	-869.17	-1,161.29	455,640.55	767,482.90	32.25051356	-103.60181664	2.00	0.00	-2.00
Hold	13,545.35	90.00	179.61	12,500.75	8,819.35	906.59	-914.51	-1,161.34	455,595.21	767,482.84	32.25038892	-103.60181780	2.00	0.00	-2.00
	13,600.00	90.00	179.61	12,500.75	8,819.35	961.24	-969.16	-1,160.97	455,540.56	767,483.22	32.25023870	-103.60181781	0.00	0.00	0.00
	13,700.00	90.00	179.61	12,500.74	8,819.34	1,061.24	-1,069.16	-1,160.30	455,440.56	767,483.89	32.24996384	-103.60181782	0.00	0.00	0.00
	13,800.00	90.00	179.61	12,500.73	8,819.33	1,161.24	-1,169.16	-1,159.62	455,340.57	767,484.57	32.24968897	-103.60181783	0.00	0.00	0.00
	13,900.00	90.00	179.61	12,500.72	8,819.32	1,261.24	-1,269.16	-1,158.94	455,240.58	767,485.25	32.24941411	-103.60181784	0.00	0.00	0.00
	14,000.00	90.00	179.61	12,500.71	8,819.31	1,361.24	-1,369.15	-1,158.26	455,140.58	767,485.93	32.24913925	-103.60181785	0.00	0.00	0.00
	14,100.00	90.00	179.61	12,500.71	8,819.31	1,461.24	-1,469.15	-1,157.58	455,040.59	767,486.61	32.24886438	-103.60181786	0.00	0.00	0.00
	14,200.00	90.00	179.61	12,500.70	8,819.30	1,561.24	-1,569.15	-1,156.90	454,940.59	767,487.29	32.24858952	-103.60181786	0.00	0.00	0.00
	14,300.00	90.00	179.61	12,500.69	8,819.29	1,661.24	-1,669.15	-1,156.22	454,840.60	767,487.96	32.24831465	-103.60181787	0.00	0.00	0.00
	14,400.00	90.00	179.61	12,500.68	8,819.28	1,761.24	-1,769.15	-1,155.55	454,740.60	767,488.64	32.24803979	-103.60181788	0.00	0.00	0.00
	14,500.00	90.00	179.61	12,500.67	8,819.27	1,861.24	-1,869.14	-1,154.87	454,640.61	767,489.32	32.24776492	-103.60181789	0.00	0.00	0.00
	14,600.00	90.00	179.61	12,500.66	8,819.26	1,961.24	-1,969.14	-1,154.19	454,540.62	767,490.00	32.24749006	-103.60181790	0.00	0.00	0.00
	14,700.00	90.00	179.61	12,500.66	8,819.26	2,061.24	-2,069.14	-1,153.51	454,440.62	767,490.68	32.24721520	-103.60181791	0.00	0.00	0.00
	14,800.00	90.00	179.61	12,500.65	8,819.25	2,161.24	-2,169.14	-1,152.83	454,340.63	767,491.36	32.24694033	-103.60181792	0.00	0.00	0.00
	14,900.00	90.00	179.61	12,500.64	8,819.24	2,261.24	-2,269.13	-1,152.15	454,240.63	767,492.03	32.24666547	-103.60181793	0.00	0.00	0.00
	15,000.00	90.00	179.61	12,500.63	8,819.23	2,361.24	-2,369.13	-1,151.48	454,140.64	767,492.71	32.24639060	-103.60181794	0.00	0.00	0.00
	15,100.00	90.00	179.61	12,500.62	8,819.22	2,461.24	-2,469.13	-1,150.80	454,040.64	767,493.39	32.24611574	-103.60181795	0.00	0.00	0.00
	15,200.00	90.00	179.61	12,500.62	8,819.22	2,561.24	-2,569.13	-1,150.12	453,940.65	767,494.07	32.24584087	-103.60181795	0.00	0.00	0.00
	15,300.00	90.00	179.61	12,500.61	8,819.21	2,661.24	-2,669.12	-1,149.44	453,840.66	767,494.75	32.24556601	-103.60181796	0.00	0.00	0.00
	15,400.00	90.00	179.61	12,500.60	8,819.20	2,761.24	-2,769.12	-1,148.76	453,740.66	767,495.43	32.24529114	-103.60181797	0.00	0.00	0.00
	15,500.00	90.00	179.61	12,500.59	8,819.19	2,861.24	-2,869.12	-1,148.08	453,640.67	767,496.11	32.24501628	-103.60181798	0.00	0.00	0.00
	15,600.00	90.00	179.61	12,500.58	8,819.18	2,961.24	-2,969.12	-1,147.40	453,540.67	767,496.78	32.24474142	-103.60181799	0.00	0.00	0.00
	15,700.00	90.00	179.61	12,500.57	8,819.17	3,061.24	-3,069.12	-1,146.73	453,440.68	767,497.46	32.24446655	-103.60181800	0.00	0.00	0.00
	15,800.00	90.00	179.61	12,500.57	8,819.17	3,161.24	-3,169.11	-1,146.05	453,340.68	767,498.14	32.24419169	-103.60181801	0.00	0.00	0.00
	15,900.00	90.00	179.61	12,500.56	8,819.16	3,261.24	-3,269.11	-1,145.37	453,240.69	767,498.82	32.24391682	-103.60181802	0.00	0.00	0.00
	16,000.00	90.00	179.61	12,500.55	8,819.15	3,361.24	-3,369.11	-1,144.69	453,140.70	767,499.50	32.24364196	-103.60181803	0.00	0.00	0.00
	16,100.00	90.00	179.61	12,500.54	8,819.14	3,461.24	-3,469.11	-1,144.01	453,040.70	767,500.18	32.24336709	-103.60181803	0.00	0.00	0.00
	16,200.00	90.00	179.61	12,500.53	8,819.13	3,561.24	-3,569.10	-1,143.33	452,940.71	767,500.85	32.24309223	-103.60181804	0.00	0.00	0.00
	16,300.00	90.00	179.61	12,500.53	8,819.13	3,661.24	-3,669.10	-1,142.66	452,840.71	767,501.53	32.24281736	-103.60181805	0.00	0.00	0.00
	16,400.00	90.00	179.61	12,500.52	8,819.12	3,761.24	-3,769.10	-1,141.98	452,740.72	767,502.21	32.24254250	-103.60181806	0.00	0.00	0.00
	16,500.00	90.00	179.61	12,500.51	8,819.11	3,861.24	-3,869.10	-1,141.30	452,640.72	767,502.89	32.24226764	-103.60181807	0.00	0.00	0.00
	16,600.00	90.00	179.61	12,500.50	8,819.10	3,961.24	-3,969.09	-1,140.62	452,540.73	767,503.57	32.24199277	-103.60181808	0.00	0.00	0.00
	16,700.00	90.00	179.61	12,500.49	8,819.09	4,061.24	-4,069.09	-1,139.94	452,440.74	767,504.25	32.24171791	-103.60181809	0.00	0.00	0.00
	16,800.00	90.00	179.61	12,500.48	8,819.08	4,161.24	-4,169.09	-1,139.26	452,340.74	767,504.93	32.24144304	-103.60181810	0.00	0.00	0.00
	16,900.00	90.00	179.61	12,500.48	8,819.08	4,261.24	-4,269.09	-1,138.58	452,240.75	767,505.60	32.24116818	-103.60181810	0.00	0.00	0.00
	17,000.00	90.00	179.61	12,500.47	8,819.07	4,361.24	-4,369.09	-1,137.91	452,140.75	767,506.28	32.24089331	-103.60181811	0.00	0.00	0.00
	17,100.00	90.00	179.61	12,500.46	8,819.06	4,461.24	-4,469.08	-1,137.23	452,040.76	767,506.96	32.24061845	-103.60181812	0.00	0.00	0.00
	17,200.00	90.00	179.61	12,500.45	8,819.05	4,561.24	-4,569.08	-1,136.55	451,940.76	767,507.64	32.24034358	-103.60181813	0.00	0.00	0.00
	17,300.00	90.00	179.61	12,500.44	8,819.04	4,661.24	-4,669.08	-1,135.87	451,840.77	767,508.32	32.24006872	-103.60181814	0.00	0.00	0.00
	17,400.00	90.00	179.61	12,500.44	8,819.04	4,761.24	-4,769.08	-1,135.19	451,740.77	767,509.00	32.23979385	-103.60181815	0.00	0.00	0.00
	17,500.00	90.00	179.61	12,500.43	8,819.03	4,861.24	-4,869.07	-1,134.51	451,640.78	767,509.67	32.23951899	-103.60181816	0.00	0.00	0.00
	17,600.00	90.00	179.61	12,500.42	8,819.02	4,961.24	-4,969.07	-1,133.84	451,540.79	767,510.35	32.23924413	-103.60181816	0.00	0.00	0.00
	17,700.00	90.00	179.61	12,500.41	8,819.01	5,061.24	-5,069.07	-1,133.16	451,440.79	767,511.03	32.23896926	-103.60181817	0.00	0.00	0.00
	17,800.00	90.00	179.61	12,500.40	8,819.00	5,161.24	-5,169.07	-1,132.48	451,340.80	767,511.71	32.23869440	-103.60181818	0.00	0.00	0.00
	17,900.00	90.00	179.61	12,500.39	8,818.99	5,261.24	-5,269.06	-1,131.80	451,240.80	767,512.39	32.23841953	-103.60181819	0.00	0.00	0.00
	18,000.00	90.00	179.61	12,500.39	8,818.99	5,361.24	-5,369.06	-1,131.12	451,140.81	767,513.07	32.23814467	-103.60181820	0.00	0.00	0.00
	18,100.00	90.00	179.61	12,500.38	8,818.98	5,461.24	-5,469.06	-1,130.44	451,040.81	767,513.75	32.23786980	-103.60181821	0.00	0.00	0.00
	18,200.00	90.00	179.61	12,500.37	8,818.97	5,561.24	-5,569.06	-1,129.76	450,940.82	767,514.42	32.23759494	-103.60181821	0.00	0.00	0.00
	18,300.00	90.00	179.61	12,500.36	8,818.96	5,661.24	-5,669.06	-1,129.09	450,840.83	767,515.10	32.23732007	-103.60181822	0.00	0.00	0.00
	18,400.00	90.00	179.61	12,500.35	8,818.95	5,761.24	-5,769.05	-1,128.41	450,740.83	767,515.78	32.23704521	-103.60181823	0.00	0.00	0.00
	18,500.00	90.00	179.61	12,500.34	8,818.94	5,861.24	-5,869.05	-1,127.73	450,640.84	767,516.46	32.23677034	-103.60181824	0.00	0.00	0.00
	18,600.00	90.00	179.61	12,500.34	8,818.94	5,961.24	-5,969.05	-1,127.05	450,540.84	767,517.14	32.23649548	-103.60181825	0.00	0.00	0.00
	18,700.00	90.00	179.61	12,500.33	8,818.93	6,061.24	-6,069.05	-1,126.37	450,440.85	767,517.82	32.23622061	-103.60181826	0.00	0.00	0.00
	18,800.00	90.00	179.61	12,500.32	8,818.92	6,161.24	-6,169.04	-1,125.69	450,340.85	767,518.49	32.23594575	-103.60181826	0.00	0.00	0.00
	18,900.00	90.00	179.61	12,500.31	8,818.91	6,261.24	-6,269.04	-1,125.02	450,240.86	767,519.17	32.23567088	-103.60181827	0.00	0.00	0.00
	19,000.00	90.00	179.61	12,500.30	8,818.90	6,361.24	-6,369.04	-1,124.34	450,140.87	767,519.85	32.23539602	-103.60181828	0.00	0.00	0.00
	19,100.00	90.00	179.61	12,500.30	8,818.90	6,461.24	-6,469.04	-1,123.66	450,040.87	767,520.53	32.23512115	-103.60181829	0.00	0.00	0.00
	19,200.00	90.00	179.61	12,500.29	8,818.89	6,561.24	-6,569.03	-1,122.98	449,940.88	767,521.21	32.23484629	-103.60181830	0.00	0.00	0.00
	19,300.00	90.00	179.61	12,500.28	8,818.88	6,661.24	-6,669.03	-1,122.30	449,840.88	767,521.89	32.23457142	-103.60181831	0.00	0.00	0.00
	19,400.00	90.00	179.61	12,500.27	8,818.87	6,761.24	-6,769.03	-1,121.62	449,740.89	767,522.57	32.23429656	-103.60181831	0.00	0.00	0.00
	19,500.00	90.00	179.61	12,500.26	8,818.86	6,861.24	-6,869.03	-1,120.94	449,640.89	767,523.24	32.23402169	-103.60181832	0.00	0.00	0.00
	19,600.00	90.00	179.61	12,500.25	8,818.85	6,961.24	-6,969.03	-1,120.27	449,540.90	767,523.92	32.23374683	-103.60181833	0.00	0.00	0.00
	19,700.00	90.00	179.61	12,500.25	8,818.85	7,061.24	-7,069.02	-1,119.59	449,440.91	767,524.60	32.23347196	-103.60181834	0.00	0.00	0.00
	19,800.00	90.00	179.61	12,500.24	8,818.84	7,161.24	-7,169.02	-1,118.91	449,340.91	767,525.28	32.23319710	-103.60181835	0.00	0.00	0.00
	19,900.00	90.00	179.61	12,500.23	8,818.83	7,261.24	-7,269.02	-1,118.23	449,240.92	767,525.96	32.23292223	-103.60181836	0.00	0.00	0.00
	20,000.00	90.00	179.61	12,500.22	8,818.82	7,361.24	-7,369.02	-1,117.55	449,140.92	767,526.64	32.23264737	-103.60181836	0.00	0.00	0.00
	20,100.00	90.00	179.61	12,500.21	8,818.81	7,461.24	-7,469.01	-1,116.87	449,040.93	767,527.31	32.23237251	-103.60181837	0.00	0.00	0.00
	20,200.00	90.00	179.61	12,500.21	8,818.81	7,561.24	-7,569.01	-1,116.19	448,940.93	767,527.99	32.23209764	-103.60181838	0.00	0.00	0.00
	20,300.00	90.00	179.61	12,500.20	8,818.80	7,661.24	-7,669.01	-1,115.52	448,840.94	767,528.67	32.23182278	-103.60181839	0.00	0.00	0.00
	20,400.00	90.00	179.61	12,500.19	8,818.79	7,761.24	-7,769.01	-1,114.84	448,740.95	767,529.35	32.23154791	-103.60181840	0.00	0.00	0.00
	20,500.00	90.00	179.61	12,500.18	8,818.78	7,861.24	-7,869.00	-1,114.16	448,640.95	767,530.03	32.23127305	-103.60181840	0.00	0.00	0.00
	20,600.00	90.00	179.61	12,500.17	8,818.77	7,961.24	-7,969.00	-1,113.48	448,540.96	767,530.71	32.23099818	-103.60181841	0.00	0.00	0.00
	20,700.00	90.00	179.61	12,500.16	8,818.76	8,061.24	-8,069.00	-1,112.80	448,440.96	767,531.38	32.23072332	-103.60181842	0.00	0.00	0.00

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)
	20,800.00	90.00	179.61	12,500.16	8,818.76	8,161.24	-8,169.00	-1,112.12	448,340.97	767,532.06	32.23044845	-103.60181843	0.00	0.00	0.00
	20,900.00	90.00	179.61	12,500.15	8,818.75	8,261.24	-8,269.00	-1,111.45	448,240.97	767,532.74	32.23017359	-103.60181844	0.00	0.00	0.00
	21,000.00	90.00	179.61	12,500.14	8,818.74	8,361.24	-8,368.99	-1,110.77	448,140.98	767,533.42	32.22989872	-103.60181844	0.00	0.00	0.00
	21,100.00	90.00	179.61	12,500.13	8,818.73	8,461.24	-8,468.99	-1,110.09	448,040.98	767,534.10	32.22962385	-103.60181845	0.00	0.00	0.00
	21,200.00	90.00	179.61	12,500.12	8,818.72	8,561.24	-8,568.99	-1,109.41	447,940.99	767,534.78	32.22934899	-103.60181846	0.00	0.00	0.00
	21,300.00	90.00	179.61	12,500.12	8,818.72	8,661.24	-8,668.99	-1,108.73	447,841.00	767,535.46	32.22907412	-103.60181847	0.00	0.00	0.00
	21,400.00	90.00	179.61	12,500.11	8,818.71	8,761.24	-8,768.98	-1,108.05	447,741.00	767,536.13	32.22879926	-103.60181847	0.00	0.00	0.00
	21,500.00	90.00	179.61	12,500.10	8,818.70	8,861.24	-8,868.98	-1,107.37	447,641.01	767,536.81	32.22852439	-103.60181848	0.00	0.00	0.00
	21,600.00	90.00	179.61	12,500.09	8,818.69	8,961.24	-8,968.98	-1,106.70	447,541.01	767,537.49	32.22824953	-103.60181849	0.00	0.00	0.00
	21,700.00	90.00	179.61	12,500.08	8,818.68	9,061.24	-9,068.98	-1,106.02	447,441.02	767,538.17	32.22797466	-103.60181850	0.00	0.00	0.00
	21,800.00	90.00	179.61	12,500.07	8,818.67	9,161.24	-9,168.97	-1,105.34	447,341.02	767,538.85	32.22769980	-103.60181851	0.00	0.00	0.00
	21,900.00	90.00	179.61	12,500.07	8,818.67	9,261.24	-9,268.97	-1,104.66	447,241.03	767,539.53	32.22742493	-103.60181851	0.00	0.00	0.00
	22,000.00	90.00	179.61	12,500.06	8,818.66	9,361.24	-9,368.97	-1,103.98	447,141.04	767,540.20	32.22715007	-103.60181852	0.00	0.00	0.00
	22,100.00	90.00	179.61	12,500.05	8,818.65	9,461.24	-9,468.97	-1,103.30	447,041.04	767,540.88	32.22687520	-103.60181853	0.00	0.00	0.00
	22,200.00	90.00	179.61	12,500.04	8,818.64	9,561.24	-9,568.97	-1,102.63	446,941.05	767,541.56	32.22660034	-103.60181854	0.00	0.00	0.00
	22,300.00	90.00	179.61	12,500.03	8,818.63	9,661.24	-9,668.96	-1,101.95	446,841.05	767,542.24	32.22632547	-103.60181855	0.00	0.00	0.00
	22,400.00	90.00	179.61	12,500.03	8,818.63	9,761.24	-9,768.96	-1,101.27	446,741.06	767,542.92	32.22605061	-103.60181855	0.00	0.00	0.00
	22,500.00	90.00	179.61	12,500.02	8,818.62	9,861.24	-9,868.96	-1,100.59	446,641.06	767,543.60	32.22577574	-103.60181856	0.00	0.00	0.00
	22,600.00	90.00	179.61	12,500.01	8,818.61	9,961.24	-9,968.96	-1,099.91	446,541.07	767,544.28	32.22550088	-103.60181857	0.00	0.00	0.00
	22,700.00	90.00	179.61	12,500.00	8,818.60	10,061.24	-10,068.95	-1,099.23	446,441.08	767,544.95	32.22522601	-103.60181858	0.00	0.00	0.00
Tres Equis 5-8 State 401H - PBH	22,705.32	90.00	179.61	12,500.00	8,818.60	10,066.55	-10,074.27	-1,099.20	446,435.76	767,544.99	32.22521140	-103.60181858	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	12,000.000	1/100.000 - 12.25 – 8.75 – 6.75 – 9.625 – 7 – 5				A001Mb_MWD		Tres Equis 5-8 State 401H / Coterra Tres Equis 5-8
	1	12,000.000	22,724.050	1/100.000	6	5		A008Mb_MWD+IFR1+MS		Tres Equis 5-8 State 401H / Coterra Tres Equis 5-8

EOU Geometry:

End MD (ft)	Hole Size (in)	Casing Size (in)	Name
1,367.300	17.500	13.375	
5,001.300	12.250	9.625	
11,818.300	8.750	7.000	
22,705.316	6.000	5.000	

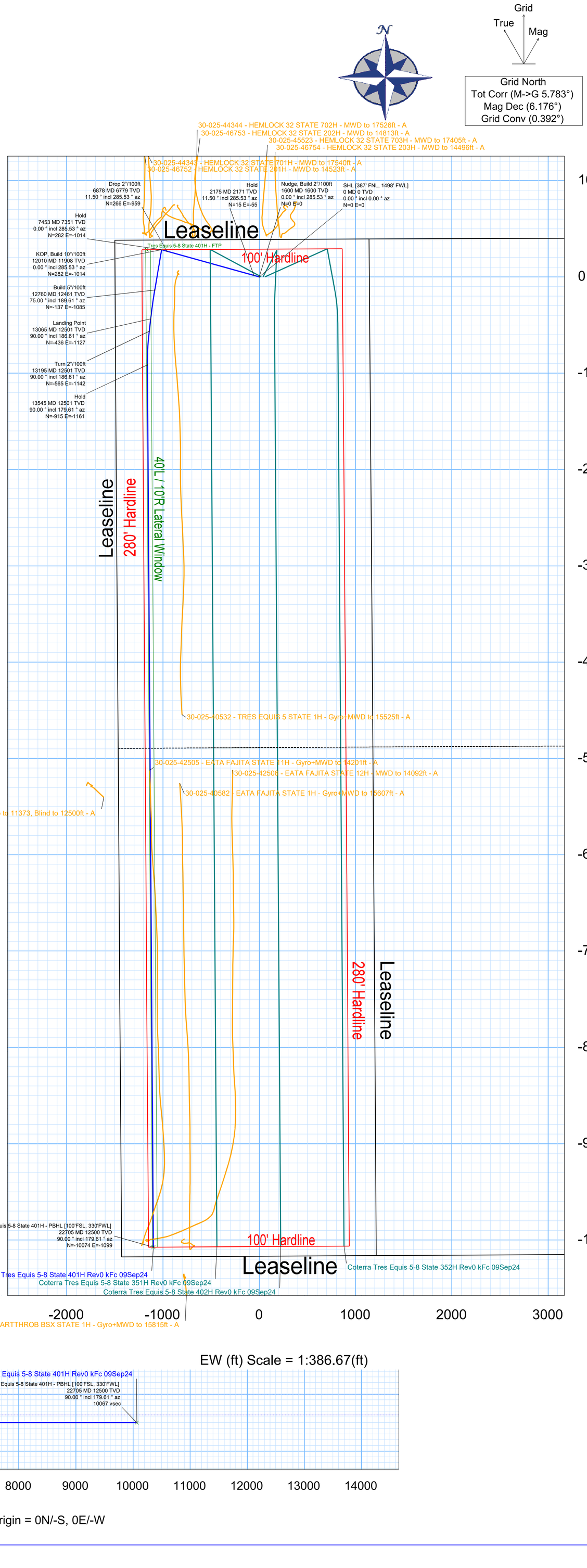
COTERRA Rev0

Borehole:	Well:	Field:	Structure:
Tres Equis 5-8 State 401H	Tres Equis 5-8 State 401H	NM Lea County (NAD 83)	Coterra Tres Equis 5 State Pad Lot 3

Gravity & Magnetic Parameters					Surface Location	NAD83 New Mexico State Plane, Eastern Zone, US Feet				Miscellaneous			
Model:	HDGM 2024	Dip:	59.781°	Date:	06-May-2024	Lat:	N 32 15 10.37	Northing:	456509.69ftUS	Grid Conv:	0.3924°	Slot:	Tres Equis 5-8 State 401H
MagDec:	6.176°	FS:	47349.971nT	Gravity FS:	998.438mgn (9.80665 Based)	Lon:	W 103 35 52.95	Easting:	768644.15ftUS	Scale Fact:	0.99996827	TVD Ref:	RKB (3681.400 ft above MSL)
												Plan:	Coterra Tres Equis 5-8 State 401H Rev0 kFc 09Sep24

Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHL [387' FNL, 1498' FWL]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Rustler	1285.00	0.00	285.53	1285.00	0.00	0.00	0.00	0.00
A3 Top	1370.00	0.00	285.53	1370.00	0.00	0.00	0.00	0.00
A3 Base	1510.00	0.00	285.53	1510.00	0.00	0.00	0.00	0.00
Nudge, Build 2°/100ft	1600.00	0.00	285.53	1600.00	0.00	0.00	0.00	0.00
Top Salt/Salado	1795.15	3.90	285.53	1795.00	-1.82	1.78	-6.40	2.00
Hold	2174.91	11.50	285.53	2171.06	-15.77	15.40	-55.39	2.00
Base Salt/Lamar	5204.66	11.50	285.53	5140.00	-181.45	177.12	-637.28	0.00
Top Delaware Sands/Bell Canyon	5235.27	11.50	285.53	5170.00	-183.13	178.75	-643.16	0.00
Cherry Canyon	6556.79	11.50	285.53	6465.00	-255.39	249.29	-896.97	0.00
Drop 2°/100ft	6877.69	11.50	285.53	6779.46	-272.94	266.42	-958.61	0.00
Hold	7452.60	0.00	285.53	7350.52	-288.72	281.82	-1014.00	2.00
Brushy Canyon	7587.08	0.00	285.53	7485.00	-288.72	281.82	-1014.00	0.00
Basal Brushy Canyon	8892.08	0.00	285.53	8790.00	-288.72	281.82	-1014.00	0.00
Bone Spring Lime	9127.08	0.00	285.53	9025.00	-288.72	281.82	-1014.00	0.00
Leonard/Avalon Sand	9307.08	0.00	285.53	9205.00	-288.72	281.82	-1014.00	0.00
Avalon Shale	9322.08	0.00	285.53	9220.00	-288.72	281.82	-1014.00	0.00
1st Bone Spring Sand	10247.08	0.00	285.53	10145.00	-288.72	281.82	-1014.00	0.00
2nd Bone Spring Sand	10932.08	0.00	285.53	10830.00	-288.72	281.82	-1014.00	0.00
KOP, Build 10°/100ft	12009.60	0.00	285.53	11907.52	-288.72	281.82	-1014.00	0.00
3rd Bone Spring Sand	12117.72	10.81	189.61	12015.00	-278.70	271.79	-1015.70	10.00
Wolfcamp	12539.43	52.98	189.61	12365.00	-64.17	57.01	-1052.06	10.00
Build 5°/100ft	12759.60	75.00	189.61	12460.95	129.50	-136.89	-1084.89	10.00
Landing Point	13065.41	90.00	186.61	12500.77	428.49	-436.17	-1127.40	5.00
Turn 2°/100ft	13195.41	90.00	186.61	12500.77	557.52	-565.31	-1142.37	0.00
Hold	13545.35	90.00	179.61	12500.75	906.59	-914.51	-1161.34	2.00
Tres Equis 5-8 State 401H - PBHL [100'FSL, 330'FWL]	22705.32	90.00	179.61	12500.00	10066.55	-10074.27	-1099.20	0.00



Vertical Section (ft) Azim = 179.61° Scale = 1:652.07(ft) Origin = 0N/-S, 0E/-W

1. Geological Formations

TVD of target 12,500
MD at TD 22,705

Pilot Hole TD N/A
Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	1285	N/A	
Top of Salt	1795	N/A	
Base of Salt/Lamar	5140	N/A	
Top Delaware Sands/Bell Canyon	5170	Hydrocarbons	
Cherry Canyon	6465	Hydrocarbons	
Brushy Canyon	7485	Hydrocarbons	
Basal Brushy Canyon	8790	N/A	
Bone Spring Lime	9025	N/A	
Leondard/Avalon Sand	9205	Hydrocarbons	
Avalon Shale	9220	Hydrocarbons	
1st Bone Spring Sand	10145	Hydrocarbons	
2nd Bone Spring Sand	10830	Hydrocarbons	
3rd Bone Spring Sand	12015	Hydrocarbons	
Wolfcamp	12365	Hydrocarbons	
Wolfcamp - Target	12500	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
14 3/4	0	1370	1370	10-3/4"	40.50	J-55	BT&C	2.66	5.27	11.34
9 7/8	0	12759	12460	7-5/8"	29.70	L-80	LT&C	2.46	1.18	1.53
6 3/4	0	11959	11959	5-1/2"	23.00	L-80	BT&C	1.44	1.16	2.36
6 3/4	11959	22705	12500	5"	18.00	P-110	BT&C	1.66	1.68	59.56
					BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet

TVD was used on all calculations.
All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

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

3. Cementing Program

Casing	# Sks	Wt. lb/gal	Yld ft3/sack	H2O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	532	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	142	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate	1008	10.30	3.64	22.18	12.5	Lead: Tuned Light + LCM
	198	14.80	1.36	6.57	9.5	Tail: Class C + Retarder
Production	1385	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	49
Production	12559	25

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

4. Pressure Control Equipment

	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.

BOP installed and tested before drilling which hole?	Size	Min Required WP	Type		Tested To
9 7/8	**13 5/8**	**10M**	Annular	5M	50% of working pressure
			Blind Ram		10M
			Pipe Ram	X	
			Double Ram	X	
			Other		
6 3/4	**13 5/8**	**10M**	Annular	5M	50% of working pressure
			Blind Ram		10M
			Pipe Ram	X	
			Double Ram	X	
			Other		

X	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.	
X	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.	
	N	Are anchors required by manufacturer?

5. Mud Program

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0' to 1370'	Fresh Water	7.83 - 8.33	28	N/C
1370' to 12759'	Brine Diesel Emulsion	8.50 - 9.00	30-35	N/C
12759' to 22705'	OBM	12.00 - 12.50	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.

The Brine Emulsion is completely saturated brine fluid that ties diesel into itself to lower the weight of the fluid. The drilling fluid is completely salt saturated.

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

6. Logging and Testing Procedures

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

Additional Logs Planned	Interval

7. Drilling Conditions

Condition	
BH Pressure at deepest TVD	8125 psi
Abnormal Temperature	No

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
X	H2S is present
X	H2S plan is attached

8. Other Facets of Operation

9. Wellhead

BOPE Additional Information & Testing

1. After running the first string of casing, a 10M BOP/BOPE system with 5M annular will be installed. BOPs will be tested according to Onshore Order #2. BOPE will be tested to full rated pressure (10K for all BOPE except the annular, which is tested to 5K). For the low test, the system will be tested to 250 psi.

2. All BOP equipment will be tested utilizing a conventional test plug.

3. A remote kill line is included in the BOPE system

4. All casing strings will be tested per Onshore Order #2, to 0.22 psi/ft or 1,500 psi, whichever is greater, not to exceed 70% of casing burst.

5. If well conditions dictate, conventional slips will be set and BOPE will be tested to appropriate pressures based on permitted pressure requirements.

Additional Well Control Notes

1. In the event wellbore pressure encroaches to the maximum rated pressure of the annular, primary pressure control will be switched to the higher rated components (i.e., switch from annular to pipe rams) – upper pipe rams will be closed, and the annular opened in order to not exceed maximum rated pressures.

Wellhead

1. The multi-bowl wellhead will be installed by a vendor representative. A copy of the installation instructions has been sent to the BLM field office.

2. A packoff will be installed after running and cementing the production casing. This packoff will be tested to 10K psi.