

Well Name: DOS EQUIS 12-13 FEDERAL COM	Well Location: T24S / R32E / SEC 12 / NWNW /	County or Parish/State:
Well Number: 76H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM02889	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002550126	Well Status: Approved Application for Permit to Drill	Operator: CIMAREX ENERGY COMPANY

Notice of Intent

Sundry ID: 2763423

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 11/28/2023

Time Sundry Submitted: 06:53

Date proposed operation will begin: 02/01/2024

Procedure Description: Casing change from previously approved APD. Bottom hole change from previously approved APD.

NOI Attachments

Procedure Description

Dos_Equis_12_13_76H_Sundry_Submittal_11282023_20231211130717.pdf

Conditions of Approval

Specialist Review

12_24_32_B_Sundry_ID_2763423_Dos_Equis_12_13_Federal_Com_76H_Lea_NM02889_CIMAREX_ENERGY_COM
PANY_13_22g_2_27_2024_LV_20240228091218.pdf

Dos_Equis_12_13_Fed_Com_76H_Dr_COA_20240228091218.pdf

Well Name: DOS EQUIS 12-13 FEDERAL COM	Well Location: T24S / R32E / SEC 12 / NWNE /	County or Parish/State:
Well Number: 76H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM02889	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002550126	Well Status: Approved Application for Permit to Drill	Operator: CIMAREX ENERGY COMPANY

Operator

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: SHELLY BOWEN	Signed on: DEC 11, 2023 01:07 PM
Name: CIMAREX ENERGY COMPANY	
Title: Regulatory Analyst	
Street Address: 6001 DEAUVILLE BLVD STE 300N	
City: MIDLAND	State: TX
Phone: (432) 620-1644	
Email address: DL_PBUREGULATORY@COTERRA.COM	

Field

Representative Name:		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		

BLM Point of Contact

BLM POC Name: LONG VO	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5759885402	BLM POC Email Address: LVO@BLM.GOV
Disposition: Approved	Disposition Date: 02/28/2024
Signature: Long Vo	

Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well
☐ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

3a. Address 3b. Phone No. (include area code)

4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No.

9. API Well No.

10. Field and Pool or Exploratory Area

11. Country or Parish, State

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION				
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off	
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity	
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other	
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon		
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal		

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be perfonned or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Title

Signature

Date

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

Additional Information

Location of Well

0. SHL: NWNE / 300 FNL / 2430 FEL / TWSP: 24S / RANGE: 32E / SECTION: 12 / LAT: 32.238633 / LONG: -103.627645 (TVD: 0 feet, MD: 0 feet)

PPP: NWNE / 300 FNL / 2000 FEL / TWSP: 24S / RANGE: 32E / SECTION: 12 / LAT: 32.238634 / LONG: -103.626255 (TVD: 9283 feet, MD: 9313 feet)

PPP: NWNE / 0 FNL / 2100 FEL / TWSP: 24S / RANGE: 32E / SECTION: 13 / LAT: 32.224944 / LONG: -103.626589 (TVD: 9600 feet, MD: 14471 feet)

PPP: NESE / 2640 FNL / 2000 FEL / TWSP: 24S / RANGE: 32E / SECTION: 12 / LAT: 32.2322 / LONG: -103.626258 (TVD: 9600 feet, MD: 11688 feet)

BHL: SWSE / 100 FSL / 2100 FEL / TWSP: 24S / RANGE: 32E / SECTION: 13 / LAT: 32.210697 / LONG: -103.626275 (TVD: 9600 feet, MD: 19654 feet)

CONFIDENTIAL

Cimarex Energy Co. respectfully requests to change the approved APD as follows:

Well Name	API	S/T/R	SHL Old	SHL New	S/T/R	BHL Old	BHL New	TVD Old	TVD New	MD Old	MD New
Dos Equis 12-13 Fed Com 52H	30-025-50124	12/24S/32E	195 FNL/ 1480 FWL	NO CHANGE	13/24S/32E	100 FSL/1520 FWL	100 FSL/660 FWL	9,600'	9,980'	19,753	20,072
Dos Equis 12-13 Fed Com 51H	30-025-50123	12/24S/32E	195 FNL/ 1500 FWL	NO CHANGE	13/24S/32E	100 FSL/1540 FWL	100 FSL/990 FWL	9,600'	11,550'	19,665	21,677
Dos Equis 12-13 Fed Com 50H	30-025-50122	12/24S/32E	195 FNL/ 1520 FWL	NO CHANGE	13/24S/32E	100 FSL/1560 FWL	100 FSL/1388 FWL	12,900'	10,620'	23,019	20,654
Dos Equis 12-13 Fed Com 49H	30-025-50121	12/24S/32E	195 FNL/ 1540 FWL	195 FNL/1540 FWL	13/24S/32E	100 FSL/1430 FWL	100 FSL/1980 FWL	12,300'	9,980'	22,376	20,256
Dos Equis 12-13 Fed Com 48H	30-025-50120	12/24S/32E	255 FNL/1580 FWL	195 FNL/1560 FWL	13/24S/32E	100 FSL/1386 FWL	100 FSL/2310 FWL	12,390'	11,550'	22,379	21,551
Dos Equis 12-13 Fed Com 77H	30-025-50136	12/24S/32E	300 FNL/ 2450 FEL	NO CHANGE	13/24S/32E	100 FSL/2130 FEL	100 FSL/2588 FEL	12,900'	10,620'	22,970	20,825
Dos Equis 12-13 Fed Com 76H	30-025-50126	12/24S/32E	300 FNL/ 2430 FEL	NO CHANGE	13/24S/32E	100 FSL/2100 FEL	100 FSL/1980 FEL	9,600'	9,980'	19,654	20,141
Dos Equis 12-13 Fed Com 75H	30-025-50125	12/24S/32E	300 FNL/ 2410 FEL	NO CHANGE	13/24S/32E	100 FSL/2000 FEL	100 FSL/1650 FEL	9,600'	11,550'	19,510	21,718
Dos Equis 12-13 Fed Com 89H	30-025-50138	12/24S/32E	300 FNL/ 1510 FEL	NO CHANGE	13/24S/32E	100 FSL/990 FEL	100FSL/1275 FEL	9,600'	10,620'	19,595	20,753
Dos Equis 12-13 Fed Com 88H	30-025-50206	12/24S/32E	300 FNL/ 1490 FEL	NO CHANGE	13/24S/32E	100 FSL/330 FEL	100 FSL/660 FEL	9,600'	9,980'	19,706	20,186
Dos Equis 12-13 Fed Com 87H	30-025-50137	12/24S/32E	360 FNL/ 1450 FEL	300 FNL/ 1470 FEL	13/24S/32E	100FSL /1386 FEL	100 FSL/330 FEL	12,340'	11,550'	22,258	21,803

1. Geological Formations

TVD of target 10,100

Pilot Hole TD N/A

MD at TD 20,141

Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	1163	N/A	
Top of Salt	1545	N/A	
Base of Salt	4907	N/A	
Bell Canyon	4947	N/A	
Cherry Canyon	5874	N/A	
Brushy Canyon	7310	Hydrocarbons	
Basal Brushy Canyon	8631	Hydrocarbons	
Bone Spring Lime	8850	Hydrocarbons	
Leonard	9031	Hydrocarbons	
Avalon	9283	Hydrocarbons	
1st Bone Spring Sand	9982	Hydrocarbons	
1st Sand - Target	10100	Hydrocarbons	

2. Casing Program

Hole Size	Casing Depth From	Casing Depth To	Setting Depth TVD	Casing Size	Weight (lb/ft)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17 1/2	0	1213	1213	13-3/8"	48.00	H-40/J-55 Hybrid	ST&C	1.41	3.29	5.53
12 1/4	0	4970	4927	9-5/8"	40.00	HCK-55	LT&C	1.49	1.54	2.85
8 3/4	0	9555	9555	7"	29.00	L-80	LT&C	1.57	1.82	2.01
8 3/4	9555	10305	10060	7"	29.00	L-80	LT&C	1.49	1.73	40.08
6	9055	20141	10100	4-1/2"	11.60	N-80	LT&C	1.27	1.56	18.40
BLM Minimum Safety Factor								1.125	1	1.6 Dry 1.8 Wet

TVD was used on all calculations.

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

Cimarex Energy Co., Dos Equis 12-13 Federal Com 76H

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

3. Cementing Program

Casing	# Sk	Wt. lb/gal	Yld ft ³ /sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	588	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	158	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate	934	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
	291	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Production	293	10.30	3.64	22.18		Lead: Tuned Light + LCM
	125	14.80	1.36	6.57	9.5	Tail: Class C + Retarder
Completion System	1133	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	50
Production	4770	25
Completion System	4770	10

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

4. Pressure Control Equipment

A variance is requested for the use of a diverter on the surface casing. See attached for schematic.					
BOP installed and tested before drilling which hole?	Size	Min Required WP	Type		Tested To
12 1/4	13 5/8	2M	Annular	X	50% of working pressure
			Blind Ram		2M
			Pipe Ram		
			Double Ram	X	
			Other		
8 3/4	13 5/8	3M	Annular	X	50% of working pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram	X	
			Other		
6	13 5/8	5M	Annular	X	50% of working pressure
			Blind Ram		5M
			Pipe Ram	X	
			Double Ram	X	
			Other		

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

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 1213'	Fresh Water	7.83 - 8.33	28	N/C
1213' to 4970'	Brine Water	9.50 - 10.00	30-32	N/C
4970' to 10305'	Cut Brine or OBM	8.50 - 9.00	27-70	N/C
10605' to 20141'	OBM	9.00 - 9.50	50-70	N/C

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

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

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

Additional Logs Planned	Interval
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7. Drilling Conditions

Condition	
BH Pressure at deepest TVD	4989 psi
Abnormal Temperature	No

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

X	H ₂ S is present
X	H ₂ S plan is attached

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

A multi-bowl wellhead system will be utilized.

After running the 13-3/8" surface casing, a 13 5/8" BOP/BOPE system with a minimum working pressure of 5000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 5000 psi test. Annular will be tested to 50% of working pressure. The pressure test will be repeated at least every 30 days, as per Onshore Order No. 2.

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

The wellhead will be installed by a third-party welder while being monitored by the wellhead vendor representative.

All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type.

A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 5000 psi.

A solid steel body pack-off will be utilized after running and cementing the production casing. After installation the pack-off and lower flange will be pressure tested to 5000 psi.

All casing strings will be tested as per Onshore Order No.2 to at least 0.22 psi/ft or 1,500 whichever is greater and not to exceed 70% of casing burst.

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

Variance Request #1: Skid Rig after Cementing Surface Casing

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

Variance Request #4: Utilize Co-Flex Choke Line

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

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

SCALE
DRAWN BY: S.T.O. 12-16-19
REV: 3 N.R. 10-09-23
(UPDATE WELLBORE)



Coterra Dos Equis 12-13 Federal Com 76H Rev0 kFc 17Nov23 Proposal

Geodetic Report

Def Plan

Report Date: November 21, 2023 - 07:40 PM (UTC 0)
Client: COTERRA
Field: NM Lea County (NAD 83)
Structure / Slot: Coterra Dos Equis 12-13 Federal Com Pad 5 / Dos Equis 12-13 Federal
Well: Dos Equis 12-13 Federal Com 76H
Borehole: Dos Equis 12-13 Federal Com 76H
UBH / API#: Unknown / Unknown
Survey Name: Coterra Dos Equis 12-13 Federal Com 76H Rev0 kFc 17Nov23
Survey Date: November 21, 2023
Tort / AHD / DDI / ERD Ratio: 138.992' / 10832.984 ft / 6.478' / 1.073
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: 32°14'19.07868"N, 103°37'39.52233"W
Location Grid N/E Y/X: N 451265.020 RUS, E 759526.360 RUS
CRS Grid Convergence Angle: 0.376"
Grid Scale Factor: 0.99996361
Version / Patch: 2023.1.0.1

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 179.660 °(GRID North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3627.200 ft above MSL
Sealed / Ground Elevation: 3804.200 ft above MSL
Magnetic Declination: 6.211°
Total Gravity Field Strength: 998.438mgm (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 47446.142 nT
Magnetic Dip Angle: 59.792°
Declination Date: November 17, 2023
Magnetic Declination Model: HDGM 2022
North Reference: Grid North
Grid Convergence Used: 0.376"
Total Corr Mag North->Grid North: 5.834"
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (RUS)	Easting (RUS)	Latitude (°)	Longitude (°)	DLS (°/100ft)	BR (°/100ft)	TR (°/100ft)	
SHL [300° FNL, 2430° FEL]	0.00	0.00	177.12	0.00	-3.627.20	0.00	0.00	0.00	451,265.02	759,526.36	32.23863297	-103.62764509				
	100.00	0.00	81.91	100.00	-3.527.20	0.00	0.00	0.00	451,265.02	759,526.36	32.23863297	-103.62764509	0.00	0.00	0.00	
	200.00	0.00	81.91	200.00	-3.427.20	0.00	0.00	0.00	451,265.02	759,526.36	32.23863297	-103.62764509	0.00	0.00	0.00	
	300.00	0.00	81.91	300.00	-3.327.20	0.00	0.00	0.00	451,265.02	759,526.36	32.23863297	-103.62764509	0.00	0.00	0.00	
	400.00	0.00	81.91	400.00	-3.227.20	0.00	0.00	0.00	451,265.02	759,526.36	32.23863297	-103.62764509	0.00	0.00	0.00	
	500.00	0.00	81.91	500.00	-3.127.20	0.00	0.00	0.00	451,265.02	759,526.36	32.23863297	-103.62764509	0.00	0.00	0.00	
	600.00	0.00	81.91	600.00	-3.027.20	0.00	0.00	0.00	451,265.02	759,526.36	32.23863297	-103.62764509	0.00	0.00	0.00	
	700.00	0.00	81.91	700.00	-2.927.20	0.00	0.00	0.00	451,265.02	759,526.36	32.23863297	-103.62764509	0.00	0.00	0.00	
	800.00	0.00	81.91	800.00	-2.827.20	0.00	0.00	0.00	451,265.02	759,526.36	32.23863297	-103.62764509	0.00	0.00	0.00	
	900.00	0.00	81.91	900.00	-2.727.20	0.00	0.00	0.00	451,265.02	759,526.36	32.23863297	-103.62764509	0.00	0.00	0.00	
	1,000.00	0.00	81.91	1,000.00	-2.627.20	0.00	0.00	0.00	451,265.02	759,526.36	32.23863297	-103.62764509	0.00	0.00	0.00	
	1,100.00	0.00	81.91	1,100.00	-2.527.20	0.00	0.00	0.00	451,265.02	759,526.36	32.23863297	-103.62764509	0.00	0.00	0.00	
	1,163.00	0.00	81.91	1,163.00	-2.464.20	0.00	0.00	0.00	451,265.02	759,526.36	32.23863297	-103.62764509	0.00	0.00	0.00	
	1,200.00	0.00	81.91	1,200.00	-2.427.20	0.00	0.00	0.00	451,265.02	759,526.36	32.23863297	-103.62764509	0.00	0.00	0.00	
	1,300.00	0.00	81.91	1,300.00	-2.327.20	0.00	0.00	0.00	451,265.02	759,526.36	32.23863297	-103.62764509	0.00	0.00	0.00	
Rustler	1,400.00	0.00	81.91	1,400.00	-2.227.20	0.00	0.00	0.00	451,265.02	759,526.36	32.23863297	-103.62764509	0.00	0.00	0.00	
	1,500.00	0.00	81.91	1,500.00	-2.127.20	0.00	0.00	0.00	451,265.02	759,526.36	32.23863297	-103.62764509	0.00	0.00	0.00	
	1,545.00	0.00	81.91	1,545.00	-2.082.20	0.00	0.00	0.00	451,265.02	759,526.36	32.23863297	-103.62764509	0.00	0.00	0.00	
	1,600.00	0.00	81.91	1,600.00	-2.027.20	0.00	0.00	0.00	451,265.02	759,526.36	32.23863297	-103.62764509	0.00	0.00	0.00	
	1,700.00	0.00	81.91	1,700.00	-1.927.20	0.00	0.00	0.00	451,265.02	759,526.36	32.23863297	-103.62764509	0.00	0.00	0.00	
Nudge, Build 10°/100ft	1,800.00	0.00	81.91	1,800.00	-1.827.20	0.00	0.00	0.00	451,265.02	759,526.36	32.23863297	-103.62764509	0.00	0.00	0.00	
	1,900.00	2.00	81.91	1,899.98	-1.727.22	-0.24	0.25	1.73	451,265.27	759,528.09	32.23863361	-103.62763950	2.00	2.00	0.00	
	2,000.00	4.00	81.91	1,999.84	-1.627.36	-0.94	0.98	6.91	451,266.00	759,533.27	32.23863554	-103.62762273	2.00	2.00	0.00	
	2,100.00	6.00	81.91	2,099.45	-1.527.75	-2.12	2.21	15.54	451,267.23	759,541.90	32.23863875	-103.62759480	2.00	2.00	0.00	
	2,200.00	8.00	81.91	2,198.70	-1.428.50	-3.76	3.92	27.60	451,268.94	759,553.96	32.23864325	-103.62755574	2.00	2.00	0.00	
Hold	2,299.80	10.00	81.91	2,297.27	-1.329.93	-5.86	6.12	43.06	451,271.14	759,569.41	32.23864900	-103.62750572	2.00	2.00	0.00	
	2,300.00	10.00	81.91	2,297.47	-1.329.73	-5.87	6.12	43.09	451,271.14	759,569.45	32.23864902	-103.62750561	0.00	0.00	0.00	
	2,400.00	10.00	81.91	2,395.95	-1.231.25	-8.21	8.57	60.27	451,273.59	759,586.63	32.23865542	-103.62744998	0.00	0.00	0.00	
	2,500.00	10.00	81.91	2,494.43	-1.132.77	-10.55	11.01	77.46	451,276.03	759,603.82	32.23866182	-103.62739435	0.00	0.00	0.00	
	2,600.00	10.00	81.91	2,592.91	-1.034.29	-12.89	13.45	94.65	451,278.47	759,621.00	32.23866822	-103.62733873	0.00	0.00	0.00	
	2,700.00	10.00	81.91	2,691.39	-935.81	-15.23	15.89	111.83	451,280.91	759,638.19	32.23867463	-103.62728310	0.00	0.00	0.00	
	2,800.00	10.00	81.91	2,789.88	-837.32	-17.57	18.33	129.02	451,283.35	759,655.37	32.23868103	-103.62722747	0.00	0.00	0.00	
	2,900.00	10.00	81.91	2,888.36	-738.84	-19.91	20.78	146.20	451,285.80	759,672.56	32.23868743	-103.62717184	0.00	0.00	0.00	
	3,000.00	10.00	81.91	2,986.84	-640.36	-22.25	23.22	163.39	451,288.24	759,689.74	32.23869383	-103.62711621	0.00	0.00	0.00	
	3,100.00	10.00	81.91	3,085.32	-541.88	-24.59	25.66	180.57	451,290.68	759,706.92	32.23870023	-103.62706058	0.00	0.00	0.00	
	3,200.00	10.00	81.91	3,183.81	-443.40	-26.93	28.10	197.76	451,293.12	759,724.11	32.23870663	-103.62700496	0.00	0.00	0.00	
	3,300.00	10.00	81.91	3,282.29	-344.91	-29.27	30.54	214.94	451,295.56	759,741.29	32.23871304	-103.62694933	0.00	0.00	0.00	
	3,400.00	10.00	81.91	3,380.77	-246.43	-31.61	32.99	232.13	451,298.01	759,758.48	32.23871944	-103.62689370	0.00	0.00	0.00	
	3,500.00	10.00	81.91	3,479.25	-147.95	-33.95	35.43	249.31	451,300.45	759,775.66	32.23872584	-103.62683807	0.00	0.00	0.00	
	3,600.00	10.00	81.91	3,577.73	-49.47	-36.29	37.87	266.50	451,302.89	759,792.85	32.23873224	-103.62678244	0.00	0.00	0.00	
	3,700.00	10.00	81.91	3,676.21	49.01	-38.63	40.31	283.68	451,305.33	759,810.03	32.23873864	-103.62672681	0.00	0.00	0.00	
	3,800.00	10.00	81.91	3,774.70	147.50	-40.97	42.75	300.87	451,307.77	759,827.22	32.23874504	-103.62667118	0.00	0.00	0.00	
	3,900.00	10.00	81.91	3,873.18	245.98	-43.31	45.20	318.05	451,310.22	759,844.40	32.23875145	-103.62661556	0.00	0.00	0.00	
	4,000.00	10.00	81.91	3,971.66	344.46	-45.65	47.64	335.24	451,312.66	759,861.59	32.23875785	-103.62655993	0.00	0.00	0.00	
	4,100.00	10.00	81.91	4,070.14	442.94	-47.99	50.08	352.42	451,315.10	759,878.77	32.23876425	-103.62650430	0.00	0.00	0.00	
	4,200.00	10.00	81.91	4,168.62	541.42	-50.33	52.52	369.61	451,317.54	759,895.96	32.23877065	-103.62644867	0.00	0.00	0.00	
	4,300.00	10.00	81.91	4,267.11	639.91	-52.67	54.97	386.79	451,319.98	759,913.14	32.23877705	-103.62639304	0.00	0.00	0.00	
	4,400.00	10.00	81.91	4,365.59	738.39	-55.01	57.41	403.98	451,322.43	759,930.32	32.23878345	-103.62633741	0.00	0.00	0.00	
	4,500.00	10.00	81.91	4,464.07	836.87	-57.35	59.85	421.17	451,324.87	759,947.51	32.23878985	-103.62628178	0.00	0.00	0.00	
	4,600.00	10.00	81.91	4,562.55	935.35	-59.69	62.29	438.35	451,327.31	759,964.69	32.23879626	-103.62622616	0.00	0.00	0.00	
	4,700.00	10.00	81.91	4,661.03	1,033.83	-62.03	64.73	455.54	451,329.75	759,981.88	32.23880266	-103.62617053	0.00	0.00	0.00	
	4,800.00	10.00	81.91	4,759.52	1,132.32	-64.37	67.18	472.72	451,332.19	759,999.06	32.23880906	-103.62611490	0.00	0.00	0.00	
	4,900.00	10.00	81.91	4,858.00	1,230.80	-66.71	69.62	489.91	451,334.64	760,016.25	32.23881546	-103.62605927	0.00	0.00	0.00	
	Lamar Bell Canyon	4,949.76	10.00	81.91	4,907.00	1,270.80	-67.87	70.83	498.46	451,335.85	760,024.80	32.23881864	-103.62601159	0.00	0.00	0.00
		4,990.37	10.00	81.91	4,947.00	1,319.80	-68.82	71.83	505.44	451,336.84	760,031.78	32.23882124	-103.62600900	0.00	0.00	0.00
		5,000.00	10.00	81.91	4,956.48	1,329.28	-69.05	72.06	507.09	451,337.08	760,033.43	32.23882186	-103.62600364	0.00	0.00	0.00
		5,100.00	10.00	81.91	5,054.96	1,427.76	-71.39	74.50	524.28	451,339.52	760,050.62	32.23882826	-103.62594801	0.00	0.00	0.00
		5,115.53	10.00	81.91	5,070.25	1,443.05	-71.75	74.88	526.94	451,339.90	760,053.28	32.23882926	-103.62593938	0.00	0.00	0.00
		5,200.00	8.31	81.91	5,153.65	1,526.45	-73.56	76.77	540.25	451,341.79	760,066.58	32.23883421	-103.62598632	2.00	-2.00	0.00
		5,300.00	8.31	81.91	5,252.83	1,625.83	-75.28	78.84	552.84	451,343.58	760,079.78	32.23883867	-103.62593067	2.00	-2.00	0.00
5,400.00		4.31	81.91	5,352.40	1,725.20	-76.53	79.86	561.99	451,344.88	760,088.33	32.23884231	-103.62588593	2.00	-2.00	0.00	
5,500.00		2.31	81.91	5,452.23	1,825.03	-77.00	80.67	567.70	451,345.69	760,094.04	32.23884444	-103.62580744	2.00	-2.00	0.00	
5,600.00		0.31	81.91	5,552.19	1,924.99	-77.61	80.99	568.96	451,346.01	760,096.30	32.23884528	-103.62580014	2.00	-2.00	0.00	

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (RUS)	Easting (RUS)	Latitude (°)	Longitude (°)	DLS (°100ft)	BR (°100ft)	TR (°100ft)
Avalon	9,100.00	0.00	81.91	9,052.19	5,424.99	-77.62	81.00	570.00	451,346.02	760,096.34	32.23884529	-103.62580001	0.00	0.00	0.00
	9,200.00	0.00	81.91	9,152.19	5,524.99	-77.62	81.00	570.00	451,346.02	760,096.34	32.23884529	-103.62580001	0.00	0.00	0.00
	9,300.00	0.00	81.91	9,252.19	5,624.99	-77.62	81.00	570.00	451,346.02	760,096.34	32.23884529	-103.62580001	0.00	0.00	0.00
	9,330.81	0.00	81.91	9,283.00	5,655.80	-77.62	81.00	570.00	451,346.02	760,096.34	32.23884529	-103.62580001	0.00	0.00	0.00
	9,400.00	0.00	81.91	9,352.19	5,724.99	-77.62	81.00	570.00	451,346.02	760,096.34	32.23884529	-103.62580001	0.00	0.00	0.00
KOP, Build 10' 100ft	9,500.00	0.00	81.91	9,452.19	5,824.99	-77.62	81.00	570.00	451,346.02	760,096.34	32.23884529	-103.62580001	0.00	0.00	0.00
	9,555.33	0.00	81.91	9,507.52	5,889.32	-77.62	81.00	570.00	451,346.02	760,096.34	32.23884529	-103.62580001	0.00	0.00	0.00
	9,600.00	4.47	184.66	9,552.15	5,924.95	-75.88	79.27	569.86	451,344.28	760,096.20	32.23884053	-103.62580050	10.00	10.00	0.00
	9,700.00	14.47	184.66	9,650.66	6,023.46	-69.52	62.89	568.52	451,327.91	760,094.86	32.23879555	-103.62580517	10.00	10.00	0.00
	9,800.00	24.47	184.66	9,744.83	6,117.63	-26.36	29.72	565.82	451,294.74	760,092.16	32.23870441	-103.62581462	10.00	10.00	0.00
1st BS SS	9,900.00	34.47	184.66	9,831.78	6,204.58	22.58	-19.25	561.83	451,245.77	760,088.17	32.23856989	-103.62582857	10.00	10.00	0.00
	10,000.00	44.47	184.66	9,908.88	6,281.68	85.83	-82.52	556.67	451,182.50	760,083.01	32.23839607	-103.62584659	10.00	10.00	0.00
	10,100.00	54.47	184.66	9,973.78	6,346.58	161.45	-158.18	550.51	451,106.85	760,076.84	32.23819824	-103.62586814	10.00	10.00	0.00
	10,114.39	54.91	184.66	9,982.00	6,354.80	173.21	-169.96	549.55	451,095.07	760,075.89	32.23815589	-103.62587150	10.00	10.00	0.00
	10,200.00	64.47	184.66	10,024.52	6,397.32	247.14	-243.92	543.52	451,021.11	760,069.86	32.23795270	-103.62589257	10.00	10.00	0.00
Build 5' 100ft	10,300.00	74.47	184.66	10,059.55	6,432.35	340.32	-337.14	535.92	450,927.89	760,062.26	32.23769661	-103.62591913	10.00	10.00	0.00
	10,305.33	75.00	184.66	10,060.95	6,433.75	345.43	-342.26	535.50	450,922.77	760,061.84	32.23768255	-103.62592059	10.00	10.00	0.00
	10,400.00	79.73	184.66	10,081.65	6,454.45	437.44	-434.31	528.00	450,830.72	760,054.34	32.23742967	-103.62594681	5.00	5.00	0.00
	10,500.00	84.73	184.66	10,095.16	6,467.96	536.11	-533.04	519.95	450,732.00	760,046.29	32.23715847	-103.62597493	5.00	5.00	0.00
	10,600.00	89.73	184.66	10,099.99	6,472.79	635.58	-632.56	511.84	450,632.49	760,038.18	32.23688507	-103.62600329	5.00	5.00	0.00
Landing Point	10,605.33	90.00	184.66	10,100.00	6,472.80	640.89	-637.87	511.41	450,627.18	760,037.75	32.23687047	-103.62600480	0.00	0.00	0.00
	10,700.00	90.00	184.66	10,100.00	6,472.80	735.20	-732.23	503.72	450,532.82	760,030.06	32.23661127	-103.62603168	0.00	0.00	0.00
	10,800.00	90.00	184.66	10,100.00	6,472.80	834.82	-831.90	495.59	450,433.16	760,021.93	32.23633747	-103.62606008	0.00	0.00	0.00
	10,900.00	90.00	184.66	10,100.00	6,472.80	934.44	-931.57	487.47	450,333.49	760,013.81	32.23606366	-103.62608847	0.00	0.00	0.00
	11,000.00	90.00	184.66	10,100.00	6,472.80	1,034.06	-1,031.24	479.34	450,233.82	760,005.69	32.23578986	-103.62611687	0.00	0.00	0.00
Turn 2' 100ft	11,100.00	90.00	184.66	10,100.00	6,472.80	1,133.68	-1,130.91	471.22	450,134.16	759,997.56	32.23551606	-103.62614526	0.00	0.00	0.00
	11,140.33	90.00	184.66	10,100.00	6,472.80	1,173.85	-1,171.10	467.94	450,093.97	759,994.29	32.23540584	-103.62615671	0.00	0.00	0.00
	11,200.00	90.00	183.47	10,100.00	6,472.80	1,233.35	-1,230.62	463.47	450,090.06	759,990.06	32.23524212	-103.62617195	0.00	0.00	0.00
	11,300.00	90.00	181.47	10,100.00	6,472.80	1,333.22	-1,330.52	459.41	449,934.55	759,985.75	32.23496760	-103.62618770	2.00	0.00	-2.00
	11,390.33	90.00	179.66	10,100.00	6,472.80	1,423.54	-1,420.84	458.52	449,844.23	759,984.87	32.23471937	-103.62619249	2.00	0.00	-2.00
Hold	11,400.00	90.00	179.66	10,100.00	6,472.80	1,433.21	-1,430.51	458.58	449,834.56	759,984.92	32.23469278	-103.62619251	0.00	0.00	0.00
	11,500.00	90.00	179.66	10,100.00	6,472.80	1,533.21	-1,530.51	459.18	449,734.57	759,985.52	32.23441792	-103.62619272	0.00	0.00	0.00
	11,600.00	90.00	179.66	10,100.00	6,472.80	1,633.21	-1,630.51	459.77	449,634.57	759,986.11	32.23414305	-103.62619293	0.00	0.00	0.00
	11,700.00	90.00	179.66	10,100.00	6,472.80	1,733.21	-1,730.51	460.36	449,534.58	759,986.70	32.23386819	-103.62619314	0.00	0.00	0.00
	11,800.00	90.00	179.66	10,100.00	6,472.80	1,833.21	-1,830.51	460.95	449,434.58	759,987.30	32.23359332	-103.62619335	0.00	0.00	0.00
Pool MNM0002889 exit to NMN	11,900.00	90.00	179.66	10,100.00	6,472.80	1,933.21	-1,930.51	461.55	449,334.59	759,987.85	32.23331846	-103.62619356	0.00	0.00	0.00
	12,000.00	90.00	179.66	10,100.00	6,472.80	2,033.21	-2,030.50	462.14	449,234.59	759,988.48	32.23304359	-103.62619377	0.00	0.00	0.00
	12,100.00	90.00	179.66	10,100.00	6,472.80	2,133.21	-2,130.50	462.74	449,134.60	759,989.08	32.23276873	-103.62619398	0.00	0.00	0.00
	12,200.00	90.00	179.66	10,100.00	6,472.80	2,233.21	-2,230.50	463.33	449,034.60	759,989.67	32.23249387	-103.62619419	0.00	0.00	0.00
	12,300.00	90.00	179.66	10,100.00	6,472.80	2,333.21	-2,330.50	463.92	448,934.61	759,990.26	32.23221900	-103.62619440	0.00	0.00	0.00
Turn 2' 100ft	12,307.00	90.00	179.66	10,100.00	6,472.80	2,340.21	-2,337.50	463.96	448,927.61	759,990.31	32.23219976	-103.62619442	0.00	0.00	0.00
	12,400.00	90.00	179.66	10,100.00	6,472.80	2,433.21	-2,430.50	464.52	448,834.62	759,990.86	32.23194414	-103.62619461	0.00	0.00	0.00
	12,500.00	90.00	179.66	10,100.00	6,472.80	2,533.21	-2,530.50	465.11	448,734.62	759,991.45	32.23168927	-103.62619482	0.00	0.00	0.00
	12,600.00	90.00	179.66	10,100.00	6,472.80	2,633.21	-2,630.49	465.70	448,634.63	759,992.04	32.23139441	-103.62619503	0.00	0.00	0.00
	12,700.00	90.00	179.66	10,100.00	6,472.80	2,733.21	-2,730.49	466.30	448,534.63	759,992.64	32.23111954	-103.62619524	0.00	0.00	0.00
Hold	12,800.00	90.00	179.66	10,100.00	6,472.80	2,833.21	-2,830.49	466.89	448,434.64	759,993.23	32.23084468	-103.62619545	0.00	0.00	0.00
	12,900.00	90.00	179.66	10,100.00	6,472.80	2,933.21	-2,930.49	467.48	448,334.64	759,993.83	32.23056981	-103.62619566	0.00	0.00	0.00
	13,000.00	90.00	179.66	10,100.00	6,472.80	3,033.21	-3,030.49	468.08	448,234.65	759,994.42	32.23029495	-103.62619587	0.00	0.00	0.00
	13,100.00	90.00	179.66	10,100.00	6,472.80	3,133.21	-3,130.48	468.67	448,134.66	759,995.01	32.23002008	-103.62619608	0.00	0.00	0.00
	13,200.00	90.00	179.66	10,100.00	6,472.80	3,233.21	-3,230.48	469.26	448,034.66	759,995.60	32.22974521	-103.62619629	0.00	0.00	0.00
Turn 2' 100ft	13,300.00	90.00	179.66	10,100.00	6,472.80	3,333.21	-3,330.48	469.86	447,934.67	759,996.20	32.22947035	-103.62619650	0.00	0.00	0.00
	13,400.00	90.00	179.66	10,100.00	6,472.80	3,433.21	-3,430.48	470.45	447,834.67						

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)
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Survey Type: Def Plan

Survey Error Model: ISWSA0 3 - D 95 % Confidence 2.7955 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Code	Vendor / Tool	Borehole / Survey
	1	0.000	9,500.000	1/100.000	—	—		A001Mb_MWD		Dos Equis 12-13 Federal Com 76H / Coterra Dos E
	1	9,500.000	20,226.904	1/100.000	—	—		A008Mb_MWD+IFR1+MS		Dos Equis 12-13 Federal Com 76H / Coterra Dos E

A default hole/casing size was used for A/C calculation because the wellbore size is not defined correctly.

EOU Geometry:

End MD (ft)	Hole Size (in)	Casing Size (in)	Name
1,211.000	14.500	10.750	
	9.875	7.625	
	8.750	7.625	
20,141.334	6.750	5.000	



Coterra Dos Equis 12-13 Federal Com 76H Rev0 kFc 17Nov23 Anti-Collision Summary Report

Analysis Date-24hr Time: November 21, 2023 - 07:40 PM (UTC 0)
Client: COTERRA
Field: NM Lea County (NAD 83)
Structure: Coterra Dos Equis 12-13 Federal Com Pad 5
Slot: Dos Equis 12-13 Federal Com 76H
Well: Dos Equis 12-13 Federal Com 76H
Borehole: Dos Equis 12-13 Federal Com 76H
Scan MD Range: 0.00ft ~ 20141.33ft

Analysis Method: 3D Least Distance
Reference Trajectory: Coterra Dos Equis 12-13 Federal Com 76H Rev0 kFc 17Nov23 (Def Plan)
Depth Interval: Every 10.00 Measured Depth (ft)
Rule Set: NAL Procedure: D&M AntiCollision Standard S002
Min Pts: Absolute minima indicated.
Engine Version: 2023.1.0.1
Database 1 Project: Dos Equis 12-13 Federal Com 76H-COTERRA

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

Offset Trajectories Summary

Offset Selection Criteria

Bounding box scan: minimum Ct-Ct separation <= 2000ft
Selection filters: Definitive Surveys - Definitive Plans - Definitive surveys exclude definitive plans
- All Non-Def Surveys when no Def-Survey is set in a borehole - All Non-Def Plans when no Def-Plan is set in a borehole

27 out of 30 are selected

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

Results highlighted in red: Sep-Factor <= 1.5

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

Coterra Dos Equis 12-13 Federal Com 77H Rev0 kFc 17Nov23 (DefinitivePlan)													Fail Major
20.00	16.50	17.50	3.50	N/A	MAS = 5.03 (m)	0.00	0.00	CtCt<=15m<15.00				Enter Alert	
20.00	16.50	17.50	3.50	24696.72	MAS = 5.03 (m)	23.00	23.00					WRP	
20.00	20.07	5.79	-0.07	1.49	OSF1.50	1230.00	1230.00		OSF<1.50			Enter Minor	
20.00	28.64	0.08	-8.63	1.00	OSF1.50	1800.00	1800.00					MinPt-CtCt	
20.02	28.78	0.00	-8.77	1.00	OSF1.50	1810.00	1810.00					Enter Major	
20.16	29.08	-0.06	-8.92	1.00	OSF1.50	1830.00	1830.00					MinPts	
20.28	29.23	-0.04	-8.95	1.00	OSF1.50	1840.00	1840.00			OSF>1.00		Exit Major	
31.73	32.48	9.24	-0.75	1.46	OSF1.50	2060.00	2059.64			OSF>1.50		Exit Minor	
132.47	41.72	103.82	90.75	4.97	OSF1.50	2690.00	2681.55	OSF>5.00				Exit Alert	
663.12	144.46	565.99	518.67	6.98	OSF1.50	9610.00	9562.11					MinPt-EOU	
663.26	144.61	566.01	518.64	6.97	OSF1.50	9630.00	9581.98					MinPt-ADP	
665.88	145.64	567.95	520.24	6.95	OSF1.50	9760.00	9707.87					MinPt-SF	
889.52	131.75	800.86	757.77	10.29	OSF1.50	11390.33	10100.00					MinPt-CtCt	
890.19	180.68	768.91	709.51	7.47	OSF1.50	13960.00	10100.00					MinPt-EOU	
891.05	181.68	769.10	709.37	7.44	OSF1.50	14000.00	10100.00					MinPt-ADP	
889.71	256.17	718.10	633.54	5.25	OSF1.50	16790.34	10100.00					MinPt-CtCt	
889.73	268.86	709.65	620.86	5.00	OSF1.50	17230.00	10100.00	OSF<5.00				Enter Alert	
889.84	356.05	651.64	533.79	3.76	OSF1.50	20141.33	10100.00					MinPts	
Coterra Dos Equis 12-13 Federal Com 75H Rev0 kFc 17Nov23 (DefinitivePlan)													Fail Minor
19.99	16.49	17.49	3.50	N/A	MAS = 5.03 (m)	0.00	0.00	CtCt<=15m<15.00				Enter Alert	
19.99	16.49	17.49	3.50	N/A	MAS = 5.03 (m)	23.00	23.00					WRP	
19.99	20.07	5.78	-0.07	1.49	OSF1.50	1230.00	1230.00		OSF<1.50			Enter Minor	
19.99	25.63	2.07	-5.64	1.13	OSF1.50	1600.00	1600.00					MinPt-CtCt	
20.14	26.07	1.92	-5.93	1.12	OSF1.50	1630.00	1630.00					MinPts	
20.25	26.22	1.94	-5.95	1.12	OSF1.50	1640.00	1640.00					MinPt-ADP	
28.69	28.96	8.55	-0.27	1.48	OSF1.50	1830.00	1830.00		OSF>1.50			Exit Minor	
147.95	146.74	49.29	1.21	1.51	OSF1.50	9555.33	9507.52					MinPt-CtCt	
147.96	146.77	49.26	1.19	1.51	OSF1.50	9560.00	9512.19					MinPts	
497.27	152.94	394.47	344.32	4.93	OSF1.50	10240.00	10040.49	OSF>5.00				Exit Alert	
1465.14	202.06	1329.60	1263.08	10.99	OSF1.50	15340.00	10100.00					MinPt-CtCt	
1478.19	228.67	1324.91	1249.52	9.79	OSF1.50	16230.00	10100.00					MinPt-EOU	
1487.16	350.04	1252.97	1137.13	6.41	OSF1.50	20141.33	10100.00					MinPts	
30-025-40791 - DOS EQUIS '12' FEDERAL COM 2H - Gyro+MWD to 12650ft (DefinitiveSurvey)													Warning Alert
457.06	32.81	454.56	424.25	#####	MAS = 10.00 (m)	0.00	0.00					Surface	
457.06	32.81	454.55	424.25	131531.88	MAS = 10.00 (m)	23.00	23.00					WRP	
449.50	32.81	431.79	416.69	29.39	MAS = 10.00 (m)	1620.00	1620.00					MinPts	
178.62	55.62	140.71	123.01	4.97	OSF1.50	3670.00	3646.67	OSF<5.00				Enter Alert	
80.98	73.68	31.03	7.30	1.65	OSF1.50	4694.25	4655.37					MinPt-CtCt	
81.15	74.24	30.82	6.91	1.64	OSF1.50	4730.00	4690.58					MinPt-EOU	
81.38	74.53	30.86	6.85	1.64	OSF1.50	4750.00	4710.27					MinPt-ADP	
81.54	74.68	30.92	6.86	1.64	OSF1.50	4760.00	4720.12					MinPt-SF	
141.46	83.77	84.78	57.68	2.56	OSF1.50	5910.00	5862.19					MinPt-CtCt	
143.05	101.72	74.41	41.33	2.12	OSF1.50	7670.00	7622.19					MinPt-CtCt	
145.25	107.10	73.02	38.15	2.05	OSF1.50	8130.00	8082.19					MinPt-EOU	
146.11	108.16	73.17	37.95	2.04	OSF1.50	8220.00	8172.19					MinPt-ADP	
149.68	111.16	74.74	38.52	2.03	OSF1.50	8470.00	8422.19					MinPt-SF	
137.94	124.89	53.84	13.05	1.66	OSF1.50	9930.00	9856.06					MinPts	
423.20	129.59	335.97	293.61	4.97	OSF1.50	10410.00	10083.39	OSF>5.00				Exit Alert	
10122.36	143.11	10026.12	9979.24	107.95	OSF1.50	20141.33	10100.00					TD	
30-025-40791-0100 - DOS EQUIS '12' FEDERAL COM 2H ST01 - MWD 10486ft to 13433ft (DefinitiveSurvey)													Warning Alert
457.06	32.81	454.56	424.25	#####	MAS = 10.00 (m)	0.00	0.00					Surface	
457.06	32.81	454.55	424.25	131531.88	MAS = 10.00 (m)	23.00	23.00					WRP	
449.50	32.81	431.79	416.69	29.39	MAS = 10.00 (m)	1620.00	1620.00					MinPts	
178.62	55.62	140.71	123.01	4.97	OSF1.50	3670.00	3646.67	OSF<5.00				Enter Alert	
80.98	73.68	31.03	7.30	1.65	OSF1.50	4694.25	4655.37					MinPt-CtCt	
81.15	74.24	30.82	6.91	1.64	OSF1.50	4730.00	4690.58					MinPt-EOU	
81.38	74.53	30.86	6.85	1.64	OSF1.50	4750.00	4710.27					MinPt-ADP	
81.54	74.68	30.92	6.86	1.64	OSF1.50	4760.00	4720.12					MinPt-SF	
141.46	83.77	84.78	57.68	2.56	OSF1.50	5910.00	5862.19					MinPt-CtCt	
143.05	101.72	74.41	41.33	2.12	OSF1.50	7670.00	7622.19					MinPt-CtCt	
145.25	107.10	73.02	38.15	2.05	OSF1.50	8130.00	8082.19					MinPt-EOU	
146.11	108.16	73.17	37.95	2.04	OSF1.50	8220.00	8172.19					MinPt-ADP	
149.68	111.16	74.74	38.52	2.03	OSF1.50	8470.00	8422.19					MinPt-SF	
137.94	124.89	53.84	13.05	1.66	OSF1.50	9930.00	9856.06					MinPts	
423.20	129.59	335.97	293.61	4.97	OSF1.50	10410.00	10083.39	OSF>5.00				Exit Alert	
942.87	100.77	874.71	841.95	14.35	OSF1.50	11310.00	10100.00					MinPt-CtCt	
942.87	101.24	874.54	841.63	14.29	OSF1.50	11350.00	10100.00					MinPt-EOU	
943.06	101.47	874.58	841.59	14.25	OSF1.50	11370.00	10100.00					MinPt-ADP	
935.58	124.46	851.75	811.10	11.48	OSF1.50	12640.00	10100.00					MinPts	
7552.34	146.02	7454.16	7406.32	78.90	OSF1.50	20141.33	10100.00					TD	
30-025-40791-0200 - DOS EQUIS '12' FEDERAL COM 2H ST02 - MWD 13330ft to 15398ft (DefinitiveSurvey)													Warning Alert
457.06	32.81	454.56	424.25	#####	MAS = 10.00 (m)	0.00	0.00					Surface	

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
457.06	32.81	454.55	424.25	131531.88		MAS = 10.00 (m)	23.00	23.00				WRP	
445.50	32.81	431.79	416.65	29.39		MAS = 10.00 (m)	1620.00	1620.00				MinPts	
178.62	56.62	140.71	123.01	4.97		OSF1.50	3670.00	3646.67	OSF<5.00			Enter Alert	
80.96	73.68	31.03	7.30	1.65		OSF1.50	4694.25	4655.37				MinPt-CtCt	
81.15	74.24	30.82	6.91	1.64		OSF1.50	4730.00	4690.58				MinPt-EOU	
81.38	74.53	30.86	6.85	1.64		OSF1.50	4750.00	4710.27				MinPt-ADP	
81.54	74.68	30.92	6.86	1.64		OSF1.50	4760.00	4720.12				MinPt-SF	
141.46	83.77	84.78	57.68	2.56		OSF1.50	5910.00	5862.19				MinPt-CtCt	
143.05	101.72	74.41	41.33	2.12		OSF1.50	7670.00	7622.19				MinPt-CtCt	
145.25	107.10	73.02	38.15	2.05		OSF1.50	8130.00	8082.19				MinPt-EOU	
146.11	108.16	73.17	37.95	2.04		OSF1.50	8220.00	8172.19				MinPt-ADP	
149.68	111.16	74.74	38.52	2.03		OSF1.50	8470.00	8422.19				MinPt-SF	
137.94	124.89	53.84	13.05	1.66		OSF1.50	9930.00	9856.06				MinPts	
423.20	129.59	335.97	293.61	4.97		OSF1.50	10410.00	10083.39	OSF>5.00			Exit Alert	
942.72	100.77	874.71	841.95	14.35		OSF1.50	11310.00	10100.00				MinPt-CtCt	
942.87	101.24	874.54	841.63	14.29		OSF1.50	11350.00	10100.00				MinPt-EOU	
943.06	101.47	874.58	841.59	14.25		OSF1.50	11370.00	10100.00				MinPt-ADP	
939.81	122.78	857.12	817.03	11.69		OSF1.50	12560.00	10100.00				MinPt-CtCt	
935.81	128.26	849.46	807.54	11.13		OSF1.50	13000.00	10100.00				MinPt-CtCt	
936.11	129.13	849.18	806.97	11.06		OSF1.50	13060.00	10100.00				MinPt-EOU	
937.49	131.58	848.93	805.91	10.87		OSF1.50	13220.00	10100.00				MinPt-EOU	
938.03	132.22	849.06	805.82	10.82		OSF1.50	13260.00	10100.00				MinPt-ADP	
927.34	150.44	826.21	776.90	9.38		OSF1.50	14210.00	10100.00				MinPt-CtCt	
927.34	153.99	823.85	773.35	9.16		OSF1.50	14370.00	10100.00				MinPt-CtCt	
926.18	159.07	819.29	767.10	8.85		OSF1.50	14590.00	10100.00				MinPt-CtCt	
926.24	159.21	819.27	767.03	8.84		OSF1.50	14600.00	10100.00				MinPts	
928.91	159.98	821.42	768.92	8.82		OSF1.50	14660.00	10100.00				MinPt-SF	
5618.53	161.89	5509.77	5456.64	52.85		OSF1.50	20141.33	10100.00				TD	

30-025-46323 - DOS EQUIS 12-13 FEDERAL COM 073H - IFR1 to 22227ft - A (DefinitiveSurvey)

Warning Alert

99.98	32.81	97.48	67.17	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
99.98	32.81	97.48	67.17	N/A		MAS = 10.00 (m)	23.00	23.00				WRP	
92.63	32.81	77.98	59.82	7.42		MAS = 10.00 (m)	1310.00	1310.00				MinPts	
92.72	32.81	77.78	59.91	7.25		MAS = 10.00 (m)	1340.00	1340.00				MinPt-EOU	
99.11	32.81	82.57	66.30	6.88		MAS = 10.00 (m)	1510.00	1510.00				MinPt-SF	
126.18	39.77	98.83	86.41	4.98		OSF1.50	2610.00	2602.76	OSF<5.00			Enter Alert	
91.64	55.03	54.12	36.61	2.55		OSF1.50	3540.67	3519.31				MinPt-CtCt	
91.99	56.18	53.71	35.82	2.50		OSF1.50	3610.00	3587.58				MinPt-EOU	
92.26	56.50	53.76	35.76	2.49		OSF1.50	3630.00	3607.28				MinPt-ADP	
93.33	57.30	54.30	36.03	2.49		OSF1.50	3680.00	3656.52				MinPt-SF	
250.26	76.91	198.16	173.35	4.99		OSF1.50	5060.00	5015.57	OSF>5.00			Exit Alert	
314.53	96.14	249.60	218.38	5.00		OSF1.50	6410.00	6362.19	OSF<5.00			Enter Alert	
316.13	99.15	249.20	216.98	4.87		OSF1.50	6620.00	6572.19				MinPt-EOU	
318.71	104.06	248.50	214.64	4.67		OSF1.50	6960.00	6912.19				MinPt-EOU	
311.53	122.62	228.95	188.91	3.86		OSF1.50	8220.00	8172.19				MinPt-CtCt	
312.42	127.18	226.80	185.24	3.73		OSF1.50	8530.00	8482.19				MinPt-CtCt	
315.59	134.16	225.32	181.43	3.57		OSF1.50	9010.00	8962.19				MinPt-EOU	
316.41	135.14	225.49	181.27	3.55		OSF1.50	9080.00	9032.19				MinPt-ADP	
321.67	140.97	226.85	180.70	3.46		OSF1.50	9480.00	9432.19				MinPt-ADP	
322.55	141.52	227.37	181.03	3.45		OSF1.50	9530.00	9482.19				MinPt-SF	
269.86	144.41	192.76	145.45	3.04		OSF1.50	9990.00	9901.68				MinPts	
289.92	144.48	192.77	145.44	3.04		OSF1.50	10000.00	9908.88				MinPts	
482.57	148.42	382.79	334.15	4.93		OSF1.50	10430.00	10086.61	OSF>5.00			Exit Alert	
2320.56	127.61	2324.65	2192.95	27.79		OSF1.50	12390.00	10100.00				MinPt-EOU	
2320.80	127.89	2234.71	2192.91	27.73		OSF1.50	12410.00	10100.00				MinPt-ADP	
2322.48	130.42	2234.70	2192.06	27.20		OSF1.50	12530.00	10100.00				MinPt-EOU	
2323.17	131.27	2234.82	2191.90	27.03		OSF1.50	12580.00	10100.00				MinPt-ADP	
2332.00	138.15	2239.06	2193.85	25.76		OSF1.50	12890.00	10100.00				MinPt-EOU	
2332.74	139.04	2239.21	2193.70	25.60		OSF1.50	12940.00	10100.00				MinPt-ADP	
2327.61	155.13	2223.36	2172.48	22.85		OSF1.50	13590.00	10100.00				MinPt-CtCt	
2326.29	165.69	2215.00	2160.60	21.36		OSF1.50	14000.00	10100.00				MinPt-CtCt	
2326.69	166.81	2214.65	2159.88	21.22		OSF1.50	14060.00	10100.00				MinPt-EOU	
2327.18	167.37	2214.77	2159.81	21.15		OSF1.50	14090.00	10100.00				MinPt-ADP	
2331.54	173.20	2215.25	2158.35	20.47		OSF1.50	14270.00	10100.00				MinPt-CtCt	
2331.61	182.94	2208.81	2148.66	19.36		OSF1.50	14620.00	10100.00				MinPt-CtCt	
2333.04	187.64	2207.11	2145.40	18.88		OSF1.50	14810.00	10100.00				MinPt-EOU	
2292.35	249.51	2125.17	2042.83	13.91		OSF1.50	16950.00	10100.00				MinPt-CtCt	
2292.65	250.42	2124.87	2042.23	13.86		OSF1.50	17000.00	10100.00				MinPt-EOU	
2292.94	250.77	2124.93	2042.17	13.84		OSF1.50	17020.00	10100.00				MinPt-ADP	
2302.28	270.12	2121.37	2032.16	12.89		OSF1.50	17630.00	10100.00				MinPt-CtCt	
2301.35	277.17	2115.74	2024.18	12.55		OSF1.50	17860.00	10100.00				MinPt-CtCt	
2300.23	284.57	2109.71	2015.68	12.22		OSF1.50	18100.00	10100.00				MinPt-CtCt	
2301.14	287.77	2108.46	2013.38	12.09		OSF1.50	18230.00	10100.00				MinPt-EOU	
2302.12	288.92	2108.67	2013.20	12.04		OSF1.50	18280.00	10100.00				MinPt-ADP	
2309.57	303.25	2106.58	2006.34	11.51		OSF1.50	18730.00	10100.00				MinPt-EOU	
2311.10	305.52	2106.55	2005.58	11.43		OSF1.50	18810.00	10100.00				MinPt-EOU	
2299.76	335.59	2075.20	1964.17	10.35		OSF1.50	19740.00	10100.00				MinPt-CtCt	
2297.74	348.25	2064.74	1949.49	9.96		OSF1.50	20141.33	10100.00				MinPts	

30-025-46320 - DOS EQUIS 12-13 FEDERAL COM 005H - IFR1 to 22232ft - A (DefinitiveSurvey)

Warning Alert

116.60	32.81	114.10	83.79	N/A	MAS = 10.00 (m)	0.00	0.00
116.60	32.81	114.10	83.79	N/A	MAS = 10.00 (m)	23.00	23.00
116.72	32.81	113.98	83.91	483.73	MAS = 10.00 (m)	70.00	70.00
154.29	32.81	137.07	121.48	10.32	MAS = 10.00 (m)	1570.00	1570.00
191.90	56.99	153.07	134.91	5.21	OSF1.50	3690.00	3666.37
192.42	59.58	151.87	132.84	4.99	OSF1.50	3850.00	3823.94
191.46	66.04	146.59	125.41	4.46	OSF1.50	4240.00	4208.02
192.10	67.84	146.04	124.26	4.35	OSF1.50	4350.00	4316.35
194.00	72.74	144.65	121.27	4.09	OSF1.50	4640.00	4601.94
190.65	81.32	135.61	109.33	3.58	OSF1.50	5140.00	5094.37
190.88	81.97	135.40	108.91	3.56	OSF1.50	5180.00	5133.87
191.17	82.29	135.47	108.87	3.55	OSF1.50	5200.00	5153.65
193.65	83.70	137.01	109.95	3.53	OSF1.50	5290.00	5242.89
320.48	97.94	254.35	222.54	5.00	OSF1.50	6340.00	6292.19
644.44	147.51	545.27	496.93	6.64	OSF1.50	9890.00	9823.48
644.45	147.57	545.24	496.89	6.64	OSF1.50	9900.00	9831.78
644.51	147.63	545.26	496.88	6.64	OSF1.50	9910.00	9839.97
645.01	148.51	545.63	497.19	6.63	OSF1.50	9940.00	9863.94
2431.22	127.64	2344.63	2302.58	28.88	OSF1.50	12410.00	10100.00
2431.58	130.16	2343.97	2301.42	28.54	OSF1.50	12500.00	10100.00
2431.90	130.42	2344.02	2301.36	28.49	OSF1.50	12520.00	10100.00
2442.66	134.77	2351.98	2307.89	27.67	OSF1.50	12760.00	10100.00
2443.64	136.07	2352.05	2307.57	27.41	OSF1.50	12800.00	10100.00

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
	2439.18	155.69	2334.55	2283.49	23.86	OSF1.50	13640.00	10100.00				MinPt-CtCt	
	2408.31	203.92	2271.53	2204.39	17.92	OSF1.50	15450.00	10100.00				MinPt-CtCt	
	2409.06	206.16	2270.79	2202.90	17.73	OSF1.50	15540.00	10100.00				MinPt-EOU	
	2410.90	208.25	2271.23	2202.65	17.56	OSF1.50	15620.00	10100.00				MinPt-ADP	
	2426.58	221.18	2278.30	2205.40	16.63	OSF1.50	16070.00	10100.00				MinPt-ADP	
	2428.96	223.73	2278.97	2205.23	16.45	OSF1.50	16150.00	10100.00				MinPt-ADP	
	2438.26	245.94	2273.46	2192.31	15.01	OSF1.50	16910.00	10100.00				MinPt-CtCt	
	2438.81	247.70	2272.84	2191.11	14.90	OSF1.50	16990.00	10100.00				MinPt-EOU	
	2439.52	248.57	2272.97	2190.95	14.86	OSF1.50	17030.00	10100.00				MinPt-ADP	
	2442.12	252.42	2273.00	2189.70	14.64	OSF1.50	17150.00	10100.00				MinPt-EOU	
	2443.09	253.56	2273.22	2189.53	14.58	OSF1.50	17200.00	10100.00				MinPt-ADP	
	2445.54	261.24	2270.55	2184.31	14.16	OSF1.50	17420.00	10100.00				MinPt-CtCt	
	2447.23	269.07	2267.02	2178.16	13.76	OSF1.50	17680.00	10100.00				MinPt-CtCt	
	2448.15	272.60	2265.58	2175.55	13.58	OSF1.50	17820.00	10100.00				MinPt-EOU	
	2448.92	273.49	2265.76	2175.43	13.54	OSF1.50	17860.00	10100.00				MinPt-ADP	
	2452.84	287.65	2260.25	2165.20	12.89	OSF1.50	18290.00	10100.00				MinPt-CtCt	
	2446.03	298.64	2246.10	2147.39	12.38	OSF1.50	18650.00	10100.00				MinPt-CtCt	
	2446.38	299.62	2245.80	2146.76	12.34	OSF1.50	18700.00	10100.00				MinPt-EOU	
	2446.69	300.01	2245.85	2146.68	12.32	OSF1.50	18720.00	10100.00				MinPt-ADP	
	2446.49	311.03	2238.30	2135.46	11.88	OSF1.50	19050.00	10100.00				MinPt-CtCt	
	2436.28	333.99	2212.78	2102.28	11.01	OSF1.50	19790.00	10100.00				MinPt-CtCt	
	2435.34	341.19	2207.04	2094.15	10.77	OSF1.50	20020.00	10100.00				MinPt-CtCt	
	2436.16	343.87	2206.08	2092.29	10.69	OSF1.50	20130.00	10100.00				MinPt-EOU	
	2436.34	344.14	2206.08	2092.20	10.69	OSF1.50	20141.33	10100.00				MinPts	
30-025-41480 - DOS EQUIS 13 FEDERAL COM 2H - MWD to 15311ft (DefinitiveSurvey)													Warning Alert
	5261.71	32.81	5259.21	5228.91	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	5261.63	32.81	5259.12	5228.82	625838.42	MAS = 10.00 (m)	20.00	20.00				MinPt-SF	
	5261.63	32.81	5259.12	5228.82	743305.99	MAS = 10.00 (m)	23.00	23.00				WRP	
	5261.62	32.81	5259.10	5228.81	211853.29	MAS = 10.00 (m)	30.00	30.00				MinPts	
	5268.71	32.81	5251.92	5235.91	368.47	MAS = 10.00 (m)	1550.00	1550.00				MinPt-EOU	
	5271.12	32.81	5251.30	5238.31	304.16	MAS = 10.00 (m)	1850.00	1850.00				MinPt-EOU	
	5413.43	110.01	5339.26	5303.42	75.50	OSF1.50	7150.00	7102.19				MinPt-EOU	
	5421.10	121.15	5339.50	5299.95	68.50	OSF1.50	7920.00	7872.19				MinPt-EOU	
	5423.12	123.59	5339.89	5299.53	67.15	OSF1.50	8100.00	8052.19				MinPt-ADP	
	5433.70	131.86	5344.97	5301.86	62.98	OSF1.50	8660.00	8612.19				MinPt-EOU	
	5434.81	133.06	5345.27	5301.75	62.41	OSF1.50	8750.00	8702.19				MinPt-ADP	
	5436.77	135.25	5345.77	5301.52	61.40	OSF1.50	8900.00	8852.19				MinPt-ADP	
	510.56	155.47	406.07	355.08	4.98	OSF1.50	14850.00	10100.00	OSF<5.00			Enter Alert	
	193.46	192.76	64.13	0.71	1.51	OSF1.50	15336.89	10100.00				MinPt-CtCt	
	193.49	192.81	64.12	0.68	1.51	OSF1.50	15340.00	10100.00				MinPts	
	516.04	159.07	409.17	356.98	4.92	OSF1.50	15830.00	10100.00	OSF>5.00			Exit Alert	
	880.99	174.48	763.84	706.51	7.66	OSF1.50	16330.00	10100.00				MinPt-CtCt	
	882.20	178.45	762.40	703.75	7.50	OSF1.50	16510.00	10100.00				MinPt-EOU	
	883.69	180.25	762.69	703.44	7.44	OSF1.50	16590.00	10100.00				MinPt-ADP	
	880.12	198.62	746.87	681.50	6.71	OSF1.50	17330.00	10100.00				MinPt-CtCt	
	875.02	264.51	697.85	610.51	5.00	OSF1.50	19710.00	10100.00	OSF<5.00			Enter Alert	
	868.86	269.18	688.57	599.68	4.87	OSF1.50	19890.00	10100.00				MinPts	
	868.96	269.26	688.62	599.70	4.87	OSF1.50	19900.00	10100.00				MinPt-SF	
	886.09	267.71	706.79	618.39	5.00	OSF1.50	20060.00	10100.00	OSF>5.00			Exit Alert	
	905.58	265.05	728.04	640.53	5.16	OSF1.50	20141.33	10100.00				TD	
Coterra Dos Equis 12-13 Federal Com 91H Rev2 kFc DDmnmYY (DefinitivePlan)													Warning Alert
	879.89	32.81	878.08	847.08	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	879.88	32.81	878.07	847.07	N/A	MAS = 10.00 (m)	23.00	23.00				WRP	
	879.88	32.81	872.69	847.07	163.25	MAS = 10.00 (m)	600.00	600.00				MinPt-EOU	
	203.06	62.39	160.95	140.67	4.97	OSF1.50	3670.00	3646.67	OSF<5.00			Enter Alert	
	196.37	65.10	152.46	131.27	4.60	OSF1.50	3792.63	3767.44				MinPt-CtCt	
	196.51	65.40	152.39	131.10	4.58	OSF1.50	3810.00	3784.54				MinPts	
	197.38	65.88	152.95	131.51	4.57	OSF1.50	3840.00	3814.09				MinPt-SF	
	220.40	67.62	174.80	152.78	4.97	OSF1.50	4030.00	4001.20	OSF>5.00			Exit Alert	
	486.53	136.39	395.06	350.13	5.39	OSF1.50	9070.00	9022.19				MinPts	
	486.86	136.54	395.32	350.32	5.39	OSF1.50	9090.00	9042.19				MinPt-SF	
	595.99	110.61	521.76	485.37	8.17	OSF1.50	11390.33	10100.00				MinPt-CtCt	
	596.78	163.40	487.36	433.38	5.51	OSF1.50	13980.00	10100.00				MinPt-EOU	
	598.17	165.07	487.65	433.10	5.47	OSF1.50	14040.00	10100.00				MinPt-ADP	
	668.65	201.67	533.73	466.99	5.00	OSF1.50	15230.00	10100.00	OSF<5.00			Enter Alert	
	596.02	241.74	434.38	354.28	3.71	OSF1.50	16790.34	10100.00				MinPt-CtCt	
	596.05	344.07	366.19	251.98	2.60	OSF1.50	20141.33	10100.00				MinPts	
Coterra Dos Equis 12-13 Federal Com 90H Rev2 kFc DDmnmYY (DefinitivePlan)													Warning Alert
	899.89	32.81	898.08	867.08	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	899.88	32.81	898.07	867.07	N/A	MAS = 10.00 (m)	23.00	23.00				WRP	
	899.88	32.81	892.69	867.07	167.00	MAS = 10.00 (m)	600.00	600.00				MinPt-EOU	
	263.29	80.19	209.31	183.09	4.99	OSF1.50	5320.00	5272.72	OSF<5.00			Enter Alert	
	212.65	135.14	122.04	77.51	2.37	OSF1.50	9050.00	9002.19				MinPt-CtCt	
	212.71	135.41	121.92	77.30	2.37	OSF1.50	9080.00	9032.19				MinPt-EOU	
	212.78	135.49	121.94	77.29	2.37	OSF1.50	9090.00	9042.19				MinPt-ADP	
	212.88	135.58	121.98	77.31	2.37	OSF1.50	9100.00	9052.19				MinPt-SF	
	387.16	119.00	307.31	268.16	4.92	OSF1.50	9750.00	9698.47	OSF>5.00			Exit Alert	
	578.61	174.84	461.57	403.77	4.99	OSF1.50	14350.00	10100.00	OSF<5.00			Enter Alert	
	538.71	198.33	406.01	340.38	4.09	OSF1.50	15340.00	10100.00				MinPt-CtCt	
	540.25	202.87	404.52	337.37	4.01	OSF1.50	15490.00	10100.00				MinPt-EOU	
	542.36	205.43	404.93	336.93	3.98	OSF1.50	15570.00	10100.00				MinPt-ADP	
	595.89	348.12	363.33	247.77	2.57	OSF1.50	20140.00	10100.00				MinPt-CtCt	
	595.89	348.15	363.31	247.74	2.57	OSF1.50	20141.33	10100.00				MinPts	
Coterra Dos Equis 12-13 Federal Com 89H Rev0 kFc 17Nov23 (DefinitivePlan)													Warning Alert
	919.88	32.81	917.38	887.07									

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status	
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major			
Coterra Dos Equis 12-13 Federal Com 3H Corrected MWD to 23004ft (DefinitiveSurvey)														Pass
1216.75	32.81	1214.28	1183.97	6148328.58		MAS = 10.00 (m)	0.00	0.00					MinPts	
1216.79	32.81	1214.28	1183.98	95124.16		MAS = 10.00 (m)	23.00	23.00					WRP	
1218.32	32.81	1213.51	1185.51	526.15		MAS = 10.00 (m)	300.00	300.00					MinPt-EOU	
1221.24	32.81	1213.84	1188.44	248.61		MAS = 10.00 (m)	560.00	560.00					MinPt-EOU	
442.47	118.38	362.72	324.09	5.69		OSF1.50	7642.82	7595.01					MinPt-CtCt	
442.52	118.54	362.66	323.98	5.69		OSF1.50	7660.00	7612.19					MinPt-EOU	
442.59	118.63	362.67	323.96	5.68		OSF1.50	7670.00	7622.19					MinPt-ADP	
473.57	141.29	378.55	332.26	5.09		OSF1.50	9310.00	9262.19					MinPt-ADP	
479.75	145.40	381.99	334.35	5.01		OSF1.50	9770.00	9717.21					MinPt-CtCt	
479.76	145.44	381.97	334.32	5.01		OSF1.50	9780.00	9726.48					MinPt-EOU	
479.79	145.48	381.97	334.31	5.01		OSF1.50	9790.00	9735.69					MinPt-ADP	
480.71	145.96	382.57	334.76	5.00		OSF1.50	9860.00	9798.04					MinPt-SF	
2844.32	153.82	2740.94	2690.50	28.17		OSF1.50	13040.00	10100.00					MinPt-CtCt	
2845.13	160.69	2737.17	2684.44	26.96		OSF1.50	13330.00	10100.00					MinPt-CtCt	
2849.55	180.40	2728.45	2669.16	24.01		OSF1.50	14090.00	10100.00					MinPt-CtCt	
2849.48	186.71	2724.17	2662.77	23.18		OSF1.50	14310.00	10100.00					MinPt-CtCt	
2850.15	199.19	2716.52	2650.96	21.72		OSF1.50	14750.00	10100.00					MinPt-CtCt	
2831.83	252.72	2662.52	2579.12	16.96		OSF1.50	16690.00	10100.00					MinPt-CtCt	
2831.92	257.37	2659.51	2574.56	16.65		OSF1.50	16840.00	10100.00					MinPt-CtCt	
2833.94	272.40	2651.51	2561.55	15.74		OSF1.50	17340.00	10100.00					MinPt-CtCt	
2835.50	282.35	2646.44	2553.16	15.19		OSF1.50	17700.00	10100.00					MinPt-EOU	
2840.09	287.67	2647.48	2552.42	14.93		OSF1.50	17900.00	10100.00					MinPt-ADP	
2833.64	315.75	2622.30	2517.89	13.56		OSF1.50	18760.00	10100.00					MinPt-CtCt	
2833.44	321.96	2617.97	2511.49	13.29		OSF1.50	18960.00	10100.00					MinPt-CtCt	
2831.03	342.84	2601.64	2488.20	12.47		OSF1.50	19630.00	10100.00					MinPt-CtCt	
2831.16	347.15	2598.89	2484.01	12.31		OSF1.50	19770.00	10100.00					MinPt-CtCt	
2833.63	358.13	2594.04	2475.50	11.94		OSF1.50	20141.33	10100.00					MinPts	
Coterra Dos Equis 12-13 Federal Com 88H Rev0 kFc 17Nov23 (DefinitivePlan)														Pass
939.88	32.81	937.38	907.07	N/A		MAS = 10.00 (m)	0.00	0.00					Surface	
939.87	32.81	937.37	907.06	N/A		MAS = 10.00 (m)	23.00	23.00					WRP	
694.50	77.93	641.72	616.58	13.76		OSF1.50	5163.28	5117.35					MinPt-CtCt	
694.63	78.34	641.57	616.29	13.69		OSF1.50	5190.00	5143.75					MinPt-EOU	
694.88	78.65	641.61	616.23	13.64		OSF1.50	5210.00	5163.54					MinPt-ADP	
720.10	83.78	663.42	636.32	13.24		OSF1.50	5550.00	5502.20					MinPt-SF	
1260.25	144.00	1163.42	1116.26	13.33		OSF1.50	9560.00	9512.19					MinPts	
1034.84	228.43	881.72	806.41	6.85		OSF1.50	15350.00	10100.00					MinPt-CtCt	
1035.02	228.84	881.63	806.18	6.84		OSF1.50	15370.00	10100.00					MinPt-EOU	
1035.20	229.05	881.67	806.16	6.84		OSF1.50	15380.00	10100.00					MinPt-ADP	
1041.19	231.24	886.19	809.95	6.81		OSF1.50	15490.00	10100.00					MinPt-SF	
1319.83	360.96	1078.35	958.87	5.51		OSF1.50	20141.33	10100.00					MinPts	
30-025-40792 - DOS EQUIS '12' FEDERAL COM 3H - Gyro+MWD to 15227ft (DefinitiveSurvey)														Pass
849.31	32.81	846.80	816.50	1140006.10		MAS = 10.00 (m)	0.00	0.00					Surface	
849.25	32.81	846.70	816.44	17313.71		MAS = 10.00 (m)	23.00	23.00					WRP	
845.80	32.81	839.92	812.99	249.53		MAS = 10.00 (m)	399.48	399.48					MinPts	
847.50	32.81	837.71	814.69	115.83		MAS = 10.00 (m)	800.00	800.00					MinPt-EOU	
854.61	32.81	834.88	821.80	49.44		MAS = 10.00 (m)	1800.00	1800.00					MinPts	
854.73	32.81	834.70	821.92	48.62		MAS = 10.00 (m)	1830.00	1830.00					MinPt-EOU	
1367.80	75.35	1316.74	1292.46	28.11		OSF1.50	5040.00	4995.87					MinPt-SF	
1437.78	88.06	1378.24	1349.73	25.16		OSF1.50	6450.00	6402.19					MinPt-ADP	
1444.23	94.34	1380.51	1349.90	23.55		OSF1.50	7050.00	7002.19					MinPt-ADP	
1465.77	126.46	1380.63	1339.31	17.71		OSF1.50	10130.00	9990.57					MinPts	
1468.12	126.82	1382.74	1341.30	17.68		OSF1.50	10220.00	10032.83					MinPt-SF	
1618.03	141.32	1522.99	1476.71	17.46		OSF1.50	11570.00	10100.00					MinPt-CtCt	
1618.47	159.60	1511.23	1458.86	15.43		OSF1.50	12290.00	10100.00					MinPt-CtCt	
1610.51	179.01	1490.33	1431.50	13.66		OSF1.50	12930.00	10100.00					MinPt-CtCt	
1611.17	180.92	1489.72	1430.25	13.52		OSF1.50	13010.00	10100.00					MinPt-EOU	
1608.19	191.70	1479.55	1416.48	12.73		OSF1.50	13310.00	10100.00					MinPt-CtCt	
1608.78	193.38	1479.02	1415.40	12.62		OSF1.50	13380.00	10100.00					MinPt-EOU	
1609.38	194.08	1479.16	1415.30	12.58		OSF1.50	13410.00	10100.00					MinPt-ADP	
1606.51	209.76	1465.84	1396.75	11.61		OSF1.50	13830.00	10100.00					MinPt-CtCt	
1608.27	218.38	1461.84	1389.88	11.16		OSF1.50	14040.00	10100.00					MinPt-EOU	
1609.10	219.36	1462.03	1389.74	11.11		OSF1.50	14070.00	10100.00					MinPt-ADP	
1612.89	224.50	1462.39	1388.39	10.88		OSF1.50	14160.00	10100.00					MinPt-EOU	
1613.86	225.62	1462.62	1388.24	10.83		OSF1.50	14190.00	10100.00					MinPt-ADP	
1639.22	240.67	1477.94	1398.55	10.31		OSF1.50	14610.00	10100.00					MinPt-SF	
5744.66	167.58	5632.11	5577.08	52.18		OSF1.50	20141.33	10100.00					TD	
30-025-46481 - DOS EQUIS 12-13 FEDERAL COM 6H - IFR1 to 22805ft - A (DefinitiveSurvey)														Pass
1021.62	32.81	1019.12	988.81	N/A		MAS = 10.00 (m)	0.00	0.00					Surface	
1021.62	32.81	1019.12	988.81	4919628.68		MAS = 10.00 (m)	10.00	10.00					MinPts	
1021.62	32.81	1019.12	988.81	4919628.68		MAS = 10.00 (m)	23.00	23.00					WRP	
1020.82	32.81	1010.21	988.01	125.64		MAS = 10.00 (m)	890.00	890.00					MinPts	
1021.66	32.81	1006.76	988.85	82.32		MAS = 10.00 (m)	1330.00	1330.00					MinPt-EOU	
953.38	112.03	877.86	841.35	13.02		OSF1.50	7460.00	7412.19					MinPt-CtCt	
953.07	114.49	875.91	838.58	12.73		OSF1.50	7630.00	7582.19					MinPt-CtCt	
952.94	116.80	874.23	836.13	12.47		OSF1.50	7790.00	7742.19					MinPt-CtCt	
937.59	144.02	840.75	793.57	9.91		OSF1.50	9812.01	9755.70					MinPt-CtCt	
937.62	144.13	840.70	793.49	9.90		OSF1.50	9830.00	9771.79					MinPt-EOU	
937.68	144.19	840.72	793.49	9.90		OSF1.50	9840.00	9780.63					MinPt-ADP	
939.91	144.93	842.46	794.98	9.87		OSF1.50	9960.00	9879.38					MinPt-SF	
3075.71	152.01	2973.54	2923.70	30.83		OSF1.50	13150.00	10100.00					MinPt-CtCt	
3075.52	157.11	2969.94	2918.41	29.81		OSF1.50	13380.00	10100.00					MinPt-CtCt	
3075.27	162.39	2966.17	2912.88	28.83		OSF1.50	13610.00	10100.00					MinPt-CtCt	
3074.95	165.67	2963.67	2909.28	28.24		OSF1.50	13750.00	10100.00					MinPt-CtCt	
30														

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
	3092.82	335.57	2868.27	2757.25	13.92	OSF1.50	19710.00	10100.00				MinPt-CtCi	
	3093.28	347.00	2861.11	2746.27	13.46	OSF1.50	20080.00	10100.00				MinPt-CtCi	
	3093.46	348.65	2860.20	2744.81	13.39	OSF1.50	20141.33	10100.00				MinPts	
Coterra Dos Equis 12-13 Federal Com 47H Corrected MWD to Update (Non-Def Survey)													Pass
	1236.77	32.81	1234.27	1203.96	#####	MAS = 10.00 (m)	0.00	0.00				MinPts	
	1236.77	32.81	1234.26	1203.96	96845.66	MAS = 10.00 (m)	23.00	23.00				WRP	
	1236.77	32.81	1232.02	1203.96	550.24	MAS = 10.00 (m)	290.00	290.00				MinPts	
	1238.60	32.81	1227.07	1205.79	136.87	MAS = 10.00 (m)	980.00	980.00				MinPt-EOU	
	1208.46	32.81	1186.35	1175.66	61.48	MAS = 10.00 (m)	2010.00	2009.81				MinPts	
	1208.60	32.81	1186.19	1175.79	60.59	MAS = 10.00 (m)	2040.00	2039.72				MinPt-EOU	
	1364.11	71.12	1315.86	1292.99	29.76	OSF1.50	4560.00	4523.16				MinPt-CtCi	
	1364.40	71.99	1315.67	1292.41	29.40	OSF1.50	4620.00	4582.25				MinPt-EOU	
	1364.78	72.43	1315.66	1292.35	29.22	OSF1.50	4650.00	4611.79				MinPt-ADP	
	1058.57	119.04	978.37	939.52	13.59	OSF1.50	7853.56	7805.75				MinPt-CtCi	
	1060.56	126.07	975.68	934.49	12.84	OSF1.50	8350.00	8302.19				MinPt-EOU	
	1063.62	130.22	975.97	933.39	12.46	OSF1.50	8640.00	8592.19				MinPt-EOU	
	1064.66	131.45	976.19	933.21	12.36	OSF1.50	8730.00	8682.19				MinPt-ADP	
	1066.31	133.16	976.71	933.16	12.21	OSF1.50	8850.00	8802.19				MinPt-ADP	
	1069.79	144.27	972.78	925.52	11.29	OSF1.50	9670.00	9621.43				MinPt-CtCi	
	1069.86	144.49	972.70	925.37	11.28	OSF1.50	9700.00	9650.66				MinPt-EOU	
	1069.98	144.63	972.72	925.34	11.27	OSF1.50	9720.00	9669.94				MinPt-ADP	
	1076.18	146.07	977.97	930.11	11.22	OSF1.50	9910.00	9839.97				MinPt-SF	
	10402.78	164.51	10292.27	10238.27	96.30	OSF1.50	20141.33	10100.00				TD	
30-025-40700-0100 - DOS EQUIS 12 FEDERAL COM 1 ST01 - MWD 10506ft to 15399ft (DefinitiveSurvey)													Pass
	1626.82	32.81	1624.32	1594.01	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1626.82	32.81	1624.32	1594.01	2244495.16	MAS = 10.00 (m)	10.00	10.00				MinPts	
	1626.83	32.81	1624.32	1594.02	291675.17	MAS = 10.00 (m)	23.00	23.00				WRP	
	1627.03	32.81	1624.21	1594.22	5092.47	MAS = 10.00 (m)	90.00	90.00				MinPt-EOU	
	1628.39	32.81	1623.80	1595.58	779.02	MAS = 10.00 (m)	280.00	280.00				MinPt-EOU	
	1105.28	81.75	1049.94	1023.53	20.87	OSF1.50	5440.00	5392.30				MinPt-CtCi	
	1105.33	81.89	1049.90	1023.44	20.84	OSF1.50	5450.00	5402.29				MinPt-EOU	
	1105.42	82.03	1049.90	1023.39	20.80	OSF1.50	5460.00	5412.27				MinPt-ADP	
	1107.64	84.23	1050.66	1023.41	20.28	OSF1.50	5590.00	5542.19				MinPt-ADP	
	1118.74	94.30	1055.04	1024.44	18.24	OSF1.50	6280.00	6232.19				MinPt-ADP	
	1122.77	98.38	1056.35	1024.39	17.53	OSF1.50	6560.00	6512.19				MinPt-ADP	
	1131.41	109.21	1057.77	1022.20	15.87	OSF1.50	7300.00	7252.19				MinPt-EOU	
	1138.31	119.33	1057.92	1018.98	14.58	OSF1.50	7990.00	7942.19				MinPt-EOU	
	1104.88	145.09	1007.32	959.79	11.60	OSF1.50	9999.63	9908.61				MinPt-CtCi	
	1104.88	145.09	1007.32	959.79	11.60	OSF1.50	10000.00	9908.88				MinPt-EOU	
	1104.92	145.14	1007.32	959.78	11.59	OSF1.50	10010.00	9915.95				MinPt-ADP	
	1106.09	145.43	1008.31	960.66	11.58	OSF1.50	10060.00	9949.42				MinPt-SF	
	1628.12	160.46	1520.32	1467.66	15.44	OSF1.50	12160.00	10100.00				MinPt-CtCi	
	1637.49	191.76	1508.81	1445.73	12.96	OSF1.50	13220.00	10100.00				MinPt-CtCi	
	1637.96	193.40	1508.19	1444.55	12.85	OSF1.50	13290.00	10100.00				MinPt-EOU	
	1590.02	237.27	1431.01	1352.75	10.14	OSF1.50	14720.00	10100.00				MinPt-SF	
	1589.95	237.26	1430.95	1352.70	10.14	OSF1.50	14730.00	10100.00				MinPts	
	5767.42	181.64	5645.50	5585.78	48.27	OSF1.50	20141.33	10100.00				TD	
30-025-40700 - DOS EQUIS 12 FEDERAL COM 1 - Gyro to 11268ft (DefinitiveSurvey)													Pass
	1626.82	32.81	1624.32	1594.01	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1626.82	32.81	1624.32	1594.01	2244495.16	MAS = 10.00 (m)	10.00	10.00				MinPts	
	1626.83	32.81	1624.32	1594.02	291675.17	MAS = 10.00 (m)	23.00	23.00				WRP	
	1627.03	32.81	1624.21	1594.22	5092.47	MAS = 10.00 (m)	90.00	90.00				MinPt-EOU	
	1628.39	32.81	1623.80	1595.58	779.02	MAS = 10.00 (m)	280.00	280.00				MinPt-EOU	
	1105.28	81.75	1049.94	1023.53	20.87	OSF1.50	5440.00	5392.30				MinPt-CtCi	
	1105.33	81.89	1049.90	1023.44	20.84	OSF1.50	5450.00	5402.29				MinPt-EOU	
	1105.42	82.03	1049.90	1023.39	20.80	OSF1.50	5460.00	5412.27				MinPt-ADP	
	1107.64	84.23	1050.66	1023.41	20.28	OSF1.50	5590.00	5542.19				MinPt-ADP	
	1118.74	94.30	1055.04	1024.44	18.24	OSF1.50	6280.00	6232.19				MinPt-ADP	
	1122.77	98.38	1056.35	1024.39	17.53	OSF1.50	6560.00	6512.19				MinPt-ADP	
	1131.41	109.21	1057.77	1022.20	15.87	OSF1.50	7300.00	7252.19				MinPt-EOU	
	1138.31	119.33	1057.92	1018.98	14.58	OSF1.50	7990.00	7942.19				MinPt-EOU	
	1104.88	145.09	1007.32	959.79	11.60	OSF1.50	9999.63	9908.61				MinPt-CtCi	
	1104.88	145.09	1007.32	959.79	11.60	OSF1.50	10000.00	9908.88				MinPt-EOU	
	1104.92	145.14	1007.32	959.78	11.59	OSF1.50	10010.00	9915.95				MinPt-ADP	
	1106.09	145.43	1008.31	960.66	11.58	OSF1.50	10060.00	9949.42				MinPt-SF	
	10152.35	162.30	10043.32	9990.05	95.27	OSF1.50	20141.33	10100.00				TD	
Coterra Dos Equis 12-13 Federal Com 48H Rev0 kFc 17Nov23 (DefinitivePlan)													Pass
	1280.25	32.81	1277.75	1247.44	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1280.25	32.81	1277.74	1247.44	85860.87	MAS = 10.00 (m)	23.00	23.00				WRP	
	1178.55	37.03	1153.03	1141.52	51.09	OSF1.50	2290.00	2287.61				MinPt-CtCi	
	1139.61	143.58	1043.05	996.03	12.09	OSF1.50	9954.39	9875.09				MinPts	
	1139.61	143.58	1043.06	996.03	12.09	OSF1.50	9960.00	9879.38				MinPt-ADP	
	1139.73	143.61	1043.16	996.12	12.09	OSF1.50	9980.00	9894.36				MinPt-SF	
	1744.61	126.25	1659.61	1618.36	21.12	OSF1.50	11390.00	10100.00				MinPt-CtCi	
	1745.48	176.17	1627.20	1569.31	15.05	OSF1.50	13970.00	10100.00				MinPt-EOU	
	1746.51	177.43	1627.39	1569.08	14.95	OSF1.50	14020.00	10100.00				MinPt-ADP	
	1745.14	252.54	1575.95	1492.60	10.45	OSF1.50	16790.00	10100.00				MinPt-CtCi	
	1745.48	353.41	1509.04	1392.07	7.45	OSF1.50	20141.33	10100.00				MinPts	
30-025-41479-0100 - DOS EQUIS 13 FEDERAL COM 1H ST01 - Corrected MWD to 15250ft (DefinitiveSurvey)													Pass
	5587.65	32.81	5585.15	5554.84	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	5587.61	32.81	5585.10	5554.80	975929.10	MAS = 10.00 (m)	10.00	10.00				MinPt-SF	
	5587.59	32.81	5585.08	5554.78	2148087.46	MAS = 10.00 (m)	23.00	23.00				WRP	
	5587.41	32.81	5583.99	5554.60	6090.48	MAS = 10.00 (m)	170.00	170.00				MinPts	
	5588.79	32.81	5580.51	5555.98	966.95	MAS = 10.00 (m)	660.00	660.00				MinPts	
	5591.66	32.81	5576.56	5558.85	443.41	MAS = 10.00 (m)	1370.00	1370.00				MinPt-EOU	
	5595.28	32.81	5576.20	5562.47	337.34	MAS = 10.00 (m)	1770.00	1770.					

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
5584.38	135.58	5493.15	5446.79	62.91		OSF1.50	8910.00	8862.19				MinPt-EOU	
5587.35	139.86	5493.27	5447.49	60.99		OSF1.50	9210.00	9162.19				MinPt-EOU	
5588.36	141.19	5493.41	5447.18	60.42		OSF1.50	9310.00	9262.19				MinPt-ADP	
5591.27	143.82	5494.56	5447.44	59.32		OSF1.50	9500.00	9452.19				MinPt-ADP	
1231.43	193.20	1101.80	1038.23	9.67		OSF1.50	15350.30	10100.00				MinPt-CtCt	
1231.48	193.33	1101.76	1038.15	9.66		OSF1.50	15360.00	10100.00				MinPts	
1233.49	193.97	1103.34	1039.52	9.64		OSF1.50	15410.00	10100.00				MinPt-SF	
1586.49	196.24	1454.83	1390.25	12.26		OSF1.50	16260.00	10100.00				MinPts	
1619.18	218.76	1472.51	1400.42	11.21		OSF1.50	17300.00	10100.00				MinPt-CtCt	
1620.06	223.33	1470.34	1396.73	10.99		OSF1.50	17510.00	10100.00				MinPt-EOU	
1622.77	226.44	1470.98	1396.33	10.85		OSF1.50	17650.00	10100.00				MinPt-ADP	
1605.26	261.00	1430.43	1344.26	9.30		OSF1.50	19010.00	10100.00				MinPt-CtCt	
1605.74	262.23	1430.08	1343.51	9.26		OSF1.50	19070.00	10100.00				MinPt-EOU	
1606.28	262.85	1430.21	1343.43	9.24		OSF1.50	19100.00	10100.00				MinPt-ADP	
1622.72	274.97	1438.57	1347.75	8.92		OSF1.50	19570.00	10100.00				MinPt-EOU	
1625.12	277.88	1439.03	1347.24	8.84		OSF1.50	19690.00	10100.00				MinPt-EOU	
1632.36	283.84	1442.30	1348.52	8.69		OSF1.50	19940.00	10100.00				MinPt-SF	
1653.70	284.18	1463.42	1369.52	8.79		OSF1.50	20141.33	10100.00				TD	

30-025-41479 - DOS EQUIS 13 FEDERAL COM 1H - MWD to 11400ft (DefinitiveSurvey)

Pass

5587.65	32.81	5585.15	5554.84	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
5587.61	32.81	5585.10	5554.80	975929.10		MAS = 10.00 (m)	10.00	10.00				MinPt-SF	
5587.59	32.81	5585.08	5554.78	2148087.46		MAS = 10.00 (m)	23.00	23.00				WRP	
5587.41	32.81	5583.99	5554.60	6090.48		MAS = 10.00 (m)	170.00	170.00				MinPts	
5588.79	32.81	5580.51	5555.30	966.95		MAS = 10.00 (m)	660.00	660.00				MinPts	
5591.66	32.81	5576.56	5558.85	443.41		MAS = 10.00 (m)	1370.00	1370.00				MinPt-EOU	
5595.28	32.81	5576.20	5562.47	337.34		MAS = 10.00 (m)	1770.00	1770.00				MinPt-EOU	
5534.99	76.79	5482.97	5458.21	111.71		OSF1.50	4910.00	4867.85				MinPt-CtCt	
5536.64	84.28	5479.62	5452.36	101.50		OSF1.50	5370.00	5322.49				MinPt-EOU	
5538.68	86.86	5479.94	5451.82	98.44		OSF1.50	5540.00	5492.20				MinPt-ADP	
5545.81	92.86	5483.08	5452.96	92.03		OSF1.50	5950.00	5902.19				MinPt-EOU	
5556.82	106.15	5485.22	5450.67	80.38		OSF1.50	6890.00	6842.19				MinPt-ADP	
5562.12	113.25	5485.79	5448.87	75.30		OSF1.50	7370.00	7322.19				MinPt-EOU	
5564.40	116.88	5485.64	5447.51	72.94		OSF1.50	7620.00	7572.19				MinPt-EOU	
5565.22	117.90	5485.78	5447.31	72.30		OSF1.50	7700.00	7652.19				MinPt-ADP	
5568.13	120.91	5486.68	5447.22	70.50		OSF1.50	7910.00	7862.19				MinPt-ADP	
5579.80	129.92	5492.34	5449.87	65.66		OSF1.50	8520.00	8472.19				MinPt-EOU	
5582.77	133.37	5493.03	5449.40	63.96		OSF1.50	8770.00	8722.19				MinPt-ADP	
5584.38	135.58	5493.15	5446.79	62.91		OSF1.50	8910.00	8862.19				MinPt-EOU	
5587.35	139.86	5493.27	5447.49	60.99		OSF1.50	9210.00	9162.19				MinPt-EOU	
5588.36	141.19	5493.41	5447.18	60.42		OSF1.50	9310.00	9262.19				MinPt-ADP	
5591.27	143.82	5494.56	5447.44	59.32		OSF1.50	9500.00	9452.19				MinPt-ADP	
1231.43	193.20	1101.80	1038.23	9.67		OSF1.50	15350.30	10100.00				MinPt-CtCt	
1231.48	193.33	1101.76	1038.15	9.66		OSF1.50	15360.00	10100.00				MinPts	
1233.49	193.97	1103.34	1039.52	9.64		OSF1.50	15410.00	10100.00				MinPt-SF	
4966.73	171.79	4851.37	4794.94	43.99		OSF1.50	20141.33	10100.00				TD	

Coterra Dos Equis 12-13 Federal Com 49H Rev0 kFc 17Nov23 (DefinitivePlan)

Pass

1300.19	32.81	1297.69	1267.38	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
1300.19	32.81	1297.67	1267.38	91560.44		MAS = 10.00 (m)	23.00	23.00				WRP	
1292.01	34.23	1268.36	1257.78	60.96		OSF1.50	2120.00	2119.33				MinPt-CtCt	
1292.14	34.67	1268.19	1257.47	60.14		OSF1.50	2150.00	2149.13				MinPt-EOU	
1292.39	34.96	1268.25	1257.43	59.61		OSF1.50	2170.00	2168.97				MinPt-ADP	
1304.55	143.47	1208.08	1161.09	13.85		OSF1.50	9540.00	9492.19				MinPt-CtCt	
1304.56	143.56	1208.02	1161.00	13.85		OSF1.50	9555.33	9507.52				MinPts	
1306.24	152.53	1203.72	1153.71	13.03		OSF1.50	11390.00	10100.00				MinPt-CtCt	
1253.75	217.72	1107.77	1036.03	8.72		OSF1.50	14831.86	10100.00				MinPt-CtCt	
1254.31	219.32	1107.27	1034.99	8.66		OSF1.50	14900.00	10100.00				MinPt-EOU	
1254.92	220.02	1107.40	1034.90	8.64		OSF1.50	14930.00	10100.00				MinPt-ADP	
1269.69	236.08	1111.47	1033.61	8.14		OSF1.50	15700.00	10100.00				MinPt-CtCt	
1270.03	236.96	1111.21	1033.05	8.11		OSF1.50	15750.00	10100.00				MinPt-EOU	
1263.71	256.63	1111.75	1027.08	7.56		OSF1.50	16520.00	10100.00				MinPt-ADP	
1307.89	362.08	1065.67	945.81	5.45		OSF1.50	20141.33	10100.00				MinPts	

30-025-24433 - WIMBERLY 2 - INC Only to 5038ft (DefinitiveSurvey)

Pass

1808.25	32.81	1806.44	1775.44	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
1808.03	32.81	1806.20	1775.22	81100.00		MAS = 10.00 (m)	20.00	20.00				MinPt-SF	
1808.01	32.81	1806.19	1775.20	99904.20		MAS = 10.00 (m)	23.00	23.00				WRP	
1304.62	324.22	1087.87	980.40	6.06		OSF1.50	5210.00	5163.54				MinPt-SF	
1303.52	323.68	1087.13	979.83	6.07		OSF1.50	5240.00	5193.27				MinPt-ADP	
1303.37	323.47	1087.12	979.90	6.07		OSF1.50	5250.00	5203.18				MinPt-EOU	
1303.32	323.25	1087.22	980.07	6.07		OSF1.50	5259.06	5212.17				MinPt-CtCt	
6993.58	258.14	6820.89	6735.45	40.91		OSF1.50	15010.00	10100.00				MinPt-SF	
11117.42	328.05	10898.12	10789.37	51.11		OSF1.50	20141.33	10100.00				TD	

30-025-45416 - DOS EQUIS 13 FEDERAL COM 9H - Corrected MWD to 15788ft (DefinitiveSurvey)

Pass

5443.63	32.81	5441.73	5410.73	#####		MAS = 10.00 (m)	0.00	0.00				MinPts	
5443.54	32.81	5441.69	5410.73	142643.08		MAS = 10.00 (m)	23.00	23.00				WRP	
5444.61	32.81	5437.53	5411.80	1033.41		MAS = 10.00 (m)	780.00	780.00				MinPts	
5444.23	32.81	5434.47	5411.42	685.13		MAS = 10.00 (m)	1160.00	1160.00				MinPt-EOU	
5440.02	32.81	5425.45	5407.21	421.17		MAS = 10.00 (m)	1870.00	1869.99				MinPts	
5440.23	32.81	5425.18	5407.42	405.93		MAS = 10.00 (m)	1940.00	1939.94				MinPt-EOU	
1425.01	157.35	1319.27	1267.66	13.78		OSF1.50	15063.47	10100.00				MinPt-CtCt	
1425.25	158.17	1318.96	1267.08	13.71		OSF1.50	15100.00	10100.00				MinPt-EOU	
1425.57	158.60	1319.01	1266.98	13.68		OSF1.50	15120.00	10100.00				MinPt-ADP	
1440.42	162.48	1331.28	1277.94	13.48		OSF1.50	15360.00	10100.00				MinPt-SF	
1695.21	194.76	1464.86	1400.45	12.37		OSF1.50	17180.00	10100.00				MinPt-CtCt	
1596.33	198.27	1463.63	1398.05	12.16		OSF1.50	17340.00	10100.00				MinPt-EOU	
1597.58	199.82	1463.86	1397.77	12.07		OSF1.50	17410.00	10100.00				MinPt-ADP	
1613.42	236.87	1454.99	1376.55	10.27		OSF1.50	18890.00	10100.00				MinPt-CtCt	
1617.69	256.86	1445.84	1360.74	9.49		OSF1.50	19640.00	10100.00				MinPt-CtCt	
1620.46	264.87	1443.36	1355.59	9.22		OSF1.50	19950.00	10100.00				MinPt-EOU	
1624.67	269.81	1444.29	1354.87	9.08		OSF1.50	20141.33	10100.00				MinPts	

30-025-41306 - Bell Lake 24 Fed 2H - MWD to 16075ft - A (DefinitiveSurvey)

Pass

2024-11-14 15:25:00 (GMT+08:00)													
15362.35	32.81	15359.85	15329.54	N/A	MAS = 10.00 (m)	0.00	0.00						
15362.29	32.81	15359.79	15329.49	2062474.60	MAS = 10.00 (m)	23.00	23.00						
15362.27	32.81	15359.68	15329.47	160553.22	MAS = 10.00 (m)	50.00	50.00						
1714.11	330.04	1493.25	1384.07	7.84	OSF 1.50	20141.33	10100.00						

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
1836.62	32.81	1834.80	1803.81	1524.29.81		MAS = 10.00 (m)	10.00	10.00				MinPt-SF	
1836.59	32.81	1834.78	1803.78	711312.96		MAS = 10.00 (m)	20.00	20.00				MinPt-EOU	
1836.59	32.81	1834.78	1803.78	N/A		MAS = 10.00 (m)	23.00	23.00				WRP	
1751.66	298.46	1552.09	1453.20	8.85		OSF1.50	5099.61	5054.58				MinPt-CtCt	
1751.66	298.46	1552.09	1453.20	8.85		OSF1.50	5100.00	5054.96				MinPts	
1751.69	298.48	1552.11	1453.22	8.85		OSF1.50	5110.00	5064.81				MinPt-SF	
5060.49	87.40	5001.62	4973.09	88.65		OSF1.50	11630.00	10100.00				MinPt-CtCt	
5060.67	87.89	5001.47	4972.77	88.15		OSF1.50	11670.00	10100.00				MinPt-EOU	
5061.01	88.30	5001.54	4972.71	87.74		OSF1.50	11700.00	10100.00				MinPt-ADP	
6818.41	245.19	6654.35	6573.22	42.01		OSF1.50	16210.00	10100.00				MinPt-SF	
9894.08	302.68	9691.69	9591.40	49.32		OSF1.50	20141.33	10100.00				TD	
30-025-41304 - Bell Lake 24 Fed 4H - MWD to 15872ft - A (DefinitiveSurvey)												Pass	
15359.82	32.81	15357.32	15327.01	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
15359.76	32.81	15357.26	15326.95	2146992.89		MAS = 10.00 (m)	23.00	23.00				WRP	
1854.12	343.28	1624.44	1510.84	8.15		OSF1.50	20141.33	10100.00				MinPts	

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

CONDITIONS

Action 321105

CONDITIONS

Operator: CIMAREX ENERGY CO. 6001 Deauville Blvd Midland, TX 79706	OGRID: 215099
	Action Number: 321105
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	5/3/2024