

Well Name: DOS EQUIS 12-13 FEDERAL COM	Well Location: T24S / R32E / SEC 12 / NWNW /	County or Parish/State:
Well Number: 87H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM02889	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002550137	Well Status: Approved Application for Permit to Drill	Operator: CIMAREX ENERGY COMPANY

Notice of Intent

Sundry ID: 2763425

Type of Submission: Notice of Intent	Type of Action: APD Change
Date Sundry Submitted: 11/28/2023	Time Sundry Submitted: 06:58
Date proposed operation will begin: 02/01/2024	

Procedure Description: Casing change from previously approved APD. Surface hole change from previously approved APD from 360 FNL/ 1450 FEL to 300 FNL/ 1470 FEL. Bottom hole change from previously approved APD from 100FSL /1386 FEL to 100 FSL/330 FEL.

NOI Attachments

Procedure Description

Dos_Equis_12_13_87H_Sundry_Submittal_11282023_20231211130859.pdf

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Conditions of Approval

Additional

12_24_32_B_Sundry_ID_2763425_Dos_Equis_12_13_Federal_Com_87H_Lea_NM02889_CIMAREX_ENERGY_COM
PANY_13_22g_2_27_2024_LV_20240227133654.pdf
Dos_Equis_12_13_Fed_Com_87H_Dr_COA_20240227133654.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 07:26 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: BOBBY BALLARD	BLM POC Title: Natural Resource Specialist
BLM POC Phone: 5752342235	BLM POC Email Address: bballard@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.

5. Lease Serial No.	
6. If Indian, Allottee or Tribe Name	
7. If Unit of CA/Agreement, Name and/or No.	
8. Well Name and No.	
9. API Well No.	
10. Field and Pool or Exploratory Area	
11. Country or Parish, State	

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well		
☐ Oil Well	☐ Gas Well	☐ Other
2. Name of Operator		
3a. Address	3b. Phone No. (include area code)	
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)		

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

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

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

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

THE SPACE FOR FEDERAL OR STATE OFFICE USE

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

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

(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 of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

Additional Information

Location of Well

0. SHL: NWNE / 360 FNL / 1450 FEL / TWSP: 24S / RANGE: 32E / SECTION: 12 / LAT: 32.23847 / LONG: -103.624476 (TVD: 0 feet, MD: 0 feet)

PPP: NWNE / 360 FNL / 1386 FEL / TWSP: 24S / RANGE: 32E / SECTION: 12 / LAT: 32.23847 / LONG: -103.624269 (TVD: 12235 feet, MD: 12285 feet)

PPP: NWNE / 0 FNL / 1386 FEL / TWSP: 24S / RANGE: 32E / SECTION: 13 / LAT: 32.224944 / LONG: -103.624281 (TVD: 12367 feet, MD: 17075 feet)

PPP: NESE / 2640 FNL / 1386 FEL / TWSP: 24S / RANGE: 32E / SECTION: 12 / LAT: 32.2322 / LONG: -103.624275 (TVD: 12381 feet, MD: 14435 feet)

BHL: SWSE / 100 FSL / 1386 FEL / TWSP: 24S / RANGE: 32E / SECTION: 13 / LAT: 32.2107 / LONG: -103.624291 (TVD: 12340 feet, MD: 22258 feet)

CONFIDENTIAL

12-24-32-B Sundry ID 2763425 Dos Equis 12-13 Federal Com 87H Lea NM02889 CIMAREX ENERGY COMPANY 13-22g 2-27-2024 LV

Dos Equis 12-13 Federal Com 87H

13 3/8		surface csg in a		17 1/2		inch hole.		Design Factors				Surface		
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight		
"A"	48.00		h 40	stc	4.41	1.17	0.68	1,520	3	1.17	2.38	72,960		
"B"				stc				0				0		
w/8.4#/g mud, 30min Sfc Csg Test psig: 548							Tail Cmt	does not	circ to sfc.	Totals:	1,520	72,960		
Comparison of Proposed to Minimum Required Cement Volumes														
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd	Min Dist					
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE	Hole-Cplg					
17 1/2	0.6946	746	1223	1056	16	8.33	1476	2M	1.56					
Burst Frac Gradient(s) for Segment(s) A, B = , b All > 0.70, OK.														
Site plot (pipe racks 3 or 4) as per O.D. 1.01 D.4 L not found														

9 5/8		casing inside the		13 3/8		Design Factors				Int 1		
Segment	#/ft	Grade		Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	40.00		hck 55	ltc	3.20	1.65	0.73	4,982	2	1.39	2.87	199,280
"B"								0				0
w/8.4#/g mud, 30min Sfc Csg Test psig: 615								Totals:	4,982			199,280
The cement volume(s) are intended to achieve a top of								0	ft from surface or a		1520	overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cplg
12 1/4	0.3132	1228	2151	1657	30	10.00	2849	3M				0.81
r D V Tool(s):								sum of sx	Σ CuFt			Σ%excess
t by stage % :									1228	2151		30
Class 'H' tail cmt yld > 1.20												
Burst Frac Gradient(s) for Segment(s): A, B, C, D = 0.8, b, c, d All > 0.70, OK.												

7	casing inside the		9 5/8		A Buoyant		Design Factors			Prod 1		
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight	
"A"	29.00		l 80	ltc	2.03	1.3	1.43	11,797	2	2.58	2.46 342,113	
"B"							0				0	
"C"							0				0	
"D"							0				0	
w/8.4#/g mud, 30min Sfc Csg Test psig: 689								Totals:	11,797		342,113	
The cement volume(s) are intended to achieve a top of								4482	ft from surface or a		500	overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd	Min Dist			
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE	Hole-Cplg			
8 3/4	0.1503	510	1571	1104	42	9.00	3159	5M	0.55			
Class 'C' tail cmt yld > 1.35												

4 1/2		Liner w/top @		10547		Design Factors					Liner 1		
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight	
"A"	11.60		n 80	ltc	1.71	1.11	1.36	11,257	1	2.46	2.01	130,581	
"B"								0				0	
w/8.4#/g mud, 30min Sfc Csg Test psig: 406								Totals:	11,257				130,581
The cement volume(s) are intended to achieve a top of					10547	ft from surface or a			1250	overlap.			
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd	Min Dist				
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE	Hole-Cplg				
6	0.0859	743	966	869	11	9.50			0.50				
Class 'H' tail cmt yld > 1.20													
Capitan Reef est top XXXX.													

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: LEASE NO.: LOCATION: COUNTY:	Cimarex Energy Company NMNM02889 Section 12, T.24 S., R.32 E., NMPM Lea County, New Mexico ▼
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WELL NAME & NO.: SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE: ATS/API ID: APD ID: Sundry ID:	Dos Equis 12-13 Federal Com 87H 300'/N & 1470'/E 100'/S & 330'/E 30-025-50137 10400058462 2763425
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COA

H2S	Yes ▼		
Potash	Ochoa ▼		
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 **24 hours in the Potash Area** 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.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
3. The minimum required fill of cement behind the **7 inch** production casing is:
 - Cement should tie-back at least **500 feet** into previous casing string. Operator shall provide method of verification.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

Production Liner must be kept fluid filled to meet BLM minimum collapse requirement.

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.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
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 **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 2/27/2024

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
2763425	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

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	12514	12341	7-5/8"	29.70	L-80	BT&C	2.49	1.19	1.81
6 3/4	0	11866	11866	5-1/2"	23.00	P-110	LT&C	1.89	1.76	2.89
6 3/4	11866	22259	12340	5"	18.00	P-110	BT&C	1.68	1.70	67.98
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	1213	1213	13-3/8"	48.00	H-40/J-55 Hybrid	ST&C	1.41	3.29	5.53
12 1/4	0	4982	4927	9-5/8"	40.00	HCK-55	LT&C	1.49	1.54	2.85
8 3/4	0	11047	11047	7"	29.00	L-80	LT&C	1.36	1.58	1.76
8 3/4	11047	11797	11510	7"	29.00	L-80	LT&C	1.30	1.51	43.72
6	10547	21804	11550	4-1/2"	11.60	P-110	BT&C	1.33	1.88	31.54
BLM Minimum Safety Factor								1.125	1	1.6 Dry 1.8 Wet

Section 4 - Cement

Old

Casing	# Sk	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	586	10.30	3.64	22.18		Lead: Tuned Light + LCM
	207	14.20	1.30	5.86	14:30	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS
Intermediate Stage 2	782	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
Production	1122	14.20	1.30	5.86	14:30	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS

New

Casing	# Sk	Wt. lb/gal	Yld ft3/sack	H2O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	588	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	158	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate	936	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
	292	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Production	385	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	743	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 12514'	Brine Diesel Emulsion	8.50 - 9.00	30-35	N/C
12514' to 22259'	OBM	12.00 - 12.50	50-70	N/C

New

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0' to 1213'	Fresh Water	7.83 - 8.33	28	N/C
1213' to 4982'	Brine Water	9.50 - 10.00	30-32	N/C
4982' to 11797'	Cut Brine or OBM	8.50 - 9.00	27-70	N/C
12098' to 21804'	OBM	9.00 - 9.50	50-70	N/C

Section 7 - Pressure

Old	New
8021	5705

1. Geological Formations

TVD of target 11,550

Pilot Hole TD N/A

MD at TD 21,804

Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	1163	N/A	
Top of Salt	1545	N/A	
Base of Salt	4907	N/A	
Bell Canyon	4947	N/A	
Cherry Canyon	5874	N/A	
Brushy Canyon	7310	Hydrocarbons	
Basal Brushy Canyon	8631	Hydrocarbons	
Bone Spring Lime	8850	Hydrocarbons	
Leonard	9031	Hydrocarbons	
Avalon	9283	Hydrocarbons	
1st Bone Spring Sand	9982	Hydrocarbons	
2nd Bone Spring Sand	10558	Hydrocarbons	
3rd Bone Spring Carb	11083	Hydrocarbons	
Harkey - Target	11550	Hydrocarbons	

2. Casing Program

Hole Size	Casing Depth From	Casing Depth To	Setting Depth TVD	Casing Size	Weight (lb/ft)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17 1/2	0	1213	1213	13-3/8"	48.00	H-40/J-55 Hybrid	ST&C	1.41	3.29	5.53
12 1/4	0	4982	4927	9-5/8"	40.00	HCK-55	LT&C	1.49	1.54	2.85
8 3/4	0	11047	11047	7"	29.00	L-80	LT&C	1.36	1.58	1.76
8 3/4	11047	11797	11510	7"	29.00	L-80	LT&C	1.30	1.51	43.72
6	10547	21804	11550	4-1/2"	11.60	P-110	BT&C	1.33	1.88	31.54
BLM Minimum Safety Factor								1.125	1	1.6 Dry 1.8 Wet

TVD was used on all calculations.

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

Cimarex Energy Co., Dos Equis 12-13 Federal Com 87H

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

3. Cementing Program

Casing	# Sk	Wt. lb/gal	Yld ft ³ /sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	588	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	158	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate	936	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
	292	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Production	385	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	743	14.20	1.30	5.86	14:30	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS

Casing String	TOC	% Excess
Surface	0	45
Intermediate	0	50
Production	4782	25
Completion System	11597	10

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

4. Pressure Control Equipment

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

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

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

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

5. Mud Program

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0' to 1213'	Fresh Water	7.83 - 8.33	28	N/C
1213' to 4982'	Brine Water	9.50 - 10.00	30-32	N/C
4982' to 11797'	Cut Brine or OBM	8.50 - 9.00	27-70	N/C
12098' to 21804'	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 from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
X	No logs are planned based on well control or offset log information.
	Drill stem test?
	Coring?

Additional Logs Planned	Interval
-------------------------	----------

7. Drilling Conditions

Condition	
BH Pressure at deepest TVD	5705 psi
Abnormal Temperature	No

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

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

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

A multi-bowl wellhead system will be utilized.

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

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

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

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

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

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

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

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

Variance Request #1: Skid Rig after Cementing Surface Casing

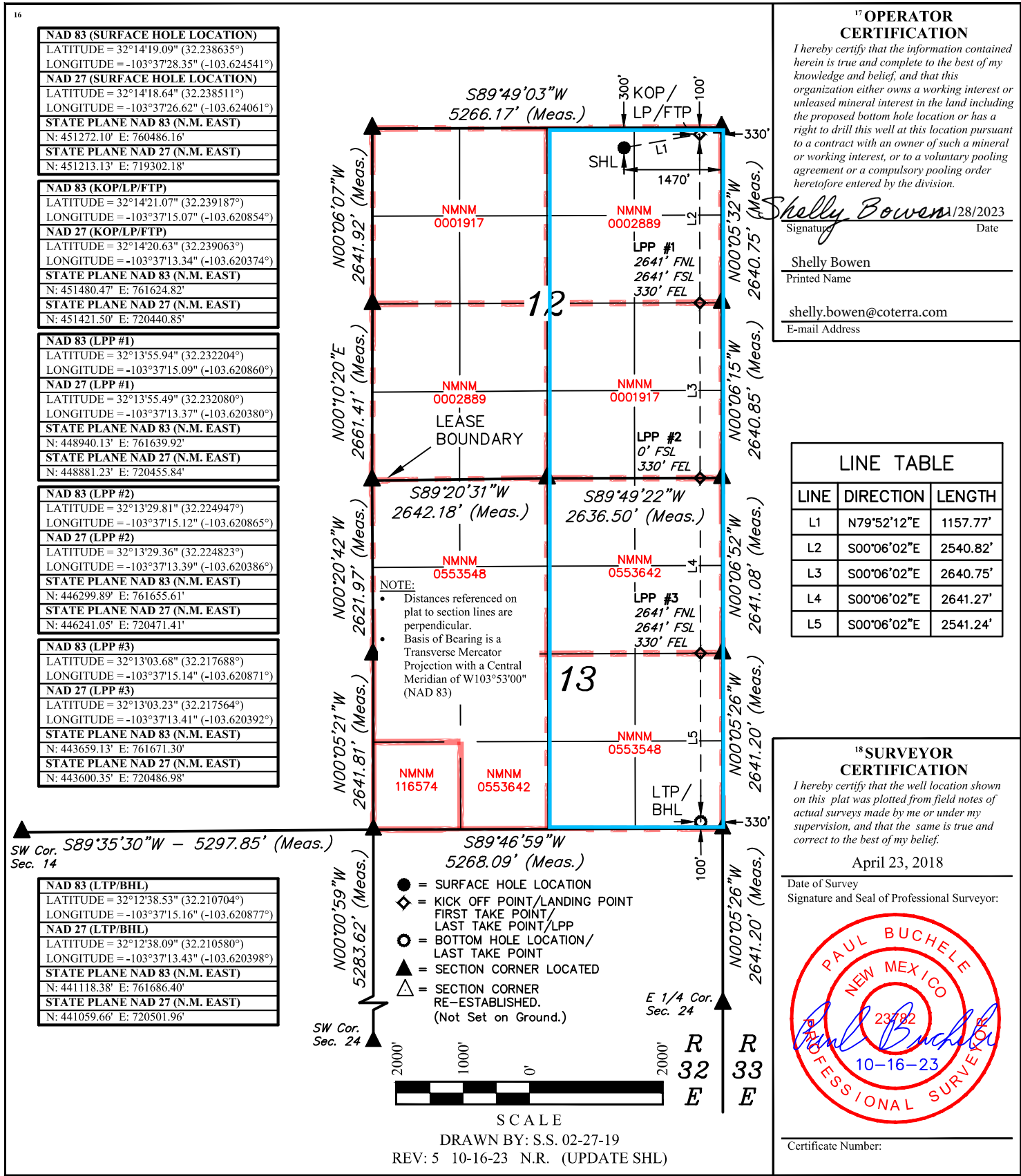
Coterra requests permission to skid the rig to the next well on the pad in order to begin operations immediately after the cement job for the surface casing has been completed. After the cement job is completed, no operations on the subject well will be conducted until at least 8 hours have elapsed,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

Variance Request #4: Utilize Co-Flex Choke Line

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

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

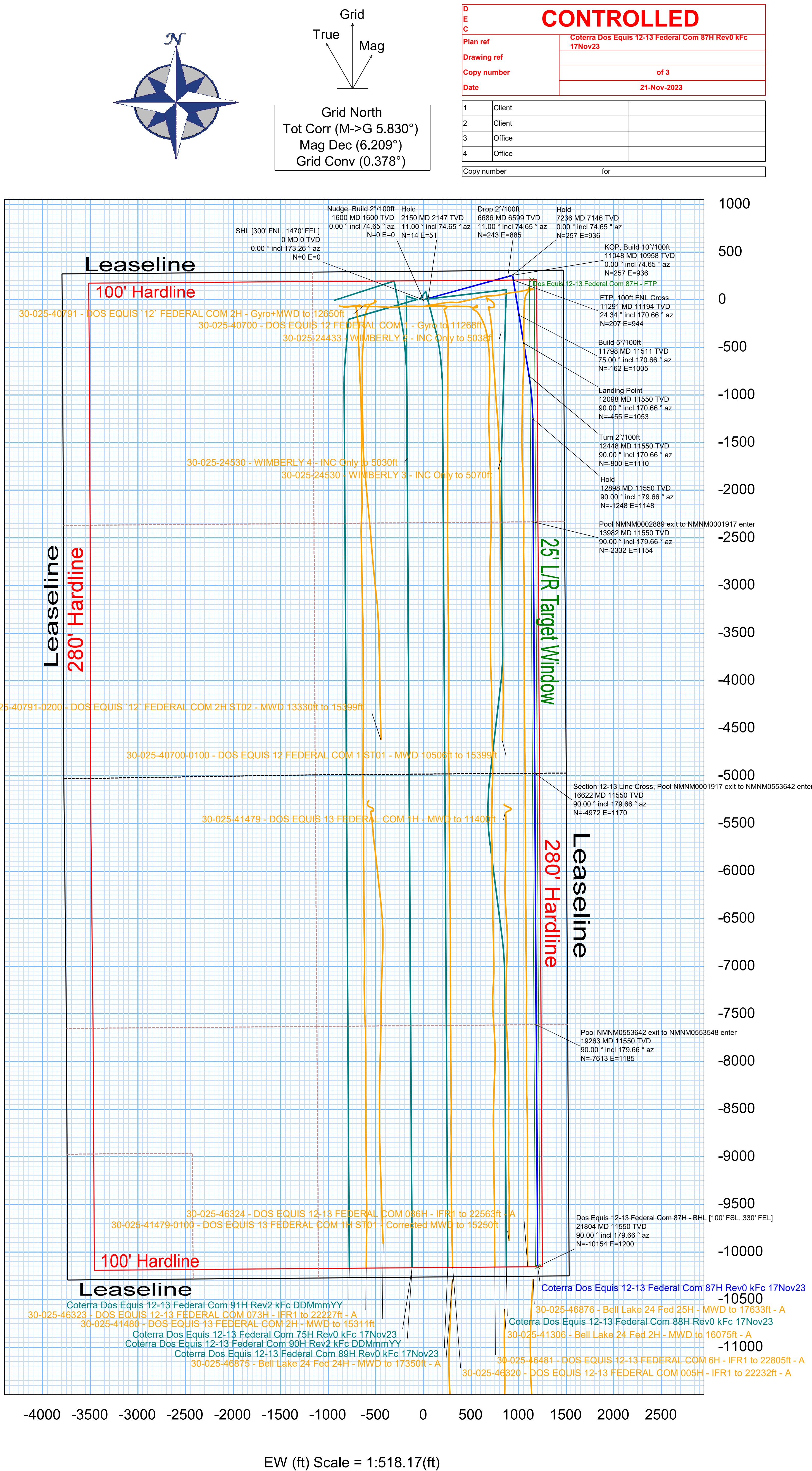
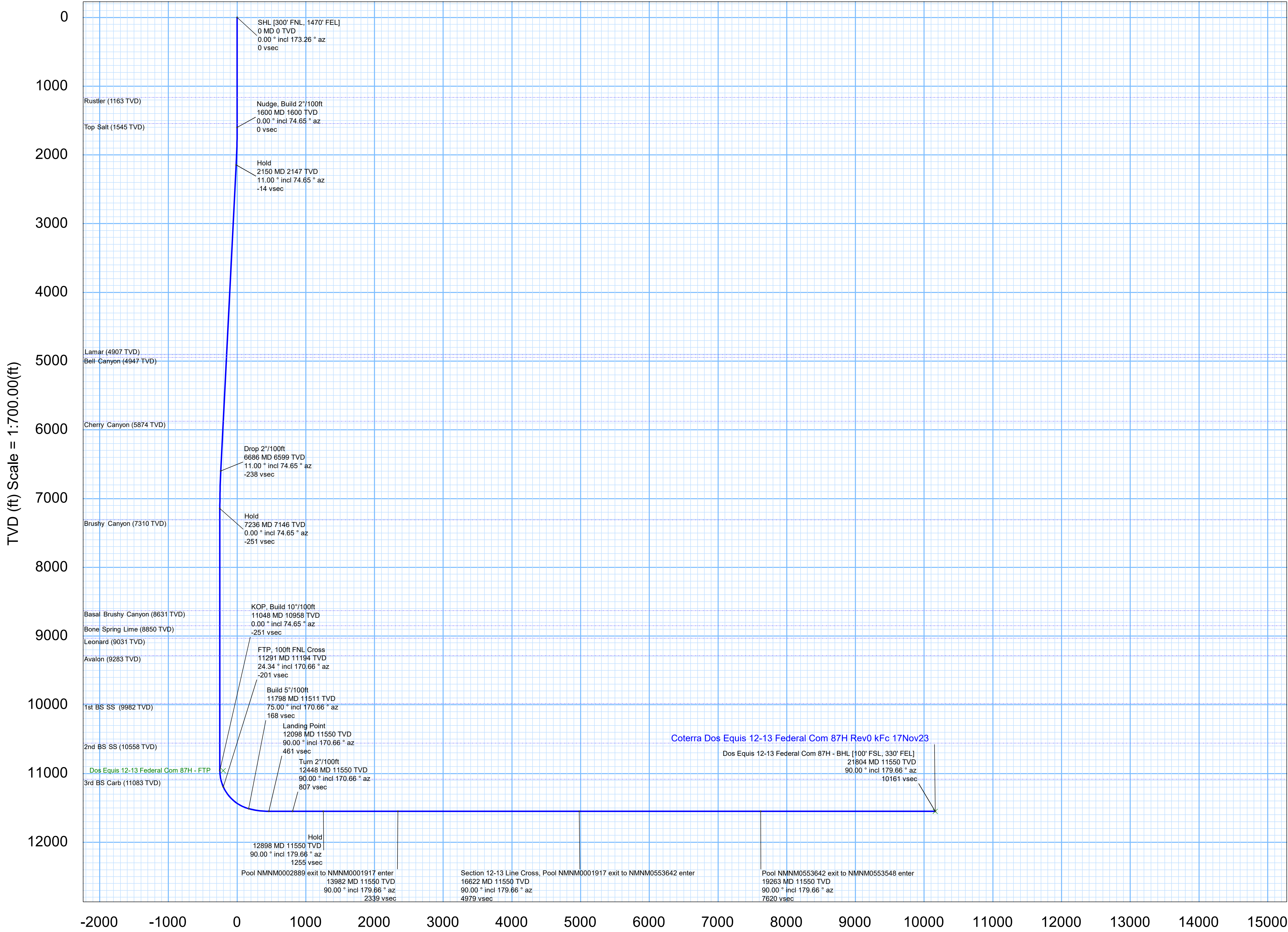
☐ AMENDED REPORT



Borehole:	Well:	Field:	Structure:
Dos Equis 12-13 Federal Com 87H	Dos Equis 12-13 Federal Com 87H	NM Lea County (NAD 83)	Coterra Dos Equis 12-13 Federal Com Pad 6

Gravity & Magnetic Parameters				Surface Location				Miscellaneous			
Model:	HDGM 2022	Dip:	59.792°	Date:	17-Nov-2023	Lat:	N 32 14 19.09	NAD83 New Mexico State Plane, Eastern Zone, US Feet	TVD Ref:	RKB (3623.500 ft above MSL)	
MagDec:	6.209°	FS:	47445.292nT	Gravity FS:	998.439mgn (9.80665 Based)	Lon:	W 103 37 28.35	Northing:	451272.1ftUS	Plan:	Dos Equis 12-13 Federal Com 87H Coterra Dos Equis 12-13 Federal Com 87H Rev0 kFc 17Nov23
								Easting:	760486.16ftUS		
								Grid Conv:	0.3781°		
								Scale Fact:	0.9999641		

Critical Points								
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHL [300' FNL, 1470' FEL]	0.00	0.00	173.26	0.00	0.00	0.00	0.00	
Rustler	1163.00	0.00	74.65	1163.00	0.00	0.00	0.00	0.00
Top Salt	1545.00	0.00	74.65	1545.00	0.00	0.00	0.00	0.00
Nudge, Build 2°/100ft	1600.00	0.00	74.65	1600.00	0.00	0.00	0.00	0.00
Hold	2149.96	11.00	74.65	2146.59	-13.63	13.93	50.75	2.00
Lamar	4962.03	11.00	74.65	4907.00	-152.62	155.99	568.13	0.00
Bell Canyon	5002.78	11.00	74.65	4947.00	-154.63	158.05	575.63	0.00
Cherry Canyon	5947.13	11.00	74.65	5874.00	-201.31	205.76	749.38	0.00
Drop 2°/100ft	6685.62	11.00	74.65	6598.93	-237.81	243.07	886.25	0.00
Hold	7235.59	0.00	74.65	7145.52	-251.44	257.00	936.00	2.00
Brushy Canyon	7400.07	0.00	74.65	7310.00	-251.44	257.00	936.00	0.00
Basal Brushy Canyon	8721.07	0.00	74.65	8631.00	-251.44	257.00	936.00	0.00
Bone Spring Lime	8940.07	0.00	74.65	8850.00	-251.44	257.00	936.00	0.00
Leonard	9121.07	0.00	74.65	9031.00	-251.44	257.00	936.00	0.00
Avalon	9373.07	0.00	74.65	9283.00	-251.44	257.00	936.00	0.00
1st BS SS	10072.07	0.00	74.65	9982.00	-251.44	257.00	936.00	0.00
2nd BS SS	10648.07	0.00	74.65	10558.00	-251.44	257.00	936.00	0.00
KOP, Build 10°/100ft	11047.59	0.00	74.65	10957.52	-251.44	257.00	936.00	0.00
3rd BS Carb	11174.09	12.65	170.66	11083.00	-237.70	243.28	938.26	10.00
FTP, 100ft FNL Cross	11291.00	24.34	170.66	11193.68	-201.14	206.74	944.27	10.00
Build 5°/100ft	11797.59	75.00	170.66	11510.95	-168.00	-162.03	1004.92	10.00
Landing Point	12097.59	90.00	170.66	11550.00	460.93	-454.69	1053.06	5.00
Turn 2°/100ft	12447.59	90.00	170.66	11550.00	806.62	-800.05	1109.86	0.00
Hold	12897.70	90.00	179.66	11550.00	1254.89	-1248.10	1147.79	2.00
Pool NMNM0002889 exit to NMNM0001917 enter	13982.00	90.00	179.66	11550.00	2339.19	-2332.38	1154.18	0.00
Section 12-13 Line Cross, Pool NMNM0001917 exit	16622.00	90.00	179.66	11550.00	4979.19	-4972.33	1169.74	0.00
to NMNM0553642 enter								
Pool NMNM0553642 exit to NMNM0553548 enter	19263.00	90.00	179.66	11550.00	7620.19	-7613.29	1185.31	0.00
Dos Equis 12-13 Federal Com 87H - BHL [100' FSL, 330' FEL]	21803.86	90.00	179.66	11550.00	10161.05	-10154.10	1200.29	0.00



Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)	DLS (°/100ft)	BR (°/100ft)	TR (°/100ft)
	20,700.00	90.00	179.66	11,550.00	7,926.50	9,057.19	-9,050.26	1,193.78	442,222.18	761,679.89	32.21373790	-103.62087431	0.00	0.00	0.00
	20,800.00	90.00	179.66	11,550.00	7,926.50	9,157.19	-9,150.26	1,194.37	442,122.19	761,680.48	32.21346303	-103.62087455	0.00	0.00	0.00
	20,900.00	90.00	179.66	11,550.00	7,926.50	9,257.19	-9,250.26	1,194.96	442,022.19	761,681.07	32.21318817	-103.62087479	0.00	0.00	0.00
	21,000.00	90.00	179.66	11,550.00	7,926.50	9,357.19	-9,350.26	1,195.55	441,922.20	761,681.66	32.21291330	-103.62087503	0.00	0.00	0.00
	21,100.00	90.00	179.66	11,550.00	7,926.50	9,457.19	-9,450.25	1,196.14	441,822.20	761,682.25	32.21263843	-103.62087526	0.00	0.00	0.00
	21,200.00	90.00	179.66	11,550.00	7,926.50	9,557.19	-9,550.25	1,196.73	441,722.21	761,682.84	32.21236357	-103.62087550	0.00	0.00	0.00
	21,300.00	90.00	179.66	11,550.00	7,926.50	9,657.19	-9,650.25	1,197.32	441,622.22	761,683.43	32.21208870	-103.62087574	0.00	0.00	0.00
	21,400.00	90.00	179.66	11,550.00	7,926.50	9,757.19	-9,750.25	1,197.91	441,522.22	761,684.02	32.21181384	-103.62087598	0.00	0.00	0.00
	21,500.00	90.00	179.66	11,550.00	7,926.50	9,857.19	-9,850.25	1,198.49	441,422.23	761,684.61	32.21153897	-103.62087621	0.00	0.00	0.00
	21,600.00	90.00	179.66	11,550.00	7,926.50	9,957.19	-9,950.25	1,199.08	441,322.23	761,685.20	32.21126411	-103.62087645	0.00	0.00	0.00
	21,700.00	90.00	179.66	11,550.00	7,926.50	10,057.19	-10,050.24	1,199.67	441,222.24	761,685.79	32.21098924	-103.62087669	0.00	0.00	0.00
	21,800.00	90.00	179.66	11,550.00	7,926.50	10,157.19	-10,150.24	1,200.26	441,122.24	761,686.38	32.21071438	-103.62087693	0.00	0.00	0.00
	21,803.86	90.00	179.66	11,550.00	7,926.50	10,161.05	-10,154.10	1,200.29	441,118.38	761,686.40	32.21070376	-103.62087693	0.00	0.00	0.00
Dos Equis 12-13 Federal Com 87															

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	11,000.000	1/100.000	–	–		A001Mb_MWD		Dos Equis 12-13 Federal Com 87H / Coterra Dos E
	1	11,000.000	21,775.466	1/100.000	–	–		A008Mb_MWD+IFR1+MS		Dos Equis 12-13 Federal Com 87H / 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
1,207.300	14.500	10.750	
	9.875	7.625	
	8.750	7.625	
21,803.863	6.750	5.000	



Coterra Dos Equis 12-13 Federal Com 87H Rev0 kFc 17Nov23 Anti-Collision Summary Report

Analysis Date-24hr Time: November 21, 2023 - 08:27 PM (UTC 0)
Client: COTERRA
Field: NM Lea County (NAD 83)
Structure: Coterra Dos Equis 12-13 Federal Com Pad 6
Slot: Dos Equis 12-13 Federal Com 87H
Well: Dos Equis 12-13 Federal Com 87H
Borehole: Dos Equis 12-13 Federal Com 87H
Scan MD Range: 0.00ft ~ 21803.86ft

Analysis Method: 3D Least Distance
Reference Trajectory: Coterra Dos Equis 12-13 Federal Com 87H Rev0 kFc 17Nov23 (Def Plan)
Depth Interval: Every 10.00 Measured Depth (ft)
Rule Set: NAL Procedure: D&M AntiCollision Standard S002
Min Pts: Absolute minima indicated.
Engine Version: 2023.1.0.1
Database \ Project: Dos Equis 12-13 Federal Com 87H--COTERRA

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

23 out of 25 are selected

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

Results highlighted in red: Sep-Factor <= 1.5

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

Coterra Dos Equis 12-13 Federal Com 88H Rev0 kFc 17Nov23 (DefinitivePlan)

Fail Minor

19.99	16.49	17.49	3.50	N/A	MAS = 5.03 (m)	0.00	0.00	CtCt<=15m<15.00				Enter Alert	
19.99	16.49	17.49	3.50	N/A	MAS = 5.03 (m)	23.00	23.00					WRP	
19.99	20.06	5.78	-0.07	1.49	OSF1.50	1230.00	1230.00		OSF<1.50			Enter Minor	
19.99	25.63	2.07	-5.63	1.13	OSF1.50	1600.00	1600.00					MinPt-CtCt	
20.14	26.07	1.93	-5.93	1.12	OSF1.50	1630.00	1630.00					MinPts	
20.26	26.22	1.95	-5.96	1.12	OSF1.50	1640.00	1640.00					MinPt-ADP	
29.01	29.04	8.81	-0.03	1.50	OSF1.50	1830.00	1829.75		OSF>1.50			Exit Minor	
117.85	37.29	92.16	80.57	4.97	OSF1.50	2390.00	2382.22	OSF>5.00				Exit Alert	
372.35	113.69	295.72	258.66	4.99	OSF1.50	7300.00	7209.93	OSF<5.00				Enter Alert	
164.93	153.67	61.65	11.26	1.61	OSF1.50	9590.00	9499.93					MinPt-CtCt	
164.93	153.75	61.60	11.18	1.61	OSF1.50	9600.00	9509.93					MinPts	
420.95	128.47	334.47	292.48	4.98	OSF1.50	10270.00	10179.93	OSF>5.00				Exit Alert	
1467.00	96.03	1402.15	1370.98	23.49	OSF1.50	12190.00	11550.00					MinPt-CtCt	
1467.08	96.20	1402.11	1370.88	23.45	OSF1.50	12210.00	11550.00					MinPts	
1486.96	156.55	1381.76	1330.41	14.45	OSF1.50	15330.00	11550.00					MinPt-CtCt	
1489.30	163.45	1379.50	1325.85	13.86	OSF1.50	15590.00	11550.00					MinPt-EOU	
1492.06	166.72	1380.08	1325.34	13.61	OSF1.50	15710.00	11550.00					MinPt-ADP	
1486.77	351.16	1251.84	1135.62	6.39	OSF1.50	21803.86	11550.00					MinPts	

Coterra Dos Equis 12-13 Federal Com 89H 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	22.21	8.33	2.38	MAS = 9.90 (m)	1670.00	1669.99					MinPt-SF	
115.44	36.56	90.23	78.88	4.97	OSF1.50	2340.00	2333.14	OSF>5.00				Exit Alert	
925.98	156.18	821.03	769.80	9.01	OSF1.50	10500.00	10409.93					MinPt-CtCt	
926.02	156.31	820.98	769.71	9.01	OSF1.50	10520.00	10429.93					MinPt-EOU	
926.07	156.37	820.99	769.71	9.00	OSF1.50	10530.00	10439.93					MinPt-ADP	
927.06	156.68	821.78	770.39	9.00	OSF1.50	10590.00	10499.93					MinPt-SF	
1195.36	133.95	1105.23	1061.41	13.61	OSF1.50	12110.00	11550.00					MinPts	
1237.99	360.88	996.57	877.11	5.17	OSF1.50	21803.86	11550.00					MinPts	

Coterra Dos Equis 12-13 Federal Com 90H Rev2 kFc DDMmmYY (DefinitivePlan)

Warning Alert

59.98	32.81	58.18	27.18	N/A	MAS = 10.00 (m)	0.00	0.00					Surface	
59.98	32.81	58.18	27.18	N/A	MAS = 10.00 (m)	23.00	23.00					WRP	
59.98	32.81	52.78	27.18	10.78	MAS = 10.00 (m)	600.00	600.00					MinPt-EOU	
59.98	32.81	46.62	27.18	4.98	MAS = 10.00 (m)	1230.00	1230.00	OSF<5.00				Enter Alert	
59.98	32.81	42.91	27.18	3.78	MAS = 10.00 (m)	1600.00	1600.00					MinPts	
60.14	32.81	42.77	27.33	3.72	MAS = 10.00 (m)	1630.00	1630.00					MinPt-EOU	
62.03	32.81	43.87	29.22	3.66	MAS = 10.00 (m)	1710.00	1709.97					MinPt-SF	
99.52	32.81	78.06	66.71	4.94	MAS = 10.00 (m)	2050.00	2048.15	OSF>5.00				Exit Alert	
1136.99	136.22	1045.66	1000.77	12.65	OSF1.50	9110.00	9019.93					MinPt-EOU	
1137.03	136.28	1045.66	1000.75	12.64	OSF1.50	9120.00	9029.93					MinPt-ADP	
1140.17	137.03	1048.30	1003.13	12.61	OSF1.50	9260.00	9169.93					MinPt-SF	
2354.58	352.21	2119.29	2002.37	10.06	OSF1.50	21803.86	11550.00					MinPts	

30-025-46324 - DOS EQUIS 12-13 FEDERAL COM 086H - IFR1 to 22563ft - A (DefinitiveSurvey)

Warning Alert

72.10	32.81	69.60	39.29	110895.31	MAS = 10.00 (m)	0.00	0.00					MinPts	
72.15	32.81	69.63	39.34	3983.03	MAS = 10.00 (m)	23.00	23.00					WRP	
81.67	32.81	63.21	48.86	4.96	MAS = 10.00 (m)	1680.00	1679.99	OSF<5.00				Enter Alert	
76.65	32.81	55.35	43.84	3.94	MAS = 10.00 (m)	1970.00	1968.97					MinPts	
76.82	32.81	55.13	44.01	3.87	MAS = 10.00 (m)	2010.00	2008.60					MinPt-EOU	
78.42	32.81	56.02	45.61	3.82	MAS = 10.00 (m)	2080.00	2077.76					MinPt-SF	
119.94	37.83	93.89	82.11	4.99	OSF1.50	2450.00	2441.12	OSF>5.00				Exit Alert	
229.25	51.62	194.01	177.64	6.92	OSF1.50	3380.00	3354.03					MinPt-EOU	
230.41	53.03	194.23	177.39	6.77	OSF1.50	3470.00	3442.38					MinPt-ADP	
235.41	58.15	195.81	177.26	6.28	OSF1.50	3800.00	3766.32					MinPt-EOU	
236.18	59.11	195.94	177.07	6.19	OSF1.50	3860.00	3825.21					MinPt-ADP	
242.38	63.52	199.20	178.86	5.90	OSF1.50	4140.00	4100.07					MinPt-ADP	
274.67	84.28	217.65	190.39	4.99	OSF1.50	5420.00	5356.56	OSF<5.00				Enter Alert	
274.64	84.78	217.29	189.86	4.96	OSF1.50	5450.00	5386.01					MinPt-CtCt	
276.84	92.49	214.35	184.35	4.57	OSF1.50	5920.00	5847.37					MinPt-EOU	
280.98	97.67	215.03	183.31	4.39	OSF1.50	6240.00	6161.49					MinPt-ADP	
284.13	101.11	215.89	183.01	4.28	OSF1.50	6450.00	6367.63					MinPt-ADP	
179.02	136.52	87.17	42.50	1.98	OSF1.50	8480.00	8389.93					MinPt-CtCt	
179.28	137.39	86.86	41.89	1.97	OSF1.50	8540.00	8449.93					MinPt-EOU	
179.62	137.82	86.91	41.81	1.96	OSF1.50	8570.00	8479.93					MinPt-ADP	
180.10	138.23	87.12	41.87	1.96	OSF1.50	8600.00	8509.93					MinPt-SF	
211.18	158.28	104.82	52.90	2.01	OSF1.50	10210.00	10119.93					MinPt-CtCt	
211.29	158.61	104.72	52.69	2.01	OSF1.50	10230.00	10139.93					MinPt-EOU	
211.44	158.77	104.76	52.68	2.01	OSF1.50	10240.00	10149.93					MinPts	
190.06	169.80	76.03	20.27	1.68	OSF1.50	11520.00	11378.20					MinPts	
575.30	176.82	456.59	398.48	4.93	OSF1.50	12100.00	11550.00	OSF>5.00				Exit Alert	
875.80	118.50	795.97	757.30	11.29	OSF1.50	12490.00	11550.00					MinPt-CtCt	
876.73	122.21	794.42	754.52	10.95	OSF1.50	12730.00	11550.00					MinPt-EOU	
877.19	124.90	793.09	752.29	10.72	OSF1.50	12910.00	11550.00					MinPt-CtCt	
870.39	131.75	781.72	738.64	10.07	OSF1.50	13370.00	11550.00					MinPt-CtCt	

Offset Trajectory	Separation			Allow	Sep.	Controlling	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)	Dev. (ft)	Fact.		MD (ft)	TVD (ft)	Alert	Minor	Major		
	870.41	131.83	781.69	738.58	10.07	OSF1.50	13380.00	11550.00				MinPt-EOU	
	870.47	131.92	781.70	738.56	10.06	OSF1.50	13390.00	11550.00				MinPt-ADP	
	862.43	150.02	761.58	712.41	8.74	OSF1.50	14340.00	11550.00				MinPt-CtCt	
	861.21	160.84	753.14	700.36	8.13	OSF1.50	14830.00	11550.00				MinPt-CtCt	
	863.15	170.62	748.57	692.53	7.68	OSF1.50	15230.00	11550.00				MinPt-CtCt	
	860.28	177.67	741.00	682.61	7.35	OSF1.50	15510.00	11550.00				MinPt-CtCt	
	861.22	188.24	734.90	672.98	6.93	OSF1.50	15920.00	11550.00				MinPt-CtCt	
	861.57	189.18	734.61	672.39	6.90	OSF1.50	15970.00	11550.00				MinPt-EOU	
	861.87	189.55	734.67	672.31	6.89	OSF1.50	15990.00	11550.00				MinPt-ADP	
	860.96	198.40	727.86	662.56	6.57	OSF1.50	16300.00	11550.00				MinPt-CtCt	
	862.69	229.29	708.99	633.39	5.69	OSF1.50	17410.00	11550.00				MinPt-CtCt	
	862.22	235.91	704.11	626.31	5.52	OSF1.50	17640.00	11550.00				MinPt-CtCt	
	863.98	244.05	700.45	619.93	5.35	OSF1.50	17920.00	11550.00				MinPt-CtCt	
	862.29	260.44	687.83	601.85	5.00	OSF1.50	18470.00	11550.00	OSF<5.00			Enter Alert	
	862.22	260.84	687.50	601.38	4.99	OSF1.50	18490.00	11550.00				MinPt-CtCt	
	862.54	261.83	687.15	600.71	4.97	OSF1.50	18540.00	11550.00				MinPt-EOU	
	862.86	262.22	687.21	600.64	4.97	OSF1.50	18560.00	11550.00				MinPt-ADP	
	864.54	263.98	687.71	600.55	4.95	OSF1.50	18630.00	11550.00				MinPt-ADP	
	867.93	286.99	675.77	580.94	4.56	OSF1.50	19360.00	11550.00				MinPt-CtCt	
	864.13	306.13	659.21	558.00	4.26	OSF1.50	19990.00	11550.00				MinPt-CtCt	
	863.11	314.94	652.32	548.18	4.13	OSF1.50	20280.00	11550.00				MinPt-CtCt	
	863.32	337.48	637.50	525.84	3.85	OSF1.50	21010.00	11550.00				MinPt-CtCt	
	862.59	343.77	632.58	518.83	3.78	OSF1.50	21210.00	11550.00				MinPt-CtCt	
	862.42	347.59	629.86	514.82	3.74	OSF1.50	21330.00	11550.00				MinPt-CtCt	
	862.91	349.17	629.30	513.74	3.72	OSF1.50	21400.00	11550.00				MinPt-EOU	
	866.20	356.66	627.59	509.54	3.66	OSF1.50	21640.00	11550.00				MinPt-EOU	
	866.76	357.31	627.72	509.45	3.65	OSF1.50	21670.00	11550.00				MinPt-ADP	
	871.51	360.42	630.40	511.09	3.64	OSF1.50	21803.86	11550.00				MinPt-SF	

30-025-46481 - DOS EQUIS 12-13 FEDERAL COM 6H - IFR1 to 22805ft - A (DefinitiveSurvey)

Warning Alert

84.84	32.81	82.34	52.04	1144157.06	MAS = 10.00 (m)	0.00	0.00	Surface
84.84	32.81	82.34	52.03	44546.41	MAS = 10.00 (m)	23.00	23.00	WRP
83.13	32.81	73.79	50.32	11.78	MAS = 10.00 (m)	759.10	759.10	MinPts
84.79	32.81	70.05	51.98	6.72	MAS = 10.00 (m)	1310.00	1310.00	MinPt-EOU
90.07	32.81	73.99	57.26	6.45	MAS = 10.00 (m)	1450.00	1450.00	MinPt-SF
128.01	34.04	104.49	93.98	5.97	OSF1.50	2210.00	2205.53	MinPt-CtCt
128.29	34.94	104.16	93.34	5.82	OSF1.50	2270.00	2264.42	MinPt-EOU
128.94	35.72	104.29	93.22	5.71	OSF1.50	2320.00	2313.50	MinPt-ADP
137.64	43.08	108.08	94.56	5.00	OSF1.50	2770.00	2755.24	OSF<5.00 Enter Alert
160.96	58.52	121.11	102.44	4.24	OSF1.50	3680.00	3648.52	MinPt-SF
176.59	63.64	133.33	112.95	4.27	OSF1.50	3980.00	3943.01	MinPt-SF
188.10	67.86	142.02	120.24	4.26	OSF1.50	4230.00	4188.42	MinPt-SF
294.06	90.12	233.14	203.93	4.99	OSF1.50	5640.00	5572.51	OSF>5.00 Exit Alert
495.91	115.87	417.83	380.04	6.53	OSF1.50	7560.00	7469.93	MinPt-EOU
497.43	118.41	417.65	379.02	6.40	OSF1.50	7740.00	7649.93	MinPt-EOU
501.80	123.76	418.46	378.04	6.18	OSF1.50	8120.00	8029.93	MinPt-ADP
514.01	135.16	423.06	378.84	5.78	OSF1.50	8920.00	8829.93	MinPt-ADP
518.84	151.07	417.29	367.77	5.21	OSF1.50	10030.00	9939.93	MinPt-CtCt
516.89	156.84	411.50	360.05	5.00	OSF1.50	10420.00	10329.93	OSF<5.00 Enter Alert
515.93	158.72	409.28	357.20	4.93	OSF1.50	10560.00	10469.93	MinPt-CtCt
516.65	160.76	408.65	355.90	4.87	OSF1.50	10710.00	10619.93	MinPt-EOU
518.08	162.56	408.87	355.52	4.83	OSF1.50	10840.00	10749.93	MinPt-ADP
520.20	165.16	409.26	355.04	4.77	OSF1.50	11020.00	10929.93	MinPt-EOU
520.42	165.43	409.30	354.99	4.77	OSF1.50	11047.59	10957.52	MinPt-ADP
454.54	167.68	341.92	286.86	4.11	OSF1.50	11620.00	11439.35	MinPts
454.63	167.74	341.97	286.89	4.10	OSF1.50	11630.00	11444.69	MinPt-SF
560.53	171.40	445.43	389.13	4.96	OSF1.50	11970.00	11542.91	OSF>5.00 Exit Alert
1458.72	150.94	1357.27	1307.79	14.72	OSF1.50	14040.00	11550.00	MinPt-CtCt
1455.13	168.78	1341.77	1286.35	13.10	OSF1.50	14900.00	11550.00	MinPt-CtCt
1452.34	188.08	1326.12	1264.26	11.72	OSF1.50	15740.00	11550.00	MinPt-CtCt
1449.60	211.03	1308.08	1238.57	10.41	OSF1.50	16650.00	11550.00	MinPt-CtCt
1449.78	211.51	1307.94	1238.26	10.39	OSF1.50	16680.00	11550.00	MinPt-EOU
1450.04	211.83	1307.98	1238.21	10.37	OSF1.50	16700.00	11550.00	MinPt-ADP
1455.93	220.13	1308.35	1235.80	10.02	OSF1.50	17000.00	11550.00	MinPt-EOU
1458.77	228.46	1305.62	1230.30	9.67	OSF1.50	17280.00	11550.00	MinPt-CtCt
1462.13	242.78	1299.45	1219.35	9.11	OSF1.50	17820.00	11550.00	MinPt-EOU
1462.85	243.63	1299.60	1219.22	9.08	OSF1.50	17860.00	11550.00	MinPt-ADP
1464.45	250.38	1296.69	1214.06	8.85	OSF1.50	18070.00	11550.00	MinPt-CtCt
1465.06	252.09	1296.16	1212.97	8.79	OSF1.50	18150.00	11550.00	MinPt-EOU
1461.30	264.63	1284.05	1196.67	8.35	OSF1.50	18570.00	11550.00	MinPt-CtCt
1462.42	267.70	1283.12	1194.72	8.26	OSF1.50	18700.00	11550.00	MinPt-EOU
1452.15	293.01	1255.98	1159.14	7.49	OSF1.50	19540.00	11550.00	MinPt-CtCt
1452.28	293.50	1255.79	1158.79	7.47	OSF1.50	19570.00	11550.00	MinPt-EOU
1452.84	294.35	1255.77	1158.49	7.45	OSF1.50	19610.00	11550.00	MinPt-EOU
1454.07	295.82	1256.03	1158.25	7.42	OSF1.50	19670.00	11550.00	MinPt-ADP
1455.70	297.42	1256.59	1158.28	7.39	OSF1.50	19730.00	11550.00	MinPt-ADP
1470.07	322.49	1254.25	1147.58	6.88	OSF1.50	20510.00	11550.00	MinPt-CtCt
1468.09	342.18	1239.13	1125.91	6.47	OSF1.50	21160.00	11550.00	MinPt-CtCt
1468.79	359.69	1228.16	1109.10	6.16	OSF1.50	21730.00	11550.00	MinPt-CtCt
1468.91	361.86	1226.84	1107.05	6.12	OSF1.50	21803.86	11550.00	MinPts

30-025-40700 - DOS EQUIS 12 FEDERAL COM 1 - Gyro to 11268ft (DefinitiveSurvey)

Warning Alert

667.10	32.81	664.60	634.29	N/A	MAS = 10.00 (m)	0.00	0.00	MinPts
667.12	32.81	664.60	634.31	34318.61	MAS = 10.00 (m)	23.00	23.00	WRP
667.30	32.81	664.51	634.49	2293.40	MAS = 10.00 (m)	80.00	80.00	MinPt-EOU
668.67	32.81	664.12	635.86	325.24	MAS = 10.00 (m)	270.00	270.00	MinPt-EOU
222.28	68.48	175.79	153.80	5.00	OSF1.50	4410.00	4365.11	OSF<5.00 Enter Alert
187.85	82.73	131.86	105.12	3.47	OSF1.50	5161.51	5102.82	MinPt-CtCt
188.25	84.02	131.41	104.23	3.42	OSF1.50	5230.00	5170.05	MinPt-EOU
188.69	84.57	131.48	104.12	3.40	OSF1.50	5260.00	5199.50	MinPt-ADP
191.61	86.35	133.21	105.26	3.38	OSF1.50	5360.00	5297.66	MinPt-SF
354.39	116.90	275.62	237.49	4.61	OSF1.50	7510.00	7419.93	MinPt-EOU
358.33	121.74	276.33	236.58	4.48	OSF1.50	7850.00	7759.93	MinPt-ADP
410.26	152.30	307.89	257.95	4.08	OSF1.50	10030.00	9939.93	MinPt-SF
417.74	158.89	310.98	258.85	3.98	OSF1.50	10490.00	10399.93	MinPt-CtCt
332.87	164.50	222.37	168.37	3.06	OSF1.50	11450.00	11327.66	MinPt-SF
329.13	162.10	220.23	167.03	3.07	OSF1.50	11480.00	11350.04	MinPt-ADP
328.32	161.21	220.01	167.11	3.08	OSF1.50	11490.00	11357.26	MinPt-EOU
327.19	158.33	220.81	168.86	3.13	OSF1.50	11520.00	11378.20	MinPt-CtCt
494.93	150.98	393.44	343.95	4.97	OSF1.50	11960.00	11541.75	OSF>5.00 Exit Alert
10092.95	185.34	9968.56	9907.61	82.78	OSF1.50	21803.86	11550.00	TD

30-025-40700-0100 - DOS EQUIS 12 FEDERAL COM 1 ST01 - MWD 10506ft to 15399ft (DefinitiveSurvey)

Warning Alert

667.10	32.81	664.60	634.29	N/A	MAS = 10.00 (m)	0.00	0.00	MinPts
667.12	32.81	664.60	634.31	34318.61	MAS = 10.00 (m)	23.00	23.00	WRP

Offset Trajectory	Separation			Allow	Sep.	Controlling	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)	Dev. (ft)	Fact.		MD (ft)	TVD (ft)	Alert	Minor	Major		
	1818.75	99.68	1751.77	1719.07	27.78	OSF1.50	6590.00	6505.06				MinPt-EOU	
	1819.68	100.89	1751.90	1718.79	27.46	OSF1.50	6670.00	6583.59				MinPt-ADP	
	1780.23	112.18	1704.92	1668.05	24.12	OSF1.50	7680.96	7590.90				MinPt-CtCt	
	1780.32	112.41	1704.86	1667.91	24.07	OSF1.50	7710.00	7619.93				MinPt-EOU	
	1780.39	112.49	1704.88	1667.91	24.06	OSF1.50	7720.00	7629.93				MinPt-ADP	
	1811.92	134.26	1721.89	1677.66	20.47	OSF1.50	9360.00	9269.93				MinPt-ADP	
	1832.05	159.30	1725.32	1672.74	17.41	OSF1.50	11190.00	11098.47				MinPt-CtCt	
	1832.17	159.69	1725.19	1672.48	17.37	OSF1.50	11240.00	11146.34				MinPt-EOU	
	1832.30	159.85	1725.21	1672.44	17.35	OSF1.50	11260.00	11165.10				MinPt-ADP	
	1836.78	160.76	1729.08	1676.01	17.29	OSF1.50	11420.00	11304.26				MinPt-SF	
	3373.83	173.10	3257.91	3200.74	29.49	OSF1.50	14310.00	11550.00				MinPt-SF	
	10188.39	190.35	10060.97	9998.05	80.94	OSF1.50	21803.86	11550.00				TD	
30-025-24530 - WIMBERLY 3 - INC Only to 5070ft (DefinitiveSurvey)													Pass
	1848.54	32.81	1846.74	1815.73	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1848.44	32.81	1846.62	1815.63	128094.03	MAS = 10.00 (m)	10.00	10.00				MinPt-SF	
	1848.40	32.81	1846.58	1815.59	247026.20	MAS = 10.00 (m)	20.00	20.00				MinPt-EOU	
	1848.39	32.81	1846.58	1815.59	1503632.44	MAS = 10.00 (m)	23.00	23.00				WRP	
	1814.10	231.74	1659.00	1582.36	11.82	OSF1.50	3730.00	3697.60				MinPt-CtCt	
	1834.17	347.65	1601.80	1486.52	7.95	OSF1.50	5150.00	5091.52				MinPts	
	6466.27	98.65	6399.90	6367.62	100.13	OSF1.50	13300.00	11550.00				MinPt-CtCt	
	6466.52	99.41	6399.64	6367.11	99.36	OSF1.50	13360.00	11550.00				MinPt-EOU	
	6466.99	99.97	6399.74	6367.02	98.79	OSF1.50	13400.00	11550.00				MinPt-ADP	
	8744.55	293.02	8548.60	8451.53	45.03	OSF1.50	19190.00	11550.00				MinPt-SF	
	10680.55	337.77	10454.77	10342.78	47.68	OSF1.50	21803.86	11550.00				TD	

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

CONDITIONS

Action 322536

CONDITIONS

Operator: CIMAREX ENERGY CO. 6001 Deauville Blvd Midland, TX 79706	OGRID: 215099
	Action Number: 322536
	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