

Form 3160-5
(June 2019)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☐ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

3a. Address

3b. Phone No. (include area code)

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

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

8. Well Name and No.

9. API Well No.

10. Field and Pool or Exploratory Area

11. Country or Parish, State

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

TYPE OF SUBMISSION	TYPE OF ACTION				
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off	
	☐ 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 recompleat 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 performed 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 recompleat 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

Additional Remarks

BOPS.

Location of Well

0. SHL: NWNE / 330 FNL / 1531 FEL / TWSP: 25S / RANGE: 27E / SECTION: 7 / LAT: 32.150942 / LONG: -104.2259 (TVD: 0 feet, MD: 0 feet)

PPP: SWSE / 2640 FNL / 2158 FEL / TWSP: 25S / RANGE: 27E / SECTION: 7 / LAT: 32.14455 / LONG: -104.2279 (TVD: 8804 feet, MD: 10800 feet)

PPP: NWNE / 715 FNL / 2158 FEL / TWSP: 25S / RANGE: 27E / SECTION: 7 / LAT: 32.149883 / LONG: -104.227922 (TVD: 8713 feet, MD: 8849 feet)

BHL: SWSE / 330 FSL / 2158 FEL / TWSP: 25S / RANGE: 27E / SECTION: 18 / LAT: 32.1236 / LONG: -104.227875 (TVD: 8838 feet, MD: 18423 feet)

CONFIDENTIAL

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 30-015-46302	² Pool Code 98220	³ Pool Name Purple Sage Wolfcamp (Gas)
⁴ Property Code 317791	⁵ Property Name DAVINCI 7-18 FEDERAL Com	⁶ Well Number 34H
⁷ OGRID No. 215099	⁸ Operator Name CIMAREX ENERGY CO.	⁹ Elevation 3306.7'

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
B	7	25S	27E		330	NORTH	1531	EAST	EDDY

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
O	18	25S	27E		100	SOUTH	2590	EAST	EDDY
¹² Dedicated Acres 640	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

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 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)

NAD 83 (SURFACE HOLE LOCATION)		
LATITUDE = 32°09'03.39" (32.150942°)		
LONGITUDE = 104°13'33.24" (104.225901°)		
NAD 27 (SURFACE HOLE LOCATION)		
LATITUDE = 32°09'02.95" (32.150819°)		
LONGITUDE = 104°13'31.45" (104.225403°)		
STATE PLANE NAD 83 (N.M. EAST)		
N: 418664.29'	E: 574585.68'	
STATE PLANE NAD 27 (N.M. EAST)		
N: 418606.77'	E: 533402.70'	

NAD 83 (LP/FTP)		
LATITUDE = 32°09'03.28" (32.150911°)		
LONGITUDE = 104°13'45.56" (104.229323°)		
NAD 27 (LP/FTP)		
LATITUDE = 32°09'02.85" (32.150790°)		
LONGITUDE = 104°13'43.77" (104.228826°)		
STATE PLANE NAD 83 (N.M. EAST)		
N: 418652.18'	E: 573526.48'	
STATE PLANE NAD 27 (N.M. EAST)		
N: 418594.67'	E: 532343.52'	

NAD 83 (BHL/LTP)		
LATITUDE = 32°07'22.64" (32.122957°)		
LONGITUDE = 104°13'45.37" (104.229269°)		
NAD 27 (BHL/LTP)		
LATITUDE = 32°07'22.21" (32.122836°)		
LONGITUDE = 104°13'43.58" (104.228773°)		
STATE PLANE NAD 83 (N.M. EAST)		
N: 408483.23'	E: 573552.95'	
STATE PLANE NAD 27 (N.M. EAST)		
N: 408425.91'	E: 532369.83'	

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S89°35'04"W	1059.52'
L2	S89°35'10"W	2648.27'

Diagram details: The plat shows a 2x2 grid of lots (1-4) in Section 18, Township 25S, Range 27E. Lot 1 is 2648.42' E, 2650.00' N. Lot 2 is 2648.42' E, 2650.00' N. Lot 3 is 2648.67' E, 2650.00' N. Lot 4 is 2648.67' E, 2650.00' N. The surface hole (SHL) is located in Lot 1 at a distance of 1531' from the north line and 2590' from the east line. The landing point (LP/FTP) is located in Lot 1 at a distance of 330' from the north line and 2590' from the east line. The bottom hole location (BHL/LTP) is located in Lot 4 at a distance of 100' from the south line and 2590' from the east line. The plat includes bearings and distances for all section lines and well paths. A scale bar shows 0, 1000, and 2000 feet. A legend defines symbols for surface hole, bottom hole, section corner, and landing point.

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.

Amithy Crawford 6/23/21
Signature Date

Amithy Crawford
Printed Name

acrawford@cimarex.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.

May 11, 2017
Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number:

1. Geological Formations

TVD of target 9,400

Pilot Hole TD N/A

MD at TD 19,442

Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	0	N/A	
Salado	1252	N/A	
Castille	1870	N/A	
Bell Canyon	2088	Hydrocarbons	
Cherry Canyon	3075	Hydrocarbons	
Brushy Canyon	4127	Hydrocarbons	
Brushy Canyon Lower	5296	Hydrocarbons	
Bone Spring	5621	Hydrocarbons	
Bone Spring A Shale	5739	Hydrocarbons	
Bone Spring C Shale	6085	Hydrocarbons	
1st Bone Spring Ss	6576	Hydrocarbons	
2nd Bone Spring Ss	7037	Hydrocarbons	
2nd Bone Spring Lower	7788	Hydrocarbons	
3rd Bone Spring Ss	8389	Hydrocarbons	
Wolfcamp A	8713	Hydrocarbons	
Wolfcamp X Sandstone	8731	Hydrocarbons	
Wolfcamp Y Sandstone	8778	Hydrocarbons	
Wolfcamp Horz Target	8798	Hydrocarbons	
Wolfcamp Z Sandstone	8836	Hydrocarbons	
Wolfcamp A2	9190	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	450	450	13-3/8"	48.00	H-40/J-55 Hybrid	ST&C	3.59	8.40	14.91
12 1/4	0	2068	2068	9-5/8"	36.00	J-55	LT&C	1.84	3.21	6.08
8 3/4	0	8096	8096	7"	26.00	L-80	LT&C	1.43	1.91	2.10
8 3/4	8096	9621	9351	7"	26.00	N-80	BT&C	1.24	1.65	18.51
6	7996	19442	9400	4-1/2"	11.60	HCP-110	BT&C	1.51	1.83	22.53
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., Davinci 7-18 Federal Com 34H

	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?	N

3. Cementing Program

Casing	# Sk	Wt. lb/gal	Yld ft ³ /sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	91	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	195	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate	392	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
	125	14.20	1.30	5.86	14:30	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS
Production	439	10.30	3.64	22.18		Lead: Tuned Light + LCM
	109	14.20	1.30	5.86	14:30	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS
Completion System	834	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	33
Intermediate	0	50
Production	1868	25
Completion System	8126	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	2M
			Blind Ram		
			Pipe Ram		
			Double Ram	X	
			Other		
8 3/4	13 5/8	5M	Annular	X	5M
			Blind Ram		
			Pipe Ram		
			Double Ram	X	
			Other		
6	13 5/8	5M	Annular	X	5M
			Blind Ram		
			Pipe Ram		
			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 450'	FW Spud Mud	8.30 - 8.80	30-32	N/C
450' to 2068'	Brine Water	9.70 - 10.20	30-32	N/C
2068' to 9621'	FW/Cut Brine	8.50 - 9.00	30-32	N/C
9621' to 19442'	Oil Based Mud	11.50 - 12.00	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	
X	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.
	No logs are planned based on well control or offset log information.
	Drill stem test?
	Coring?

Additional Logs Planned	Interval
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7. Drilling Conditions

Condition	
BH Pressure at deepest TVD	5865 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 100% 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.



Cimarex Davinci 7-18 Federal Com #34H Rev2 RM 08Jun21 Proposal

Geodetic Report

(Def Plan)



Report Date:	June 08, 2021 - 02:57 PM	Survey / DLS Computation:	Minimum Curvature / Lubinski
Client:	Cimarex Energy	Vertical Section Azimuth:	179.851 ° (Grid North)
Field:	NM Eddy County (NAD 83)	Vertical Section Origin:	0.000 ft, 0.000 ft
Structure / Slot:	Cimarex Davinci 7-18 Federal Pad / New Slot	TVD Reference Datum:	RKB
Well:	Davinci 7-18 Federal Com #34H	TVD Reference Elevation:	3329.700 ft above MSL
Borehole:	Davinci 7-18 Federal Com #34H	Seabed / Ground Elevation:	3306.700 ft above MSL
UWI / API#:	Unknown / Unknown	Magnetic Declination:	7.026 °
Survey Name:	Cimarex Davinci 7-18 Federal Com #34H Rev2 RM 08Jun21	Total Gravity Field Strength:	998.4349mgn (9.80665 Based)
Survey Date:	May 24, 2021	Gravity Model:	GARM
Tort / AHD / DDI / ERD Ratio:	114.000 ° / 11229.283 ft / 6.423 / 1.195	Total Magnetic Field Strength:	47625.540 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Magnetic Dip Angle:	59.767 °
Location Lat / Long:	N 32° 9' 3.38760", W 104° 13' 33.24240"	Declination Date:	June 08, 2021
Location Grid N/E Y/X:	N 418664.290 ftUS, E 574585.680 ftUS	Magnetic Declination Model:	HDGM 2021
CRS Grid Convergence Angle:	0.0572 °	North Reference:	Grid North
Grid Scale Factor:	0.99991036	Grid Convergence Used:	0.0572 °
Version / Patch:	2.10.825.0	Total Corr Mag North->Grid North:	6.9690 °
		Local Coord Referenced To:	Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
SHL [330' FNL, 1531' FEL]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	418664.29	574585.68	32.15	-104.23
100.00	0.00	0.00	269.34	100.00	0.00	0.00	0.00	0.00	418664.29	574585.68	32.15	-104.23
200.00	0.00	0.00	269.34	200.00	0.00	0.00	0.00	0.00	418664.29	574585.68	32.15	-104.23
300.00	0.00	0.00	269.34	300.00	0.00	0.00	0.00	0.00	418664.29	574585.68	32.15	-104.23
400.00	0.00	0.00	269.34	400.00	0.00	0.00	0.00	0.00	418664.29	574585.68	32.15	-104.23
500.00	0.00	0.00	269.34	500.00	0.00	0.00	0.00	0.00	418664.29	574585.68	32.15	-104.23
600.00	0.00	0.00	269.34	600.00	0.00	0.00	0.00	0.00	418664.29	574585.68	32.15	-104.23
700.00	0.00	0.00	269.34	700.00	0.00	0.00	0.00	0.00	418664.29	574585.68	32.15	-104.23
800.00	0.00	0.00	269.34	800.00	0.00	0.00	0.00	0.00	418664.29	574585.68	32.15	-104.23
900.00	0.00	0.00	269.34	900.00	0.00	0.00	0.00	0.00	418664.29	574585.68	32.15	-104.23
1000.00	0.00	0.00	269.34	1000.00	0.00	0.00	0.00	0.00	418664.29	574585.68	32.15	-104.23
1100.00	0.00	0.00	269.34	1100.00	0.00	0.00	0.00	0.00	418664.29	574585.68	32.15	-104.23
1200.00	0.00	0.00	269.34	1200.00	0.00	0.00	0.00	0.00	418664.29	574585.68	32.15	-104.23
1300.00	0.00	0.00	269.34	1300.00	0.00	0.00	0.00	0.00	418664.29	574585.68	32.15	-104.23
Salado (Top Salt)	1334.00	0.00	269.34	1334.00	0.00	0.00	0.00	0.00	418664.29	574585.68	32.15	-104.23
1400.00	0.00	0.00	269.34	1400.00	0.00	0.00	0.00	0.00	418664.29	574585.68	32.15	-104.23
1500.00	0.00	0.00	269.34	1500.00	0.00	0.00	0.00	0.00	418664.29	574585.68	32.15	-104.23
1600.00	0.00	0.00	269.34	1600.00	0.00	0.00	0.00	0.00	418664.29	574585.68	32.15	-104.23
1700.00	0.00	0.00	269.34	1700.00	0.00	0.00	0.00	0.00	418664.29	574585.68	32.15	-104.23
1800.00	0.00	0.00	269.34	1800.00	0.00	0.00	0.00	0.00	418664.29	574585.68	32.15	-104.23
Castille (Base Salt)	1859.00	0.00	269.34	1859.00	0.00	0.00	0.00	0.00	418664.29	574585.68	32.15	-104.23
1900.00	0.00	0.00	269.34	1900.00	0.00	0.00	0.00	0.00	418664.29	574585.68	32.15	-104.23
Nudge 2"/100' DLS	2000.00	0.00	269.34	2000.00	0.00	0.00	0.00	0.00	418664.29	574585.68	32.15	-104.23
Bell Canyon (Top Delaware)	2090.01	1.80	269.34	2090.00	0.01	-0.02	-1.41	2.00	418664.27	574584.27	32.15	-104.23
2100.00	2.00	0.00	269.34	2099.98	0.02	-0.02	-1.75	2.00	418664.27	574583.94	32.15	-104.23
2200.00	4.00	0.00	269.34	2199.84	0.06	-0.08	-6.98	2.00	418664.21	574578.70	32.15	-104.23
2300.00	6.00	0.00	269.34	2299.45	0.14	-0.18	-15.69	2.00	418664.11	574569.99	32.15	-104.23
2400.00	8.00	0.00	269.34	2398.70	0.25	-0.32	-27.88	2.00	418663.97	574557.80	32.15	-104.23
2500.00	10.00	0.00	269.34	2497.47	0.38	-0.50	-43.52	2.00	418663.79	574542.16	32.15	-104.23
2600.00	12.00	0.00	269.34	2595.62	0.55	-0.72	-62.60	2.00	418663.57	574523.09	32.15	-104.23
2700.00	12.00	0.00	269.34	2693.44	0.74	-0.95	-83.39	0.00	418663.34	574502.30	32.15	-104.23
2800.00	12.00	0.00	269.34	2791.25	0.92	-1.19	-104.18	0.00	418663.10	574481.51	32.15	-104.23
2900.00	12.00	0.00	269.34	2889.07	1.10	-1.43	-124.97	0.00	418662.86	574460.72	32.15	-104.23
Cherry Canyon	2956.16	12.00	269.34	2944.00	1.21	-1.56	-136.64	0.00	418662.73	574449.05	32.15	-104.23
3000.00	12.00	0.00	269.34	2986.88	1.29	-1.67	-145.76	0.00	418662.62	574439.94	32.15	-104.23
3100.00	12.00	0.00	269.34	3084.70	1.47	-1.90	-166.55	0.00	418662.39	574419.15	32.15	-104.23
3200.00	12.00	0.00	269.34	3182.51	1.65	-2.14	-187.34	0.00	418662.15	574398.36	32.15	-104.23
3300.00	12.00	0.00	269.34	3280.33	1.84	-2.38	-208.13	0.00	418661.91	574377.57	32.15	-104.23
3400.00	12.00	0.00	269.34	3378.14	2.02	-2.62	-228.92	0.00	418661.67	574356.78	32.15	-104.23
3500.00	12.00	0.00	269.34	3475.96	2.21	-2.85	-249.71	0.00	418661.44	574336.00	32.15	-104.23
3600.00	12.00	0.00	269.34	3573.77	2.39	-3.09	-270.50	0.00	418661.20	574315.21	32.15	-104.23
3700.00	12.00	0.00	269.34	3671.59	2.57	-3.33	-291.29	0.00	418660.96	574294.42	32.15	-104.23
3800.00	12.00	0.00	269.34	3769.40	2.76	-3.57	-312.08	0.00	418660.72	574273.63	32.15	-104.23
3900.00	12.00	0.00	269.34	3867.21	2.94	-3.81	-332.87	0.00	418660.48	574252.84	32.15	-104.23
4000.00	12.00	0.00	269.34	3965.03	3.12	-4.04	-353.66	0.00	418660.25	574232.06	32.15	-104.23
Brushy Canyon	4041.89	12.00	269.34	4006.00	3.20	-4.14	-362.36	0.00	418660.15	574223.35	32.15	-104.23
4100.00	12.00	0.00	269.34	4062.84	3.31	-4.28	-374.45	0.00	418660.01	574211.27	32.15	-104.23
4200.00	12.00	0.00	269.34	4160.66	3.49	-4.52	-395.24	0.00	418659.77	574190.48	32.15	-104.23
4300.00	12.00	0.00	269.34	4258.47	3.67	-4.76	-416.03	0.00	418659.53	574169.69	32.15	-104.23
4400.00	12.00	0.00	269.34	4356.29	3.86	-4.99	-436.82	0.00	418659.30	574148.90	32.15	-104.23
4500.00	12.00	0.00	269.34	4454.10	4.04	-5.23	-457.61	0.00	418659.06	574128.12	32.15	-104.23
4600.00	12.00	0.00	269.34	4551.92	4.23	-5.47	-478.39	0.00	418658.82	574107.33	32.15	-104.23
4700.00	12.00	0.00	269.34	4649.73	4.41	-5.71	-499.18	0.00	418658.58	574086.54	32.15	-104.23
4800.00	12.00	0.00	269.34	4747.55	4.59	-5.94	-519.97	0.00	418658.35	574065.75	32.15	-104.23
4900.00	12.00	0.00	269.34	4845.36	4.78	-6.18	-540.76	0.00	418658.11	574044.97	32.15	-104.23
5000.00	12.00	0.00	269.34	4943.18	4.96	-6.42	-561.55	0.00	418657.87	574024.18	32.15	-104.23
5100.00	12.00	0.00	269.34	5040.99	5.14	-6.66	-582.34	0.00	418657.63	574003.39	32.15	-104.23
5200.00	12.00	0.00	269.34	5138.81	5.33	-6.90	-603.13	0.00	418657.39	573982.60	32.15	-104.23
5300.00	12.00	0.00	269.34	5236.62	5.51	-7.13	-623.92	0.00	418657.16	573961.81	32.15	-104.23
5400.00	12.00	0.00	269.34	5334.44	5.69	-7.37	-644.71	0.00	418656.92	573941.03	32.15	-104.23
5500.00	12.00	0.00	269.34	5432.25	5.88	-7.61	-665.50	0.00	418656.68	573920.24	32.15	-104.23
5600.00	12.00	0.00	269.34	5530.07	6.06	-7.85	-686.29	0.00	418656.44	573899.45	32.15	-104.23
Top Bone Spring	5696.03	12.00	269.34	5624.00	6.24	-8.07	-706.26	0.00	418656.22	573879.49	32.15	-104.23
5700.00	12.00	0.00	269.34	5627.88	6.25	-8.08	-707.08	0.00	418656.21	573878.66	32.15	-104.23
5800.00	12.00	0.00	269.34	5725.70	6.43	-8.32	-727.87	0.00	418655.97	573857.87	32.15	-104.23
5900.00	12.00	0.00	269.34	5823.51	6.61	-8.56	-748.66	0.00	418655.73	573837.09	32.15	-104.23
6000.00	12.00	0.00	269.34	5921.32	6.80	-8.80	-769.45	0.00	418655.49	573816.30	32.15	-104.23
6100.00	12.00	0.00	269.34	6019.14	6.98	-9.03	-790.24	0.00	418655.26	573795.51	32.15	-104.23
6200.00	12.00	0.00	269.34	6116.95	7.16	-9.27	-811.03	0.00	418655.02	573774.72	32.15	-104.23
6300.00	12.00	0.00	269.34	6214.77	7.35	-9.51	-831.82	0.00	418654.78	573753.93	32.15	-104.23
6400.00	12.00	0.00	269.34	6312.58	7.53	-9.75	-852.61	0.00	418654.54	573733.15	32.15	-104.23
6500.00	12.00	0.00	269.34	6410.40	7.71	-9.99	-873.40	0.00	418654.31	573712.36	32.15	-104.23

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	6600.00	12.00	269.34	6508.21	7.90	-10.22	-894.19	0.00	418654.07	573691.57	32.15	-104.23
Top 1st BSPG SS	6627.39	12.00	269.34	6535.00	7.95	-10.29	-899.88	0.00	418654.00	573685.88	32.15	-104.23
	6700.00	12.00	269.34	6606.03	8.08	-10.46	-914.98	0.00	418653.83	573670.78	32.15	-104.23
	6800.00	12.00	269.34	6703.84	8.27	-10.70	-935.77	0.00	418653.59	573649.99	32.15	-104.23
	6900.00	12.00	269.34	6801.66	8.45	-10.94	-956.56	0.00	418653.35	573629.21	32.15	-104.23
	7000.00	12.00	269.34	6899.47	8.63	-11.17	-977.35	0.00	418653.12	573608.42	32.15	-104.23
Drop to Vertical 2°/100' DLS	7093.06	12.00	269.34	6990.50	8.80	-11.40	-996.70	0.00	418652.90	573589.07	32.15	-104.23
	7100.00	11.86	269.34	6997.29	8.82	-11.41	-998.13	2.00	418652.88	573587.64	32.15	-104.23
	7200.00	9.86	269.34	7095.49	8.98	-11.63	-1016.97	2.00	418652.66	573568.80	32.15	-104.23
Top 2nd BSPG SS	7213.70	9.59	269.34	7109.00	9.00	-11.65	-1019.29	2.00	418652.64	573566.49	32.15	-104.23
	7300.00	7.86	269.34	7194.29	9.12	-11.80	-1032.38	2.00	418652.49	573553.40	32.15	-104.23
	7400.00	5.86	269.34	7293.57	9.22	-11.94	-1044.32	2.00	418652.35	573541.45	32.15	-104.23
	7500.00	3.86	269.34	7393.21	9.30	-12.04	-1052.79	2.00	418652.25	573532.98	32.15	-104.23
	7600.00	1.86	269.34	7493.08	9.34	-12.09	-1057.79	2.00	418652.20	573527.99	32.15	-104.23
Hold Vertical	7693.06	0.00	269.34	7586.13	9.36	-12.11	-1059.30	2.00	418652.18	573526.48	32.15	-104.23
	7700.00	0.00	269.34	7593.06	9.36	-12.11	-1059.30	0.00	418652.18	573526.48	32.15	-104.23
	7800.00	0.00	269.34	7693.06	9.36	-12.11	-1059.30	0.00	418652.18	573526.48	32.15	-104.23
	7900.00	0.00	269.34	7793.06	9.36	-12.11	-1059.30	0.00	418652.18	573526.48	32.15	-104.23
	8000.00	0.00	269.34	7893.06	9.36	-12.11	-1059.30	0.00	418652.18	573526.48	32.15	-104.23
	8100.00	0.00	269.34	7993.06	9.36	-12.11	-1059.30	0.00	418652.18	573526.48	32.15	-104.23
	8200.00	0.00	269.34	8093.06	9.36	-12.11	-1059.30	0.00	418652.18	573526.48	32.15	-104.23
	8300.00	0.00	269.34	8193.06	9.36	-12.11	-1059.30	0.00	418652.18	573526.48	32.15	-104.23
	8400.00	0.00	269.34	8293.06	9.36	-12.11	-1059.30	0.00	418652.18	573526.48	32.15	-104.23
Top 3rd BSPS SS	8484.94	0.00	269.34	8378.00	9.36	-12.11	-1059.30	0.00	418652.18	573526.48	32.15	-104.23
	8500.00	0.00	269.34	8393.06	9.36	-12.11	-1059.30	0.00	418652.18	573526.48	32.15	-104.23
	8600.00	0.00	269.34	8493.06	9.36	-12.11	-1059.30	0.00	418652.18	573526.48	32.15	-104.23
	8700.00	0.00	269.34	8593.06	9.36	-12.11	-1059.30	0.00	418652.18	573526.48	32.15	-104.23
	8800.00	0.00	269.34	8693.06	9.36	-12.11	-1059.30	0.00	418652.18	573526.48	32.15	-104.23
Top Wolfcamp	8842.94	0.00	269.34	8736.00	9.36	-12.11	-1059.30	0.00	418652.18	573526.48	32.15	-104.23
	8900.00	0.00	269.34	8793.06	9.36	-12.11	-1059.30	0.00	418652.18	573526.48	32.15	-104.23
KOP - Build 12°/100' DLS	8996.93	0.00	269.34	8890.00	9.36	-12.11	-1059.30	0.00	418652.18	573526.48	32.15	-104.23
	9000.00	0.37	179.85	8893.06	9.37	-12.12	-1059.30	12.00	418652.17	573526.48	32.15	-104.23
Wolfcamp A	9053.07	6.74	179.85	8946.00	12.65	-15.41	-1059.29	12.00	418648.88	573526.49	32.15	-104.23
	9100.00	12.37	179.85	8992.26	20.44	-23.19	-1059.27	12.00	418641.10	573526.51	32.15	-104.23
	9200.00	24.37	179.85	9087.00	51.89	-54.65	-1059.19	12.00	418609.65	573526.59	32.15	-104.23
	9300.00	36.37	179.85	9173.12	102.35	-105.11	-1059.06	12.00	418559.19	573526.72	32.15	-104.23
Wolfcamp A2	9350.33	42.41	179.85	9212.00	134.28	-137.03	-1058.97	12.00	418527.27	573526.81	32.15	-104.23
	9400.00	48.37	179.85	9246.87	169.62	-172.37	-1058.88	12.00	418491.93	573526.90	32.15	-104.23
	9500.00	60.37	179.85	9305.02	250.75	-253.50	-1058.67	12.00	418410.81	573527.11	32.15	-104.23
Wolfcamp B	9587.23	70.84	179.85	9341.00	330.08	-332.83	-1058.46	12.00	418331.49	573527.31	32.15	-104.23
	9600.00	72.37	179.85	9345.03	342.19	-344.95	-1058.43	12.00	418319.37	573527.35	32.15	-104.23
Build 4°/100' DLS	9621.93	75.00	179.85	9351.19	363.24	-366.00	-1058.38	12.00	418298.33	573527.40	32.15	-104.23
	9700.00	78.12	179.85	9369.33	439.16	-441.92	-1058.18	4.00	418222.41	573527.60	32.15	-104.23
	9800.00	82.12	179.85	9386.48	537.66	-540.41	-1057.92	4.00	418123.93	573527.85	32.15	-104.23
	9900.00	86.12	179.85	9396.72	637.11	-639.87	-1057.66	4.00	418024.48	573528.11	32.15	-104.23
Landing Point	9996.93	90.00	179.85	9400.00	733.98	-736.73	-1057.41	4.00	417927.63	573528.37	32.15	-104.23
	10000.00	90.00	179.85	9400.00	737.04	-739.79	-1057.40	0.00	417924.57	573528.37	32.15	-104.23
	10100.00	90.00	179.85	9400.00	837.04	-839.79	-1057.14	0.00	417824.57	573528.63	32.15	-104.23
	10200.00	90.00	179.85	9400.00	937.04	-939.79	-1056.88	0.00	417724.58	573528.89	32.15	-104.23
	10300.00	90.00	179.85	9400.00	1037.04	-1039.79	-1056.62	0.00	417624.59	573529.15	32.15	-104.23
	10400.00	90.00	179.85	9400.00	1137.04	-1139.79	-1056.36	0.00	417524.60	573529.41	32.15	-104.23
	10500.00	90.00	179.85	9400.00	1237.04	-1239.79	-1056.10	0.00	417424.61	573529.68	32.15	-104.23
	10600.00	90.00	179.85	9400.00	1337.04	-1339.79	-1055.84	0.00	417324.62	573529.94	32.15	-104.23
	10700.00	90.00	179.85	9400.00	1437.04	-1439.79	-1055.58	0.00	417224.63	573530.20	32.15	-104.23
	10800.00	90.00	179.85	9400.00	1537.04	-1539.79	-1055.32	0.00	417124.64	573530.46	32.15	-104.23
	10900.00	90.00	179.85	9400.00	1637.04	-1639.79	-1055.06	0.00	417024.65	573530.72	32.15	-104.23
	11000.00	90.00	179.85	9400.00	1737.04	-1739.79	-1054.80	0.00	416924.66	573530.98	32.15	-104.23
	11100.00	90.00	179.85	9400.00	1837.04	-1839.79	-1054.54	0.00	416824.67	573531.24	32.15	-104.23
	11200.00	90.00	179.85	9400.00	1937.04	-1939.79	-1054.28	0.00	416724.68	573531.50	32.15	-104.23
	11300.00	90.00	179.85	9400.00	2037.04	-2039.79	-1054.02	0.00	416624.69	573531.76	32.15	-104.23
	11400.00	90.00	179.85	9400.00	2137.04	-2139.79	-1053.76	0.00	416524.70	573532.02	32.15	-104.23
	11500.00	90.00	179.85	9400.00	2237.04	-2239.79	-1053.50	0.00	416424.71	573532.28	32.14	-104.23
	11600.00	90.00	179.85	9400.00	2337.04	-2339.79	-1053.24	0.00	416324.72	573532.54	32.14	-104.23
	11700.00	90.00	179.85	9400.00	2437.04	-2439.79	-1052.98	0.00	416224.73	573532.80	32.14	-104.23
	11800.00	90.00	179.85	9400.00	2537.04	-2539.79	-1052.72	0.00	416124.74	573533.06	32.14	-104.23
	11900.00	90.00	179.85	9400.00	2637.04	-2639.79	-1052.46	0.00	416024.75	573533.32	32.14	-104.23
	12000.00	90.00	179.85	9400.00	2737.04	-2739.79	-1052.20	0.00	415924.76	573533.58	32.14	-104.23
	12100.00	90.00	179.85	9400.00	2837.04	-2839.79	-1051.94	0.00	415824.76	573533.84	32.14	-104.23
	12200.00	90.00	179.85	9400.00	2937.04	-2939.79	-1051.68	0.00	415724.77	573534.10	32.14	-104.23
	12300.00	90.00	179.85	9400.00	3037.04	-3039.78	-1051.42	0.00	415624.78	573534.36	32.14	-104.23
	12400.00	90.00	179.85	9400.00	3137.04	-3139.78	-1051.16	0.00	415524.79	573534.62	32.14	-104.23
	12500.00	90.00	179.85	9400.00	3237.04	-3239.78	-1050.90	0.00	415424.80	573534.88	32.14	-104.23
	12600.00	90.00	179.85	9400.00	3337.04	-3339.78	-1050.64	0.00	415324.81	573535.14	32.14	-104.23
	12700.00	90.00	179.85	9400.00	3437.04	-3439.78	-1050.38	0.00	415224.82	573535.40	32.14	-104.23
	12800.00	90.00	179.85	9400.00	3537.04	-3539.78	-1050.11	0.00	415124.83	573535.66	32.14	-104.23
	12900.00	90.00	179.85	9400.00	3637.04	-3639.78	-1049.85	0.00	415024.84	573535.92	32.14	-104.23
	13000.00	90.00	179.85	9400.00	3737.04	-3739.78	-1049.59	0.00	414924.85	573536.18	32.14	-104.23
	13100.00	90.00	179.85	9400.00	3837.04	-3839.78	-1049.33	0.00	414824.86	573536.44	32.14	-104.23
	13200.00	90.00	179.85	9400.00	3937.04	-3939.78	-1049.07	0.00	414724.87	573536.70	32.14	-104.23
	13300.00	90.00	179.85	9400.00	4037.04	-4039.78	-1048.81	0.00	414624.88	573536.96	32.14	-104.23
	13400.00	90.00	179.85	9400.00	4137.04	-4139.78	-1048.55	0.00	414524.89	573537.22	32.14	-104.23
	13500.00	90.00	179.85	9400.00	4237.04	-4239.78	-1048.29	0.00	414424.90	573537.48	32.14	-104.23
</												

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	15700.00	90.00	179.85	9400.00	6437.04	-6439.77	-1042.57	0.00	412225.11	573543.21	32.13	-104.23
	15800.00	90.00	179.85	9400.00	6537.04	-6539.77	-1042.31	0.00	412125.12	573543.47	32.13	-104.23
	15900.00	90.00	179.85	9400.00	6637.04	-6639.77	-1042.05	0.00	412025.13	573543.73	32.13	-104.23
	16000.00	90.00	179.85	9400.00	6737.04	-6739.77	-1041.78	0.00	411925.14	573543.99	32.13	-104.23
	16100.00	90.00	179.85	9400.00	6837.04	-6839.77	-1041.52	0.00	411825.14	573544.25	32.13	-104.23
	16200.00	90.00	179.85	9400.00	6937.04	-6939.77	-1041.26	0.00	411725.15	573544.51	32.13	-104.23
	16300.00	90.00	179.85	9400.00	7037.04	-7039.77	-1041.00	0.00	411625.16	573544.77	32.13	-104.23
	16400.00	90.00	179.85	9400.00	7137.04	-7139.77	-1040.74	0.00	411525.17	573545.03	32.13	-104.23
	16500.00	90.00	179.85	9400.00	7237.04	-7239.77	-1040.48	0.00	411425.18	573545.29	32.13	-104.23
	16600.00	90.00	179.85	9400.00	7337.04	-7339.77	-1040.22	0.00	411325.19	573545.55	32.13	-104.23
	16700.00	90.00	179.85	9400.00	7437.04	-7439.77	-1039.96	0.00	411225.20	573545.81	32.13	-104.23
	16800.00	90.00	179.85	9400.00	7537.04	-7539.77	-1039.70	0.00	411125.21	573546.07	32.13	-104.23
	16900.00	90.00	179.85	9400.00	7637.04	-7639.77	-1039.44	0.00	411025.22	573546.33	32.13	-104.23
	17000.00	90.00	179.85	9400.00	7737.04	-7739.77	-1039.18	0.00	410925.23	573546.59	32.13	-104.23
	17100.00	90.00	179.85	9400.00	7837.04	-7839.77	-1038.92	0.00	410825.24	573546.85	32.13	-104.23
	17200.00	90.00	179.85	9400.00	7937.04	-7939.77	-1038.66	0.00	410725.25	573547.11	32.13	-104.23
	17300.00	90.00	179.85	9400.00	8037.04	-8039.77	-1038.40	0.00	410625.26	573547.37	32.13	-104.23
	17400.00	90.00	179.85	9400.00	8137.04	-8139.77	-1038.14	0.00	410525.27	573547.63	32.13	-104.23
	17500.00	90.00	179.85	9400.00	8237.04	-8239.77	-1037.88	0.00	410425.28	573547.89	32.13	-104.23
	17600.00	90.00	179.85	9400.00	8337.04	-8339.77	-1037.62	0.00	410325.29	573548.16	32.13	-104.23
	17700.00	90.00	179.85	9400.00	8437.04	-8439.77	-1037.36	0.00	410225.30	573548.42	32.13	-104.23
	17800.00	90.00	179.85	9400.00	8537.04	-8539.77	-1037.10	0.00	410125.31	573548.68	32.13	-104.23
	17900.00	90.00	179.85	9400.00	8637.04	-8639.77	-1036.84	0.00	410025.32	573548.94	32.13	-104.23
	18000.00	90.00	179.85	9400.00	8737.04	-8739.77	-1036.58	0.00	409925.33	573549.20	32.13	-104.23
	18100.00	90.00	179.85	9400.00	8837.04	-8839.77	-1036.32	0.00	409825.33	573549.46	32.13	-104.23
	18200.00	90.00	179.85	9400.00	8937.04	-8939.76	-1036.06	0.00	409725.34	573549.72	32.13	-104.23
	18300.00	90.00	179.85	9400.00	9037.04	-9039.76	-1035.80	0.00	409625.35	573549.98	32.13	-104.23
	18400.00	90.00	179.85	9400.00	9137.04	-9139.76	-1035.54	0.00	409525.36	573550.24	32.13	-104.23
	18500.00	90.00	179.85	9400.00	9237.04	-9239.76	-1035.28	0.00	409425.37	573550.50	32.13	-104.23
	18600.00	90.00	179.85	9400.00	9337.04	-9339.76	-1035.02	0.00	409325.38	573550.76	32.13	-104.23
	18700.00	90.00	179.85	9400.00	9437.04	-9439.76	-1034.76	0.00	409225.39	573551.02	32.12	-104.23
	18800.00	90.00	179.85	9400.00	9537.04	-9539.76	-1034.50	0.00	409125.40	573551.28	32.12	-104.23
	18900.00	90.00	179.85	9400.00	9637.04	-9639.76	-1034.24	0.00	409025.41	573551.54	32.12	-104.23
	19000.00	90.00	179.85	9400.00	9737.04	-9739.76	-1033.98	0.00	408925.42	573551.80	32.12	-104.23
	19100.00	90.00	179.85	9400.00	9837.04	-9839.76	-1033.72	0.00	408825.43	573552.06	32.12	-104.23
	19200.00	90.00	179.85	9400.00	9937.04	-9939.76	-1033.46	0.00	408725.44	573552.32	32.12	-104.23
	19300.00	90.00	179.85	9400.00	10037.04	-10039.76	-1033.19	0.00	408625.45	573552.58	32.12	-104.23
	19400.00	90.00	179.85	9400.00	10137.04	-10139.76	-1032.93	0.00	408525.46	573552.84	32.12	-104.23

Cimarex Davinci
7-18 Federal
Com #34H -
PBHL [100'
FSL,2590'FEL]

19442.23

90.00

179.85

9400.00

10179.27

-10181.99

-1032.82

0.00

408483.23

573552.95

32.12

-104.23

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% 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 Type	Borehole / Survey
	1	0.000	23.000	1/100.000	17.500	13.375		NAL_MWD_IFR1+MS-Depth Only	Davinci 7-18 Federal Com #34H / Cimarex Davinci 7-18 Federal Com #34H Rev2 RM 08Jun21
	1	23.000	19442.232	1/100.000	17.500	13.375		NAL_MWD_IFR1+MS	Davinci 7-18 Federal Com #34H / Cimarex Davinci 7-18 Federal



Cimarex Davinci 7-18 Federal Com #34H Rev2 RM 08Jun21 Proposal Geodetic Report (Def Plan)



Report Date: June 08, 2021 - 02:57 PM
Client: Cimarex Energy
Field: NM Eddy County (NAD 83)
Structure / Slot: Cimarex Davinci 7-18 Federal Pad / New Slot
Well: Davinci 7-18 Federal Com #34H
Borehole: Davinci 7-18 Federal Com #34H
UWI / API#: Unknown / Unknown
Survey Name: Cimarex Davinci 7-18 Federal Com #34H Rev2 RM 08Jun21
Survey Date: May 24, 2021
Tort / AHD / DDI / ERD Ratio: 114.000 ° / 11229.283 ft / 6.423 / 1.195
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 9' 3.38760", W 104° 13' 33.24240"
Location Grid N/E Y/X: N 418664.290 ftUS, E 574585.680 ftUS
CRS Grid Convergence Angle: 0.0572 °
Grid Scale Factor: 0.99991036
Version / Patch: 2.10.825.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 179.851 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3329.700 ft above MSL
Seabed / Ground Elevation: 3306.700 ft above MSL
Magnetic Declination: 7.026 °
Total Gravity Field Strength: 998.4349mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 47625.540 nT
Magnetic Dip Angle: 59.767 °
Declination Date: June 08, 2021
Magnetic Declination Model: HDGM 2021
North Reference: Grid North
Grid Convergence Used: 0.0572 °
Total Corr Mag North->Grid North: 6.9690 °
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
SHL [330' FNL, 1531' FEL]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	418664.29	574585.68	32.15	-104.23
Nudge 2"/100'	2000.00	0.00	269.34	2000.00	0.00	0.00	0.00	0.00	418664.29	574585.68	32.15	-104.23
Hold Nudae	2600.00	12.00	269.34	2595.62	0.55	-0.72	-62.60	2.00	418663.57	574523.09	32.15	-104.23
Drop to Vertical	7093.06	12.00	269.34	6990.50	8.80	-11.40	-996.70	0.00	418652.90	573589.07	32.15	-104.23
2"/100' DLS	7693.06	0.00	269.34	7586.13	9.36	-12.11	-1059.30	2.00	418652.18	573526.48	32.15	-104.23
Hold Vertical	8996.93	0.00	269.34	8890.00	9.36	-12.11	-1059.30	0.00	418652.18	573526.48	32.15	-104.23
KOP - Build	9621.93	75.00	179.85	9351.19	363.24	-366.00	-1058.38	12.00	418298.33	573527.40	32.15	-104.23
12"/100' DLS	9996.93	90.00	179.85	9400.00	733.98	-736.73	-1057.41	4.00	417927.63	573528.37	32.15	-104.23
Build 4"/100'												
DLS												
Landing Point												
Cimarex Davinci 7-18 Federal Com #34H - PBHL [100' FSL,2590'FEL]	19442.23	90.00	179.85	9400.00	10179.27	-10181.99	-1032.82	0.00	408483.23	573552.95	32.12	-104.23

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% 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 Type	Borehole / Survey
	1	0.000	23.000	1/100.000	17.500	13.375		NAL_MWD_IFR1+MS-Depth Only	Davinci 7-18 Federal Com #34H / Cimarex Davinci 7-18 Federal Com #34H Rev2 RM 08Jun21
	1	23.000	19442.232	1/100.000	17.500	13.375		NAL_MWD_IFR1+MS	Davinci 7-18 Federal Com #34H / Cimarex Davinci 7-18 Federal



Cimarex Davinci 7-18 Federal Com #34H Rev2 RM 08Jun21 Anti-Collision Summary Report

Analysis Date-24hr Time: June 08, 2021 - 14:55

Client: Cimarex Energy

Field: NM Eddy County (NAD 83)

Structure: Cimarex Davinci 7-18 Federal Pad

Slot: New Slot

Well: Davinci 7-18 Federal Com #34H

Borehole: Davinci 7-18 Federal Com #34H

Scan MD Range: 0.00ft ~ 19442.23ft

Analysis Method: 3D Least Distance

Reference Trajectory: Cimarex Davinci 7-18 Federal Com #34H Rev2 RM 08Jun21 (Def Plan)

Depth Interval: Every 10.00 Measured Depth (ft)

Rule Set: NAL Procedure: D&M AntiCollision Standard S002

Min Pts: All local minima indicated.

Version / Patch: 2.10.825.0

Database \ Project: us1455vsm3172\drilling -NM Eddy County 2.10

Trajectory Error Model: ISCWSA0 3-D 95.000% Confidence 2.7955 sigma, for subject well. For offset wells, error model version is specified with each well respectively.

Offset Trajectories Summary

Offset Selection Criteria

Wellhead distance scan: Not performed!

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 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: Sep-Factor separation <= 1.50 ft

Cimarex Davinci 7-18 Federal Com #35H Rev2 RM 24May21 (Non-Def Plan)													
												Warning Alert	
19.96	16.22	18.67	3.74	N/A		MAS = 4.94 (m)	0.00	0.00	CtCt<=15m<15.00			Enter Alert	
19.95	16.22	18.67	3.73	N/A		MAS = 4.94 (m)	23.00	23.00				WRP	
19.95	16.22	9.63	3.73	2.07		MAS = 4.94 (m)	1500.00	1500.00				MinPts	
19.97	16.22	9.60	3.75	2.06		MAS = 4.94 (m)	1510.00	1510.00				MINPT-O-EOU	
20.10	16.22	9.64	3.88	2.05		MAS = 4.94 (m)	1530.00	1530.00				MinPt-O-SF	
54.76	17.43	42.71	37.33	4.97		OSF1.50	1950.00	1950.00	OSF>5.00			Exit Alert	
530.22	65.70	485.99	464.52	12.32		OSF1.50	7093.06	6990.50				MinPt-O-SF	
1164.55	77.90	1112.19	1086.65	22.78		OSF1.50	9996.93	9400.00				MinPt-CtCt	
1164.90	329.72	944.65	835.18	5.31		OSF1.50	19442.23	9400.00				MinPts	

Cimarex Davinci 7-18 Federal Com #33H Rev2 RM 24May21 (Non-Def Plan)													
												Warning Alert	
20.06	16.31	18.78	3.76	N/A		MAS = 4.97 (m)	0.00	0.00	CtCt<=15m<15.00			Enter Alert	
20.06	16.31	18.78	3.76	14084.77		MAS = 4.97 (m)	23.00	23.00				WRP	
20.06	19.56	6.59	0.50	1.54		OSF1.50	2000.00	2000.00				MinPt-CtCt	
20.08	19.63	6.56	0.45	1.54		OSF1.50	2010.00	2010.00				MINPT-O-EOU	
20.13	19.70	6.57	0.43	1.53		OSF1.50	2020.00	2020.00				MinPts	
72.70	22.81	57.06	49.89	4.96		OSF1.50	2550.00	2546.63	OSF>5.00			Exit Alert	
82.67	23.13	66.81	59.53	5.59		OSF1.50	2600.00	2595.62				MinPts	
1079.49	74.05	1029.65	1005.44	22.23		OSF1.50	9070.00	8962.78				MINPT-O-EOU	
1079.55	74.12	1029.70	1005.43	22.21		OSF1.50	9090.00	8982.47				MinPt-O-ADP	
1080.64	74.45	1030.58	1006.19	22.13		OSF1.50	9200.00	9087.00				MinPt-O-SF	
1132.54	324.90	915.51	807.64	5.24		OSF1.50	19430.00	9400.00				MinPt-CtCt	
1132.56	325.00	915.48	807.55	5.24		OSF1.50	19440.00	9400.00				MinPts	
1132.57	325.00	915.48	807.57	5.24		OSF1.50	19442.23	9400.00				TD	

Cimarex Davinci 7-18 Federal Com #32H Rev1 RM 24May21 (Non-Def Plan)													
												Warning Alert	
40.05	32.29	38.76	7.75	N/A		MAS = 9.84 (m)	0.00	0.00	CtCt<=15m<15.00			Enter Alert	
40.05	32.29	38.76	7.75	14537.69		MAS = 9.84 (m)	23.00	23.00				WRP	
40.05	32.29	26.64	7.75	3.20		MAS = 9.84 (m)	1990.00	1990.00				MinPts	
40.05	32.29	26.58	7.75	3.18		MAS = 9.84 (m)	2000.00	2000.00				MINPT-O-EOU	
40.09	32.29	26.58	7.79	3.18		MAS = 9.84 (m)	2010.00	2010.00				MinPt-O-SF	
63.48	32.29	49.64	31.18	4.96		MAS = 9.84 (m)	2260.00	2259.64	OSF>5.00			Exit Alert	
162.07	32.29	147.90	129.78	12.47		MAS = 9.84 (m)	2600.00	2595.62				MinPts	
1508.83	43.02	1479.72	1465.81	54.19		OSF1.50	5700.00	5627.88				MinPt-O-SF	
1830.16	52.70	1794.60	1777.40	53.39		OSF1.50	7093.06	6990.50				MinPt-O-SF	
2612.58	321.67	2397.70	2290.90	12.23		OSF1.50	19442.23	9400.00				MinPts	

Cimarex Davinci 7-18 Federal Com #38H Rev0 RM 24May21 (Non-Def Plan)													
												Warning Alert	
100.08	32.81	98.79	67.27	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
100.08	32.81	98.79	67.27	17786.17		MAS = 10.00 (m)	23.00	23.00				WRP	
60.01	32.81	47.18	27.21	5.09		MAS = 10.00 (m)	2200.00	2199.84				MinPts	
60.14	32.81	47.26	27.33	5.09		MAS = 10.00 (m)	2220.00	2219.78				MinPt-O-SF	
1130.74	340.17	903.53	790.56	5.00		OSF1.50	18920.00	9400.00	OSF<5.00			Enter Alert	
1130.75	356.46	892.68	774.29	4.77		OSF1.50	19442.23	9400.00				MinPts	

Cimarex Da Vinci 7 Federal Com #4H MWD Off to 12076ft (Def Survey)													
												Warning Alert	
5197.04	32.81	5195.76	5164.23	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
5196.59	32.81	5195.22	5163.78	65568.02		MAS = 10.00 (m)	23.00	23.00				MinPt-O-SF	
5190.01	32.81	5186.21	5157.20	2063.92		MAS = 10.00 (m)	580.00	580.00				MinPts	
5180.32	32.81	5170.52	5147.51	608.78		MAS = 10.00 (m)	1920.00	1920.00				MinPts	
5180.42	32.81	5170.42	5147.62	594.04		MAS = 10.00 (m)	1970.00	1970.00				MINPT-O-EOU	
5181.87	32.81	5171.37	5149.06	562.26		MAS = 10.00 (m)	2320.00	2319.33				MinPts	
599.57	182.22	477.37	417.35	4.98		OSF1.50	7120.00	7016.88	OSF<5.00			Enter Alert	
469.68	203.39	333.21	266.29	3.49		OSF1.50	7450.00	7343.35				MinPt-O-SF	
469.40	203.24	333.04	266.10	3.49		OSF1.50	7460.00	7353.32				MinPts	
469.38	203.02	333.17	266.36	3.49		OSF1.50	7470.00	7363.29				MinPt-CtCt	
571.62	175.33	454.12	396.29	4.93		OSF1.50	7770.00	7663.06	OSF>5.00			Exit Alert	
2076.71	92.39	2014.68	1984.31	34.17		OSF1.50	10350.00	9400.00				MinPt-O-ADP	
2066.72	89.60	2006.55	1977.11	35.08		OSF1.50	10650.00	9400.00				MinPt-O-ADP	
2062.29	88.53	2002.84	1973.76	35.44		OSF1.50	10860.00	9400.00				MinPt-O-SF	
2062.23	88.53	2002.80	1973.72	35.44		OSF1.50	10880.00	9400.00				MinPts	

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Cl-Cl (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
2062.23	86.50	2002.80	1973.73	35.45		OSF1.50	10890.00	9400.00				MinPt-CtCt	
2048.67	86.69	1990.44	1961.97	35.96		OSF1.50	11400.00	9400.00				MinPt-CtCt	
2048.70	86.81	1990.38	1961.86	35.90		OSF1.50	11420.00	9400.00				MINPT-O-EQU	
2048.76	86.92	1990.38	1961.84	35.87		OSF1.50	11430.00	9400.00				MinPt-O-ADP	
2061.48	89.62	2001.30	1971.85	34.98		OSF1.50	11710.00	9400.00				MinPt-O-SF	
2058.76	87.73	1999.84	1971.02	35.70		OSF1.50	11980.00	9400.00				MinPt-CtCt	
2058.86	88.11	1999.70	1970.76	35.55		OSF1.50	12010.00	9400.00				MINPT-O-EQU	
2059.06	88.36	1999.73	1970.70	35.45		OSF1.50	12030.00	9400.00				MinPt-O-ADP	
2063.60	90.15	2003.07	1973.45	34.81		OSF1.50	12190.00	9400.00				MinPt-O-SF	
2064.80	89.79	2004.52	1975.02	34.97		OSF1.50	12300.00	9400.00				MinPt-CtCt	
2065.05	90.54	2004.27	1974.52	34.69		OSF1.50	12350.00	9400.00				MINPT-O-EQU	
2065.32	90.83	2004.34	1974.49	34.57		OSF1.50	12370.00	9400.00				MinPt-O-ADP	
2067.37	92.03	2005.59	1975.34	34.13		OSF1.50	12450.00	9400.00				MinPt-O-SF	
2066.81	92.17	2004.93	1974.63	34.09		OSF1.50	12550.00	9400.00				MinPt-CtCt	
2066.95	92.78	2004.70	1974.22	33.89		OSF1.50	12590.00	9400.00				MinPts	
2066.40	93.77	2003.46	1972.63	33.49		OSF1.50	12700.00	9400.00				MinPt-CtCt	
2066.71	94.78	2003.13	1971.99	33.16		OSF1.50	12760.00	9400.00				MINPT-O-EQU	
2066.98	95.05	2003.19	1971.93	33.05		OSF1.50	12780.00	9400.00				MinPt-O-ADP	
2070.66	97.16	2005.46	1973.50	32.38		OSF1.50	12920.00	9400.00				MinPt-O-SF	
2069.94	97.47	2004.53	1972.47	32.26		OSF1.50	13000.00	9400.00				MinPt-CtCt	
2070.23	98.38	2004.21	1971.85	31.96		OSF1.50	13050.00	9400.00				MINPT-O-EQU	
2070.70	98.93	2004.31	1971.76	31.79		OSF1.50	13080.00	9400.00				MinPt-O-ADP	
2071.37	99.30	2004.74	1972.07	31.69		OSF1.50	13130.00	9400.00				MinPt-O-SF	
2068.06	102.11	1999.56	1965.95	30.78		OSF1.50	13320.00	9400.00				MinPts	
2038.35	109.55	1964.90	1928.82	28.23		OSF1.50	13770.00	9400.00				MinPt-CtCt	
2038.62	110.42	1964.58	1928.20	28.00		OSF1.50	13810.00	9400.00				MINPT-O-EQU	
2038.99	110.86	1964.66	1928.13	27.90		OSF1.50	13830.00	9400.00				MinPt-O-ADP	
2109.03	120.45	2028.31	1988.59	26.53		OSF1.50	14380.00	9400.00				MinPt-O-SF	
5705.19	108.32	5632.55	5596.87	79.94		OSF1.50	19442.23	9400.00				TD	

API 30-015-23094 Chevron
Mona Lisa #2 (Offset) P Gas
Inc Only Off-11970ft (Def
Survey)

Warning Alert

3934.88	32.81	3933.59	3902.07	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
3934.45	32.81	3933.09	3901.64	54803.04		MAS = 10.00 (m)	23.00	23.00				MinPt-O-SF	
3933.70	32.81	3929.61	3900.98	1361.54		MAS = 10.00 (m)	230.00	230.00				MinPts	
3932.92	36.67	3908.05	3896.25	166.67		OSF1.50	820.00	820.00				MinPt-CtCt	
3935.53	44.58	3905.37	3890.94	136.28		OSF1.50	1060.00	1060.00				MINPT-O-EQU	
3931.67	69.92	3884.63	3861.75	85.90		OSF1.50	1460.00	1460.00				MinPt-CtCt	
3931.90	70.58	3884.42	3861.33	85.09		OSF1.50	1510.00	1510.00				MINPT-O-EQU	
3932.13	70.84	3884.48	3861.29	84.77		OSF1.50	1530.00	1530.00				MinPt-O-ADP	
3927.98	94.16	3864.77	3833.82	63.42		OSF1.50	1910.00	1910.00				MinPt-CtCt	
3928.27	95.08	3864.47	3833.21	62.82		OSF1.50	1970.00	1970.00				MINPT-O-EQU	
3928.52	95.36	3864.52	3833.16	62.62		OSF1.50	1990.00	1990.00				MinPt-O-ADP	
3481.11	417.54	3202.18	3063.57	12.55		OSF1.50	8250.00	8143.06				MinPt-CtCt	
1606.66	485.62	1281.44	1121.05	4.99		OSF1.50	11360.00	9400.00	OSF<5.00			Enter Alert	
1021.91	489.30	694.84	532.62	3.14		OSF1.50	12600.00	9400.00				MinPts	
1021.96	489.33	694.88	532.64	3.14		OSF1.50	12610.00	9400.00				MinPt-O-SF	
1630.23	490.26	1302.96	1139.97	5.00		OSF1.50	13870.00	9400.00	OSF>5.00			Exit Alert	
6917.60	492.78	6588.65	6424.82	21.11		OSF1.50	19442.23	9400.00				TD	

API 30-015-33496 Cimarex
Gadwell 18 Federal Com #1
(Offset) P Gas Inc Only Off-
12250ft (Def Survey)

Warning Alert

6263.55	32.81	6262.26	6230.74	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
6263.13	32.81	6261.77	6230.32	84946.01		MAS = 10.00 (m)	23.00	23.00				MinPt-O-SF	
6260.41	32.81	6248.58	6227.61	593.39		MAS = 10.00 (m)	430.00	430.00				MinPts	
6264.15	32.81	6244.18	6231.34	335.22		MAS = 10.00 (m)	750.00	750.00				MINPT-O-EQU	
6261.44	69.96	6214.37	6191.47	136.73		OSF1.50	1490.00	1490.00				MinPt-CtCt	
5952.38	384.65	5695.44	5567.75	23.30		OSF1.50	7680.00	7573.06				MinPt-CtCt	
1602.47	486.95	1275.63	1115.52	4.98		OSF1.50	14010.00	9400.00	OSF<5.00			Enter Alert	
1169.39	497.19	837.05	672.20	3.54		OSF1.50	15110.00	9400.00				MinPts	
1169.63	497.30	837.27	672.34	3.54		OSF1.50	15130.00	9400.00				MinPt-O-SF	
1650.14	496.28	1318.86	1153.86	5.00		OSF1.50	16270.00	9400.00	OSF>5.00			Exit Alert	
4491.29	488.28	4165.34	4003.01	13.83		OSF1.50	19442.23	9400.00				TD	

Final Surveys - Cimarex
DaVinci 7-18 Federal Com
#30H Off to 17841ft (Surcon
Corrected) (Def Survey)

Pass

116.75	32.81	115.47	83.95	293727.36		MAS = 10.00 (m)	0.00	0.00				Surface	
116.72	32.81	115.41	83.81	6799.57		MAS = 10.00 (m)	23.00	23.00				WRP	
115.94	32.81	114.31	83.14	325.52		MAS = 10.00 (m)	130.00	130.00				MinPts	
115.97	32.81	114.28	83.16	296.50		MAS = 10.00 (m)	140.00	140.00				MINPT-O-EQU	
86.01	32.81	77.75	53.20	11.93		MAS = 10.00 (m)	1620.00	1620.00				MinPts	
86.05	32.81	77.71	53.24	11.79		MAS = 10.00 (m)	1640.00	1640.00				MINPT-O-EQU	
88.86	32.81	78.80	56.05	9.73		MAS = 10.00 (m)	2120.00	2119.96				MinPts	
88.87	32.81	78.82	56.07	9.73		MAS = 10.00 (m)	2130.00	2129.96				MinPt-O-SF	
115.66	32.81	105.06	82.85	11.97		MAS = 10.00 (m)	2600.00	2595.62				MinPts	
195.07	32.81	180.63	162.26	14.47		MAS = 10.00 (m)	3860.00	3828.09				MinPt-O-SF	
249.71	32.81	231.19	216.90	14.21		MAS = 10.00 (m)	4780.00	4727.98				MinPt-O-SF	
251.63	32.81	232.98	218.82	14.23		MAS = 10.00 (m)	4810.00	4757.33				MinPt-O-SF	
283.22	32.81	262.10	250.41	14.04		MAS = 10.00 (m)	5310.00	5246.40				MinPt-O-SF	
623.85	41.60	595.78	582.25	23.02		OSF1.50	7790.00	7673.06				MinPt-O-SF	
1569.26	68.41	1523.31	1500.85	34.90		OSF1.50	11870.00	9400.00				MinPt-CtCt	
1569.92	70.15	1522.81	1499.76	34.04		OSF1.50	11950.00	9400.00				MINPT-O-EQU	
1570.69	71.05	1522.98	1499.64	33.62		OSF1.50	11990.00	9400.00				MinPt-O-ADP	
1578.44	82.93	1522.81	1495.51	28.89		OSF1.50	12380.00	9400.00				MinPt-CtCt	
1578.88	84.20	1522.40	1494.68	28.46		OSF1.50	12440.00	9400.00				MINPT-O-EQU	
1579.42	84.83	1522.53	1494.60	28.25		OSF1.50	12470.00	9400.00				MinPt-O-ADP	
1588.99	148.12	1489.90	1440.87	16.19		OSF1.50	14580.00	9400.00				MinPt-CtCt	
1589.02	155.54	1484.99	1433.49	15.42		OSF1.50	14830.00	9400.00				MinPt-CtCt	
1589.04	164.44	1479.07	1424.60	14.58		OSF1.50	15130.00	9400.00				MinPt-CtCt	
1589.65	166.66	1478.21	1422.99	14.39		OSF1.50	15220.00	9400.00				MINPT-O-EQU	
1590.39	167.54	1478.35	1422.85	14.32		OSF1.50	15260.00	9400.00				MinPt-O-ADP	
1602.14	193.84	1472.57	1408.30	12.46		OSF1.50	16110.00	9400.00				MinPt-CtCt	
1602.99	196.56	1471.61	1406.42	12.29		OSF1.50	16220.00	9400.00				MINPT-O-EQU	
1606.32	201.58	1471.58	1404.73	12.01		OSF1.50	16390.00	9400.00				MINPT-O-EQU	
1608.77	215.89	1464.50	1392.88	11.22		OSF1.50	16840.00	9400.00				MinPt-CtCt	
1620.90	256.94	1449.27	1363.96	9.49		OSF1.50	18210.00	9400.00				MinPt-CtCt	
1608.43	294.05	1412.05	1314.38	8.23		OSF1.50	19440.00	9400.00				MinPt-CtCt	
1608.43	294.07	1412.04	1314.36	8.23		OSF1.50	19442.23	9400.00				MinPts	

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		
Cimarex Davinci 7-18 Federal Com #37H Rev0 RM 24May21 (Non-Def Plan)													
												Pass	
	116.70	32.81	115.41	83.89	N/A	MAS = 10.00 (m)	0.00	0.00					Surface
	116.70	32.81	115.41	83.89	16232.94	MAS = 10.00 (m)	23.00	23.00					WRP
	114.92	32.81	100.93	82.11	8.94	MAS = 10.00 (m)	2500.00	2497.47					MinPts
	114.94	32.81	100.92	82.13	8.93	MAS = 10.00 (m)	2510.00	2507.31					MINPT-O-EOU
	115.29	32.81	101.21	82.49	8.91	MAS = 10.00 (m)	2550.00	2546.63					MinPt-O-SF
	116.41	32.81	102.24	83.60	8.93	MAS = 10.00 (m)	2600.00	2595.62					MinPts
	174.27	32.81	152.09	141.46	8.28	MAS = 10.00 (m)	4430.00	4385.63					MinPt-O-SF
	736.34	56.07	698.53	680.27	20.13	OSF1.50	8260.00	8153.06					MinPt-O-SF
	733.80	55.67	696.26	678.13	20.20	OSF1.50	8430.00	8323.06					MinPts
	733.80	55.64	696.27	678.15	20.21	OSF1.50	8440.00	8333.06					MinPt-CtCt
	1088.00	307.39	882.64	780.61	5.33	OSF1.50	19440.00	9400.00					MinPts
	1088.01	307.39	882.66	780.62	5.33	OSF1.50	19442.23	9400.00					TD
Final Surveys - Cimarex DaVinci 7-18 Federal Com #29H Off to 19312ft (Surcon Corrected) (Def Survey)													
												Pass	
	134.24	32.81	132.95	101.43	544990.71	MAS = 10.00 (m)	0.00	0.00					Surface
	134.22	32.81	132.92	101.41	12257.61	MAS = 10.00 (m)	23.00	23.00					WRP
	129.63	32.81	126.99	96.82	95.14	MAS = 10.00 (m)	360.00	360.00					MinPts
	129.64	32.81	126.96	96.83	92.26	MAS = 10.00 (m)	370.00	370.00					MINPT-O-EOU
	132.38	32.81	125.14	99.57	21.49	MAS = 10.00 (m)	1380.00	1380.00					MinPts
	132.45	32.81	125.08	99.64	21.05	MAS = 10.00 (m)	1410.00	1410.00					MINPT-O-EOU
	146.48	32.81	137.56	113.68	18.66	MAS = 10.00 (m)	1780.00	1780.00					MinPt-O-SF
	296.17	32.81	285.71	263.36	31.26	MAS = 10.00 (m)	2600.00	2595.62					MinPts
	1496.21	35.63	1472.11	1460.58	64.80	OSF1.50	6050.00	5970.23					MinPt-O-SF
	1699.36	40.14	1672.26	1659.23	65.12	OSF1.50	6670.00	6576.68					MinPt-O-SF
	1840.41	43.12	1811.32	1797.29	65.53	OSF1.50	7093.06	6990.50					MinPt-O-SF
	2046.75	43.28	2017.56	2003.48	72.62	OSF1.50	8140.00	8033.06					MinPt-O-SF
	2170.90	47.78	2138.71	2123.12	69.61	OSF1.50	9040.00	8933.00					MinPt-O-SF
	2172.33	47.18	2140.54	2125.15	70.56	OSF1.50	9220.00	9105.04					MinPt-O-SF
	2249.75	57.04	2211.40	2192.72	60.18	OSF1.50	10420.00	9400.00					MinPt-CtCt
	2249.94	57.58	2211.24	2192.39	59.64	OSF1.50	10460.00	9400.00					MINPT-O-EOU
	2250.14	57.80	2211.28	2192.34	59.38	OSF1.50	10480.00	9400.00					MinPt-O-ADP
	2257.68	68.03	2212.00	2189.65	50.49	OSF1.50	10990.00	9400.00					MinPt-CtCt
	2257.92	68.83	2211.70	2189.08	49.90	OSF1.50	11040.00	9400.00					MINPT-O-EOU
	2258.30	69.31	2211.77	2188.99	49.56	OSF1.50	11070.00	9400.00					MinPt-O-ADP
	2275.63	78.24	2223.14	2197.39	44.16	OSF1.50	11450.00	9400.00					MINPT-O-EOU
	2276.68	79.49	2223.36	2197.19	43.48	OSF1.50	11510.00	9400.00					MinPt-O-ADP
	2274.10	102.52	2205.42	2171.58	33.58	OSF1.50	12370.00	9400.00					MinPt-CtCt
	2277.38	115.71	2199.91	2161.67	29.76	OSF1.50	12850.00	9400.00					MinPt-CtCt
	2276.44	121.83	2194.90	2154.62	28.24	OSF1.50	13070.00	9400.00					MinPt-CtCt
	2274.97	127.73	2189.49	2147.24	26.91	OSF1.50	13280.00	9400.00					MinPt-CtCt
	2275.82	130.25	2188.66	2145.57	26.40	OSF1.50	13390.00	9400.00					MINPT-O-EOU
	2278.33	136.47	2187.02	2141.86	25.21	OSF1.50	13610.00	9400.00					MINPT-O-EOU
	2279.51	137.90	2187.25	2141.62	24.96	OSF1.50	13670.00	9400.00					MinPt-O-ADP
	2270.03	156.47	2165.38	2113.55	21.89	OSF1.50	14290.00	9400.00					MinPt-CtCt
	2270.36	157.41	2165.09	2112.95	21.76	OSF1.50	14340.00	9400.00					MINPT-O-EOU
	2270.68	157.78	2165.16	2112.90	21.71	OSF1.50	14360.00	9400.00					MinPt-O-ADP
	2271.19	166.59	2159.80	2104.60	20.56	OSF1.50	14640.00	9400.00					MinPt-CtCt
	2269.04	175.58	2151.66	2093.46	19.49	OSF1.50	14950.00	9400.00					MinPt-CtCt
	2269.27	179.67	2149.17	2089.60	19.04	OSF1.50	15090.00	9400.00					MinPt-CtCt
	2270.21	184.01	2147.20	2086.19	18.60	OSF1.50	15260.00	9400.00					MINPT-O-EOU
	2270.97	184.92	2147.35	2086.04	18.51	OSF1.50	15300.00	9400.00					MinPt-O-ADP
	2269.34	191.14	2141.59	2078.21	17.89	OSF1.50	15480.00	9400.00					MinPt-CtCt
	2269.63	192.08	2141.24	2077.54	17.81	OSF1.50	15530.00	9400.00					MINPT-O-EOU
	2269.93	192.45	2141.30	2077.47	17.78	OSF1.50	15550.00	9400.00					MinPt-O-ADP
	2259.96	212.34	2118.07	2047.62	16.03	OSF1.50	16200.00	9400.00					MinPt-CtCt
	2260.32	213.59	2117.60	2046.73	15.94	OSF1.50	16260.00	9400.00					MINPT-O-EOU
	2260.80	214.20	2117.67	2046.60	15.90	OSF1.50	16290.00	9400.00					MinPt-O-ADP
	2265.27	222.38	2116.69	2042.89	15.34	OSF1.50	16560.00	9400.00					MINPT-O-EOU
	2266.04	223.28	2116.85	2042.75	15.28	OSF1.50	16600.00	9400.00					MinPt-O-ADP
	2251.09	240.29	2090.57	2010.80	14.10	OSF1.50	17140.00	9400.00					MinPt-CtCt
	2251.37	241.00	2090.37	2010.37	14.06	OSF1.50	17180.00	9400.00					MINPT-O-EOU
	2251.68	244.53	2088.34	2007.16	13.86	OSF1.50	17280.00	9400.00					MinPt-CtCt
	2252.65	247.42	2087.38	2005.23	13.71	OSF1.50	17400.00	9400.00					MINPT-O-EOU
	2253.64	248.61	2087.57	2005.03	13.65	OSF1.50	17450.00	9400.00					MinPt-O-ADP
	2262.80	262.09	2087.75	2000.72	12.99	OSF1.50	17890.00	9400.00					MINPT-O-EOU
	2263.53	262.97	2087.89	2000.56	12.95	OSF1.50	17930.00	9400.00					MinPt-O-ADP
	2271.25	270.47	2090.61	2000.78	12.64	OSF1.50	18190.00	9400.00					MinPt-O-ADP
	2280.42	280.25	2093.26	2000.18	12.24	OSF1.50	18520.00	9400.00					MinPt-O-ADP
	2274.81	299.88	2074.56	1974.93	11.41	OSF1.50	19130.00	9400.00					MinPt-CtCt
	2274.92	302.02	2073.24	1972.90	11.33	OSF1.50	19210.00	9400.00					MINPT-O-EOU
	2275.01	302.13	2073.26	1972.87	11.33	OSF1.50	19220.00	9400.00					MinPt-O-ADP
	2277.32	302.85	2075.09	1974.47	11.31	OSF1.50	19300.00	9400.00					MinPt-O-SF
	2288.33	303.23	2085.85	1985.10	11.35	OSF1.50	19442.23	9400.00					TD
Cimarex Davinci 7-18 Federal Com #36H Rev0 RM 24May21 (Non-Def Plan)													
												Pass	
	134.24	32.81	132.96	101.43	N/A	MAS = 10.00 (m)	0.00	0.00					Surface
	134.24	32.81	132.95	101.43	15747.62	MAS = 10.00 (m)	23.00	23.00					WRP
	134.24	32.81	120.76	101.43	10.90	MAS = 10.00 (m)	2000.00	2000.00					MinPts
	134.31	32.81	120.73	101.50	10.82	MAS = 10.00 (m)	2020.00	2020.00					MINPT-O-EOU
	136.14	32.81	122.15	103.33	10.62	MAS = 10.00 (m)	2110.00	2109.97					MinPt-O-SF
	217.40	32.81	202.62	184.59	16.01	MAS = 10.00 (m)	2600.00	2595.62					MinPts
	2160.76	54.65	2123.90	2106.11	60.70	OSF1.50	6960.00	6860.35					MinPt-O-SF
	2199.89	55.03	2162.78	2144.86	61.36	OSF1.50	7093.06	6990.50					MinPt-O-SF
	2262.33	55.07	2225.19	2207.26	63.06	OSF1.50	7860.00	7753.06					MinPt-O-SF
	2259.64	54.89	2222.62	2204.75	63.20	OSF1.50	8130.00	8023.06					MinPts
	2265.53	55.12	2228.36	2210.42	63.09	OSF1.50	8380.00	8273.06					MinPt-O-SF
	2398.35	61.57	2356.88	2336.78	59.64	OSF1.50	10420.00	9400.00					MinPt-CtCt
	2398.47	328.16	2179.26	2070.30	11.00	OSF1.50	19442.23	9400.00					MinPts
Cimarex Da Vinci 7 Federal Com #3H MWD Off-11916ft (Def Survey)													
												Pass	
	4960.56	32.81	4958.59	4927.76	N/A	MAS = 10.00 (m)	0.00	0.00					Surface
	4960.20	32.81	4958.16	4927.39	80618.82	MAS = 10.00 (m)	23.00	23.00					MinPt-O-SF

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status	
	Cl-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major			
4997.48		32.81	4882.60	4864.67	380.34	MAS = 10.00 (m)	2200.00	2199.84				MinPt-O-SF		
4792.51		100.65	4724.74	4691.85	72.82	OSF1.50	2600.00	2595.62				MinPts		
859.32		258.08	686.61	601.25	5.02	OSF1.50	7410.00	7303.52				MinPt-CtCi		
859.38		258.29	686.52	601.09	5.02	OSF1.50	7420.00	7313.48				MINPT-O-EOU		
859.51		258.48	686.54	601.04	5.01	OSF1.50	7430.00	7323.43				MinPt-O-ADP		
860.03		258.76	686.87	601.27	5.01	OSF1.50	7450.00	7343.35				MinPt-O-SF		
2228.33		112.96	2152.37	2115.38	30.09	OSF1.50	10370.00	9400.00				MinPt-CtCi		
2294.16		84.59	2237.11	2209.57	41.62	OSF1.50	12540.00	9400.00				MinPt-O-SF		
2304.96		84.80	2247.76	2220.15	41.71	OSF1.50	12750.00	9400.00				MinPt-O-SF		
2319.48		85.91	2261.54	2233.57	41.42	OSF1.50	13050.00	9400.00				MinPt-O-SF		
2331.27		87.51	2272.27	2243.76	40.85	OSF1.50	13300.00	9400.00				MinPt-O-SF		
2442.42		99.92	2375.15	2342.51	37.38	OSF1.50	14310.00	9400.00				MinPt-O-SF		
6004.82		96.20	5940.03	5908.62	95.57	OSF1.50	19442.23	9400.00				TD		
Cimarex Gadowell 18 Federal Com #2H Gyro+MWD Off to 12379ft MD (Offset) (Def Survey)														Pass
5327.11		32.81	5325.13	5294.30	N/A	MAS = 10.00 (m)	0.00	0.00				Surface		
5326.66		32.81	5324.60	5293.85	68131.70	MAS = 10.00 (m)	23.00	23.00				MinPt-O-SF		
5325.81		32.81	5323.63	5293.06	20480.04	MAS = 10.00 (m)	120.00	120.00				MinPts		
5326.29		32.81	5323.27	5293.48	5132.40	MAS = 10.00 (m)	280.00	280.00				MINPT-O-EOU		
5329.17		32.81	5322.57	5296.37	1151.97	MAS = 10.00 (m)	1080.00	1080.00				MinPts		
5171.88		37.99	5145.85	5133.88	216.10	OSF1.50	5930.00	5852.85				MinPt-O-SF		
5155.02		42.54	5126.00	5112.48	190.62	OSF1.50	6590.00	6498.43				MinPt-CtCi		
5155.27		43.32	5125.73	5111.95	186.97	OSF1.50	6690.00	6596.25				MINPT-O-EOU		
5155.53		43.65	5125.77	5111.89	185.52	OSF1.50	6730.00	6635.37				MinPt-O-SF		
5159.16		46.96	5127.20	5112.21	171.99	OSF1.50	7090.00	6987.51				MINPT-O-EOU		
5159.18		46.98	5127.20	5112.20	171.89	OSF1.50	7093.06	6990.50				MinPt-O-ADP		
5159.23		47.01	5127.23	5112.22	171.79	OSF1.50	7100.00	6997.29				MinPt-O-SF		
5235.42		47.07	5203.38	5188.35	174.12	OSF1.50	8460.00	8353.06				MinPt-O-SF		
1527.13		137.83	1434.59	1389.30	16.84	OSF1.50	15000.00	9400.00				MinPt-CtCi		
1528.24		140.51	1433.90	1387.73	16.53	OSF1.50	15110.00	9400.00				MINPT-O-EOU		
1531.51		144.44	1434.56	1387.07	16.11	OSF1.50	15270.00	9400.00				MinPt-O-ADP		
1534.49		148.74	1434.67	1385.75	15.66	OSF1.50	15440.00	9400.00				MINPT-O-EOU		
1536.13		150.76	1434.97	1385.37	15.47	OSF1.50	15520.00	9400.00				MinPt-O-ADP		
1539.03		153.63	1435.95	1385.41	15.20	OSF1.50	15630.00	9400.00				MINPT-O-EOU		
1540.54		161.67	1432.10	1378.87	14.45	OSF1.50	15930.00	9400.00				MinPt-CtCi		
1541.61		168.28	1428.76	1373.32	13.89	OSF1.50	16170.00	9400.00				MinPt-CtCi		
1542.61		171.81	1427.40	1370.79	13.61	OSF1.50	16300.00	9400.00				MINPT-O-EOU		
1542.84		179.44	1422.55	1363.40	13.02	OSF1.50	16570.00	9400.00				MinPt-CtCi		
1540.78		192.12	1412.04	1348.65	12.14	OSF1.50	17010.00	9400.00				MinPt-CtCi		
1542.28		196.72	1410.48	1345.57	11.86	OSF1.50	17170.00	9400.00				MINPT-O-EOU		
1548.14		213.28	1405.30	1334.86	10.98	OSF1.50	17720.00	9400.00				MinPt-CtCi		
1548.81		215.83	1404.26	1332.97	10.85	OSF1.50	17810.00	9400.00				MINPT-O-EOU		
1551.10		218.44	1404.81	1332.66	10.73	OSF1.50	17900.00	9400.00				MinPt-O-ADP		
1553.48		220.92	1405.54	1332.56	10.63	OSF1.50	17980.00	9400.00				MinPt-O-ADP		
1555.00		239.30	1394.81	1315.70	9.82	OSF1.50	18560.00	9400.00				MinPt-CtCi		
1555.05		246.53	1390.04	1308.52	9.53	OSF1.50	18790.00	9400.00				MinPt-CtCi		
1557.76		254.04	1387.74	1303.71	9.26	OSF1.50	19030.00	9400.00				MINPT-O-EOU		
1562.64		260.42	1388.36	1302.21	9.06	OSF1.50	19230.00	9400.00				MinPt-O-ADP		
1566.66		261.82	1391.45	1304.84	9.03	OSF1.50	19310.00	9400.00				MinPt-O-SF		
1582.17		262.64	1406.42	1319.53	9.09	OSF1.50	19442.23	9400.00				TD		
Cimarex Da Vinci 7 Federal Com #5H MWD Off to 11750ft (Def Survey)														Pass
5803.55		32.81	5801.57	5770.74	N/A	MAS = 10.00 (m)	0.00	0.00				Surface		
5803.19		32.81	5801.14	5770.38	93045.71	MAS = 10.00 (m)	23.00	23.00				MinPt-O-SF		
5802.64		32.81	5800.49	5769.83	33903.35	MAS = 10.00 (m)	100.00	100.00				MinPts		
5803.05		32.81	5800.06	5770.25	5716.84	MAS = 10.00 (m)	280.00	280.00				MINPT-O-EOU		
5826.48		32.81	5815.74	5793.68	664.11	MAS = 10.00 (m)	2000.00	2000.00				MINPT-O-EOU		
5825.91		32.81	5814.96	5793.10	649.49	MAS = 10.00 (m)	2100.00	2099.98				MinPt-O-SF		
1753.09		295.34	1554.82	1457.75	9.01	OSF1.50	7470.00	7363.29				MinPt-O-SF		
1752.32		295.10	1554.21	1457.22	9.01	OSF1.50	7500.00	7393.21				MinPt-O-ADP		
1752.25		295.01	1554.20	1457.24	9.01	OSF1.50	7510.00	7403.19				MinPts		
2850.88		115.30	2773.35	2735.58	37.71	OSF1.50	11670.00	9400.00				MinPt-CtCi		
2850.93		115.41	2773.33	2735.52	37.67	OSF1.50	11690.00	9400.00				MinPts		
2865.92		118.17	2786.48	2747.75	36.97	OSF1.50	12050.00	9400.00				MinPt-O-SF		
2896.28		119.18	2816.17	2777.10	37.04	OSF1.50	12360.00	9400.00				MinPt-O-SF		
2896.52		108.77	2823.35	2787.75	40.66	OSF1.50	12480.00	9400.00				MinPt-CtCi		
2896.65		109.21	2823.19	2787.45	40.49	OSF1.50	12520.00	9400.00				MINPT-O-EOU		
2896.93		109.54	2823.24	2787.39	40.37	OSF1.50	12550.00	9400.00				MinPt-O-ADP		
2910.09		112.79	2834.24	2797.30	39.39	OSF1.50	12910.00	9400.00				MinPt-O-SF		
2910.88		109.96	2836.91	2800.92	40.41	OSF1.50	12970.00	9400.00				MinPt-CtCi		
2911.35		111.51	2836.33	2799.80	39.83	OSF1.50	13100.00	9400.00				MINPT-O-EOU		
2911.95		112.27	2836.44	2799.67	39.58	OSF1.50	13140.00	9400.00				MinPt-O-ADP		
3129.47		138.04	3036.78	2991.43	34.48	OSF1.50	14590.00	9400.00				MinPt-O-SF		
6399.46		145.14	6302.04	6254.32	67.03	OSF1.50	19442.23	9400.00				TD		
Gadowell 18 Federal 5H MWD Off to 12016ft (Def Survey)														Pass
5339.84		32.81	5337.86	5307.03	N/A	MAS = 10.00 (m)	0.00	0.00				Surface		
5339.46		32.81	5337.41	5306.65	80380.72	MAS = 10.00 (m)	23.00	23.00				MinPt-O-SF		
5338.88		32.81	5336.73	5306.08	31194.74	MAS = 10.00 (m)	100.00	100.00				MinPts		
5322.11		32.81	5311.06	5289.30	587.11	MAS = 10.00 (m)	2100.00	2099.98				MinPt-O-SF		
5240.43		32.81	5218.15	5207.62	258.63	MAS = 10.00 (m)	5410.00	5344.22				MinPts		
5231.54		40.34	5203.98	5191.21	204.64	OSF1.50	6480.00	6390.84				MinPt-CtCi		
5231.71		41.28	5203.53	5190.44	199.71	OSF1.50	6600.00	6508.21				MINPT-O-EOU		
5231.90		41.51	5203.56	5190.39	198.54	OSF1.50	6630.00	6537.56				MinPt-O-ADP		
5237.13		43.97	5207.16	5193.16	187.04	OSF1.50	6930.00	6831.00				MinPt-CtCi		
5237.24		44.21	5207.07	5192.97	185.68	OSF1.								

Offset Trajectory	Separation			Allow	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status	
	Ct-Ct (ft)	MAS (ft)	EOU (ft)	Dev. (ft)			MD (ft)	TVD (ft)	Alert	Minor	Major			
Cimarex Da Vinci 7 Federal Com #2H Gyro-MWD Off to 11690ft MD (Def Survey)	2132.83	271.89	1950.91	1860.94	11.84	OSF1.50	19250.00	9400.00				MINPT-O-EQU		
	2133.23	272.34	1951.01	1860.88	11.82	OSF1.50	19270.00	9400.00				MinPt-O-ADP		
	2143.14	275.18	1959.03	1867.96	11.76	OSF1.50	19430.00	9400.00				MinPt-O-SF		
	2144.39	275.33	1960.17	1869.05	11.76	OSF1.50	19442.23	9400.00				TD		
	Pass													
Cimarex Davinci 7-18 Federal Com #6H Off-18854ft (Def Survey)	4727.51	32.81	4726.23	4694.71	N/A	MAS = 10.00 (m)	0.00	0.00				Surface		
	4727.18	32.81	4725.84	4694.37	85286.40	MAS = 10.00 (m)	23.00	23.00				MinPt-O-SF		
	4726.83	32.81	4725.41	4694.02	37312.94	MAS = 10.00 (m)	80.00	80.00				MinPts		
	4727.75	32.81	4724.65	4694.94	2607.77	MAS = 10.00 (m)	400.00	400.00				MINPT-O-EQU		
	4731.31	32.81	4725.18	4698.51	945.30	MAS = 10.00 (m)	1080.00	1080.00				MinPts		
	4726.78	32.81	4716.29	4693.97	504.97	MAS = 10.00 (m)	1960.00	1960.00				MINPT-O-EQU		
	4726.14	32.81	4715.47	4693.33	488.14	MAS = 10.00 (m)	2090.00	2089.99				MinPts		
	4726.15	32.81	4715.46	4693.34	487.21	MAS = 10.00 (m)	2100.00	2099.98				MINPT-O-EQU		
	4726.16	32.81	4715.47	4693.35	487.21	MAS = 10.00 (m)	2110.00	2109.97				MinPt-O-SF		
	4735.06	32.81	4723.98	4702.25	468.56	MAS = 10.00 (m)	2600.00	2595.62				MINPT-O-EQU		
	2152.54	178.35	2033.31	1974.19	18.20	OSF1.50	7010.00	6909.25				MinPt-CtCt		
	2152.59	178.64	2033.17	1973.96	18.17	OSF1.50	7030.00	6928.82				MINPT-O-EQU		
	2152.69	178.78	2033.18	1973.91	18.15	OSF1.50	7040.00	6938.60				MinPt-O-ADP		
	2162.22	180.77	2041.39	1981.46	18.03	OSF1.50	7270.00	7164.60				MinPt-O-SF		
	2969.14	125.86	2884.91	2843.28	35.65	OSF1.50	10030.00	9400.00				MinPt-CtCt		
	2936.67	93.90	2873.74	2842.77	47.39	OSF1.50	11040.00	9400.00				MinPts		
	2919.78	87.44	2861.16	2832.35	50.64	OSF1.50	11360.00	9400.00				MinPt-O-ADP		
	2909.87	83.64	2853.76	2826.22	52.79	OSF1.50	11690.00	9400.00				MinPt-O-ADP		
	2909.76	83.52	2853.76	2826.25	52.87	OSF1.50	11710.00	9400.00				MINPT-O-EQU		
	2887.68	76.62	2836.27	2811.06	57.29	OSF1.50	12580.00	9400.00				MinPt-O-SF		
	2874.63	82.76	2819.13	2791.87	52.71	OSF1.50	13340.00	9400.00				MinPt-CtCt		
	2874.81	83.32	2818.93	2791.48	52.35	OSF1.50	13380.00	9400.00				MINPT-O-EQU		
	2875.05	83.60	2818.99	2791.45	52.18	OSF1.50	13400.00	9400.00				MinPt-O-ADP		
	3055.41	96.56	2990.71	2958.85	47.94	OSF1.50	14510.00	9400.00				MinPt-O-SF		
	6388.58	96.67	6323.80	6291.90	100.13	OSF1.50	19442.23	9400.00				TD		
	Pass													
	Cimarex Davinci 7-18 Federal Com #6H Off-18854ft (Def Survey)	2633.63	32.81	2631.65	2600.82	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
		2633.57	32.81	2631.58	2600.76	283164.22	MAS = 10.00 (m)	10.00	10.00				MinPt-O-SF	
		2633.54	32.81	2631.56	2600.73	731491.96	MAS = 10.00 (m)	20.00	20.00				MINPT-O-EQU	
		2633.54	32.81	2631.56	2600.73	N/A	MAS = 10.00 (m)	23.00	23.00				WRP	
		2633.54	32.81	2631.52	2600.73	69671.19	MAS = 10.00 (m)	40.00	40.00				MinPts	
		2633.58	32.81	2631.46	2600.77	18870.34	MAS = 10.00 (m)	80.00	80.00				MINPT-O-EQU	
		2633.69	32.81	2631.47	2600.88	10809.74	MAS = 10.00 (m)	110.00	110.00				MINPT-O-EQU	
2640.25		32.81	2635.05	2607.44	819.25	MAS = 10.00 (m)	780.00	780.00				MinPts		
2640.37		32.81	2634.95	2607.56	766.82	MAS = 10.00 (m)	830.00	830.00				MINPT-O-EQU		
2185.15		50.01	2150.96	2135.14	68.99	OSF1.50	7300.00	7194.29				MinPt-O-SF		
2169.81		49.24	2136.12	2120.57	69.68	OSF1.50	7610.00	7503.07				MinPts		
2169.80		49.22	2136.13	2120.58	69.71	OSF1.50	7620.00	7513.07				MinPt-CtCt		
2169.55		49.60	2135.62	2119.95	69.14	OSF1.50	8070.00	7963.06				MinPt-CtCt		
2169.56		49.63	2135.61	2119.93	69.10	OSF1.50	8090.00	7983.06				MINPT-O-EQU		
2169.58		49.65	2135.61	2119.93	69.07	OSF1.50	8100.00	7993.06				MinPt-O-ADP		
2223.92		52.38	2188.22	2171.55	66.64	OSF1.50	8870.00	8763.06				MinPt-O-SF		
2385.83		68.86	2339.26	2316.97	53.47	OSF1.50	9460.00	9283.81				MinPts		
2379.16		98.10	2313.10	2281.06	37.10	OSF1.50	10240.00	9400.00				MinPt-CtCt		
2381.58		127.84	2295.70	2253.74	28.36	OSF1.50	10850.00	9400.00				MinPt-CtCt		
2384.23		134.99	2293.58	2249.24	26.87	OSF1.50	11030.00	9400.00				MINPT-O-EQU		
2380.18		170.94	2265.56	2209.24	21.11	OSF1.50	11690.00	9400.00				MinPt-CtCt		
2381.88		176.04	2263.86	2205.84	20.51	OSF1.50	11820.00	9400.00				MINPT-O-EQU		
2386.12		193.41	2256.52	2192.71	18.68	OSF1.50	12120.00	9400.00				MinPt-CtCt		
2386.34		204.00	2249.68	2182.33	17.70	OSF1.50	12320.00	9400.00				MinPt-CtCt		
2384.91		217.24	2239.42	2167.67	16.61	OSF1.50	12570.00	9400.00				MinPt-CtCt		
2389.09		273.81	2205.89	2115.28	13.17	OSF1.50	13640.00	9400.00				MinPt-CtCt		
2391.20		284.36	2200.96	2106.84	12.69	OSF1.50	13870.00	9400.00				MINPT-O-EQU		
2398.58		306.38	2193.66	2092.20	11.81	OSF1.50	14290.00	9400.00				MINPT-O-EQU		
2400.72		308.84	2194.16	2091.88	11.73	OSF1.50	14350.00	9400.00				MinPt-O-ADP		
2405.90		344.13	2175.82	2061.77	10.54	OSF1.50	14950.00	9400.00				MinPt-CtCt		
2404.55		364.77	2160.71	2039.78	9.93	OSF1.50	15330.00	9400.00				MinPt-CtCt		
2391.26		425.27	2107.09	1966.00	8.47	OSF1.50	16450.00	9400.00				MinPt-CtCt		
2390.47		436.14	2099.05	1954.33	8.25	OSF1.50	16650.00	9400.00				MinPt-CtCt		
2387.86		445.35	2090.30	1942.51	8.07	OSF1.50	16820.00	9400.00				MinPt-CtCt		
2392.73		468.54	2079.72	1924.20	7.69	OSF1.50	17250.00	9400.00				MinPt-CtCt		
2386.43		502.70	2060.64	1893.73	7.17	OSF1.50	17880.00	9400.00				MinPt-CtCt		
2387.33		545.03	2023.32	1842.30	6.59	OSF1.50	18640.00	9400.00				MinPt-CtCt		
2396.23		579.26	2009.40	1816.97	6.22	OSF1.50	19290.00	9400.00				MinPts		
2399.66		580.69	2011.87	1818.97	6.21	OSF1.50	19370.00	9400.00				MinPt-O-SF		
2405.03		581.43	2016.75	1823.60	6.22	OSF1.50	19442.23	9400.00				TD		
Pass														
Cimarex DaVinci 7-18 Federal Com #9H Surcon Corrected Off- 19984ft (Def Survey)		2783.97	32.81	2781.99	2751.16	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
		2783.90	32.81	2781.91	2751.09	268746.95	MAS = 10.00 (m)	10.00	10.00				MinPt-O-SF	
		2783.87	32.81	2781.88	2751.06	426479.16	MAS = 10.00 (m)	20.00	20.00				MINPT-O-EQU	
		2783.86	32.81	2781.88	2751.05	N/A	MAS = 10.00 (m)	23.00	23.00				WRP	
		2764.74	32.81	2758.57	2731.93	659.51	MAS = 10.00 (m)	990.00	990.00				MinPts	
		2764.78	32.81	2758.53	2731.98	646.71	MAS = 10.00 (m)	1010.00	1010.00				MINPT-O-EQU	
	2766.50	32.81	2758.22	2733.69	439.27	MAS = 10.00 (m)	1470.00	1470.00				MinPts		
	2766.54	32.81	2758.18	2733.73	433.35	MAS = 10.00 (m)	1490.00	1490.00				MINPT-O-EQU		
	2278.50	45.98	2246.98	2232.52	78.70	OSF1.50	7100.00	6997.29				MinPt-O-SF		
	2261.23	45.11	2230.28	2216.12	79.76	OSF1.50	7400.00	7293.57				MinPt-O-ADP		
	2261.20	45.07	2230.28	2216.13	79.82	OSF1.50	7410.00	7303.52				MINPT-O-EQU		
	2261.20	45.04	2230.30	2216.16	79.89	OSF1.50	7420.00	7313.48				MinPt-CtCt		
	2281.99	44.51	2251.45	2237.48	81.64	OSF1.50	7900.00	7793.06				MinPt-O-SF		

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Cl-Cl (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
2318.89		111.90	2243.54	2207.00	31.70	OSF1.50	12530.00	9400.00				MinPt-CiCl	
2321.05		122.18	2238.83	2198.86	29.01	OSF1.50	12900.00	9400.00				MinPt-CiCl	
2322.93		134.14	2232.75	2188.79	26.40	OSF1.50	13320.00	9400.00				MinPt-CiCl	
2323.14		140.50	2228.72	2182.64	25.19	OSF1.50	13540.00	9400.00				MinPt-CiCl	
2323.48		151.42	2221.77	2172.05	23.34	OSF1.50	13920.00	9400.00				MinPt-CiCl	
2323.94		159.29	2216.99	2164.65	22.18	OSF1.50	14190.00	9400.00				MinPt-CiCl	
2323.97		168.00	2211.22	2155.97	21.01	OSF1.50	14490.00	9400.00				MinPt-CiCl	
2324.00		171.54	2208.88	2152.45	20.57	OSF1.50	14610.00	9400.00				MinPt-CiCl	
2324.90		174.40	2207.87	2150.50	20.24	OSF1.50	14710.00	9400.00				MINPT-O-EOU	
2326.03		175.81	2208.06	2150.22	20.09	OSF1.50	14760.00	9400.00				MinPt-O-ADP	
2327.34		196.82	2205.37	2140.52	18.00	OSF1.50	15470.00	9400.00				MinPt-CiCl	
2329.37		205.56	2201.57	2133.81	17.24	OSF1.50	15770.00	9400.00				MINPT-O-EOU	
2340.31		210.15	2199.46	2130.16	16.87	OSF1.50	15920.00	9400.00				MinPt-CiCl	
2338.90		217.03	2193.47	2121.87	16.32	OSF1.50	16150.00	9400.00				MinPt-CiCl	
2318.84		248.81	2152.21	2070.03	14.09	OSF1.50	17210.00	9400.00				MinPt-CiCl	
2319.76		251.41	2151.38	2068.35	13.95	OSF1.50	17300.00	9400.00				MINPT-O-EOU	
2325.08		257.34	2152.75	2067.73	13.66	OSF1.50	17500.00	9400.00				MinPt-O-ADP	
2334.10		270.13	2153.26	2063.97	13.06	OSF1.50	17920.00	9400.00				MinPt-CiCl	
2330.73		276.94	2145.34	2053.78	12.72	OSF1.50	18150.00	9400.00				MinPt-CiCl	
2331.44		279.25	2144.51	2052.19	12.61	OSF1.50	18230.00	9400.00				MINPT-O-EOU	
2332.38		280.36	2144.71	2052.02	12.57	OSF1.50	18270.00	9400.00				MinPt-O-ADP	
2338.41		287.21	2146.17	2051.19	12.30	OSF1.50	18500.00	9400.00				MINPT-O-EOU	
2341.80		292.85	2145.82	2048.96	12.08	OSF1.50	18690.00	9400.00				MINPT-O-EOU	
2347.01		299.59	2146.53	2047.42	11.83	OSF1.50	18920.00	9400.00				MinPt-O-ADP	
2348.13		309.04	2141.36	2039.09	11.47	OSF1.50	19230.00	9400.00				MinPt-CiCl	
2348.49		310.17	2140.90	2038.32	11.43	OSF1.50	19270.00	9400.00				MINPT-O-EOU	
2348.93		310.71	2141.04	2038.22	11.41	OSF1.50	19290.00	9400.00				MinPt-O-ADP	
2357.83		314.04	2147.70	2043.79	11.34	OSF1.50	19442.23	9400.00				MinPt-O-SF	

Cimarex Gadowall 18 Federal 3H
Gyro + MWD Off to 12138ft
(Def Survey)

Pass

6076.67	32.81	6074.69	6043.86	N/A	MAS = 10.00 (m)	0.00	0.00	Surface
6076.29	32.81	6074.25	6043.48	91660.51	MAS = 10.00 (m)	23.00	23.00	MinPt-O-SF
6075.65	32.81	6073.45	6042.84	28181.28	MAS = 10.00 (m)	110.00	110.00	MinPts
6076.16	32.81	6072.85	6043.35	4573.57	MAS = 10.00 (m)	340.00	340.00	MINPT-O-EOU
6085.67	32.81	6077.49	6052.86	981.69	MAS = 10.00 (m)	1230.00	1230.00	MinPt-O-SF
6083.92	32.81	6075.49	6051.11	942.94	MAS = 10.00 (m)	1360.00	1360.00	MinPt-O-SF
5686.08	47.36	5653.77	5638.71	188.74	OSF1.50	7100.00	6997.29	MinPt-O-SF
5683.65	46.96	5651.61	5636.66	190.00	OSF1.50	7240.00	7134.95	MinPts
5683.63	46.96	5651.62	5636.68	190.10	OSF1.50	7250.00	7144.83	MinPt-CiCl
5690.63	46.32	5659.04	5644.31	193.09	OSF1.50	7520.00	7413.17	MinPt-O-SF
5824.82	48.19	5792.03	5776.63	189.02	OSF1.50	8870.00	8763.06	MinPt-O-SF
2425.80	149.02	2325.79	2276.78	24.73	OSF1.50	15040.00	9400.00	MinPt-CiCl
2427.93	153.70	2324.80	2274.23	23.98	OSF1.50	15210.00	9400.00	MINPT-O-EOU
2428.55	161.09	2320.50	2267.46	22.88	OSF1.50	15460.00	9400.00	MinPt-CiCl
2352.02	223.87	2202.12	2128.16	15.89	OSF1.50	17230.00	9400.00	MinPt-CiCl
2348.18	245.69	2183.72	2102.49	14.44	OSF1.50	17780.00	9400.00	MinPt-CiCl
2349.30	249.31	2182.44	2099.99	14.24	OSF1.50	17890.00	9400.00	MINPT-O-EOU
2350.35	250.53	2182.67	2099.82	14.17	OSF1.50	17930.00	9400.00	MinPt-O-ADP
2368.08	268.27	2188.57	2099.81	13.33	OSF1.50	18320.00	9400.00	MinPt-CiCl
2337.79	301.96	2135.82	2035.83	11.68	OSF1.50	19160.00	9400.00	MinPt-CiCl
2337.95	302.60	2135.56	2035.36	11.66	OSF1.50	19190.00	9400.00	MINPT-O-EOU
2338.28	302.99	2135.62	2035.28	11.64	OSF1.50	19210.00	9400.00	MinPt-O-ADP
2346.14	305.30	2141.95	2040.84	11.59	OSF1.50	19360.00	9400.00	MinPt-O-SF
2354.50	306.06	2149.80	2048.44	11.60	OSF1.50	19442.23	9400.00	TD

Chevron Hayhurst 18 Fed 1H
(Offset) MWD Off-7500ft (Def Survey)

Pass

5327.76	32.81	5326.47	5294.95	N/A	MAS = 10.00 (m)	0.00	0.00	Surface
5327.39	32.81	5326.05	5294.59	85972.65	MAS = 10.00 (m)	23.00	23.00	MinPt-O-SF
5326.90	32.81	5325.44	5294.09	31128.68	MAS = 10.00 (m)	100.00	100.00	MinPts
5327.11	32.81	5325.24	5294.30	9171.53	MAS = 10.00 (m)	190.00	190.00	MINPT-O-EOU
5305.13	32.81	5295.33	5272.32	622.92	MAS = 10.00 (m)	1870.00	1870.00	MinPts
5305.39	32.81	5295.20	5272.58	596.16	MAS = 10.00 (m)	1980.00	1980.00	MINPT-O-EOU
5305.85	32.81	5295.48	5273.04	584.31	MAS = 10.00 (m)	2100.00	2099.98	MinPt-O-SF
5314.16	32.81	5303.51	5281.35	567.00	MAS = 10.00 (m)	2600.00	2595.62	MINPT-O-EOU
5626.56	44.81	5496.26	5481.75	190.40	OSF1.50	7100.00	6997.29	MinPt-O-SF
5618.22	43.74	5588.63	5574.49	198.44	OSF1.50	8550.00	8443.06	MinPt-O-SF
2444.91	107.95	2372.52	2336.96	34.37	OSF1.50	14580.00	9400.00	MinPt-CiCl
2445.02	108.22	2372.45	2336.80	34.28	OSF1.50	14600.00	9400.00	MINPT-O-EOU
2445.14	108.36	2372.49	2336.78	34.24	OSF1.50	14610.00	9400.00	MinPt-O-ADP
2479.67	112.31	2404.37	2367.36	33.49	OSF1.50	14990.00	9400.00	MinPt-O-SF
5445.66	88.98	5385.91	5395.68	93.13	OSF1.50	19442.23	9400.00	TD

Oxy Peaches 19 Federal #2
(Offset) MWD Off-12641ft (Def Survey)

Pass

10214.37	32.81	10213.09	10181.56	N/A	MAS = 10.00 (m)	0.00	0.00	Surface
10214.03	32.81	10212.69	10181.23	165666.03	MAS = 10.00 (m)	23.00	23.00	MinPt-O-SF
10211.66	32.81	10207.16	10178.86	3169.86	MAS = 10.00 (m)	770.00	770.00	MinPts
10211.86	32.81	10206.98	10179.05	2845.16	MAS = 10.00 (m)	860.00	860.00	MINPT-O-EOU
10211.10	32.81	10204.02	10178.29	1763.39	MAS = 10.00 (m)	1360.00	1360.00	MinPts
10211.55	32.81	10203.66	10178.74	1546.42	MAS = 10.00 (m)	1540.00	1540.00	MINPT-O-EOU
10211.63	32.81	10201.75	10178.82	1187.43	MAS = 10.00 (m)	1980.00	1980.00	MinPts
10211.71	32.81	10201.63	10178.90	1161.32	MAS = 10.00 (m)	2050.00	2050.00	MINPT-O-EOU
10217.18	32.81	10206.53	10184.37	1092.00	MAS = 10.00 (m)	2600.00	2595.62	MINPT-O-EOU
10447.74	44.42	10417.70	10403.32	363.32	OSF1.50	7100.00	6997.29	MinPt-O-SF
10448.55	44.41	10418.51	10404.14	363.35	OSF1.50	7120.00	7016.88	MinPt-O-SF
10579.95	44.74	10549.69	10535.21	365.18	OSF1.50	8996.93	8890.00	MinPt-O-SF
2516.70	218.27	2370.77	2298.44	17.39	OSF1.50	19442.23	9400.00	MinPts

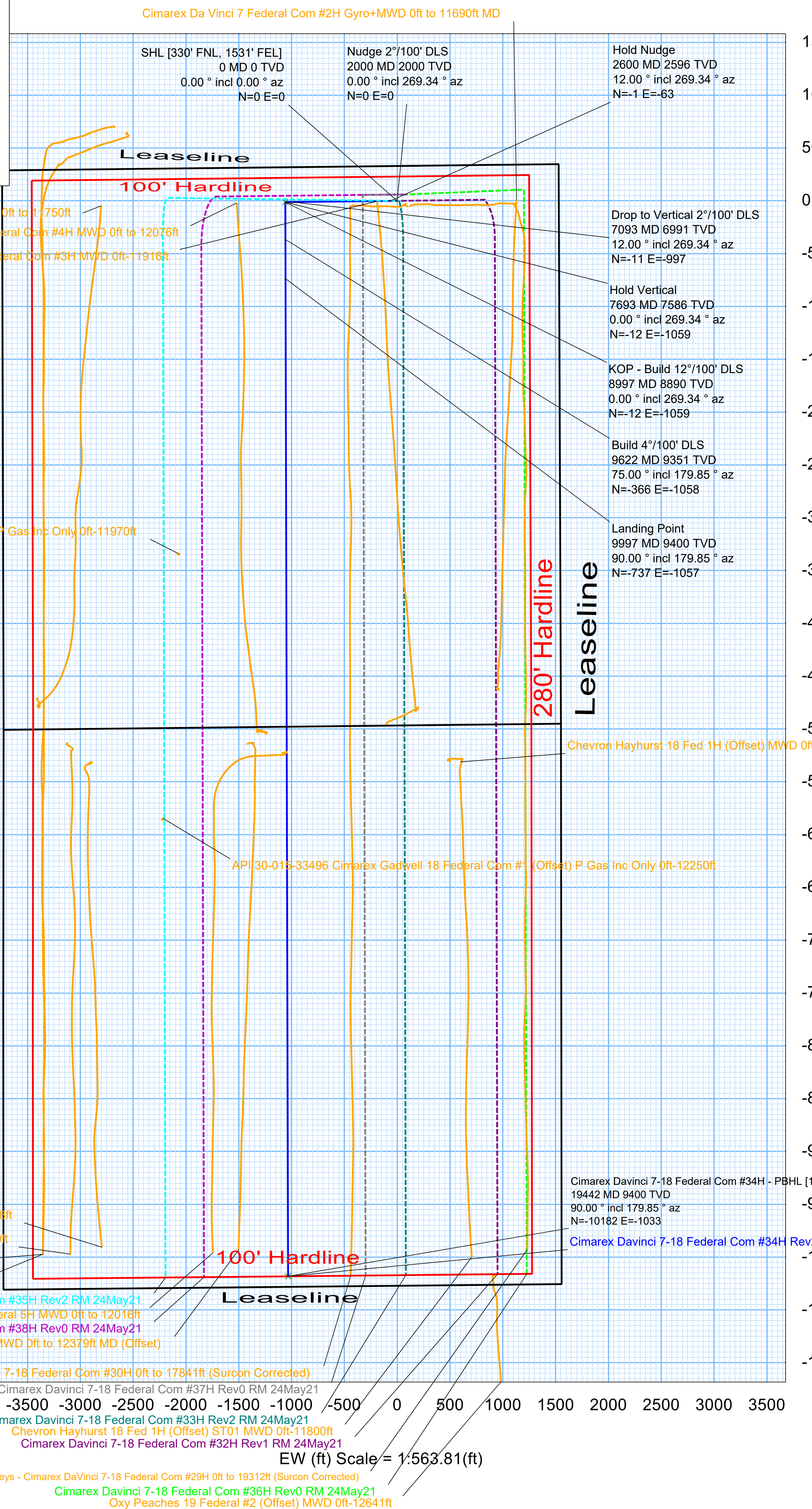
Chevron Hayhurst 18 Fed 1H
(Offset) ST01 MWD Off-11800ft
(Def Survey)

Pass

5327.76	32.81	5326.47	5294.95	N/A	MAS = 10.00 (m)	0.00	0.00	Surface
5327.39	32.81	5326.05	5294.59	85972.65	MAS = 10.00 (m)	23.00	23.00	MinPt-O-SF
5326.90	32.81	5325.44	5294.09	31128.68	MAS = 10.00 (m)	100.00	100.00	MinPts
5327.11	32.81	5325.24	5294.30	9171.53	MAS = 10.00 (m)	190.00	190.00	MINPT-O-EOU
5305.13	32.81	5295.33	5272.32	622.92	MAS = 10.00 (m)	1870.00	1870.00	MinPts
5305.39	32.81	5295.20	5272.58	596.16	MAS = 10.00 (m)	1980.00	1980.00	MINPT-O-EOU
5305.85	32.81	5295.48	5273.04	584.31	MAS = 10.00 (m)	2100.00	2099.98	MinPt-O-SF
5314.16	32.81	5303.51	5281.35	567.00	MAS = 10.00 (m)	2600.00	2595.62	MINPT-O-EOU

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Cl-Cl (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
5526.56	44.81	5496.26	5481.78	190.48		OSF1.50	7100.00	6997.29				MinPt-O-SF	
5588.49	41.89	5560.13	5546.60	206.42		OSF1.50	7750.00	7643.06				MinPt-O-SF	
2583.60	121.53	2502.15	2482.07	32.21		OSF1.50	15120.00	9400.00				MinPt-CtCt	
2584.54	124.38	2501.19	2480.16	31.48		OSF1.50	15240.00	9400.00				MINPT-O-EQU	
2585.96	126.08	2501.47	2459.87	31.07		OSF1.50	15310.00	9400.00				MinPt-O-ADP	
2591.49	133.56	2502.02	2457.93	29.37		OSF1.50	15550.00	9400.00				MINPT-O-EQU	
2592.97	135.37	2502.30	2457.61	28.99		OSF1.50	15620.00	9400.00				MinPt-O-ADP	
2596.66	140.38	2502.64	2456.28	27.99		OSF1.50	15770.00	9400.00				MINPT-O-EQU	
2598.42	142.70	2502.86	2455.72	27.55		OSF1.50	15850.00	9400.00				MinPt-O-ADP	
2605.24	149.05	2505.44	2456.19	26.43		OSF1.50	16040.00	9400.00				MINPT-O-EQU	
2606.04	149.89	2505.68	2456.14	26.29		OSF1.50	16070.00	9400.00				MinPt-O-ADP	
2612.37	158.66	2506.17	2453.71	24.89		OSF1.50	16310.00	9400.00				MINPT-O-EQU	
2613.56	160.04	2506.43	2453.52	24.68		OSF1.50	16360.00	9400.00				MinPt-O-ADP	
2616.54	168.47	2503.79	2448.07	23.46		OSF1.50	16550.00	9400.00				MinPt-CtCt	
2616.57	179.18	2496.69	2437.39	22.05		OSF1.50	16840.00	9400.00				MinPt-CtCt	
2617.50	182.15	2495.64	2435.35	21.70		OSF1.50	16950.00	9400.00				MINPT-O-EQU	
2594.16	208.78	2454.55	2385.38	18.74		OSF1.50	17630.00	9400.00				MinPt-CtCt	
2594.58	221.40	2446.54	2373.17	17.67		OSF1.50	17960.00	9400.00				MinPt-CtCt	
2598.41	230.39	2444.39	2368.02	17.00		OSF1.50	18230.00	9400.00				MINPT-O-EQU	
2601.99	234.82	2445.01	2367.17	16.70		OSF1.50	18360.00	9400.00				MinPt-O-ADP	
2608.98	241.65	2447.45	2367.33	16.27		OSF1.50	18540.00	9400.00				MinPt-O-ADP	
2615.32	252.91	2446.23	2362.41	15.58		OSF1.50	18780.00	9400.00				MINPT-O-EQU	
2616.49	254.33	2446.52	2362.17	15.50		OSF1.50	18830.00	9400.00				MinPt-O-ADP	
2624.01	261.05	2449.55	2362.98	15.15		OSF1.50	19020.00	9400.00				MinPt-O-ADP	
2648.74	275.07	2464.93	2373.67	14.50		OSF1.50	19442.23	9400.00				MinPt-O-SF	
Cimarex Gdwall 18 Federal 4H													
MWD Off to 11719ft (Def Survey)													
												Pass	
6004.16	32.81	6002.18	5971.35	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
6003.82	32.81	6001.78	5971.01	101893.03		MAS = 10.00 (m)	23.00	23.00				MinPt-O-SF	
6003.31	32.81	6001.16	5970.51	35078.64		MAS = 10.00 (m)	100.00	100.00				MinPts	
6003.66	32.81	6000.82	5970.85	6938.98		MAS = 10.00 (m)	250.00	250.00				MINPT-O-EQU	
6004.61	32.81	6000.82	5971.80	3309.27		MAS = 10.00 (m)	450.00	450.00				MINPT-O-EQU	
6022.22	32.81	6011.22	5989.42	666.81		MAS = 10.00 (m)	2130.00	2129.96				MinPt-O-SF	
5614.27	45.13	5583.40	5569.14	196.82		OSF1.50	7100.00	6997.29				MinPt-O-SF	
5611.80	44.68	5581.23	5567.12	198.75		OSF1.50	7220.00	7115.21				MinPts	
5611.77	44.64	5581.23	5567.13	198.93		OSF1.50	7230.00	7125.08				MinPt-CtCt	
5717.79	42.98	5688.48	5674.81	209.13		OSF1.50	8150.00	8043.06				MinPt-O-SF	
2929.03	148.42	2829.49	2780.67	29.98		OSF1.50	15000.00	9400.00				MinPt-CtCt	
2930.44	152.02	2828.44	2778.42	29.28		OSF1.50	15130.00	9400.00				MINPT-O-EQU	
2932.09	153.96	2828.79	2778.13	28.92		OSF1.50	15200.00	9400.00				MinPt-O-ADP	
2916.25	180.63	2795.17	2735.62	24.47		OSF1.50	16040.00	9400.00				MinPt-CtCt	
2918.63	186.80	2793.43	2731.83	23.67		OSF1.50	16240.00	9400.00				MINPT-O-EQU	
2921.23	189.90	2793.96	2731.32	23.30		OSF1.50	16340.00	9400.00				MinPt-O-ADP	
2876.61	261.58	2701.56	2615.03	16.61		OSF1.50	18200.00	9400.00				MinPt-CtCt	
2881.70	272.28	2699.51	2609.41	15.98		OSF1.50	18500.00	9400.00				MINPT-O-EQU	
2884.29	275.48	2699.98	2608.81	15.81		OSF1.50	18590.00	9400.00				MinPt-O-ADP	
2894.96	324.07	2678.26	2570.89	13.47		OSF1.50	19230.00	9400.00				MinPt-CtCt	
2895.15	324.66	2678.05	2570.49	13.45		OSF1.50	19260.00	9400.00				MINPT-O-EQU	
2895.45	325.04	2678.10	2570.42	13.43		OSF1.50	19280.00	9400.00				MinPt-O-ADP	
2902.98	327.55	2683.96	2575.44	13.37		OSF1.50	19442.23	9400.00				MinPt-O-SF	

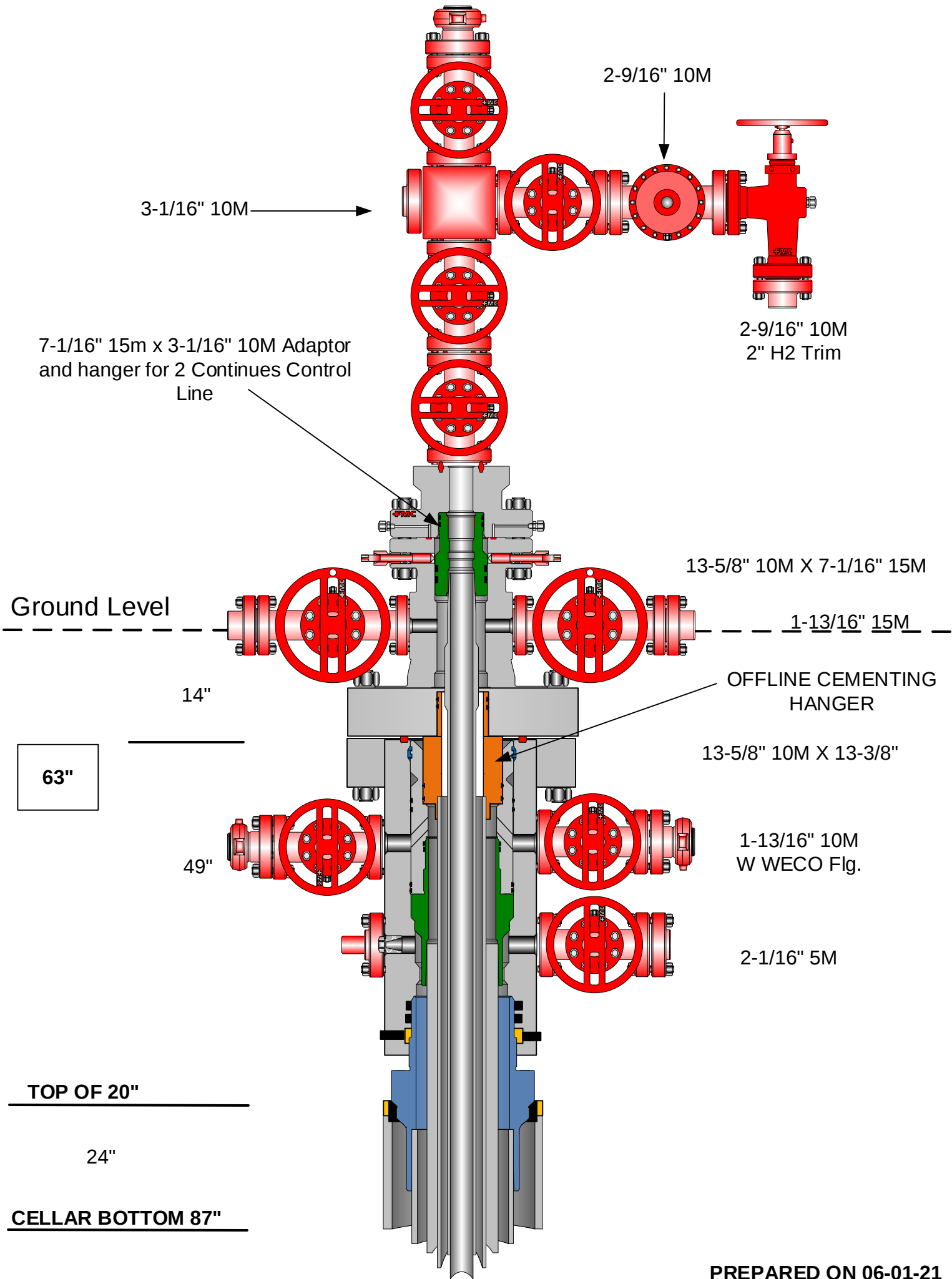
Critical Point	Critical Points							
	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHL [330' FNL, 1531' FEL]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Salado (Top Salt)	1334.00	0.00	269.34	1334.00	0.00	0.00	0.00	0.00
Castille (Base Salt)	1859.00	0.00	269.34	1859.00	0.00	0.00	0.00	0.00
Nudge 2"/100' DLS	2000.00	0.00	269.34	2000.00	0.00	0.00	0.00	0.00
Bell Canyon (Top Delaware)	2090.01	1.80	269.34	2090.00	0.01	-0.02	-1.41	2.00
Hold Nudge	2600.00	12.00	269.34	2595.62	0.55	-0.72	-62.60	2.00
Cherry Canyon	2956.16	12.00	269.34	2944.00	1.21	-1.56	-136.64	0.00
Brushy Canyon	4041.89	12.00	269.34	4006.00	3.20	-4.14	-362.36	0.00
Top Bone Spring	5696.03	12.00	269.34	5624.00	6.24	-8.07	-706.26	0.00
Top 1st BSPG SS	6627.39	12.00	269.34	6535.00	7.95	-10.29	-899.88	0.00
Drop to Vertical 2"/100' DLS	7093.06	12.00	269.34	6990.50	8.80	-11.40	-996.70	0.00
Top 2nd BSPG SS	7213.70	9.59	269.34	7109.00	9.00	-11.65	-1019.29	2.00
Hold Vertical	7693.06	0.00	269.34	7586.13	9.36	-12.11	-1059.30	2.00
Top 3rd BSPS SS	8484.94	0.00	269.34	8378.00	9.36	-12.11	-1059.30	0.00
Top Wolfcamp	8842.94	0.00	269.34	8736.00	9.36	-12.11	-1059.30	0.00
KOP - Build 12"/100' DLS	8996.93	0.00	269.34	8890.00	9.36	-12.11	-1059.30	0.00
Wolfcamp A	9053.07	6.74	179.85	8946.00	12.65	-15.41	-1059.29	12.00
Wolfcamp A2	9350.33	42.41	179.85	9212.00	134.28	-137.03	-1058.97	12.00
Wolfcamp B	9587.23	70.84	179.85	9341.00	330.08	-332.83	-1058.46	12.00
Build 4"/100' DLS	9621.93	75.00	179.85	9351.19	363.24	-366.00	-1058.38	12.00
Landing Point	9996.93	90.00	179.85	9400.00	733.98	-736.73	-1057.41	4.00
Umarix Devinci 7-18 Federal Com #34H - PBHL [100'	19442.23	90.00	179.85	9400.00	10179.27	-10181.99	-1032.82	0.00
FSL 2590'FEL]								
Wolfcamp C2	NaN			9580.00				
Wolfcamp C	NaN			9499.00				





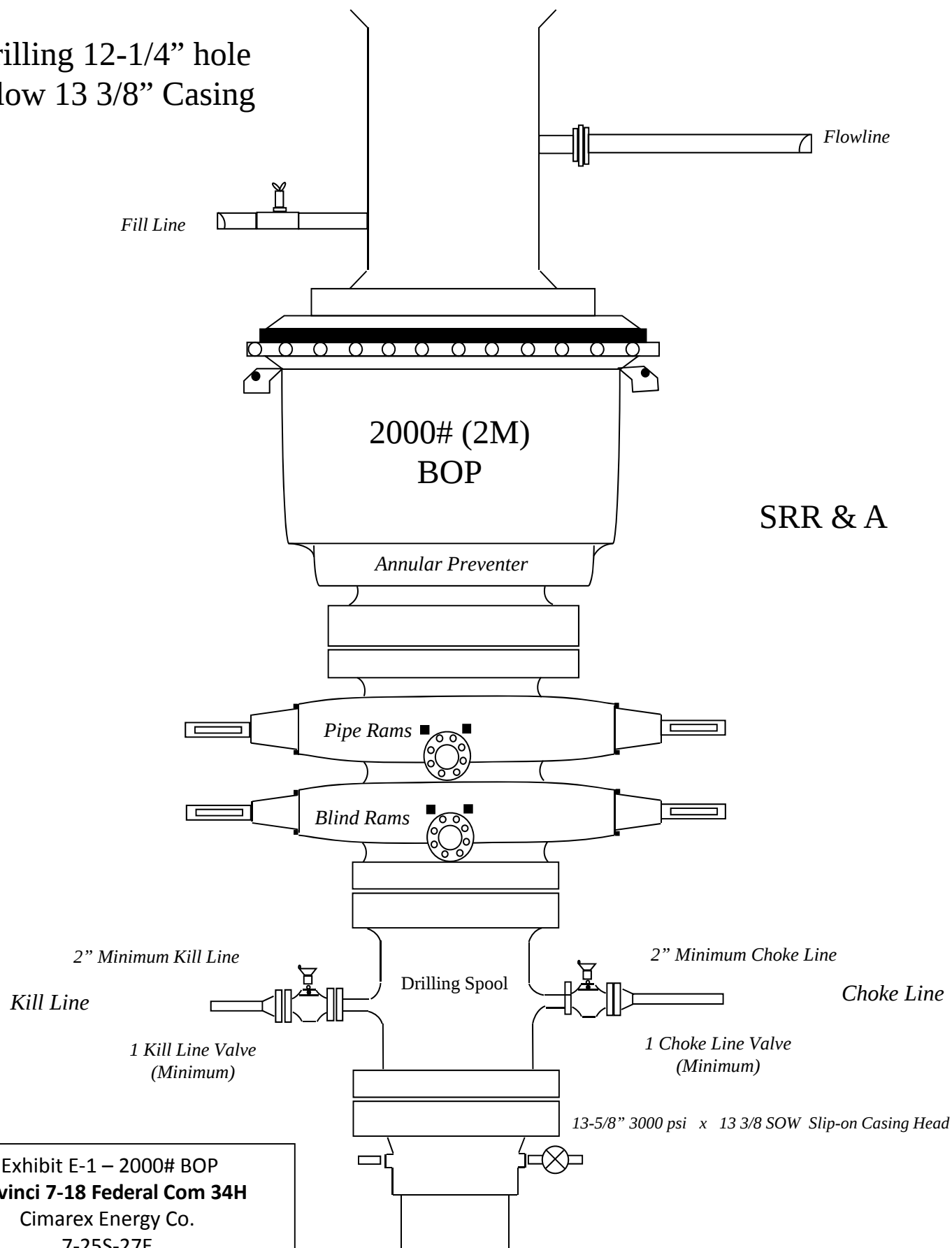
CACTUS FOR SERVICE
WEARBUSHING
IN CASING HEAD &
CASING SPOOL

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	450	450	13-3/8"	48.00	H-40/J-55 Hybrid	ST&C	3.59	8.40	14.91
12 1/4	0	2068	2068	9-5/8"	36.00	J-55	LT&C	1.84	3.21	6.08
8 3/4	0	8096	8096	7"	26.00	L-80	LT&C	1.43	1.91	2.10
8 3/4	8096	9621	9351	7"	26.00	N-80	BT&C	1.24	1.65	18.51
6	7996	19442	9400	4-1/2"	11.60	HCP-110	BT&C	1.51	1.83	22.53
					BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet



PREPARED ON 06-01-21

Drilling 12-1/4" hole
below 13 3/8" Casing



SRR & A

Exhibit E-1 – 2000# BOP
Davinci 7-18 Federal Com 34H
Cimarex Energy Co.
7-25S-27E
Eddy County, NM

Drilling 8 3/4" hole
below 9 5/8" Casing

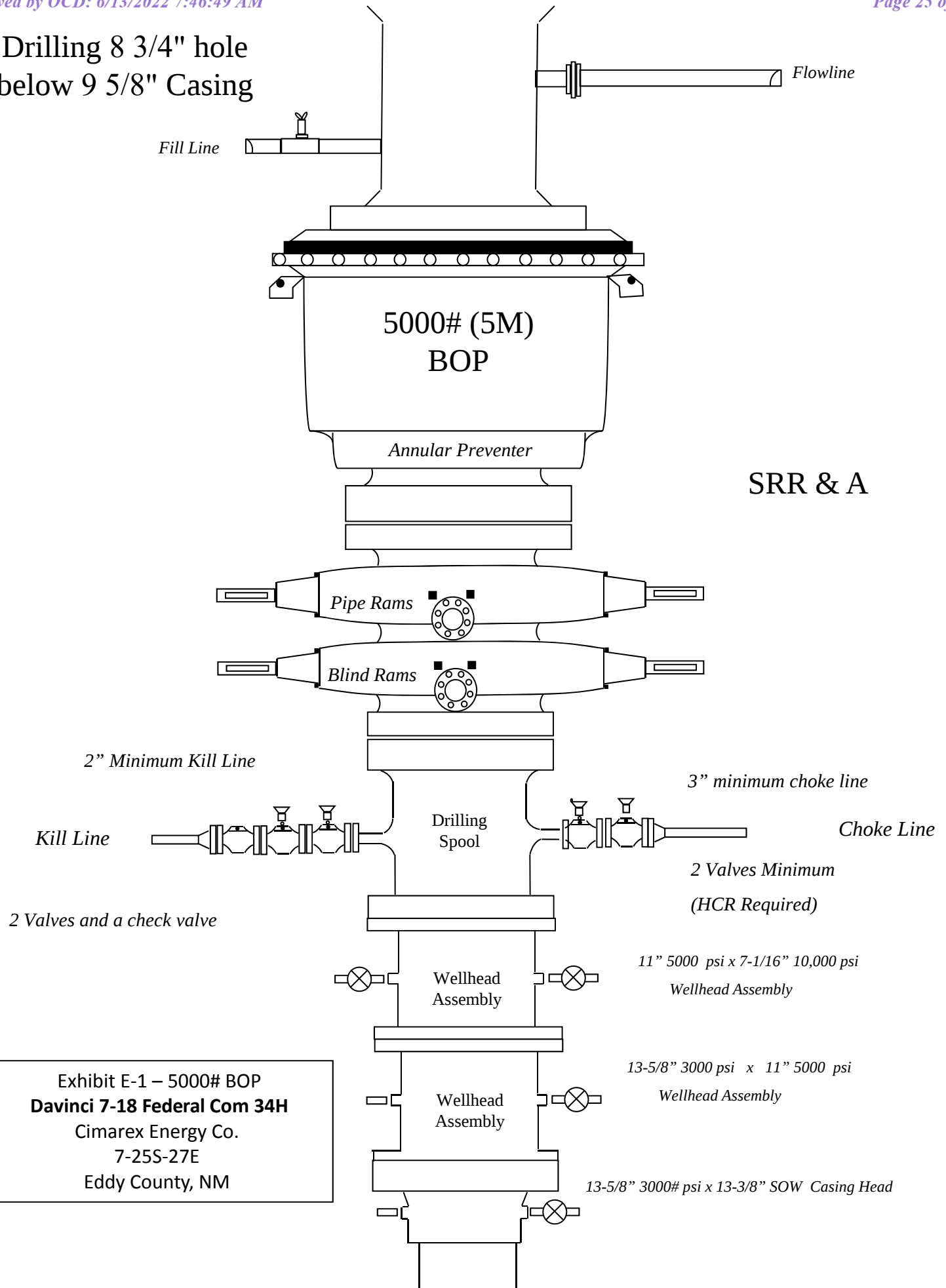


Exhibit E-1 – 5000# BOP
Davinci 7-18 Federal Com 34H
Cimarex Energy Co.
7-25S-27E
Eddy County, NM

Drilling 6" hole below 7"
Casing

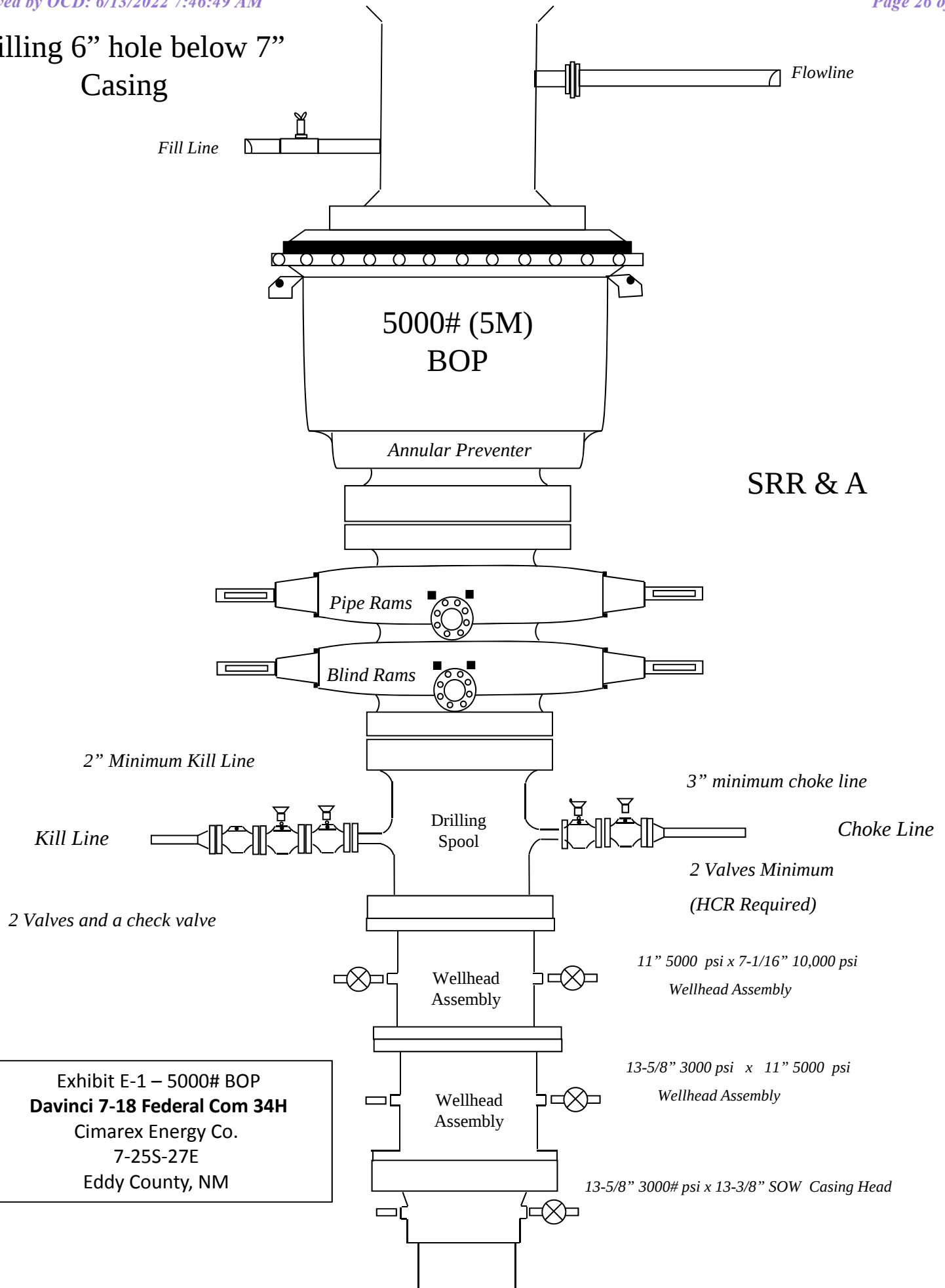
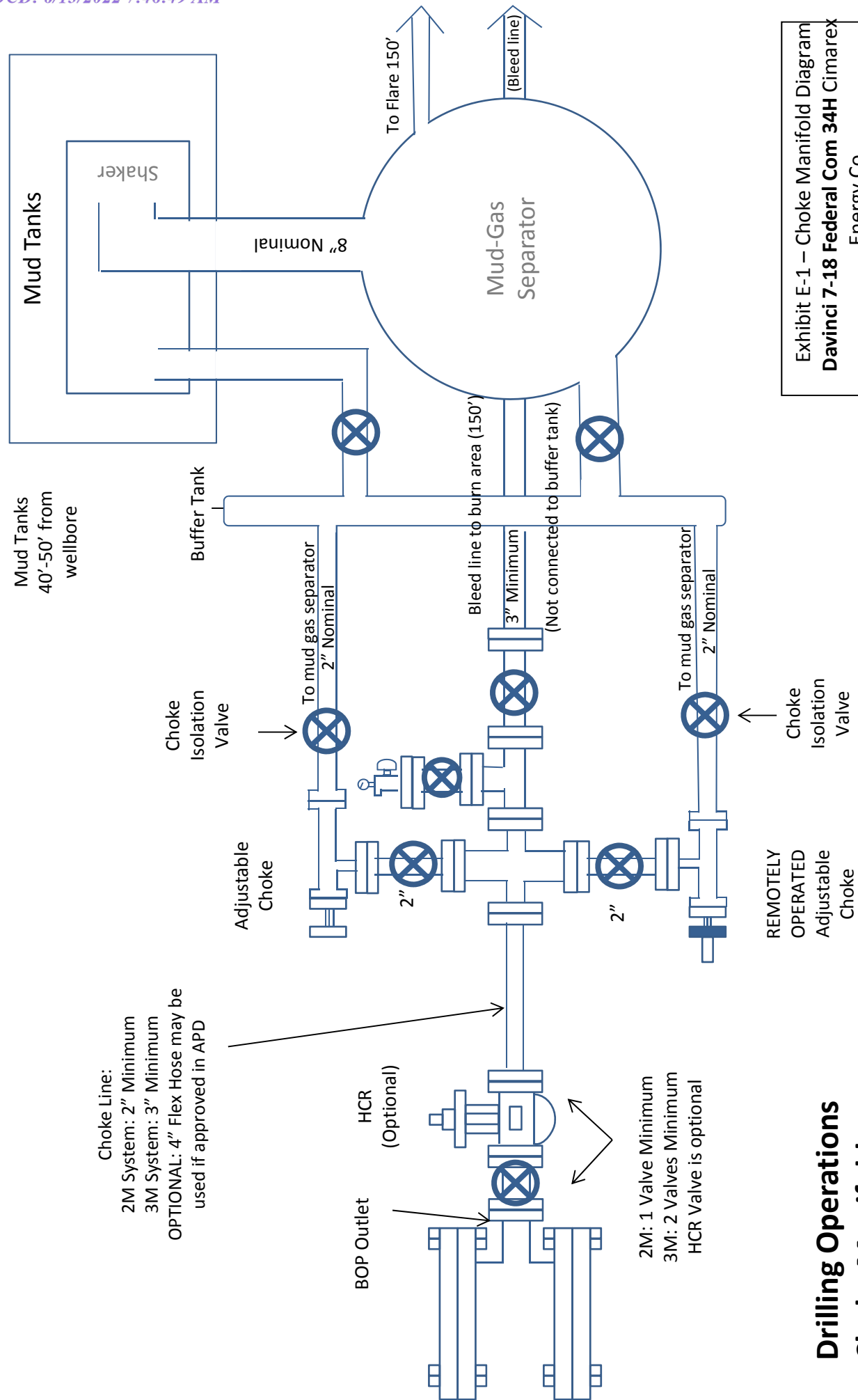
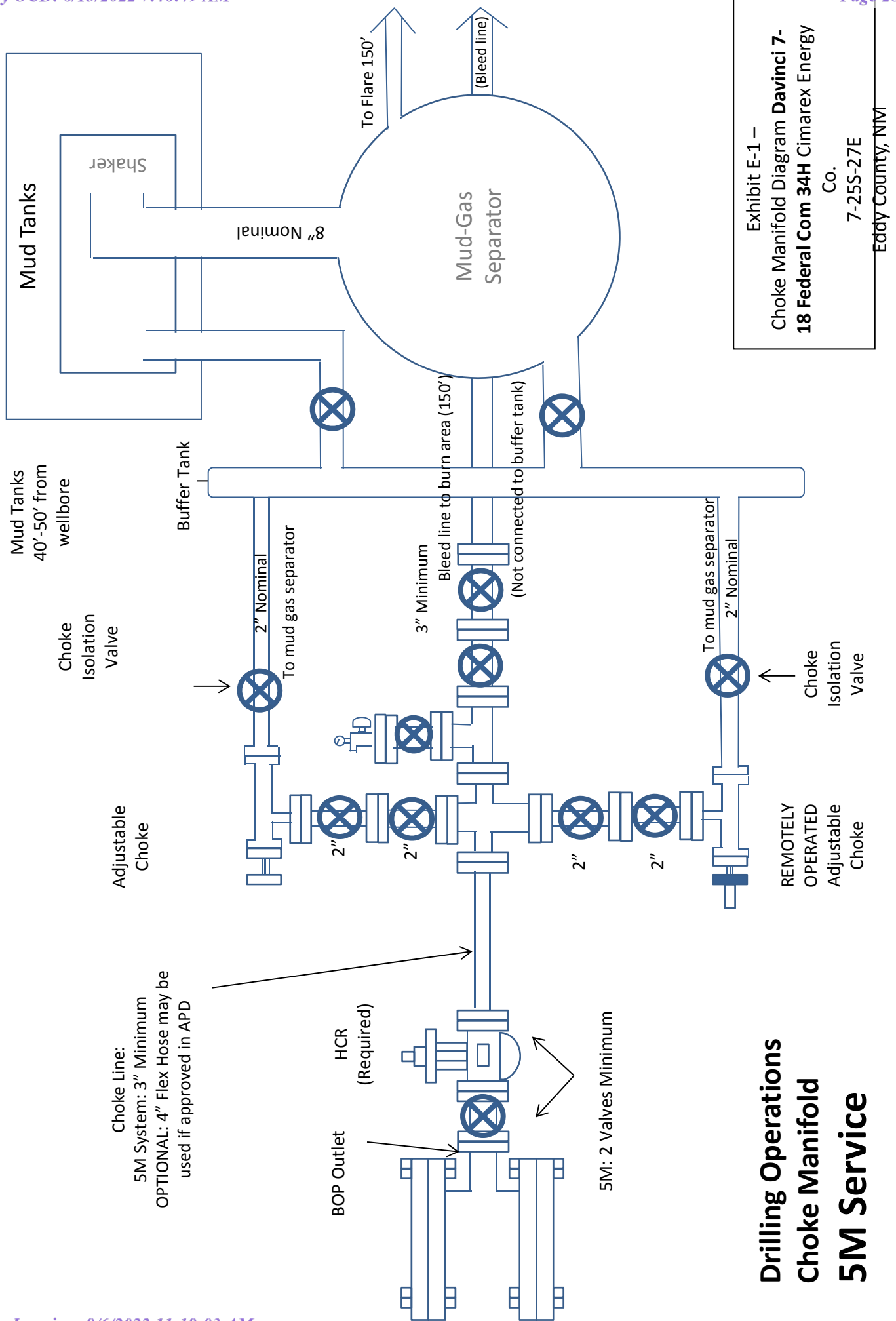


Exhibit E-1 – 5000# BOP
Davinci 7-18 Federal Com 34H
Cimarex Energy Co.
7-25S-27E
Eddy County, NM





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

COMMENTS

Action 116101

COMMENTS

Operator: CIMAREX ENERGY CO. 600 N. Marienfeld Street Midland, TX 79701	OGRID: 215099
	Action Number: 116101
	Action Type: [C-103] NOI Change of Plans (C-103A)

COMMENTS

Created By	Comment	Comment Date
jagarcia	Approved, John Garcia, Petroleum Engineer	9/6/2022

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CONDITIONS

Action 116101

CONDITIONS

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	Action Number: 116101
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
jagarcia	None	9/6/2022