U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Sundry Print Report

03/12/2024

Well Name: DOS EQUIS 12-13 FEDERAL COM

Well Location: T24S / R32E / SEC 12 / NENW /

County or Parish/State:

Well Number: 50H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM01917

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002550122

Well Status: Approved Application for Permit to Drill

Operator: CIMAREX ENERGY COMPANY

Notice of Intent

Sundry ID: 2763419

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 11/28/2023

Time Sundry Submitted: 06:43

Date proposed operation will begin: 02/01/2024

Procedure Description: Casing change from previously approved APD. Bottom hole change from previously approved APD, from 100 FSL/1560 FWL to 100 FSL/1388 FWL. Dedicated acreage increased to 640 acres.

NOI Attachments

Procedure Description

Dos_Equis_12_13_50H_Sundry_Submittal_03042024_updated_20240304142626.pdf

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Conditions of Approval

Additional

12_24_32_C_Sundry_ID_2763419_Dos_Equis_12_13_Federal_Com_50H_Lea_NM01917_CIMAREX_ENERGY_COMPANY_13_22g_2_27_2024_LV_20240305085516.pdf

Authorized

Dos_Equis_12_13_50H_Sundry_Submittal_20240312103642.pdf

Dos_Equis_12_13_Fed_Com_50H_Dr_COA_20240312103328.pdf

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: MAR 12, 2024 07:27 AM

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: CHRISTOPHER WALLS

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5752342234

BLM POC Email Address: cwalls@blm.gov

Disposition: Approved

Disposition Date: 03/12/2024

Signature: Chris Walls

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.

SUBMIT IN TRIPLICATE *- Other instructions on page 2*

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

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

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

8. Well Name and No.

2. Name of Operator

9. API Well No.

3a. Address

3b. Phone No. *(include area code)*

10. Field and Pool or Exploratory Area

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

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
	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ 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 recomplete 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 OFICE 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.

(Instructions on page 2)

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 ofthis form to U.S. Department ofthe Interior, Bureau ofLand 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: NENW / 195 FNL / 1520 FWL / TWSP: 24S / RANGE: 32E / SECTION: 12 / LAT: 32.238919 / LONG: -103.631901 (TVD: 0 feet, MD: 0 feet)

PPP: NENW / 195 FNL / 1560 FWL / TWSP: 24S / RANGE: 32E / SECTION: 12 / LAT: 32.238919 / LONG: -103.631771 (TVD: 12235 feet, MD: 12238 feet)

PPP: NENW / 0 FNL / 1560 FWL / TWSP: 24S / RANGE: 32E / SECTION: 13 / LAT: 32.224917 / LONG: -103.631783 (TVD: 12900 feet, MD: 17844 feet)

PPP: NESW / 2640 FNL / 1560 FWL / TWSP: 24S / RANGE: 32E / SECTION: 12 / LAT: 32.232194 / LONG: -103.631778 (TVD: 12900 feet, MD: 15196 feet)

BHL: SESW / 100 FSL / 1560 FWL / TWSP: 24S / RANGE: 32E / SECTION: 13 / LAT: 32.210691 / LONG: -103.631979 (TVD: 12900 feet, MD: 23019 feet)

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

Sundry ID	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
2763149	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

Drilling Plan Amendments

Sec 1 - Geologic Formations **See attached drilling plan.**

Sec 2 - Blowout Prevention

Old	New
5M	2M
10M	3M
	5M

Section 3 - Casing

Old

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	1235	1235	10-3/4"	40.50	J-55	BT&C	2.95	5.85	12.58
9 7/8	0	13018	12851	7-5/8"	29.70	L-80	LT&C	2.38	1.15	1.48
6 3/4	0	12294	12294	5-1/2"	23.00	P-110	BT&C	1.82	1.55	3.12
6 3/4	12294	23019	12900	5"	18.00	P-110	BT&C	1.60	1.62	53.17
							BLM Minimum Safety Factor	1.125	1	1.6 Dry 1.8 Wet

New

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	1216	1216	13-3/8"	48.00	H-40/J-55 Hybrid	ST&C	1.40	3.28	5.52
12 1/4	0	4928	4927	9-5/8"	40.00	HCK-55	LT&C	1.49	1.54	2.85
8 3/4	0	10161	10161	7"	29.00	L-80	LT&C	1.48	1.72	1.89
8 3/4	10161	10911	10710	7"	29.00	L-80	LT&C	1.40	1.63	36.87
6	9661	20655	10750	4-1/2"	11.60	P-110	BT&C	1.43	2.02	29.05
							BLM Minimum Safety Factor	1.125	1	1.6 Dry 1.8 Wet

Section 4 - Cement

Old

Casing	# Sks	Wt. lb/gal	Yld ft3/sack	H2O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	480	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	128	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate Stage 1	631	10.30	3.64	22.18		Lead: Tuned Light + LCM
	200	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate Stage 2	782	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
Production	854	14.20	1.30	5.86	14:30	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS

New

Casing	# Sks	Wt. lb/gal	Yld ft3/sack	H2O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	589	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	1012	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	289	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Production	333	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	724	14.20	1.30	5.86	14:30	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS

Section 5 - Circulating Medium

Old

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0' to 1235'	Fresh Water	7.83 - 8.33	28	N/C
1235' to 13018'	Brine Diesel Emulsion	8.50 - 9.00	30-35	N/C
13018' to 23019'	Oil Based Mud	12.00 - 12.50	50-70	N/C

New

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0' to 1216'	Fresh Water	7.83 - 8.33	28	N/C
1216' to 4928'	Brine Water	9.50 - 10.00	30-32	N/C
4928' to 10911'	Cut Brine or OBM	8.50 - 9.00	27-70	N/C
11211' to 20655'	OBM	9.00 - 9.50	50-70	N/C

Section 7 - Pressure

Old	New
8385	5310

1. Geological Formations

TVD of target 10,750
MD at TD 20,655

Pilot Hole TD N/A
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	Hydrocarbons	
Cherry Canyon	5874	Hydrocarbons	
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	
2nd Bone Spring Sand	10558	Hydrocarbons	
Upper Second Sand - Target	10750	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	1216	1216	13-3/8"	48.00	H-40/J-55 Hybrid	ST&C	1.40	3.28	5.52
12 1/4	0	4928	4927	9-5/8"	40.00	HCK-55	LT&C	1.49	1.54	2.85
8 3/4	0	10161	10161	7"	29.00	L-80	LT&C	1.48	1.72	1.89
8 3/4	10161	10911	10710	7"	29.00	L-80	LT&C	1.40	1.63	36.87
6	9661	20655	10750	4-1/2"	11.60	P-110	BT&C	1.43	2.02	29.05
					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.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	N
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	N
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	N
Is 2nd string set 100' to 600' below the base of salt?	N
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	N
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	N
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	N
Is AC Report included?	Y

3. Cementing Program

Casing	# Sks	Wt. lb/gal	Yld ft3/sack	H2O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	589	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	1012	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	289	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Production	333	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	724	14.20	1.30	5.86	14:30	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS

Casing String	TOC	% Excess
Surface	0	45
Intermediate	0	51
Production	4728	25
Completion System	10711	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 1216'	Fresh Water	7.83 - 8.33	28	N/C
1216' to 4928'	Brine Water	9.50 - 10.00	30-32	N/C
4928' to 10911'	Cut Brine or OBM	8.50 - 9.00	27-70	N/C
11211' to 20655'	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

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	5310 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

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 atleast 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.

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 Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-025-50122	96674	TRIPLE X;BONE SPRING, WEST

[4] Property Code	[5] Property Name	[6] Well Number
	DOS EQUIS 12-13 FEDERAL COM	50H
[7] OGRID No.	[8] Operator Name	[9] Elevation
215099	CIMAREX ENERGY CO.	3608.2'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	12	24S	32E		195	NORTH	1520	WEST	LEA

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	13	24S	32E		100	SOUTH	1388	WEST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
640			

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

[16]

NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°14'20.11" (32.238919°)
LONGITUDE = -103°37'54.84" (-103.631901°)
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32°14'19.66" (32.238795°)
LONGITUDE = -103°37'53.11" (-103.631421°)
STATE PLANE NAD 83 (N.M. EAST)
N: 451360.30' E: 758209.74'
STATE PLANE NAD 27 (N.M. EAST)
N: 451301.33' E: 717025.76'

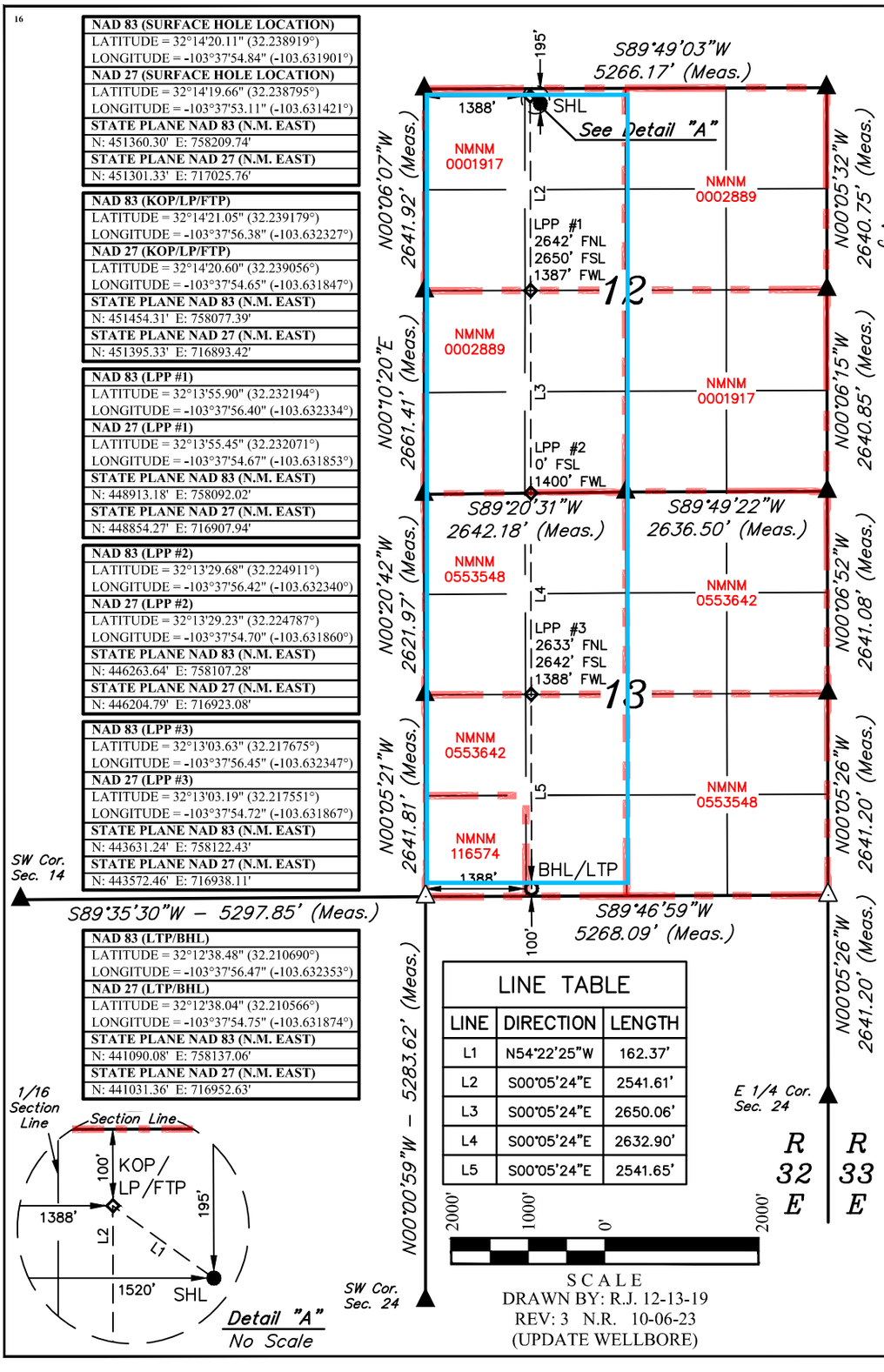
NAD 83 (KOP/LP/FTP)
LATITUDE = 32°14'21.05" (32.239179°)
LONGITUDE = -103°37'56.38" (-103.632327°)
NAD 27 (KOP/LP/FTP)
LATITUDE = 32°14'20.60" (32.239056°)
LONGITUDE = -103°37'54.65" (-103.631847°)
STATE PLANE NAD 83 (N.M. EAST)
N: 451454.31' E: 758077.39'
STATE PLANE NAD 27 (N.M. EAST)
N: 451395.33' E: 716893.42'

NAD 83 (LPP #1)
LATITUDE = 32°13'55.90" (32.232194°)
LONGITUDE = -103°37'56.40" (-103.632334°)
NAD 27 (LPP #1)
LATITUDE = 32°13'55.45" (32.232071°)
LONGITUDE = -103°37'54.67" (-103.631853°)
STATE PLANE NAD 83 (N.M. EAST)
N: 448913.18' E: 758092.02'
STATE PLANE NAD 27 (N.M. EAST)
N: 448854.27' E: 716907.94'

NAD 83 (LPP #2)
LATITUDE = 32°13'29.68" (32.224911°)
LONGITUDE = -103°37'56.42" (-103.632340°)
NAD 27 (LPP #2)
LATITUDE = 32°13'29.23" (32.224787°)
LONGITUDE = -103°37'54.70" (-103.631860°)
STATE PLANE NAD 83 (N.M. EAST)
N: 446263.64' E: 758107.28'
STATE PLANE NAD 27 (N.M. EAST)
N: 446204.79' E: 716923.08'

NAD 83 (LPP #3)
LATITUDE = 32°13'03.63" (32.217675°)
LONGITUDE = -103°37'56.45" (-103.632347°)
NAD 27 (LPP #3)
LATITUDE = 32°13'03.19" (32.217551°)
LONGITUDE = -103°37'54.72" (-103.631867°)
STATE PLANE NAD 83 (N.M. EAST)
N: 443631.24' E: 758122.43'
STATE PLANE NAD 27 (N.M. EAST)
N: 443572.46' E: 716938.11'

NAD 83 (LTP/BHL)
LATITUDE = 32°12'38.48" (32.210690°)
LONGITUDE = -103°37'56.47" (-103.632353°)
NAD 27 (LTP/BHL)
LATITUDE = 32°12'38.04" (32.210566°)
LONGITUDE = -103°37'54.75" (-103.631874°)
STATE PLANE NAD 83 (N.M. EAST)
N: 441090.08' E: 758137.06'
STATE PLANE NAD 27 (N.M. EAST)
N: 441031.36' E: 716952.63'



LINE TABLE

LINE	DIRECTION	LENGTH
L1	N54°22'25"W	162.37'
L2	S00°05'24"E	2541.61'
L3	S00°05'24"E	2650.06'
L4	S00°05'24"E	2632.90'
L5	S00°05'24"E	2541.65'

SCALE
DRAWN BY: R.J. 12-13-19
REV: 3 N.R. 10-06-23
(UPDATE WELLBORE)

[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and 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 such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Shelly Bowen 3/4/2024
Signature Date

Shelly Bowen
Printed Name

shelly.bowen@coterra.com
E-mail Address

[18] SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from 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.

April 23, 2018
Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number:

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

NOTE:
- Distances referenced on plat to section lines are perpendicular.
- Basis of Bearing is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

Schlumberger **COTERRA** Rev0 COTERRA

Borehole:	Well:	Field:	Structure:
Dos Equis 12-13 Federal Com 50H	Dos Equis 12-13 Federal Com 50H	NM Lea County (NAD 83)	Coterra Dos Equis 12-13 Federal Com Pad 3

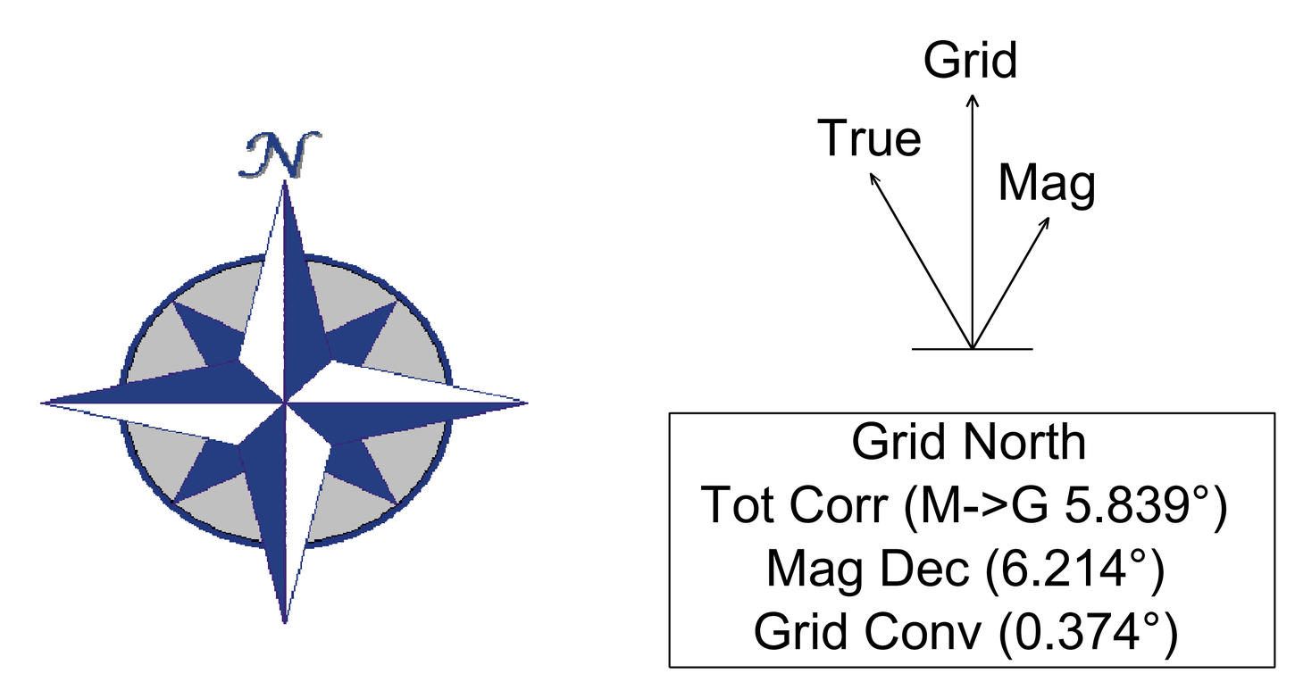
Gravity & Magnetic Parameters
Model: HDGM 2022 Dip: 59.793° Date: 17-Nov-2023
MagDec: 6.214° FS: 47447.559nT Gravity FS: 998.438mgn (9.80665 Based)

Surface Location NAD83 New Mexico State Plane, Eastern Zone, US Feet
Lat: N 32 14 20.11 Northing: 451360.3ftUS Grid Conv: 0.3742°
Lon: W 103 37 54.84 Easting: 758209.74ftUS Scale Fact: 0.99996296

Miscellaneous
Slot: Dos Equis 12-13 Federal Com 50H TVD Ref: RKB (3631.200 ft above MSL)
Plan: Coterra Dos Equis 12-13 Federal Com 50H Rev0 kFc 17Nov23

Critical Points

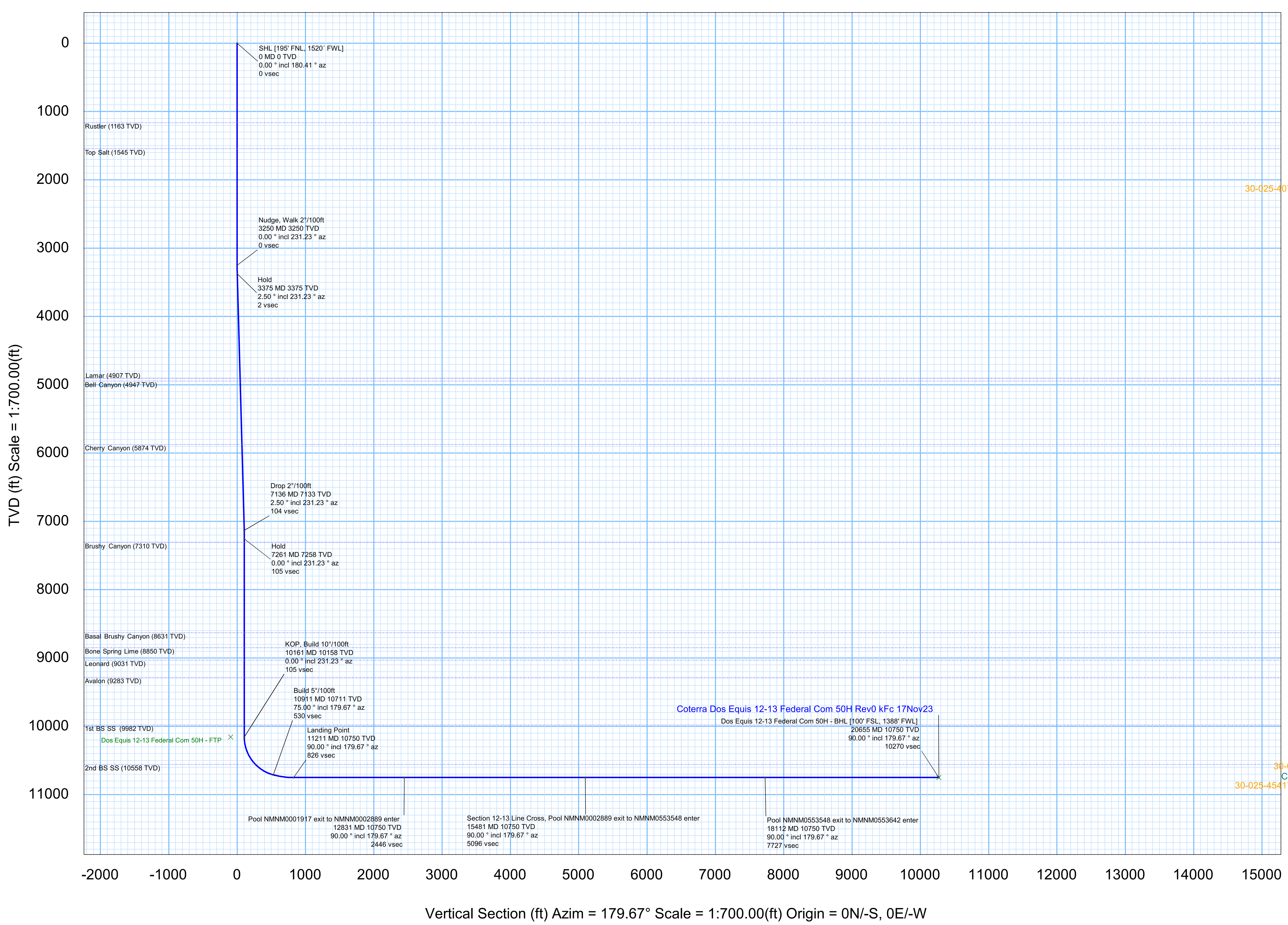
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHL [195' FNL, 1520' FWL]	0.00	0.00	180.41	0.00	0.00	0.00	0.00	
Rustler	1163.00	0.00	231.23	1163.00	0.00	0.00	0.00	0.00
Top Salt	1545.00	0.00	231.23	1545.00	0.00	0.00	0.00	0.00
Nudge, Walk 2°/100ft	3250.00	0.00	231.23	3250.00	0.00	0.00	0.00	0.00
Hold	3374.83	2.50	231.23	3374.79	1.69	-1.70	-2.12	2.00
Lamar	4908.50	2.50	231.23	4907.00	43.22	-43.53	-54.21	0.00
Bell Canyon	4948.53	2.50	231.23	4947.00	44.30	-44.63	-55.57	0.00
Cherry Canyon	5876.41	2.50	231.23	5874.00	69.43	-69.93	-87.09	0.00
Drop 2°/100ft	7136.34	2.50	231.23	7132.73	103.55	-104.30	-129.88	0.00
Hold	7261.17	0.00	231.23	7257.52	105.24	-106.00	-132.00	2.00
Brushy Canyon	7313.65	0.00	231.23	7310.00	105.24	-106.00	-132.00	0.00
Basal Brushy Canyon	8634.65	0.00	231.23	8631.00	105.24	-106.00	-132.00	0.00
Bone Spring Lime	8853.65	0.00	231.23	8850.00	105.24	-106.00	-132.00	0.00
Leonard	9034.65	0.00	231.23	9031.00	105.24	-106.00	-132.00	0.00
Avalon	9286.65	0.00	231.23	9283.00	105.24	-106.00	-132.00	0.00
1st BS SS	9985.65	0.00	231.23	9982.00	105.24	-106.00	-132.00	0.00
KOP, Build 10°/100ft	10161.17	0.00	231.23	10157.52	105.24	-106.00	-132.00	0.00
2nd BS SS	10604.61	44.34	179.67	10558.00	268.44	-269.20	-131.06	10.00
Build 5°/100ft	10911.17	75.00	179.67	10710.95	529.90	-530.66	-129.56	10.00
Landing Point	11211.17	90.00	179.67	10750.00	826.49	-827.24	-127.84	5.00
Pool NMNM0001917 exit to NMNM0002889 enter	12831.00	90.00	179.67	10750.00	2446.32	-2447.04	-118.37	0.00
Section 12-13 Line Cross, Pool NMNM0002889 exit to NMNM0553548 enter	15481.00	90.00	179.67	10750.00	5096.32	-5097.00	-102.90	0.00
Pool NMNM0553548 exit to NMNM0553642 enter	18112.00	90.00	179.67	10750.00	7727.32	-7727.95	-87.53	0.00
Dos Equis 12-13 Federal Com 50H - BHL [100' FSL, 1388' FWL]	20654.71	90.00	179.67	10750.00	10270.03	-10270.62	-72.68	0.00

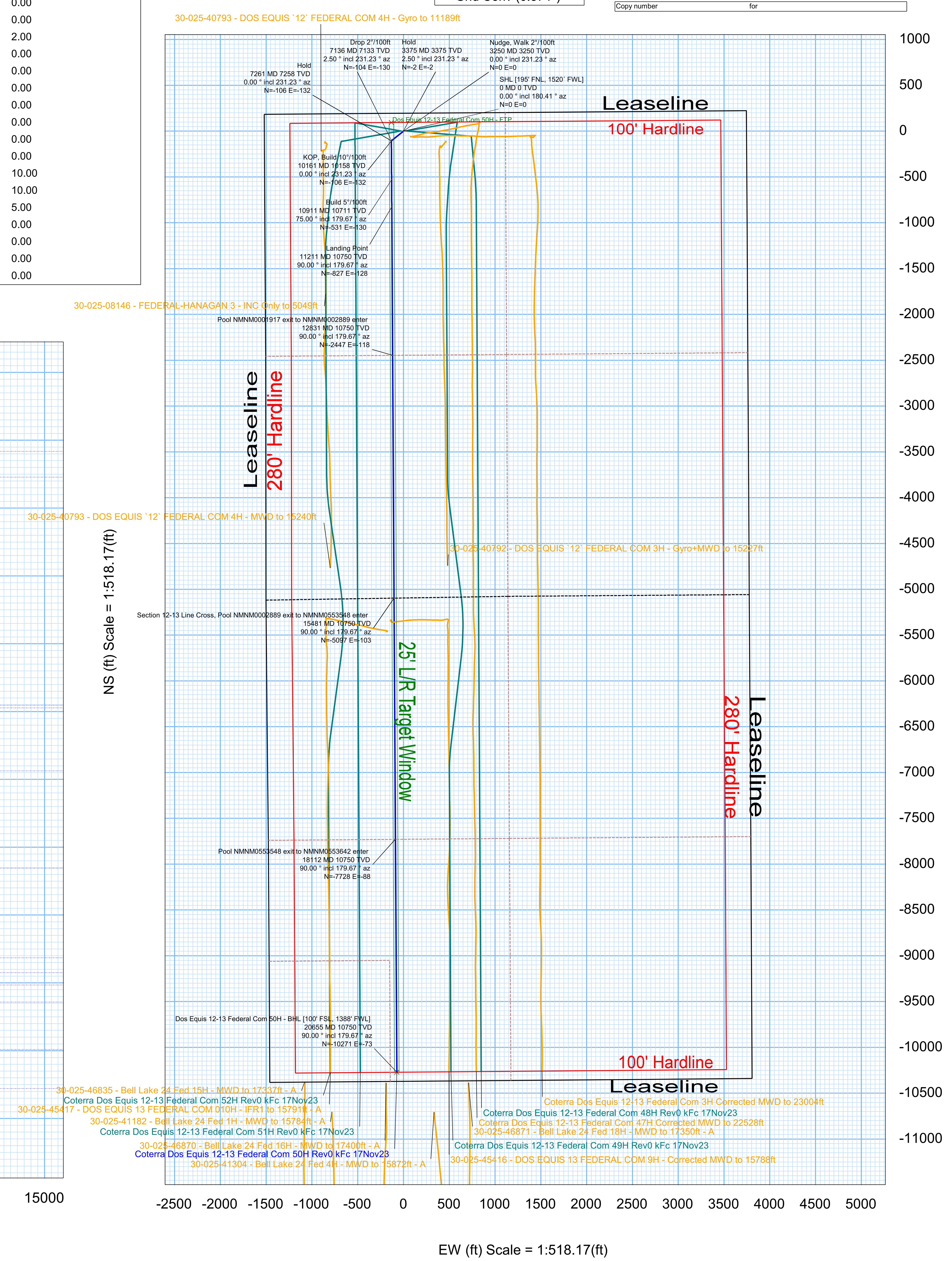


CONTROLLED
Plan ref: Coterra Dos Equis 12-13 Federal Com 50H Rev0 kFc 17Nov23
Drawing ref
Copy number: of 3
Date: 21-Nov-2023

1	Client
2	Client
3	Office
4	Office

Copy number for





Schlumberger

Coterra Dos Equis 12-13 Federal Com 50H Rev0 kFc 17Nov23 Proposal
Geodetic Report
Def Plan

Report Date:	November 21, 2023 - 03:34 PM (UTC 0)	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	COTERRA	**Vertical Section Azimuth:**	179.670 °(GRID North)
Field:	NM Lea County (NAD 83)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Coterra Dos Equis 12-13 Federal Com Pad 3 / Dos Equis 12-13 Federal	**TVD Reference Datum:**	RKB
Well:	Dos Equis 12-13 Federal Com 50H	**TVD Reference Elevation:**	3631.200 ft above MSL
Borehole:	Dos Equis 12-13 Federal Com 50H	**Seabed / Ground Elevation:**	3608.200 ft above MSL
UBHI / API#:	Unknown / Unknown	**Magnetic Declination:**	6.214°
Survey Name:	Coterra Dos Equis 12-13 Federal Com 50H Rev0 kFc 17Nov23	**Total Gravity Field Strength:**	998.4383mgn (9.80665 Based)
Survey Date:	November 21, 2023	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	94.993 ° / 10334.087 ft / 6.276 / 0.961	**Total Magnetic Field Strength:**	47447.559 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	59.793°
Location Lat / Long:	32°14'20.10685"N , 103°37'54.84414"W	**Declination Date:**	November 17, 2023
Location Grid N/E Y/X:	N 451360.300 ftUS , E 758209.740 ftUS	**Magnetic Declination Model:**	HDGM 2022
CRS Grid Convergence Angle:	0.374°	**North Reference:**	Grid North
Grid Scale Factor:	0.99996296	**Grid Convergence Used:**	0.374°
Version / Patch:	2023.1.0.1	**Total Corr Mag North->Grid North:**	5.839°
		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 [195' FNL, 1520' FWL]	0.00	0.00	180.41	0.00	-3,631.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115			
	100.00	0.00	231.23	100.00	-3,531.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	200.00	0.00	231.23	200.00	-3,431.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	300.00	0.00	231.23	300.00	-3,331.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	400.00	0.00	231.23	400.00	-3,231.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	500.00	0.00	231.23	500.00	-3,131.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	600.00	0.00	231.23	600.00	-3,031.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	700.00	0.00	231.23	700.00	-2,931.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	800.00	0.00	231.23	800.00	-2,831.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	900.00	0.00	231.23	900.00	-2,731.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	1,000.00	0.00	231.23	1,000.00	-2,631.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	1,100.00	0.00	231.23	1,100.00	-2,531.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
Rustler□	1,163.00	0.00	231.23	1,163.00	-2,468.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	1,200.00	0.00	231.23	1,200.00	-2,431.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	1,300.00	0.00	231.23	1,300.00	-2,331.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	1,400.00	0.00	231.23	1,400.00	-2,231.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	1,500.00	0.00	231.23	1,500.00	-2,131.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
Top Salt□	1,545.00	0.00	231.23	1,545.00	-2,086.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	1,600.00	0.00	231.23	1,600.00	-2,031.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	1,700.00	0.00	231.23	1,700.00	-1,931.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	1,800.00	0.00	231.23	1,800.00	-1,831.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	1,900.00	0.00	231.23	1,900.00	-1,731.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	2,000.00	0.00	231.23	2,000.00	-1,631.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	2,100.00	0.00	231.23	2,100.00	-1,531.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	2,200.00	0.00	231.23	2,200.00	-1,431.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	2,300.00	0.00	231.23	2,300.00	-1,331.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	2,400.00	0.00	231.23	2,400.00	-1,231.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	2,500.00	0.00	231.23	2,500.00	-1,131.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	2,600.00	0.00	231.23	2,600.00	-1,031.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	2,700.00	0.00	231.23	2,700.00	-931.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	2,800.00	0.00	231.23	2,800.00	-831.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	2,900.00	0.00	231.23	2,900.00	-731.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	3,000.00	0.00	231.23	3,000.00	-631.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	3,100.00	0.00	231.23	3,100.00	-531.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	3,200.00	0.00	231.23	3,200.00	-431.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
Nudge, Walk 2°/100ft	3,250.00	0.00	231.23	3,250.00	-381.20	0.00	0.00	0.00	451,360.30	758,209.74	32.23891857	-103.63190115	0.00	0.00	0.00
	3,300.00	1.00	231.23	3,300.00	-331.20	0.27	-0.27	-0.34	451,360.03	758,209.40	32.23891782	-103.63190225	2.00	2.00	0.00
Hold	3,374.83	2.50	231.23	3,374.79	-256.41	1.69	-1.70	-2.12	451,358.60	758,207.62	32.23891393	-103.63190804	2.00	2.00	0.00
	3,400.00	2.50	231.23	3,399.94	-231.26	2.37	-2.39	-2.98	451,357.91	758,206.76	32.23891205	-103.63191082	0.00	0.00	0.00
	3,500.00	2.50	231.23	3,499.84	-131.36	5.08	-5.12	-6.37	451,355.18	758,203.37	32.23890462	-103.63192186	0.00	0.00	0.00
	3,600.00	2.50	231.23	3,599.75	-31.45	7.79	-7.84	-9.77	451,352.46	758,199.97	32.23889718	-103.63193290	0.00	0.00	0.00
	3,700.00	2.50	231.23	3,699.65	68.45	10.50	-10.57	-13.16	451,349.73	758,196.58	32.23888975	-103.63194395	0.00	0.00	0.00
	3,800.00	2.50	231.23	3,799.56	168.36	13.20	-13.30	-16.56	451,347.00	758,193.18	32.23888231	-103.63195499	0.00	0.00	0.00
	3,900.00	2.50	231.23	3,899.46	268.26	15.91	-16.03	-19.96	451,344.27	758,189.78	32.23887488	-103.63196603	0.00	0.00	0.00
	4,000.00	2.50	231.23	3,999.37	368.17	18.62	-18.75	-23.35	451,341.55	758,186.39	32.23886744	-103.63197707	0.00	0.00	0.00
	4,100.00	2.50	231.23	4,099.27	468.07	21.33	-21.48	-26.75	451,338.82	758,182.99	32.23886000	-103.63198811	0.00	0.00	0.00
	4,200.00	2.50	231.23	4,199.18	567.98	24.03	-24.21	-30.15	451,336.09	758,179.59	32.23885257	-103.63199916	0.00	0.00	0.00
	4,300.00	2.50	231.23	4,299.08	667.88	26.74	-26.94	-33.54	451,333.36	758,176.20	32.23884513	-103.63201020	0.00	0.00	0.00
	4,400.00	2.50	231.23	4,398.99	767.79	29.45	-29.66	-36.94	451,330.64	758,172.80	32.23883770	-103.63202124	0.00	0.00	0.00
	4,500.00	2.50	231.23	4,498.89	867.69	32.16	-32.39	-40.34	451,327.91	758,169.40	32.23883026	-103.63203228	0.00	0.00	0.00
	4,600.00	2.50	231.23	4,598.80	967.60	34.87	-35.12	-43.73	451,325.18	758,166.01	32.23882283	-103.63204332	0.00	0.00	0.00
	4,700.00	2.50	231.23	4,698.70	1,067.50	37.57	-37.85	-47.13	451,322.45	758,162.61	32.23881539	-103.63205436	0.00	0.00	0.00
	4,800.00	2.50	231.23	4,798.61	1,167.41	40.28	-40.57	-50.53	451,319.73	758,159.22	32.23880795	-103.63206541	0.00	0.00	0.00
	4,900.00	2.50	231.23	4,898.51	1,267.31	42.99	-43.30	-53.92	451,317.00	758,155.82	32.23880052	-103.63207645	0.00	0.00	0.00
Lamar□	4,908.50	2.50	231.23	4,907.00	1,275.80	43.22	-43.53	-54.21	451,316.77	758,155.53	32.23879989	-103.63207739	0.00	0.00	0.00
Bell Canyon□	4,948.53	2.50	231.23	4,947.00	1,315.80	44.30	-44.63	-55.57	451,315.68	758,154.17	32.23879691	-103.63208181	0.00	0.00	0.00
	5,000.00	2.50	231.23	4,998.42	1,367.22	45.70	-46.03	-57.32	451,314.27	758,152.42	32.23879308	-103.63208749	0.00	0.00	0.00
	5,100.00	2.50	231.23	5,098.32	1,467.12	48.41	-48.76	-60.72	451,311.55	758,149.03	32.23878565	-103.63209853	0.00	0.00	0.00
	5,200.00	2.50	231.23	5,198.23	1,567.03	51.11	-51.48	-64.11	451,308.82	758,145.63	32.23877821	-103.63210957	0.00	0.00	0.00
	5,300.00	2.50	231.23	5,298.13	1,666.93	53.82	-54.21	-67.51	451,306.09	758,142.23	32.23877078	-103.63212061	0.00	0.00	0.00
	5,400.00	2.50	231.23	5,398.04	1,766.84	56.53	-56.94	-70.91	451,303.36	758,138.84	32.23876334	-103.63213166	0.00	0.00	0.00
	5,500.00	2.50	231.23	5,497.94	1,866.74	59.24	-59.67	-74.30	451,300.64	758,135.44	32.23875590	-103.63214270	0.00	0.00	0.00
	5,600.00	2.50	231.23	5,597.85	1,966.65	61.95	-62.39	-77.70	451,297.91	758,132.04	32.23874847	-103.63215374	0.00	0.00	0.00
	5,700.00	2.50	231.23	5,697.75	2,066.55	64.65	-65.12	-81.09	451,295.18	758,128.65	32.23874103	-103.63216478	0.00	0.00	0.00
	5,800.00	2.50	231.23	5,797.66	2,166.46	67.36	-67.85	-84.49	451,292.45	758,125.25	32.23873360	-103.63217582	0.00	0.00	0.00
Cherry Canyon□	5,876.41	2.50	231.23	5,874.00	2,242.80	69.43	-69.93	-87.09	451,290.37	758,122.66	32.23872791	-103.63218426	0.00	0.00	0.00
	5,900.00	2.50	231.23	5,897.56	2,266.36	70.07	-70.58	-87.89	451,289.73	758,121.86	32.23872616	-103.63218687	0.00	0.00	0.00
	6,000.00	2.50	231.23	5,997.47	2,366.27	72.78	-73.30	-91.28	451,287.00	758,118.46	32.23871872	-103.63219791	0.00	0.00	0.00
	6,100.00	2.50	231.23	6,097.37	2,466.17	75.48	-76.03	-94.68	451,284.27	758,115.06	32.23871129	-103.63220895	0.00	0.00	0.00
	6,200.00	2.50	231.23	6,197.28	2,566.08	78.19	-78.76	-98.08	451,281.54	758,111.67	32.23870385	-103.63221999	0.00	0.00	0.00
	6,300.00	2.50	231.23	6,297.18	2,665.98	80.90	-81.49	-101.47	451,278.82	758,108.27	32.23869642	-103.63223103	0.00	0.00	0.00
	6,400.00	2.50	231.23	6,397.09	2,765.89	83.61	-84.21	-104.87	451,276.09	758,104.87	32.23868898	-103.63224207	0.00	0.00	0.00
	6,500.00	2.50	231.23	6,496.99	2,865.79	86.32	-86.94	-108.27	451,273.36	758,101.48	32.23868155	-103.63225312	0.00	0.00	0.00
	6,600.00	2.50	231.23	6,596.90	2,965.70	89.02	-89.67	-111.66	451,270.63	758,098.08	32.23867411	-103.63226416	0.00	0.00	0.00
	6,700.00	2.50	231.23	6,696.80	3,065.60	91.73	-92.40	-115.06	451,267.91	758,094.68	32.23866667	-103.63227520	0.00	0.00	0.00
	6,800.00	2.50	231.23	6,796.71	3,165.51	94.44	-95.12	-118.46	451,265.18	758,091.29	32.23865924	-103.63228624	0.00	0.00	0.00
	6,900.00	2.50	231.23	6,896.61	3,265.41	97.15	-97.85	-121.85	451,262.45	758,087.89	32.23865180	-103.63229728	0.00	0.00	0.00
	7,000.00	2.50	231.23	6,996.52	3,365.32	99.86	-100.58	-125.25	451,259.73	758,084.50	32.23864437	-103.63230832	0.00	0.00	0.00
	7,100.00	2.50	231.23	7,096.42	3,465.22	102.56	-103.31	-128.65	451,257.00	758,081.10	32.23863693	-103.63231937	0.00	0.00	0.00
Drop 2°/100ft	7,136.34	2.50	231.23	7,132.73	3,501.53	103.55	-104.30	-129.88	451,256.01	758,079.87	32.23863423	-103.63232338	0.00	0.00	0.00
	7,200.00	1.22	231.23	7,196.36	3,565.16	104.83	-105.59	-131.49	451,254.71	758,078.25	32.23863070	-103.63232862	2.00	-2.00	0.00
Hold	7,261.17	0.00	231.23	7,257.52	3,626.32	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	2.00	-2.00	0.00
	7,300.00	0.00	231.23	7,296.35	3,665.15	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
Brushy Canyon□	7,313.65	0.00	231.23	7,310.00	3,678.80	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
	7,400.00	0.00	231.23	7,396.35	3,765.15	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
	7,500.00	0.00	231.23	7,496.35	3,865.15	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
	7,600.00	0.00	231.23	7,596.35	3,965.15	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
	7,700.00	0.00	231.23	7,696.35	4,065.15	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
	7,800.00	0.00	231.23	7,796.35	4,165.15	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
	7,900.00	0.00	231.23	7,896.35	4,265.15	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
	8,000.00	0.00	231.23	7,996.35	4,365.15	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
	8,100.00	0.00	231.23	8,096.35	4,465.15	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
	8,200.00	0.00	231.23	8,196.35	4,565.15	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
	8,300.00	0.00	231.23	8,296.35	4,665.15	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
	8,400.00	0.00	231.23	8,396.35	4,765.15	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
	8,500.00	0.00	231.23	8,496.35	4,865.15	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
	8,600.00	0.00	231.23	8,596.35	4,965.15	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
Basal Brushy Canyon□	8,634.65	0.00	231.23	8,631.00	4,999.80	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
	8,700.00	0.00	231.23	8,696.35	5,065.15	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
	8,800.00	0.00	231.23	8,796.35	5,165.15	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
Bone Spring Lime□	8,853.65	0.00	231.23	8,850.00	5,218.80	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
	8,900.00	0.00	231.23	8,896.35	5,265.15	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
	9,000.00	0.00	231.23	8,996.35	5,365.15	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	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)
Leonard□	9,034.65	0.00	231.23	9,031.00	5,399.80	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
	9,100.00	0.00	231.23	9,096.35	5,465.15	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
	9,200.00	0.00	231.23	9,196.35	5,565.15	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
Avalon□	9,286.65	0.00	231.23	9,283.00	5,651.80	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
	9,300.00	0.00	231.23	9,296.35	5,665.15	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
	9,400.00	0.00	231.23	9,396.35	5,765.15	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
	9,500.00	0.00	231.23	9,496.35	5,865.15	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
	9,600.00	0.00	231.23	9,596.35	5,965.15	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
	9,700.00	0.00	231.23	9,696.35	6,065.15	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
	9,800.00	0.00	231.23	9,796.35	6,165.15	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
	9,900.00	0.00	231.23	9,896.35	6,265.15	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
1st BS SS □	9,985.65	0.00	231.23	9,982.00	6,350.80	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
	10,000.00	0.00	231.23	9,996.35	6,365.15	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
	10,100.00	0.00	231.23	10,096.35	6,465.15	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
KOP, Build 10°/100ft	10,161.17	0.00	231.23	10,157.52	6,526.32	105.24	-106.00	-132.00	451,254.30	758,077.75	32.23862959	-103.63233027	0.00	0.00	0.00
	10,200.00	3.88	179.67	10,196.32	6,565.12	106.55	-107.32	-131.99	451,252.99	758,077.75	32.23862597	-103.63233027	10.00	10.00	0.00
	10,300.00	13.88	179.67	10,295.00	6,663.80	121.98	-122.74	-131.90	451,237.57	758,077.84	32.23858358	-103.63233031	10.00	10.00	0.00
	10,400.00	23.88	179.67	10,389.49	6,758.29	154.30	-155.06	-131.72	451,205.25	758,078.03	32.23849474	-103.63233039	10.00	10.00	0.00
	10,500.00	33.88	179.67	10,476.94	6,845.74	202.54	-203.30	-131.44	451,157.01	758,078.31	32.23836214	-103.63233051	10.00	10.00	0.00
	10,600.00	43.88	179.67	10,554.69	6,923.49	265.23	-265.99	-131.08	451,094.32	758,078.67	32.23818982	-103.63233067	10.00	10.00	0.00
2nd BS SS□	10,604.61	44.34	179.67	10,558.00	6,926.80	268.44	-269.20	-131.06	451,091.11	758,078.68	32.23818099	-103.63233068	10.00	10.00	0.00
	10,700.00	53.88	179.67	10,620.36	6,989.16	340.47	-341.23	-130.65	451,019.08	758,079.10	32.23798301	-103.63233086	10.00	10.00	0.00
	10,800.00	63.88	179.67	10,671.98	7,040.78	425.98	-426.73	-130.15	450,933.58	758,079.59	32.23774799	-103.63233107	10.00	10.00	0.00
	10,900.00	73.88	179.67	10,707.96	7,076.76	519.14	-519.90	-129.62	450,840.42	758,080.13	32.23749191	-103.63233130	10.00	10.00	0.00
Build 5°/100ft	10,911.17	75.00	179.67	10,710.95	7,079.75	529.90	-530.66	-129.56	450,829.66	758,080.19	32.23746233	-103.63233133	10.00	10.00	0.00
	11,000.00	79.44	179.67	10,730.60	7,099.40	616.51	-617.27	-129.06	450,743.06	758,080.69	32.23722428	-103.63233154	5.00	5.00	0.00
	11,100.00	84.44	179.67	10,744.61	7,113.41	715.49	-716.24	-128.48	450,644.08	758,081.26	32.23695221	-103.63233177	5.00	5.00	0.00
	11,200.00	89.44	179.67	10,749.95	7,118.75	815.32	-816.07	-127.90	450,544.26	758,081.84	32.23667783	-103.63233200	5.00	5.00	0.00
Landing Point	11,211.17	90.00	179.67	10,750.00	7,118.80	826.49	-827.24	-127.84	450,533.09	758,081.91	32.23664713	-103.63233203	5.00	5.00	0.00
	11,300.00	90.00	179.67	10,750.00	7,118.80	915.32	-916.07	-127.32	450,444.27	758,082.43	32.23640296	-103.63233222	0.00	0.00	0.00
	11,400.00	90.00	179.67	10,750.00	7,118.80	1,015.32	-1,016.07	-126.73	450,344.27	758,083.01	32.23612810	-103.63233244	0.00	0.00	0.00
	11,500.00	90.00	179.67	10,750.00	7,118.80	1,115.32	-1,116.06	-126.15	450,244.28	758,083.60	32.23585323	-103.63233267	0.00	0.00	0.00
	11,600.00	90.00	179.67	10,750.00	7,118.80	1,215.32	-1,216.06	-125.56	450,144.29	758,084.18	32.23557837	-103.63233289	0.00	0.00	0.00
	11,700.00	90.00	179.67	10,750.00	7,118.80	1,315.32	-1,316.06	-124.98	450,044.29	758,084.76	32.23530350	-103.63233311	0.00	0.00	0.00
	11,800.00	90.00	179.67	10,750.00	7,118.80	1,415.32	-1,416.06	-124.40	449,944.30	758,085.35	32.23502864	-103.63233333	0.00	0.00	0.00
	11,900.00	90.00	179.67	10,750.00	7,118.80	1,515.32	-1,516.06	-123.81	449,844.30	758,085.93	32.23475377	-103.63233355	0.00	0.00	0.00
	12,000.00	90.00	179.67	10,750.00	7,118.80	1,615.32	-1,616.06	-123.23	449,744.31	758,086.52	32.23447891	-103.63233378	0.00	0.00	0.00
	12,100.00	90.00	179.67	10,750.00	7,118.80	1,715.32	-1,716.05	-122.64	449,644.31	758,087.10	32.23420405	-103.63233400	0.00	0.00	0.00
	12,200.00	90.00	179.67	10,750.00	7,118.80	1,815.32	-1,816.05	-122.06	449,544.32	758,087.68	32.23392918	-103.63233422	0.00	0.00	0.00
	12,300.00	90.00	179.67	10,750.00	7,118.80	1,915.32	-1,916.05	-121.48	449,444.32	758,088.27	32.23365432	-103.63233444	0.00	0.00	0.00
	12,400.00	90.00	179.67	10,750.00	7,118.80	2,015.32	-2,016.05	-120.89	449,344.33	758,088.85	32.23337945	-103.63233466	0.00	0.00	0.00
	12,500.00	90.00	179.67	10,750.00	7,118.80	2,115.32	-2,116.05	-120.31	449,244.34	758,089.44	32.23310459	-103.63233488	0.00	0.00	0.00
	12,600.00	90.00	179.67	10,750.00	7,118.80	2,215.32	-2,216.04	-119.72	449,144.34	758,090.02	32.23282972	-103.63233511	0.00	0.00	0.00
	12,700.00	90.00	179.67	10,750.00	7,118.80	2,315.32	-2,316.04	-119.14	449,044.35	758,090.60	32.23255486	-103.63233533	0.00	0.00	0.00
	12,800.00	90.00	179.67	10,750.00	7,118.80	2,415.32	-2,416.04	-118.56	448,944.35	758,091.19	32.23227999	-103.63233555	0.00	0.00	0.00
Pool NMNM0001917 exit to NMI	12,831.00	90.00	179.67	10,750.00	7,118.80	2,446.32	-2,447.04	-118.37	448,913.35	758,091.37	32.23219478	-103.63233562	0.00	0.00	0.00
	12,900.00	90.00	179.67	10,750.00	7,118.80	2,515.32	-2,516.04	-117.97	448,844.36	758,091.77	32.23200513	-103.63233577	0.00	0.00	0.00
	13,000.00	90.00	179.67	10,750.00	7,118.80	2,615.32	-2,616.04	-117.39	448,744.36	758,092.36	32.23173026	-103.63233599	0.00	0.00	0.00
	13,100.00	90.00	179.67	10,750.00	7,118.80	2,715.32	-2,716.04	-116.80	448,644.37	758,092.94	32.23145540	-103.63233621	0.00	0.00	0.00
	13,200.00	90.00	179.67	10,750.00	7,118.80	2,815.32	-2,816.03	-116.22	448,544.38	758,093.52	32.23118053	-103.63233644	0.00	0.00	0.00
	13,300.00	90.00	179.67	10,750.00	7,118.80	2,915.32	-2,916.03	-115.64	448,444.38	758,094.11	32.23090567	-103.63233666	0.00	0.00	0.00
	13,400.00	90.00	179.67	10,750.00	7,118.80	3,015.32	-3,016.03	-115.05	448,344.39	758,094.69	32.23063080	-103.63233688	0.00	0.00	0.00
	13,500.00	90.00	179.67	10,750.00	7,118.80	3,115.32	-3,116.03	-114.47	448,244.39	758,095.28	32.23035594	-103.63233710	0.00	0.00	0.00
	13,600.00	90.00	179.67	10,750.00	7,118.80	3,215.32	-3,216.03	-113.88	448,144.40	758,095.86	32.23008107	-103.63233732	0.00	0.00	0.00
	13,700.00	90.00	179.67	10,750.00	7,118.80	3,315.32	-3,316.03	-113.30	448,044.40	758,096.44	32.22980621	-103.63233754	0.00	0.00	0.00
	13,800.00	90.00	179.67	10,750.00	7,118.80	3,415.32	-3,416.02	-112.72	447,944.41	758,097.03	32.22953134	-103.63233776	0.00	0.00	0.00
	13,900.00	90.00	179.67	10,750.00	7,118.80	3,515.32	-3,516.02	-112.13	447,844.41	758,097.61	32.22925648	-103.63233799	0.00	0.00	0.00
	14,000.00	90.00	179.67	10,750.00	7,118.80	3,615.32	-3,616.02	-111.55	447,744.42	758,098.20	32.22898161	-103.63233821	0.00	0.00	0.00
	14,100.00	90.00	179.67	10,750.00	7,118.80	3,715.32	-3,716.02	-110.96	447,644.43	758,098.78	32.22870675	-103.63233843	0.00	0.00	0.00
	14,200.00	90.00	179.67	10,750.00	7,118.80	3,815.32	-3,816.02	-110.38	447,544.43	758,099.36	32.22843188	-103.63233865	0.00	0.00	0.00
	14,300.00	90.00	179.67	10,750.00	7,118.80	3,915.32	-3,916.02	-109.80	447,444.44	758,099.95	32.22815702	-103.63233887	0.00	0.00	0.00
	14,400.00	90.00	179.67	10,750.00	7,118.80	4,015.32	-4,016.01	-109.21	447,344.44	758,100.53	32.22788216	-103.63233909	0.00	0.00	0.00
	14,500.00	90.00	179.67	10,750.00	7,118.80	4,115.32	-4,116.01	-108.63	447,244.45	758,101.12	32.22760729	-103.63233931	0.00	0.00	0.00
	14,600.00	90.00	179.67	10,750.00	7,118.80	4,215.32	-4,216.01	-108.04	447,144.45	758,101.70	32.22733243	-103.63233954	0.00	0.00	0.00
	14,700.00	90.00	179.67	10,750.00	7,118.80	4,315.32	-4,316.01	-107.46	447,044.46	758,102.28	32.22705756	-103.63233976	0.00	0.00	0.00
	14,800.00	90.00	179.67	10,750.00	7,118.80	4,415.32	-4,416.01	-106.88	446,944.46	758,102.87	32.22678270	-103.63233998	0.00	0.00	0.00
	14,900.00	90.00	179.67	10,750.00	7,118.80	4,515.32	-4,516.01	-106.29	446,844.47	758,103.45	32.22650783	-103.63234020	0.00	0.00	0.00
	15,000.00	90.00	179.67	10,750.00	7,118.80	4,615.32	-4,616.00	-105.71	446,744.48	758,104.04	32.22623297	-103.63234042	0.00	0.00	0.00
	15,100.00	90.00	179.67	10,750.00	7,118.80	4,715.32	-4,716.00	-105.12	446,644.48	758,104.62	32.22595810	-103.63234064	0.00	0.00	0.00
	15,200.00	90.00	179.67	10,750.00	7,118.80	4,815.32	-4,816.00	-104.54	446,544.49	758,105.20	32.22568324	-103.63234086	0.00	0.00	0.00
	15,300.00	90.00	179.67	10,750.00	7,118.80	4,915.32	-4,916.00	-103.96	446,444.49	758,105.79	32.22540837	-103.63234109	0.00	0.00	0.00
	15,400.00	90.00	179.67	10,750.00	7,118.80	5,015.32	-5,016.00	-103.37	446,344.50	758,106.37	32.22513351	-103.63234131	0.00	0.00	0.00
Section 12-13 Line Cross, Pool N	15,481.00	90.00	179.67	10,750.00	7,118.80	5,096.32	-5,097.00	-102.90	446,263.50	758,106.85	32.22491086	-103.63234149	0.00	0.00	0.00
	15,500.00	90.00	179.67	10,750.00	7,118.80	5,115.32	-5,116.00	-102.79	446,244.50	758,106.96	32.22485864	-103.63234153	0.00	0.00	0.00
	15,600.00	90.00	179.67	10,750.00	7,118.80	5,215.32	-5,215.99	-102.20	446,144.51	758,107.54	32.22458377	-103.63234175	0.00	0.00	0.00
	15,700.00	90.00	179.67	10,750.00	7,118.80	5,315.32	-5,315.99	-101.62	446,044.52	758,108.12	32.22430891	-103.63234197	0.00	0.00	0.00
	15,800.00	90.00	179.67	10,750.00	7,118.80	5,415.32	-5,415.99	-101.04	445,944.52	758,108.71	32.22403404	-103.63234219	0.00	0.00	0.00
	15,900.00	90.00	179.67	10,750.00	7,118.80	5,515.32	-5,515.99	-100.45	445,844.53	758,109.29	32.22375918	-103.63234241	0.00	0.00	0.00
	16,000.00	90.00	179.67	10,750.00	7,118.80	5,615.32	-5,615.99	-99.87	445,744.53	758,109.88	32.22348431	-103.63234263	0.00	0.00	0.00
	16,100.00	90.00	179.67	10,750.00	7,118.80	5,715.32	-5,715.99	-99.28	445,644.54	758,110.46	32.22320945	-103.63234285	0.00	0.00	0.00
	16,200.00	90.00	179.67	10,750.00	7,118.80	5,815.32	-5,815.98	-98.70	445,544.54	758,111.04	32.22293458	-103.63234308	0.00	0.00	0.00
	16,300.00	90.00	179.67	10,750.00	7,118.80	5,915.32	-5,915.98	-98.12	445,444.55	758,111.63	32.22265972	-103.63234330	0.00	0.00	0.00
	16,400.00	90.00	179.67	10,750.00	7,118.80	6,015.32	-6,015.98	-97.53	445,344.55	758,112.21	32.22238485	-103.63234352	0.00	0.00	0.00
	16,500.00	90.00	179.67	10,750.00	7,118.80	6,115.32	-6,115.98	-96.95	445,244.56	758,112.80	32.22210999	-103.63234374	0.00	0.00	0.00
	16,600.00	90.00	179.67	10,750.00	7,118.80	6,215.32	-6,215.98	-96.36	445,144.57	758,113.38	32.22183512	-103.63234396	0.00	0.00	0.00
	16,700.00	90.00	179.67	10,750.00	7,118.80	6,315.32	-6,315.98	-95.78	445,044.57	758,113.96	32.22156026	-103.63234418	0.00	0.00	0.00
	16,800.00	90.00	179.67	10,750.00	7,118.80	6,415.32	-6,415.97	-95.20	444,944.58	758,114.55	32.22128539	-103.63234440	0.00	0.00	0.00
	16,900.00	90.00	179.67	10,750.00	7,118.80	6,515.32	-6,515.97	-94.61	444,844.58	758,115.13	32.22101053	-103.63234462	0.00	0.00	0.00
	17,000.00	90.00	179.67	10,750.00	7,118.80	6,615.32	-6,615.97	-94.03	444,744.59	758,115.72	32.22073566	-103.63234484	0.00	0.00	0.00
	17,100.00	90.00	179.67	10,750.00	7,118.80	6,715.32	-6,715.97	-93.44	444,644.59	758,116.30	32.22046080	-103.63234506	0.00	0.00	0.00
	17,200.00	90.00	179.67	10,750.00	7,118.80	6,815.32	-6,815.97	-92.86	444,544.60	758,116.88	32.22018593	-103.63234529	0.00	0.00	0.00
	17,300.00	90.00	179.67	10,750.00	7,118.80	6,915.32	-6,915.96	-92.28	444,444.61	758,117.47	32.21991107	-103.63234551	0.00	0.00	0.00
	17,400.00	90.00	179.67	10,750.00	7,118.80	7,015.32	-7,015.96	-91.69	444,344.61	758,118.05	32.21963620	-103.63234573	0.00	0.00	0.00
	17,500.00	90.00	179.67	10,750.00	7,118.80	7,115.32	-7,115.96	-91.11	444,244.62	758,118.64	32.21936134	-103.63234595	0.00	0.00	0.00
	17,600.00	90.00	179.67	10,750.00	7,118.80	7,215.32	-7,215.96	-90.52	444,144.62	758,119.22	32.21908647	-103.63234617	0.00	0.00	0.00
	17,700.00	90.00	179.67	10,750.00	7,118.80	7,315.32	-7,315.96	-89.94	444,044.63	758,119.80	32.21881161	-103.63234639	0.00	0.00	0.00
	17,800.00	90.00	179.67	10,750.00	7,118.80	7,415.32	-7,415.96	-89.35	443,944.63	758,120.39	32.21853674	-103.63234661	0.00	0.00	0.00
	17,900.00	90.00	179.67	10,750.00	7,118.80	7,515.32	-7,515.95	-88.77	443,844.64	758,120.97	32.21826187	-103.63234683	0.00	0.00	0.00
	18,000.00	90.00	179.67	10,750.00	7,118.80	7,615.32	-7,615.95	-88.19	443,744.64	758,121.56	32.21798701	-103.63234705	0.00	0.00	0.00
	18,100.00	90.00	179.67	10,750.00	7,118.80	7,715.32	-7,715.95	-87.60	443,644.65	758,122.14	32.21771214	-103.63234727	0.00	0.00	0.00
Pool NMNM0553548 exit to NMI	18,112.00	90.00	179.67	10,750.00	7,118.80	7,727.32	-7,727.95	-87.53	443,632.65	758,122.21	32.21767916	-103.63234730	0.00	0.00	0.00
	18,200.00	90.00	179.67	10,750.00	7,118.80	7,815.32	-7,815.95	-87.02	443,544.66	758,122.72	32.21743728	-103.63234749	0.00	0.00	0.00
	18,300.00	90.00	179.67	10,750.00	7,118.80	7,915.32	-7,915.95	-86.43	443,444.66	758,123.31	32.21716241	-103.63234771	0.00	0.00	0.00
	18,400.00	90.00	179.67	10,750.00	7,118.80	8,015.32	-8,015.95	-85.85	443,344.67	758,123.89	32.21688755	-103.63234793	0.00	0.00	0.00
	18,500.00	90.00	179.67	10,750.00	7,118.80	8,115.32	-8,115.94	-85.27	443,244.67	758,124.48	32.21661268	-103.63234816	0.00	0.00	0.00
	18,600.00	90.00	179.67	10,750.00	7,118.80	8,215.32	-8,215.94	-84.68	443,144.68	758,125.06	32.21633782	-103.63234838	0.00	0.00	0.00
	18,700.00	90.00	179.67	10,750.00	7,118.80	8,315.32	-8,315.94	-84.10	443,044.68	758,125.64	32.21606295	-103.63234860	0.00	0.00	0.00
	18,800.00	90.00	179.67	10,750.00	7,118.80	8,415.32	-8,415.94	-83.51	442,944.69	758,126.23	32.21578809	-103.63234882	0.00	0.00	0.00
	18,900.00	90.00	179.67	10,750.00	7,118.80	8,515.32	-8,515.94	-82.93	442,844.69	758,126.81	32.21551322	-103.63234904	0.00	0.00	0.00
	19,000.00	90.00	179.67	10,750.00	7,118.80	8,615.32	-8,615.94	-82.35	442,744.70	758,127.40	32.21523836	-103.63234926	0.00	0.00	0.00
	19,100.00	90.00	179.67	10,750.00	7,118.80	8,715.32	-8,715.93	-81.76	442,644.71	758,127.98	32.21496349	-103.63234948	0.00	0.00	0.00
	19,200.00	90.00	179.67	10,750.00	7,118.80	8,815.32	-8,815.93	-81.18	442,544.71	758,128.56	32.21468862	-103.63234970	0.00	0.00	0.00
	19,300.00	90.00	179.67	10,750.00	7,118.80	8,915.32	-8,915.93	-80.59	442,444.72	758,129.15	32.21441376	-103.63234992	0.00	0.00	0.00
	19,400.00	90.00	179.67	10,750.00	7,118.80	9,015.32	-9,015.93	-80.01	442,344.72	758,129.73	32.21413889	-103.63235014	0.00	0.00	0.00
	19,500.00	90.00	179.67	10,750.00	7,118.80	9,115.32	-9,115.93	-79.43	442,244.73	758,130.32	32.21386403	-103.63235036	0.00	0.00	0.00
	19,600.00	90.00	179.67	10,750.00	7,118.80	9,215.32	-9,215.93	-78.84	442,144.73	758,130.90	32.21358916	-103.63235058	0.00	0.00	0.00
	19,700.00	90.00	179.67	10,750.00	7,118.80	9,315.32	-9,315.92	-78.26	442,044.74	758,131.48	32.21331430	-103.63235080	0.00	0.00	0.00
	19,800.00	90.00	179.67	10,750.00	7,118.80	9,415.32	-9,415.92	-77.67	441,944.75	758,132.07	32.21303943	-103.63235102	0.00	0.00	0.00
	19,900.00	90.00	179.67	10,750.00	7,118.80	9,515.32	-9,515.92	-77.09	441,844.75	758,132.65	32.21276457	-103.63235124	0.00	0.00	0.00
	20,000.00	90.00	179.67	10,750.00	7,118.80	9,615.32	-9,615.92	-76.51	441,744.76	758,133.24	32.21248970	-103.63235146	0.00	0.00	0.00
	20,100.00	90.00	179.67	10,750.00	7,118.80	9,715.32	-9,715.92	-75.92	441,644.76	758,133.82	32.21221483	-103.63235168	0.00	0.00	0.00
	20,200.00	90.00	179.67	10,750.00	7,118.80	9,815.32	-9,815.92	-75.34	441,544.77	758,134.40	32.21193997	-103.63235190	0.00	0.00	0.00
	20,300.00	90.00	179.67	10,750.00	7,118.80	9,915.32	-9,915.91	-74.75	441,444.77	758,134.99	32.21166510	-103.63235212	0.00	0.00	0.00
	20,400.00	90.00	179.67	10,750.00	7,118.80	10,015.32	-10,015.91	-74.17	441,344.78	758,135.57	32.21139024	-103.63235234	0.00	0.00	0.00
	20,500.00	90.00	179.67	10,750.00	7,118.80	10,115.32	-10,115.91	-73.59	441,244.78	758,136.16	32.21111537	-103.63235256	0.00	0.00	0.00
	20,600.00	90.00	179.67	10,750.00	7,118.80	10,215.32	-10,215.91	-73.00	441,144.79	758,136.74	32.21084051	-103.63235279	0.00	0.00	0.00
Dos Equis 12-13 Federal Com 5(	20,654.71	90.00	179.67	10,750.00	7,118.80	10,270.03	-10,270.62	-72.68	441,090.08	758,137.06	32.21069012	-103.63235291	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)

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	10,100.000	1/100.000	–	–		A001Mb_MWD		Dos Equis 12-13 Federal Com 50H / Coterra Dos E
	1	10,100.000	20,654.590	1/100.000	–	–		A008Mb_MWD+IFR1+MS		Dos Equis 12-13 Federal Com 50H / 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
1,215.000	14.500	10.750	
	9.875	7.625	
	8.750	7.625	
20,654.713	6.750	5.000	

Schlumberger

Coterra Dos Equis 12-13 Federal Com 50H Rev0 kFc 17Nov23 Anti-Collision Summary Report

Analysis Date-24hr Time:	November 21, 2023 - 03:34 PM (UTC 0)	**Analysis Method:**	3D Least Distance
Client:	COTERRA	**Reference Trajectory:**	Coterra Dos Equis 12-13 Federal Com 50H Rev0 kFc 17Nov23 (Def Plan)
Field:	NM Lea County (NAD 83)	**Depth Interval:**	Every 10.00 Measured Depth (ft)
Structure:	Coterra Dos Equis 12-13 Federal Com Pad 3	**Rule Set:**	NAL Procedure: D&M AntiCollision Standard S002
Slot:	Dos Equis 12-13 Federal Com 50H	**Min Pts:**	Absolute minima indicated.
Well:	Dos Equis 12-13 Federal Com 50H	**Engine Version:**	2023.1.0.1
Borehole:	Dos Equis 12-13 Federal Com 50H	**Database \ Project:**	Dos Equis 12-13 Federal Com 50H--COTERRA
Scan MD Range:	0.00ft ~ 20654.71ft		

Trajectory Error Model: ISCWSA0 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

Offset Trajectory	Separation			Allow	Sep.	Controlling	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)	Dev. (ft)	Fact.	Rule	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 49H Rev0 kFc 17Nov23 (DefinitivePlan)													Fail Major
	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	28.63	0.07	-8.64	1.00	OSF1.50	1800.00	1800.00				MinPt-CtCt	
	20.01	28.78	-0.01	-8.77	1.00	OSF1.50	1810.00	1810.00			OSF<1.00	Enter Major	
	20.15	29.08	**-0.07**	-8.93	**1.00**	OSF1.50	1830.00	1830.00				MinPts	
	20.26	29.23	-0.05	**-8.96**	1.00	OSF1.50	1840.00	1840.00			OSF>1.00	Exit Major	
	32.50	32.51	9.99	-0.01	1.50	OSF1.50	2070.00	2070.00		OSF>1.50		Exit Minor	
	156.32	48.76	122.98	107.56	4.99	OSF1.50	3170.00	3170.00	OSF>5.00			Exit Alert	
	679.97	146.97	**581.16**	533.00	7.03	OSF1.50	10020.00	10016.35				MinPts	
	680.05	147.08	581.16	**532.97**	7.03	OSF1.50	10030.00	10026.35				MinPt-ADP	
	680.56	147.26	581.55	533.30	**7.03**	OSF1.50	10050.00	10046.35				MinPt-SF	
	879.56	170.76	764.89	708.80	7.82	OSF1.50	14140.00	10750.00				MinPt-CtCt	
	880.20	172.56	**764.33**	707.64	7.74	OSF1.50	14220.00	10750.00				MinPt-EOU	
	880.99	173.49	764.50	**707.51**	7.71	OSF1.50	14260.00	10750.00				MinPt-ADP	
	879.36	265.72	701.38	613.64	5.00	OSF1.50	17680.00	10750.00	OSF<5.00			Enter Alert	
	879.13	354.82	641.75	524.31	3.73	OSF1.50	20650.00	10750.00				MinPt-CtCt	
	879.13	354.96	**641.66**	**524.18**	**3.73**	OSF1.50	20654.71	10750.00				MinPts	
Coterra Dos Equis 12-13 Federal Com 51H 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	N/A	MAS = 5.03 (m)	23.00	23.00				WRP	
	20.00	20.07	5.79	-0.06	1.49	OSF1.50	1230.00	1230.00		OSF<1.50		Enter Minor	
	20.00	28.63	0.08	-8.63	1.00	OSF1.50	1800.00	1800.00				MinPt-CtCt	
	20.02	28.78	0.00	-8.76	1.00	OSF1.50	1810.00	1810.00			OSF<1.00	Enter Major	
	20.15	29.08	**-0.06**	-8.92	**1.00**	OSF1.50	1830.00	1830.00				MinPts	
	20.27	29.23	-0.04	**-8.95**	1.00	OSF1.50	1840.00	1840.00			OSF>1.00	Exit Major	
	32.48	32.51	9.97	-0.03	1.50	OSF1.50	2070.00	2070.00		OSF>1.50		Exit Minor	
	166.69	51.79	131.33	114.90	5.00	OSF1.50	3374.83	3374.79	OSF>5.00			Exit Alert	
	444.38	135.11	353.47	309.27	5.00	OSF1.50	8970.00	8966.35	OSF<5.00			Enter Alert	
	444.38	152.43	341.93	291.95	4.42	OSF1.50	10161.17	10157.52				MinPt-CtCt	
	444.41	152.49	**341.91**	**291.92**	4.42	OSF1.50	10170.00	10166.35				MinPts	
	444.71	152.64	342.11	292.06	**4.42**	OSF1.50	10190.00	10186.34				MinPt-SF	
	510.09	155.52	405.58	354.57	4.98	OSF1.50	10540.00	10509.35	OSF>5.00			Exit Alert	
	893.21	112.62	817.30	780.59	12.13	OSF1.50	11211.17	10750.00				MinPt-CtCt	
	893.43	270.03	712.57	623.40	5.00	OSF1.50	17960.00	10750.00	OSF<5.00			Enter Alert	
	893.51	352.69	**657.55**	**540.82**	**3.82**	OSF1.50	20654.71	10750.00				MinPts	
Coterra Dos Equis 12-13 Federal Com 48H Rev0 kFc 17Nov23 (DefinitivePlan)													Warning Alert
	39.99	32.49	37.49	7.50	N/A	MAS = 9.90 (m)	0.00	0.00	CtCt<=15m<15.00			Enter Alert	
	39.99	32.49	37.49	7.50	52907.09	MAS = 9.90 (m)	23.00	23.00				WRP	
	39.99	32.49	25.18	**7.50**	3.05	MAS = 9.90 (m)	1290.00	1290.00				MinPts	
	40.15	32.49	**24.94**	7.65	2.96	MAS = 9.90 (m)	1330.00	1330.00				MinPt-EOU	
	41.10	32.49	25.40	8.60	**2.93**	MAS = 9.90 (m)	1380.00	1380.00				MinPt-SF	
	89.24	32.49	69.25	56.74	4.96	MAS = 9.90 (m)	1840.00	1840.00	OSF>5.00			Exit Alert	
	873.50	147.51	**774.33**	725.99	9.01	OSF1.50	10161.17	10157.52				MinPt-EOU	
	873.50	147.51	774.33	**725.99**	9.01	OSF1.50	10170.00	10166.35				MinPt-ADP	
	873.61	147.54	774.42	726.07	**9.01**	OSF1.50	10210.00	10206.29				MinPt-SF	
	1220.46	353.84	983.74	866.62	5.20	OSF1.50	20650.00	10750.00				MinPt-CtCt	
	1220.46	353.94	**983.67**	**866.53**	**5.20**	OSF1.50	20654.71	10750.00				MinPts	
Coterra Dos Equis 12-13 Federal Com 52H Rev0 kFc 17Nov23 (DefinitivePlan)													Warning Alert
	39.99	32.49	37.49	7.50	N/A	MAS = 9.90 (m)	0.00	0.00	CtCt<=15m<15.00			Enter Alert	
	39.99	32.49	37.49	7.50	N/A	MAS = 9.90 (m)	23.00	23.00				WRP	
	39.99	32.49	22.07	**7.50**	2.43	MAS = 9.90 (m)	1600.00	1600.00				MinPts	
	40.14	32.49	**21.93**	7.65	2.40	MAS = 9.90 (m)	1630.00	1630.00				MinPt-EOU	
	40.82	32.49	22.22	8.33	**2.38**	MAS = 9.90 (m)	1670.00	1670.00				MinPt-SF	
	119.09	37.62	93.18	81.47	4.98	OSF1.50	2430.00	2430.00	OSF>5.00			Exit Alert	
	548.03	142.48	452.21	405.54	5.85	OSF1.50	9500.00	9496.35				MinPt-CtCt	
	548.10	142.76	**452.09**	405.34	5.83	OSF1.50	9530.00	9526.35				MinPt-EOU	
	548.18	142.85	452.12	**405.33**	5.83	OSF1.50	9540.00	9536.35				MinPt-ADP	
	549.36	143.34	452.96	406.01	**5.82**	OSF1.50	9600.00	9596.35				MinPt-SF	
	856.38	208.84	716.32	647.54	6.21	OSF1.50	15750.00	10750.00				MinPt-CtCt	
	857.21	211.20	**715.58**	646.01	6.14	OSF1.50	15840.00	10750.00				MinPt-EOU	
	858.34	212.53	715.82	**645.82**	6.11	OSF1.50	15890.00	10750.00				MinPt-ADP	
	975.72	294.75	778.39	680.97	5.00	OSF1.50	18670.00	10750.00	OSF<5.00			Enter Alert	
	975.81	354.00	**738.98**	**621.81**	**4.15**	OSF1.50	20654.71	10750.00				MinPts	
30-025-40792 - DOS EQUIS `12' FEDERAL COM 3H - Gyro+MWD to 15227ft (DefinitiveSurvey)													Warning Alert
	482.43	32.81	**479.93**	**449.63**	2320130.37	MAS = 10.00 (m)	0.00	0.00				MinPts	
	482.47	32.81	479.95	449.66	24701.53	MAS = 10.00 (m)	23.00	23.00				WRP	
	482.54	32.81	**479.94**	449.73	5073.34	MAS = 10.00 (m)	40.00	40.00				MinPt-EOU	
	475.35	32.81	459.40	**442.55**	35.14	MAS = 10.00 (m)	1420.00	1420.00				MinPts	
	474.05	47.18	441.76	426.87	15.83	OSF1.50	3071.48	3071.48				MinPt-CtCt	
	474.55	50.55	**440.01**	424.00	14.74	OSF1.50	3300.00	3300.00				MinPt-EOU	
	474.79	50.84	440.06	**423.95**	14.66	OSF1.50	3320.00	3319.99				MinPt-ADP	

Offset Trajectory	Separation			Allow	Sep.	Controlling	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)	Dev. (ft)	Fact.	Rule	MD (ft)	TVD (ft)	Alert	Minor	Major		
	540.16	122.79	457.47	417.37	6.70	OSF1.50	9460.00	9456.35				MinPt-CtCt	
	522.78	133.40	433.02	389.39	5.96	OSF1.50	10590.00	10547.42				MinPts	
	522.96	133.49	433.13	389.47	5.96	OSF1.50	10610.00	10561.83				MinPt-SF	
	609.61	155.47	505.13	454.14	5.95	OSF1.50	12330.00	10750.00				MinPt-CtCt	
	610.90	158.85	504.17	452.05	5.84	OSF1.50	12470.00	10750.00				MinPt-EOU	
	612.85	161.77	504.18	451.09	5.75	OSF1.50	12580.00	10750.00				MinPt-EOU	
	615.08	164.40	504.65	450.69	5.68	OSF1.50	12680.00	10750.00				MinPt-ADP	
	621.63	175.97	503.49	445.66	5.35	OSF1.50	13060.00	10750.00				MinPt-EOU	
	622.29	176.75	503.62	445.54	5.34	OSF1.50	13090.00	10750.00				MinPt-ADP	
	632.46	191.69	503.83	440.77	4.99	OSF1.50	13530.00	10750.00	OSF<5.00			Enter Alert	
	632.50	196.63	500.58	435.87	4.87	OSF1.50	13670.00	10750.00				MinPt-CtCt	
	633.82	204.45	496.69	429.37	4.69	OSF1.50	13900.00	10750.00				MinPt-EOU	
	635.40	243.85	472.00	391.55	3.93	OSF1.50	14900.00	10750.00				MinPt-CtCt	
	637.42	250.62	469.51	386.80	3.84	OSF1.50	15080.00	10750.00				MinPt-EOU	
	639.36	253.29	469.66	386.06	3.81	OSF1.50	15150.00	10750.00				MinPts	
	753.67	229.31	599.96	524.36	4.97	OSF1.50	15530.00	10750.00	OSF>5.00			Exit Alert	
	5561.08	154.72	5457.11	5406.37	54.78	OSF1.50	20654.71	10750.00				TD	
30-025-45416 - DOS EQUIS 13 FEDERAL COM 9H - Corrected MWD to 15788ft (DefinitiveSurvey)													Warning Alert
	5339.70	32.81	5337.89	5306.89	#########	MAS = 10.00 (m)	0.00	0.00				MinPts	
	5339.70	32.81	5337.87	5306.89	187530.07	MAS = 10.00 (m)	23.00	23.00				WRP	
	5341.30	32.81	5334.29	5308.49	1026.61	MAS = 10.00 (m)	770.00	770.00				MinPts	
	5341.26	32.81	5332.18	5308.45	734.04	MAS = 10.00 (m)	1070.00	1070.00				MinPts	
	5341.19	32.81	5331.37	5308.38	666.41	MAS = 10.00 (m)	1170.00	1170.00				MinPt-EOU	
	5334.81	32.81	5316.09	5302.01	312.36	MAS = 10.00 (m)	2460.00	2460.00				MinPts	
	5335.03	32.81	5314.89	5302.22	288.54	MAS = 10.00 (m)	2660.00	2660.00				MinPts	
	5335.85	32.81	5314.22	5303.04	267.09	MAS = 10.00 (m)	2870.00	2870.00				MinPt-EOU	
	5337.40	33.45	5314.54	5303.94	251.78	OSF1.50	3040.00	3040.00				MinPt-ADP	
	5338.30	34.51	5314.74	5303.79	243.67	OSF1.50	3140.00	3140.00				MinPt-EOU	
	5338.84	35.15	5314.85	5303.69	239.08	OSF1.50	3200.00	3200.00				MinPt-ADP	
	5237.72	76.75	5186.02	5160.97	104.51	OSF1.50	7210.00	7206.35				MinPt-CtCt	
	5237.83	77.08	5185.91	5160.75	104.07	OSF1.50	7240.00	7236.35				MinPt-EOU	
	5238.02	77.29	5185.95	5160.72	103.77	OSF1.50	7260.00	7256.35				MinPt-ADP	
	5259.60	91.89	5197.83	5167.72	87.31	OSF1.50	8630.00	8626.35				MinPt-ADP	
	5256.40	99.17	5189.77	5157.23	80.74	OSF1.50	9310.00	9306.35				MinPt-CtCt	
	5254.30	103.89	5184.53	5150.41	76.98	OSF1.50	9750.00	9746.35				MinPt-CtCt	
	5254.67	104.84	5184.26	5149.83	76.29	OSF1.50	9840.00	9836.35				MinPt-EOU	
	5255.07	105.30	5184.34	5149.77	75.99	OSF1.50	9880.00	9876.35				MinPt-ADP	
	581.04	162.56	472.16	418.49	5.40	OSF1.50	15778.98	10750.00				MinPt-CtCt	
	581.14	162.73	472.13	418.40	5.39	OSF1.50	15790.00	10750.00				MinPts	
	581.77	162.99	472.60	418.79	5.39	OSF1.50	15810.00	10750.00				MinPt-SF	
	640.52	177.34	521.78	463.18	5.45	OSF1.50	16750.00	10750.00				MinPt-CtCt	
	641.42	180.25	520.74	461.17	5.37	OSF1.50	16890.00	10750.00				MinPt-EOU	
	642.08	181.05	520.87	461.03	5.35	OSF1.50	16930.00	10750.00				MinPt-ADP	
	645.80	186.55	520.91	459.24	5.22	OSF1.50	17190.00	10750.00				MinPt-EOU	
	648.03	189.58	521.13	458.45	5.16	OSF1.50	17330.00	10750.00				MinPt-EOU	
	649.24	191.07	521.35	458.17	5.13	OSF1.50	17400.00	10750.00				MinPt-ADP	
	651.63	194.65	521.36	456.99	5.05	OSF1.50	17560.00	10750.00				MinPt-EOU	
	652.69	195.96	521.54	456.74	5.02	OSF1.50	17620.00	10750.00				MinPt-ADP	
	654.98	197.64	522.70	457.34	5.00	OSF1.50	17700.00	10750.00	OSF<5.00			Enter Alert	
	633.59	219.96	486.44	413.63	4.34	OSF1.50	18660.00	10750.00				MinPt-CtCt	
	633.83	220.62	486.24	413.21	4.33	OSF1.50	18690.00	10750.00				MinPt-EOU	
	634.00	220.83	486.27	413.17	4.33	OSF1.50	18700.00	10750.00				MinPt-ADP	
	636.54	271.20	455.22	365.34	3.53	OSF1.50	20654.71	10750.00				MinPts	
30-025-41304 - Bell Lake 24 Fed 4H - MWD to 15872ft - A (DefinitiveSurvey)													Warning Alert
	15429.63	131.27	15341.28	15298.36	179.71	OSF1.50	0.00	0.00				Surface	
	15413.08	131.36	15324.68	15281.72	179.39	OSF1.50	23.00	23.00				WRP	
	800.51	242.50	638.02	558.02	4.99	OSF1.50	20500.00	10750.00	OSF<5.00			Enter Alert	
	693.87	267.88	514.45	425.99	3.91	OSF1.50	20654.71	10750.00				MinPts	
30-025-40793 - DOS EQUIS `12` FEDERAL COM 4H - MWD to 15240ft (DefinitiveSurvey)													Warning Alert
	861.81	32.81	859.31	829.00	#########	MAS = 10.00 (m)	0.00	0.00				MinPts	
	861.81	32.81	859.30	829.00	91262.17	MAS = 10.00 (m)	23.00	23.00				WRP	
	864.60	32.81	843.49	831.79	46.33	MAS = 10.00 (m)	1940.00	1940.00				MinPts	
	866.62	46.29	834.93	820.33	29.60	OSF1.50	3010.00	3010.00				MinPt-CtCt	
	706.34	107.98	633.52	598.36	10.01	OSF1.50	7240.00	7236.35				MinPt-CtCt	
	709.66	114.98	632.18	594.69	9.43	OSF1.50	7720.00	7716.35				MinPt-EOU	
	713.20	119.20	632.90	594.00	9.14	OSF1.50	8010.00	8006.35				MinPt-ADP	
	718.23	131.10	630.00	587.13	8.35	OSF1.50	8820.00	8816.35				MinPt-EOU	
	720.91	134.92	630.13	585.99	8.14	OSF1.50	9080.00	9076.35				MinPt-EOU	
	723.45	139.03	629.93	584.42	7.92	OSF1.50	9360.00	9356.35				MinPt-EOU	
	724.63	140.48	630.14	584.15	7.85	OSF1.50	9460.00	9456.35				MinPt-ADP	
	732.66	146.22	634.35	586.45	7.62	OSF1.50	9850.00	9846.35				MinPt-ADP	
	745.01	151.88	642.92	593.13	7.46	OSF1.50	10380.00	10371.07				MinPts	
	744.76	152.03	642.59	592.74	7.45	OSF1.50	10600.00	10554.69				MinPts	
	744.81	152.04	642.62	592.77	7.45	OSF1.50	10610.00	10561.83				MinPt-SF	
	744.83	152.04	642.64	592.79	7.45	OSF1.50	10630.00	10575.76				MinPt-CtCt	
	744.90	152.06	642.69	592.84	7.45	OSF1.50	10650.00	10589.17				MinPt-SF	
	740.64	161.90	631.87	578.74	6.95	OSF1.50	11870.00	10750.00				MinPt-CtCt	
	740.68	162.02	631.83	578.66	6.94	OSF1.50	11880.00	10750.00				MinPt-EOU	
	741.07	162.46	631.93	578.61	6.93	OSF1.50	11910.00	10750.00				MinPt-ADP	
	744.29	168.76	630.96	575.54	6.69	OSF1.50	12200.00	10750.00				MinPt-CtCt	
	745.00	172.64	629.07	572.35	6.55	OSF1.50	12370.00	10750.00				MinPt-EOU	
	745.13	172.81	629.09	572.32	6.54	OSF1.50	12380.00	10750.00				MinPt-ADP	
	749.32	174.39	632.23	574.94	6.52	OSF1.50	12480.00	10750.00				MinPt-SF	
	763.33	180.00	642.50	583.34	6.43	OSF1.50	12670.00	10750.00				MinPt-ADP	
	719.16	217.65	573.22	501.51	5.00	OSF1.50	13820.00	10750.00	OSF<5.00			Enter Alert	
	713.33	221.65	564.73	491.68	4.87	OSF1.50	13970.00	10750.00				MinPt-CtCt	
	700.99	245.38	536.57	455.61	4.31	OSF1.50	14625.83	10750.00				MinPt-CtCt	
	703.10	252.25	534.09	450.84	4.21	OSF1.50	14820.00	10750.00				MinPt-EOU	
	707.05	256.92	534.94	450.13	4.15	OSF1.50	14950.00	10750.00				MinPt-ADP	
	717.52	265.76	539.51	451.76	4.07	OSF1.50	15180.00	10750.00				MinPt-SF	
	817.10	246.93	651.65	570.17	5.00	OSF1.50	15540.00	10750.00	OSF>5.00			Exit Alert	
	5553.41	171.17	5438.46	5382.24	49.36	OSF1.50	20654.71	10750.00				TD	
30-025-45417 - DOS EQUIS 13 FEDERAL COM 010H - IFR1 to 15791ft - A (DefinitiveSurvey)													Warning Alert
	5460.89	32.81	5458.34	5428.08	113695.95	MAS = 10.00 (m)	0.00	0.00				MinPts	
	5460.91	32.81	5458.29	5428.10	46266.08	MAS = 10.00 (m)	23.00	23.00				WRP	
	5463.77	32.81	5453.25	5430.96	680.71	MAS = 10.00 (m)	880.00	880.00				MinPts	
	5453.48	32.81	5432.68	5420.67	297.81	MAS = 10.00 (m)	1920.00	1920.00				MinPts	
	5453.67	32.81	5432.45	5420.86	291.19	MAS = 10.00 (m)	1980.00	1980.00				MinPt-EOU	
	5455.16	33.14	5432.23	5422.02	266.95	OSF1.50	2160.00	2160.00				MinPt-EOU	

Offset Trajectory	Separation			Allow	Sep.	Controlling	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)	Dev. (ft)	Fact.	Rule	MD (ft)	TVD (ft)	Alert	Minor	Major		
	5456.54	35.51	5432.04	5421.03	247.85	OSF1.50	2320.00	2320.00				MinPt-EOU	
	5459.33	39.70	5432.03	5419.63	220.03	OSF1.50	2600.00	2600.00				MinPt-EOU	
	5459.81	40.29	5432.12	5419.52	216.64	OSF1.50	2650.00	2650.00				MinPt-ADP	
	5462.67	43.71	5432.69	5418.95	198.74	OSF1.50	2870.00	2870.00				MinPt-EOU	
	5463.04	44.16	5432.77	5418.88	196.62	OSF1.50	2910.00	2910.00				MinPt-ADP	
	5467.24	49.50	5433.41	5417.75	174.42	OSF1.50	3240.00	3240.00				MinPt-CtCt	
	5258.89	138.72	5165.58	5120.18	57.88	OSF1.50	9270.00	9266.35				MinPt-CtCt	
	5260.82	143.27	5164.48	5117.55	56.03	OSF1.50	9600.00	9596.35				MinPt-EOU	
	745.74	197.46	613.26	548.27	5.72	OSF1.50	15789.35	10750.00				MinPt-CtCt	
	745.80	197.64	613.21	548.16	5.71	OSF1.50	15800.00	10750.00				MinPts	
	746.61	198.07	613.73	548.54	5.71	OSF1.50	15830.00	10750.00				MinPt-SF	
	781.11	218.86	634.36	562.24	5.40	OSF1.50	17320.00	10750.00				MinPt-CtCt	
	781.28	219.41	634.18	561.87	5.39	OSF1.50	17350.00	10750.00				MinPt-EOU	
	781.57	219.76	634.23	561.81	5.38	OSF1.50	17370.00	10750.00				MinPt-ADP	
	790.89	239.04	630.70	551.85	5.00	OSF1.50	18280.00	10750.00	OSF<5.00			Enter Alert	
	780.59	263.51	604.08	517.08	4.47	OSF1.50	19340.00	10750.00				MinPt-CtCt	
	773.70	283.14	584.10	490.56	4.12	OSF1.50	20130.00	10750.00				MinPt-CtCt	
	777.69	296.68	579.07	481.01	3.95	OSF1.50	20654.71	10750.00				MinPts	
30-025-41182 - Bell Lake 24 Fed 1H - MWD to 15784ft - A (DefinitiveSurvey)													Warning Alert
	15380.38	120.96	15298.91	15259.42	194.72	OSF1.50	0.00	0.00				Surface	
	15363.91	121.05	15282.38	15242.86	194.37	OSF1.50	23.00	23.00				WRP	
	982.34	297.57	783.13	684.77	4.98	OSF1.50	20460.00	10750.00	OSF<5.00			Enter Alert	
	871.97	325.36	654.23	546.61	4.04	OSF1.50	20654.71	10750.00				MinPts	
Coterra Dos Equis 12-13 Federal Com 47H Corrected MWD to 22528ft (DefinitiveSurvey)													Pass
	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	108644.87	MAS = 10.00 (m)	23.00	23.00				WRP	
	99.18	32.81	92.07	66.37	20.97	MAS = 10.00 (m)	530.00	530.00				MinPts	
	96.79	32.81	81.92	63.98	7.62	MAS = 10.00 (m)	1310.14	1310.14				MinPts	
	97.02	32.81	81.66	64.21	7.35	MAS = 10.00 (m)	1360.00	1360.00				MinPt-EOU	
	152.23	37.64	126.30	114.59	6.39	OSF1.50	2440.00	2440.00				MinPt-SF	
	975.85	139.28	882.17	836.58	10.67	OSF1.50	9290.00	9286.35				MinPt-CtCt	
	976.03	139.83	881.98	836.20	10.63	OSF1.50	9330.00	9326.35				MinPt-EOU	
	976.24	140.10	882.01	836.14	10.62	OSF1.50	9350.00	9346.35				MinPt-ADP	
	979.27	147.86	879.86	831.41	10.08	OSF1.50	9880.00	9876.35				MinPt-EOU	
	979.86	148.58	879.98	831.29	10.04	OSF1.50	9930.00	9926.35				MinPt-ADP	
	982.23	151.10	880.67	831.13	9.89	OSF1.50	10100.00	10096.35				MinPt-ADP	
	982.83	151.96	880.69	830.87	9.84	OSF1.50	10180.00	10176.35				MinPt-EOU	
	982.96	152.12	880.71	830.83	9.83	OSF1.50	10200.00	10196.32				MinPt-ADP	
	986.08	152.91	883.31	833.18	9.81	OSF1.50	10310.00	10304.68				MinPt-SF	
	1870.98	131.27	1782.64	1739.71	21.77	OSF1.50	12260.00	10750.00				MinPt-CtCt	
	1870.02	140.56	1775.48	1729.46	20.29	OSF1.50	12850.00	10750.00				MinPt-CtCt	
	1870.28	141.25	1775.28	1729.03	20.19	OSF1.50	12900.00	10750.00				MinPt-EOU	
	1867.96	145.25	1770.30	1722.71	19.60	OSF1.50	13110.00	10750.00				MinPt-CtCt	
	1869.29	148.69	1769.33	1720.61	19.15	OSF1.50	13300.00	10750.00				MinPt-EOU	
	1869.66	149.14	1769.40	1720.52	19.10	OSF1.50	13330.00	10750.00				MinPt-ADP	
	1870.81	159.96	1763.33	1710.85	17.80	OSF1.50	13830.00	10750.00				MinPt-CtCt	
	1871.15	165.06	1760.27	1706.08	17.24	OSF1.50	14060.00	10750.00				MinPt-CtCt	
	1871.98	167.17	1759.70	1704.81	17.03	OSF1.50	14170.00	10750.00				MinPt-EOU	
	1874.81	170.39	1760.38	1704.42	16.73	OSF1.50	14320.00	10750.00				MinPt-ADP	
	1877.48	176.65	1758.88	1700.83	16.15	OSF1.50	14570.00	10750.00				MinPt-EOU	
	1878.15	177.43	1759.03	1700.72	16.08	OSF1.50	14610.00	10750.00				MinPt-ADP	
	1879.78	182.48	1757.29	1697.30	15.65	OSF1.50	14790.00	10750.00				MinPt-CtCt	
	1880.50	185.79	1755.81	1694.71	15.37	OSF1.50	14940.00	10750.00				MinPt-EOU	
	1881.33	186.79	1755.97	1694.53	15.29	OSF1.50	14990.00	10750.00				MinPt-ADP	
	1880.26	201.51	1745.08	1678.74	14.15	OSF1.50	15530.00	10750.00				MinPt-CtCt	
	1880.06	204.44	1742.93	1675.62	13.95	OSF1.50	15640.00	10750.00				MinPt-CtCt	
	1880.20	204.90	1742.77	1675.30	13.92	OSF1.50	15670.00	10750.00				MinPt-EOU	
	1880.45	205.20	1742.82	1675.25	13.90	OSF1.50	15690.00	10750.00				MinPt-ADP	
	1877.49	239.16	1717.22	1638.34	11.88	OSF1.50	16900.00	10750.00				MinPt-CtCt	
	1877.89	240.34	1716.83	1637.55	11.83	OSF1.50	16960.00	10750.00				MinPt-EOU	
	1878.39	240.92	1716.95	1637.47	11.80	OSF1.50	16990.00	10750.00				MinPt-ADP	
	1873.68	261.78	1698.33	1611.90	10.83	OSF1.50	17680.00	10750.00				MinPt-CtCt	
	1874.45	264.09	1697.56	1610.36	10.73	OSF1.50	17780.00	10750.00				MinPt-EOU	
	1875.22	264.99	1697.73	1610.23	10.70	OSF1.50	17820.00	10750.00				MinPt-ADP	
	1878.78	268.68	1698.82	1610.10	10.57	OSF1.50	17950.00	10750.00				MinPt-ADP	
	1872.60	293.18	1676.31	1579.42	9.65	OSF1.50	18740.00	10750.00				MinPt-CtCt	
	1873.14	294.99	1675.65	1578.16	9.59	OSF1.50	18820.00	10750.00				MinPt-EOU	
	1873.87	295.86	1675.80	1578.01	9.57	OSF1.50	18860.00	10750.00				MinPt-ADP	
	1861.77	318.24	1648.78	1543.54	8.83	OSF1.50	19570.00	10750.00				MinPt-CtCt	
	1865.10	343.31	1635.39	1521.79	8.20	OSF1.50	20390.00	10750.00				MinPt-CtCt	
	1867.01	350.25	1632.68	1516.76	8.04	OSF1.50	20640.00	10750.00				MinPt-EOU	
	1867.28	350.63	1632.69	1516.64	8.03	OSF1.50	20654.71	10750.00				MinPts	
Coterra Dos Equis 12-13 Federal Com 3H Corrected MWD to 23004ft (DefinitiveSurvey)													Pass
	116.60	32.81	114.10	83.79	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	116.59	32.81	114.09	83.78	32018.60	MAS = 10.00 (m)	23.00	23.00				WRP	
	110.49	32.81	101.64	77.69	16.99	MAS = 10.00 (m)	702.25	702.25				MinPts	
	110.74	32.81	101.42	77.93	15.88	MAS = 10.00 (m)	750.00	750.00				MinPt-EOU	
	117.93	32.81	103.42	85.12	9.61	MAS = 10.00 (m)	1280.00	1280.00				MinPt-EOU	
	126.17	32.81	109.95	93.36	9.02	MAS = 10.00 (m)	1460.00	1460.00				MinPt-SF	
	1020.00	78.26	966.99	941.74	20.15	OSF1.50	5190.00	5188.24				MinPt-SF	
	1516.49	152.96	1413.68	1363.53	15.09	OSF1.50	10180.00	10176.35				MinPt-CtCt	
	1516.52	153.09	1413.63	1363.43	15.08	OSF1.50	10200.00	10196.32				MinPt-EOU	
	1516.58	153.15	1413.65	1363.43	15.08	OSF1.50	10210.00	10206.29				MinPt-ADP	
	1524.98	155.30	1420.61	1369.68	14.95	OSF1.50	10520.00	10493.35				MinPt-SF	
	2677.33	151.06	2575.79	2526.27	27.01	OSF1.50	13050.00	10750.00				MinPt-CtCt	
	2677.40	151.28	2575.72	2526.12	26.97	OSF1.50	13070.00	10750.00				MinPt-EOU	
	2677.58	151.50	2575.74	2526.08	26.93	OSF1.50	13090.00	10750.00				MinPt-ADP	
	2687.73	157.19	2582.10	2530.53	26.04	OSF1.50	13420.00	10750.00				MinPt-ADP	
	2687.94	163.25	2578.28	2524.69	25.06	OSF1.50	13710.00	10750.00				MinPt-CtCt	
	2686.66	168.83	2573.27	2517.83	24.21	OSF1.50	13990.00	10750.00				MinPt-CtCt	
	2687.58	178.50	2567.75	2509.09	22.88	OSF1.50	14440.00	10750.00				MinPt-CtCt	
	2688.05	179.88	2567.30	2508.17	22.71	OSF1.50	14520.00	10750.00				MinPt-EOU	
	2685.04	192.45	2555.91	2492.59	21.18	OSF1.50	15040.00	10750.00				MinPt-CtCt	
	2683.63	203.33	2547.24	2480.30	20.03	OSF1.50	15480.00	10750.00				MinPt-CtCt	
	2675.10	221.11	2526.86	2453.99	18.34	OSF1.50	16170.00	10750.00				MinPt-CtCt	
	2684.33	263.11	2508.09	2421.22	15.44	OSF1.50	17700.00	10750.00				MinPt-CtCt	
	2684.21	267.95	2504.75	2416.27	15.15	OSF1.50	17870.00	10750.00				MinPt-CtCt	
	2684.35	275.11	2500.11	2409.24	14.76	OSF1.50	18120.00	10750.00				MinPt-CtCt	
	2686.11	279.52	2498.93	2406.59	14.53	OSF1.50	18300.00	10750.00				MinPt-EOU	
	2680.75	296.80	2482.05	2383.95	13.65	OSF1.50	18870.00	10750.00				MinPt-CtCt	

Offset Trajectory	Separation			Allow	Sep.	Controlling	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)	Dev. (ft)	Fact.	Rule	MD (ft)	TVD (ft)	Alert	Minor	Major		
	2681.43	298.82	2481.38	2382.61	13.56	OSF1.50	18960.00	10750.00				MinPt-EOU	
	2683.04	300.73	2481.72	2382.32	13.48	OSF1.50	19040.00	10750.00				MinPt-ADP	
	2680.98	328.26	2461.30	2352.72	12.33	OSF1.50	19930.00	10750.00				MinPt-CtCt	
	2683.06	334.07	2459.52	2349.00	12.13	OSF1.50	20150.00	10750.00				MinPt-EOU	
	2688.42	350.01	2454.25	2338.42	11.59	OSF1.50	20650.00	10750.00				MinPt-CtCt	
	2688.42	350.07	2454.21	2338.35	11.59	OSF1.50	20654.71	10750.00				MinPts	
30-025-40793 - DOS EQUIS `12` FEDERAL COM 4H - Gyro to 11189ft (DefinitiveSurvey)													Pass
	861.81	32.81	859.31	829.00	#########	MAS = 10.00 (m)	0.00	0.00				MinPts	
	861.81	32.81	859.30	829.00	91262.17	MAS = 10.00 (m)	23.00	23.00				WRP	
	864.60	32.81	843.49	831.79	46.33	MAS = 10.00 (m)	1940.00	1940.00				MinPts	
	866.62	46.29	834.93	820.33	29.60	OSF1.50	3010.00	3010.00				MinPt-CtCt	
	706.34	107.99	633.52	598.36	10.01	OSF1.50	7240.43	7236.78				MinPt-CtCt	
	709.66	114.98	632.18	594.69	9.43	OSF1.50	7720.00	7716.35				MinPt-EOU	
	713.20	119.20	632.90	594.00	9.14	OSF1.50	8010.00	8006.35				MinPt-ADP	
	718.23	131.10	630.00	587.13	8.35	OSF1.50	8820.00	8816.35				MinPt-EOU	
	720.91	134.92	630.13	585.99	8.14	OSF1.50	9080.00	9076.35				MinPt-EOU	
	723.45	139.03	629.93	584.42	7.92	OSF1.50	9360.00	9356.35				MinPt-EOU	
	724.63	140.48	630.14	584.15	7.85	OSF1.50	9460.00	9456.35				MinPt-ADP	
	732.66	146.22	634.35	586.45	7.62	OSF1.50	9850.00	9846.35				MinPt-ADP	
	745.52	152.41	643.09	593.12	7.43	OSF1.50	10430.00	10416.59				MinPt-ADP	
	747.48	153.12	644.57	594.36	7.42	OSF1.50	10530.00	10501.40				MinPt-SF	
	10090.92	169.60	9977.02	9921.32	90.56	OSF1.50	20654.71	10750.00				TD	
30-025-46871 - Bell Lake 24 Fed 18H - MWD to 17350ft - A (DefinitiveSurvey)													Pass
	15459.92	32.81	15457.42	15427.11	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	15459.89	32.81	15457.39	15427.08	5404682.97	MAS = 10.00 (m)	20.00	20.00				MinPt-SF	
	15459.89	32.81	15457.39	15427.08	6419134.10	MAS = 10.00 (m)	23.00	23.00				WRP	
	15459.17	32.81	15452.78	15426.36	3968.05	MAS = 10.00 (m)	490.00	490.00				MinPts	
	15459.15	32.81	15451.26	15426.34	2867.79	MAS = 10.00 (m)	640.00	640.00				MinPts	
	1767.41	302.39	1564.99	1465.03	8.83	OSF1.50	20654.71	10750.00				MinPts	
30-025-46870 - Bell Lake 24 Fed 16H - MWD to 17400ft - A (DefinitiveSurvey)													Pass
	15460.64	32.81	15458.14	15427.83	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	15460.61	32.81	15458.11	15427.81	5405187.55	MAS = 10.00 (m)	20.00	20.00				MinPt-SF	
	15460.61	32.81	15458.11	15427.80	6419733.38	MAS = 10.00 (m)	23.00	23.00				WRP	
	15460.61	32.81	15458.09	15427.80	623178.91	MAS = 10.00 (m)	30.00	30.00				MinPts	
	15462.41	32.81	15456.79	15429.60	4961.22	MAS = 10.00 (m)	460.00	460.00				MinPt-EOU	
	1778.74	283.86	1588.67	1494.88	9.47	OSF1.50	20654.71	10750.00				MinPts	
30-025-46835 - Bell Lake 24 Fed 15H - MWD to 17337ft - A (DefinitiveSurvey)													Pass
	15461.42	32.81	15458.92	15428.61	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	15461.39	32.81	15458.89	15428.59	5935706.11	MAS = 10.00 (m)	20.00	20.00				MinPt-SF	
	15461.39	32.81	15458.89	15428.58	7312100.13	MAS = 10.00 (m)	23.00	23.00				WRP	
	1898.72	311.13	1690.46	1587.58	9.22	OSF1.50	20654.71	10750.00				MinPts	
30-025-08146 - FEDERAL-HANAGAN 3 - INC Only to 5049ft (DefinitiveSurvey)													Pass
	1969.86	32.81	1968.05	1937.05	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1969.75	32.81	1967.92	1936.94	119018.30	MAS = 10.00 (m)	10.00	10.00				MinPt-SF	
	1969.68	32.81	1967.87	1936.87	243934.19	MAS = 10.00 (m)	23.00	23.00				WRP	
	1899.51	321.64	1684.48	1577.87	8.90	OSF1.50	5120.00	5118.30				MinPt-SF	
	1899.30	321.58	1684.31	1577.72	8.90	OSF1.50	5140.00	5138.28				MinPts	
	1899.27	321.54	1684.31	1577.73	8.90	OSF1.50	5150.16	5148.44				MinPt-CtCt	
	5722.03	97.54	5656.40	5624.49	89.62	OSF1.50	12160.00	10750.00				MinPt-CtCt	
	5722.20	97.95	5656.29	5624.25	89.25	OSF1.50	12200.00	10750.00				MinPt-EOU	
	5722.38	98.18	5656.33	5624.21	89.04	OSF1.50	12220.00	10750.00				MinPt-ADP	
	7714.23	265.87	7536.38	7448.36	43.81	OSF1.50	17330.00	10750.00				MinPt-SF	
	10245.27	318.29	10032.48	9926.99	48.55	OSF1.50	20654.71	10750.00				TD	

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Cimarex Energy Company**
LEASE NO.:	**NMNM01917**
LOCATION:	Section 12, T.24 S., R.32 E., NMPM
COUNTY:	Lea County, New Mexico

WELL NAME & NO.:	**Dos Equis 12-13 Federal Com 50H**
SURFACE HOLE FOOTAGE:	195'/N & 1520'/W
BOTTOM HOLE FOOTAGE	100'/S & 1388'/W
ATS/API ID:	**30-025-50122**
APD ID:	**10400053142**
Sundry ID:	**2763419**

COA

H2S	Yes		
Potash	None		
Cave/Karst Potential	Low		
Cave/Karst Potential	☐ Critical		
Variance	☐ None	☑ Flex Hose	☐ Other
Wellhead	Conventional and Multibowl		
Other	☐ 4 String	Capitan Reef: None	☐ WIPP
Other	Pilot Hole: None	☐ Open Annulus	
Cementing	Contingency Squeeze: None	Echo-Meter: None	Primary Cement Squeeze: None
Special Requirements	☐ Water Disposal/Injection	☑ COM	☐ Unit
Special Requirements	☐ Batch Sundry		
Special Requirements Variance	☐ Break Testing	☐ Offline Cementing	☐ Casing Clearance

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Delaware** formation. As a result, the Hydrogen Sulfide area must meet **43 CFR part 3170 Subpart 3176** requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **1520 feet** (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt when present, and below usable fresh water) and cemented to the surface. The surface hole shall be **17 1/2** inch in diameter.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

    - Cement to surface. If cement does not circulate see B.1.a, c-d above.

3. The minimum required fill of cement behind the **7** inch production casing is:

    - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

4. The minimum required fill of cement behind the **4-1/2** inch production liner is:

    - Cement should tie-back **100 feet** into the previous casing. Operator shall provide method of verification.
      Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

2.

Option 1:

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** inch intermediate casing shoe shall be **3000 (3M)** psi.

c. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **7** inch intermediate casing shoe shall be **5000 (5M)** psi.

Option 2:

Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the **13-3/8** inch surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
c. Manufacturer representative shall install the test plug for the initial BOP test.
d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in **43 CFR part 3170 Subpart 3171**
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☑ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,
(575) 689-5981

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report when present.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. 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. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR part 3170 Subpart 3172** and **API STD 53 Sec. 5.3**.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
    e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-

off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170 Subpart 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

e. The results of the test shall be reported to the appropriate BLM office.

f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR part 3170 Subpart 3172**.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

LVO 3/5/2024

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

CONDITIONS

Action 322558

CONDITIONS

Operator: CIMAREX ENERGY CO. 6001 Deauville Blvd Midland, TX 79706	OGRID: 215099
	Action Number: 322558
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	ALL PREVIOUS COA'S APPLY	5/27/2024