

Well Name: MERCILESS 13 FED COM	Well Location: T25S / R32E / SEC 13 / NWNW /	County or Parish/State:
Well Number: 720H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM110835	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002548884	Well Status: Approved Application for Permit to Drill	Operator: EOG RESOURCES INCORPORATED

Notice of Intent

Sundry ID: 2632158

Type of Submission: Notice of Intent	Type of Action: Other
Date Sundry Submitted: 09/02/2021	Time Sundry Submitted: 08:45
Date proposed operation will begin: 09/06/2021	

Procedure Description: EOG respectfully requests an amendment to our approved APD for this well to reflect the following changes: Change name from #744H to #720H. Change SHL to T-25-S, R-32-E, Sec 13, 200' FNL, 737' FWL, Lea Co., N.M. Change BHL to T-25-S, R-32-E, Sec 24, 2541' FNL, 1045' FWL, Lea Co., N.M.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

Merciless_13_Fed_Com_720H_Sundry_Info___Rev_Name__BHL_9.1.2021_20210902084525.pdf

MERCILESS_13_FED_COM_720H_C_102_20210902084512.pdf

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 30-025-48884	² Pool Code 98180	³ Pool Name WC-025 G-09 S253309P; Upper Wolfcamp
⁴ Property Code 328894	⁵ Property Name MERCILESS 13 FED COM	
⁷ OGRID No. 7377	⁸ Operator Name EOG RESOURCES, INC.	⁶ Well Number 720H ⁹ Elevation 3480'

¹⁰Surface Location

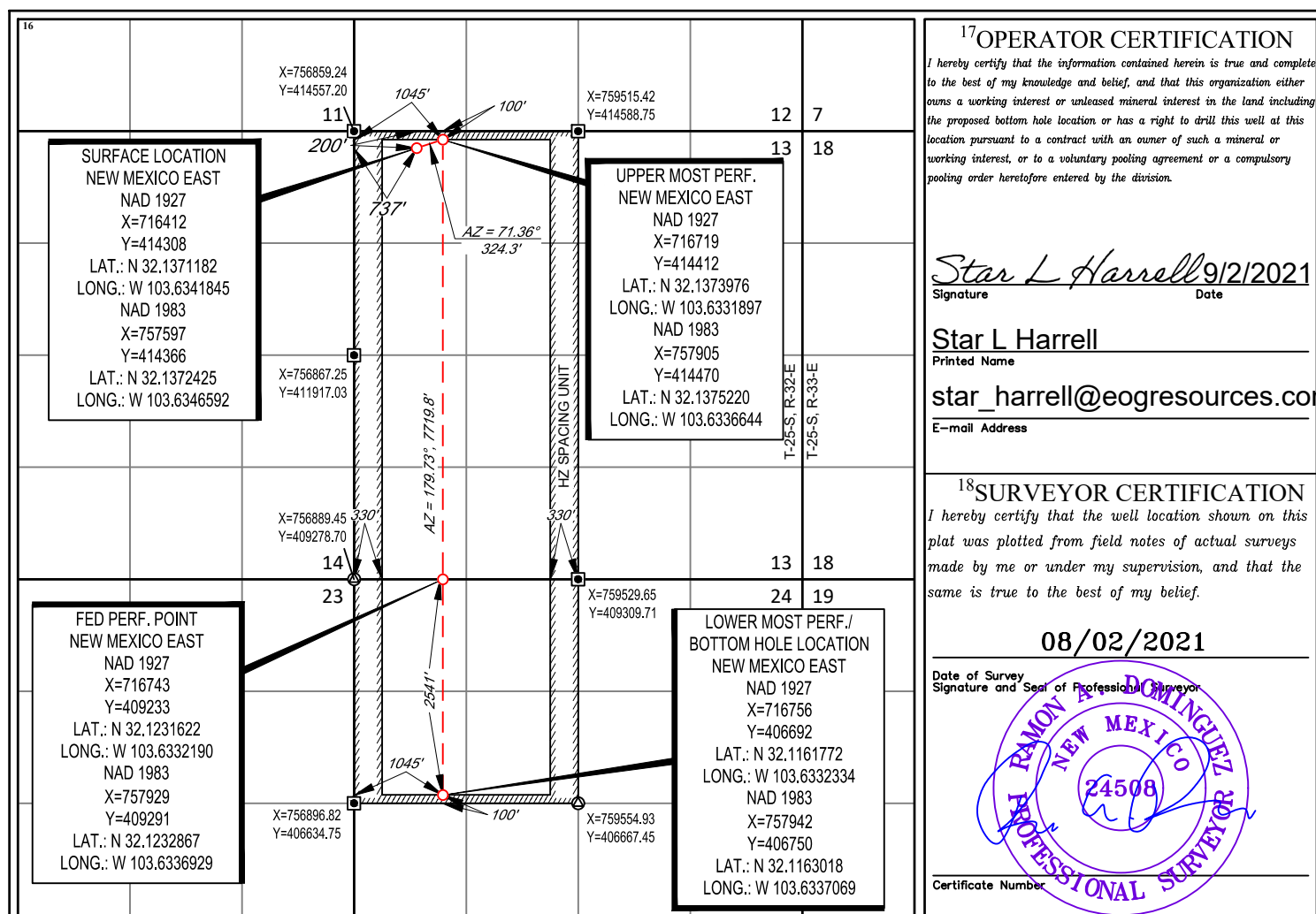
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	13	25-S	32-E	—	200'	NORTH	737'	WEST	LEA

¹¹Bottom 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
E	24	25-S	32-E	-	2541'	NORTH	1045'	WEST	LEA

¹² Dedicated Acres 480.00	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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.





Merciless 13 Fed Com 720H

Revised Permit Information 09/01/2021:

Well Name: Merciless 13 Fed Com 720H

Location: SHL: 200' FNL & 737' FWL, Section 13, T-25-S, R-32-E, Lea Co., N.M.

BHL: 2541' FNL & 1045' FWL, Section 24, T-25-S, R-32-E, Lea Co., N.M.

Casing Program:

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DFmin Collapse	DFmin Burst	DFmin Tension
12.25"	0' - 1,010'	9.625"	36#	J-55	LTC	1.125	1.25	1.6
8.75"	0' - 11,130'	7.625"	29.7#	HCP-110	FXL	1.125	1.25	1.6
6.75"	0' - 10,630'	5.5"	20#	P-110EC	DWC/C-IS MS	1.125	1.25	1.6
6.75"	10,630' - 11,130'	5.5"	20#	P-110EC	VAM SFC	1.125	1.25	1.6
6.75"	11,130' - 20,141'	5.5"	20#	P-110EC	DWC/C-IS MS	1.125	1.25	1.6

Variance is requested to waive the centralizer requirements for the 7-5/8" casing in the 8-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 8-3/4" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive any centralizer requirements for the 5-1/2" casing in the 6-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 6-3/4" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive the annular clearance requirements for the 5-1/2" casing by 7-5/8" casing annulus to the proposed top of cement.

EOG requests permission to allow deviation from the 0.422" annulus clearance requirement from Onshore Order #2 under the following conditions:

- Annular clearance to meet or exceed 0.422" between intermediate casing ID and production casing coupling only on the first 500' overlap between both casing strings.
- Annular clearance less than 0.422" is acceptable for the production open hole section.

Cementing Program:

Depth	No. Sacks	Wt. ppg	Yld Ft3/sk	Slurry Description
1,010' 9-5/8"	290	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	80	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 804')
11,130' 7-5/8"	470	14.2	1.11	1st Stage (Tail): Class C + 0.6% Halad-9 + 0.45% HR-601 + 3% Microbond (TOC @ 7,178')
	1230	14.8	1.5	2nd Stage (Bradenhead squeeze): Class C + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (TOC @ surface)
20,141' 5-1/2"	820	14.2	1.31	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 10,629')



Merciless 13 Fed Com 720H

Additive	Purpose
Bentonite Gel	Lightweight/Lost circulation prevention
Calcium Chloride	Accelerator
Cello-flake	Lost circulation prevention
Sodium Metasilicate	Accelerator
MagOx	Expansive agent
Pre-Mag-M	Expansive agent
Sodium Chloride	Accelerator
FL-62	Fluid loss control
Halad-344	Fluid loss control
Halad-9	Fluid loss control
HR-601	Retarder
Microbond	Expansive Agent

EOG requests variance from minimum standards to pump a two stage cement job on the 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon (7,378') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary, a top out consisting of 1,226 sacks of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. Top will be verified by Echo-meter.

EOG will include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program.

EOG will report to the BLM the volume of fluid (limited to 5 bbls) used to flush intermediate casing valves following backside cementing procedures.

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,010'	Fresh - Gel	8.6-8.8	28-34	N/c
1,010' – 11,130'	Brine	10.0-10.2	28-34	N/c
11,130' – 12,098'	Oil Base	8.7-9.4	58-68	N/c - 6
12,098' – 20,141'	Oil Base	10.0-14.0	58-68	4 - 6



Merciless 13 Fed Com 720H

200' FNL
737' FWL
Section 13
T-25-S, R-32-E

Revised Wellbore

KB: 3505'
GL: 3480'

API: 30-025-48884

Bit Size: 12-1/4"
9-5/8", 36#, J-55, LTC, 0' - 1,010'

Bit Size: 8-3/4"
7-5/8", 29.7#, HCP-110, FXL, 0' - 11,130'

Bit Size: 6-3/4"
5-1/2", 20#, P-110EC, DWC/C-IS MS, @ 0' - 10,630'
5-1/2", 20#, P-110EC, VAM SFC, @ 10,630' - 11,130'
5-1/2", 20#, P-110EC, DWC/C-IS MS, @ 11,130' - 20,141'

KOP: 12,098'

TOC: 10,629'

Lateral: 20,141' MD, 12,566' TVD
Upper Most Perf:
100' FNL & 1045' FWL Sec. 13
Lower Most Perf:
2541' FNL & 1045' FWL Sec. 24
BH Location: 2541' FNL & 1045' FWL
Sec. 24
T-25-S R-32-E



Midland

Lea County, NM (NAD 83 NME)

Merciless 13 Fed Com

#720H

OH

Plan: Plan #0.1

Standard Planning Report

23 August, 2021



Planning Report

Database:	PEDM	Local Co-ordinate Reference:	Well #720H
Company:	Midland	TVD Reference:	KB = 25 @ 3505.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3505.0usft
Site:	Merciless 13 Fed Com	North Reference:	Grid
Well:	#720H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Project	Lea County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Merciless 13 Fed Com				
Site Position:		Northing:	414,304.00 usft	Latitude:	32° 8' 13.472 N
From:	Map	Easting:	757,406.00 usft	Longitude:	103° 38' 7.002 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "		

Well	#720H					
Well Position	+N/-S	0.0 usft	Northing:	414,366.00 usft	Latitude:	32° 8' 14.074 N
	+E/-W	0.0 usft	Easting:	757,597.00 usft	Longitude:	103° 38' 4.776 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,480.0 usft
Grid Convergence:	0.37 °					

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	8/23/2021	6.55	59.81	47,416.25714740

Design	Plan #0.1				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	177.41	

Plan Survey Tool Program	Date	8/23/2021			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	20,140.9 Plan #0.1 (OH)	EOG MWD+IFR1		
			MWD + IFR1		



Planning Report

Database:	PEDM	Local Co-ordinate Reference:	Well #720H
Company:	Midland	TVD Reference:	KB = 25 @ 3505.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3505.0usft
Site:	Merciless 13 Fed Com	North Reference:	Grid
Well:	#720H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,364.4	3.29	63.43	1,364.3	2.1	4.2	2.00	2.00	0.00	63.43	
7,205.4	3.29	63.43	7,195.7	151.9	303.8	0.00	0.00	0.00	0.00	
7,369.8	0.00	0.00	7,360.0	154.0	308.0	2.00	-2.00	0.00	180.00	
12,098.3	0.00	0.00	12,088.5	154.0	308.0	0.00	0.00	0.00	0.00	KOP(Merciless 13 FC
12,318.7	26.46	180.00	12,301.2	104.0	308.0	12.00	12.00	81.65	180.00	FTP(Merciless 13 FC
12,848.3	90.00	179.73	12,565.9	-323.5	309.4	12.00	12.00	-0.05	-0.30	
17,599.9	90.00	179.73	12,566.0	-5,075.0	332.0	0.00	0.00	0.00	0.00	FED PP(Merciless 13
20,140.9	90.00	179.69	12,566.0	-7,616.0	345.0	0.00	0.00	0.00	-88.11	PBHL(Merciless 13 Fi



Planning Report

Database:	PEDM	Local Co-ordinate Reference:	Well #720H
Company:	Midland	TVD Reference:	KB = 25 @ 3505.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3505.0usft
Site:	Merciless 13 Fed Com	North Reference:	Grid
Well:	#720H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	2.00	63.43	1,300.0	0.8	1.6	-0.7	2.00	2.00	0.00
1,364.4	3.29	63.43	1,364.3	2.1	4.2	-1.9	2.00	2.00	0.00
1,400.0	3.29	63.43	1,399.9	3.0	6.0	-2.7	0.00	0.00	0.00
1,500.0	3.29	63.43	1,499.7	5.6	11.2	-5.1	0.00	0.00	0.00
1,600.0	3.29	63.43	1,599.5	8.2	16.3	-7.4	0.00	0.00	0.00
1,700.0	3.29	63.43	1,699.4	10.7	21.4	-9.7	0.00	0.00	0.00
1,800.0	3.29	63.43	1,799.2	13.3	26.6	-12.1	0.00	0.00	0.00
1,900.0	3.29	63.43	1,899.0	15.8	31.7	-14.4	0.00	0.00	0.00
2,000.0	3.29	63.43	1,998.9	18.4	36.8	-16.7	0.00	0.00	0.00
2,100.0	3.29	63.43	2,098.7	21.0	41.9	-19.1	0.00	0.00	0.00
2,200.0	3.29	63.43	2,198.5	23.5	47.1	-21.4	0.00	0.00	0.00
2,300.0	3.29	63.43	2,298.4	26.1	52.2	-23.7	0.00	0.00	0.00
2,400.0	3.29	63.43	2,398.2	28.7	57.3	-26.0	0.00	0.00	0.00
2,500.0	3.29	63.43	2,498.0	31.2	62.5	-28.4	0.00	0.00	0.00
2,600.0	3.29	63.43	2,597.9	33.8	67.6	-30.7	0.00	0.00	0.00
2,700.0	3.29	63.43	2,697.7	36.4	72.7	-33.0	0.00	0.00	0.00
2,800.0	3.29	63.43	2,797.5	38.9	77.8	-35.4	0.00	0.00	0.00
2,900.0	3.29	63.43	2,897.4	41.5	83.0	-37.7	0.00	0.00	0.00
3,000.0	3.29	63.43	2,997.2	44.1	88.1	-40.0	0.00	0.00	0.00
3,100.0	3.29	63.43	3,097.1	46.6	93.2	-42.3	0.00	0.00	0.00
3,200.0	3.29	63.43	3,196.9	49.2	98.4	-44.7	0.00	0.00	0.00
3,300.0	3.29	63.43	3,296.7	51.7	103.5	-47.0	0.00	0.00	0.00
3,400.0	3.29	63.43	3,396.6	54.3	108.6	-49.3	0.00	0.00	0.00
3,500.0	3.29	63.43	3,496.4	56.9	113.7	-51.7	0.00	0.00	0.00
3,600.0	3.29	63.43	3,596.2	59.4	118.9	-54.0	0.00	0.00	0.00
3,700.0	3.29	63.43	3,696.1	62.0	124.0	-56.3	0.00	0.00	0.00
3,800.0	3.29	63.43	3,795.9	64.6	129.1	-58.7	0.00	0.00	0.00
3,900.0	3.29	63.43	3,895.7	67.1	134.3	-61.0	0.00	0.00	0.00
4,000.0	3.29	63.43	3,995.6	69.7	139.4	-63.3	0.00	0.00	0.00
4,100.0	3.29	63.43	4,095.4	72.3	144.5	-65.6	0.00	0.00	0.00
4,200.0	3.29	63.43	4,195.2	74.8	149.6	-68.0	0.00	0.00	0.00
4,300.0	3.29	63.43	4,295.1	77.4	154.8	-70.3	0.00	0.00	0.00
4,400.0	3.29	63.43	4,394.9	80.0	159.9	-72.6	0.00	0.00	0.00
4,500.0	3.29	63.43	4,494.8	82.5	165.0	-75.0	0.00	0.00	0.00
4,600.0	3.29	63.43	4,594.6	85.1	170.2	-77.3	0.00	0.00	0.00
4,700.0	3.29	63.43	4,694.4	87.6	175.3	-79.6	0.00	0.00	0.00
4,800.0	3.29	63.43	4,794.3	90.2	180.4	-82.0	0.00	0.00	0.00
4,900.0	3.29	63.43	4,894.1	92.8	185.5	-84.3	0.00	0.00	0.00
5,000.0	3.29	63.43	4,993.9	95.3	190.7	-86.6	0.00	0.00	0.00
5,100.0	3.29	63.43	5,093.8	97.9	195.8	-88.9	0.00	0.00	0.00
5,200.0	3.29	63.43	5,193.6	100.5	200.9	-91.3	0.00	0.00	0.00



Planning Report

Database:	PEDM	Local Co-ordinate Reference:	Well #720H
Company:	Midland	TVD Reference:	KB = 25 @ 3505.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3505.0usft
Site:	Merciless 13 Fed Com	North Reference:	Grid
Well:	#720H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.0	3.29	63.43	5,293.4	103.0	206.1	-93.6	0.00	0.00	0.00
5,400.0	3.29	63.43	5,393.3	105.6	211.2	-95.9	0.00	0.00	0.00
5,500.0	3.29	63.43	5,493.1	108.2	216.3	-98.3	0.00	0.00	0.00
5,600.0	3.29	63.43	5,592.9	110.7	221.4	-100.6	0.00	0.00	0.00
5,700.0	3.29	63.43	5,692.8	113.3	226.6	-102.9	0.00	0.00	0.00
5,800.0	3.29	63.43	5,792.6	115.9	231.7	-105.2	0.00	0.00	0.00
5,900.0	3.29	63.43	5,892.4	118.4	236.8	-107.6	0.00	0.00	0.00
6,000.0	3.29	63.43	5,992.3	121.0	242.0	-109.9	0.00	0.00	0.00
6,100.0	3.29	63.43	6,092.1	123.5	247.1	-112.2	0.00	0.00	0.00
6,200.0	3.29	63.43	6,192.0	126.1	252.2	-114.6	0.00	0.00	0.00
6,300.0	3.29	63.43	6,291.8	128.7	257.3	-116.9	0.00	0.00	0.00
6,400.0	3.29	63.43	6,391.6	131.2	262.5	-119.2	0.00	0.00	0.00
6,500.0	3.29	63.43	6,491.5	133.8	267.6	-121.6	0.00	0.00	0.00
6,600.0	3.29	63.43	6,591.3	136.4	272.7	-123.9	0.00	0.00	0.00
6,700.0	3.29	63.43	6,691.1	138.9	277.9	-126.2	0.00	0.00	0.00
6,800.0	3.29	63.43	6,791.0	141.5	283.0	-128.5	0.00	0.00	0.00
6,900.0	3.29	63.43	6,890.8	144.1	288.1	-130.9	0.00	0.00	0.00
7,000.0	3.29	63.43	6,990.6	146.6	293.2	-133.2	0.00	0.00	0.00
7,100.0	3.29	63.43	7,090.5	149.2	298.4	-135.5	0.00	0.00	0.00
7,205.4	3.29	63.43	7,195.7	151.9	303.8	-138.0	0.00	0.00	0.00
7,300.0	1.40	63.43	7,290.2	153.6	307.2	-139.6	2.00	-2.00	0.00
7,369.8	0.00	0.00	7,360.0	154.0	308.0	-139.9	2.00	-2.00	0.00
7,400.0	0.00	0.00	7,390.2	154.0	308.0	-139.9	0.00	0.00	0.00
7,500.0	0.00	0.00	7,490.2	154.0	308.0	-139.9	0.00	0.00	0.00
7,600.0	0.00	0.00	7,590.2	154.0	308.0	-139.9	0.00	0.00	0.00
7,700.0	0.00	0.00	7,690.2	154.0	308.0	-139.9	0.00	0.00	0.00
7,800.0	0.00	0.00	7,790.2	154.0	308.0	-139.9	0.00	0.00	0.00
7,900.0	0.00	0.00	7,890.2	154.0	308.0	-139.9	0.00	0.00	0.00
8,000.0	0.00	0.00	7,990.2	154.0	308.0	-139.9	0.00	0.00	0.00
8,100.0	0.00	0.00	8,090.2	154.0	308.0	-139.9	0.00	0.00	0.00
8,200.0	0.00	0.00	8,190.2	154.0	308.0	-139.9	0.00	0.00	0.00
8,300.0	0.00	0.00	8,290.2	154.0	308.0	-139.9	0.00	0.00	0.00
8,400.0	0.00	0.00	8,390.2	154.0	308.0	-139.9	0.00	0.00	0.00
8,500.0	0.00	0.00	8,490.2	154.0	308.0	-139.9	0.00	0.00	0.00
8,600.0	0.00	0.00	8,590.2	154.0	308.0	-139.9	0.00	0.00	0.00
8,700.0	0.00	0.00	8,690.2	154.0	308.0	-139.9	0.00	0.00	0.00
8,800.0	0.00	0.00	8,790.2	154.0	308.0	-139.9	0.00	0.00	0.00
8,900.0	0.00	0.00	8,890.2	154.0	308.0	-139.9	0.00	0.00	0.00
9,000.0	0.00	0.00	8,990.2	154.0	308.0	-139.9	0.00	0.00	0.00
9,100.0	0.00	0.00	9,090.2	154.0	308.0	-139.9	0.00	0.00	0.00
9,200.0	0.00	0.00	9,190.2	154.0	308.0	-139.9	0.00	0.00	0.00
9,300.0	0.00	0.00	9,290.2	154.0	308.0	-139.9	0.00	0.00	0.00
9,400.0	0.00	0.00	9,390.2	154.0	308.0	-139.9	0.00	0.00	0.00
9,500.0	0.00	0.00	9,490.2	154.0	308.0	-139.9	0.00	0.00	0.00
9,600.0	0.00	0.00	9,590.2	154.0	308.0	-139.9	0.00	0.00	0.00
9,700.0	0.00	0.00	9,690.2	154.0	308.0	-139.9	0.00	0.00	0.00
9,800.0	0.00	0.00	9,790.2	154.0	308.0	-139.9	0.00	0.00	0.00
9,900.0	0.00	0.00	9,890.2	154.0	308.0	-139.9	0.00	0.00	0.00
10,000.0	0.00	0.00	9,990.2	154.0	308.0	-139.9	0.00	0.00	0.00
10,100.0	0.00	0.00	10,090.2	154.0	308.0	-139.9	0.00	0.00	0.00
10,200.0	0.00	0.00	10,190.2	154.0	308.0	-139.9	0.00	0.00	0.00
10,300.0	0.00	0.00	10,290.2	154.0	308.0	-139.9	0.00	0.00	0.00
10,400.0	0.00	0.00	10,390.2	154.0	308.0	-139.9	0.00	0.00	0.00
10,500.0	0.00	0.00	10,490.2	154.0	308.0	-139.9	0.00	0.00	0.00



Planning Report

Database:	PEDM	Local Co-ordinate Reference:	Well #720H
Company:	Midland	TVD Reference:	KB = 25 @ 3505.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3505.0usft
Site:	Merciless 13 Fed Com	North Reference:	Grid
Well:	#720H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,600.0	0.00	0.00	10,590.2	154.0	308.0	-139.9	0.00	0.00	0.00
10,700.0	0.00	0.00	10,690.2	154.0	308.0	-139.9	0.00	0.00	0.00
10,800.0	0.00	0.00	10,790.2	154.0	308.0	-139.9	0.00	0.00	0.00
10,900.0	0.00	0.00	10,890.2	154.0	308.0	-139.9	0.00	0.00	0.00
11,000.0	0.00	0.00	10,990.2	154.0	308.0	-139.9	0.00	0.00	0.00
11,100.0	0.00	0.00	11,090.2	154.0	308.0	-139.9	0.00	0.00	0.00
11,200.0	0.00	0.00	11,190.2	154.0	308.0	-139.9	0.00	0.00	0.00
11,300.0	0.00	0.00	11,290.2	154.0	308.0	-139.9	0.00	0.00	0.00
11,400.0	0.00	0.00	11,390.2	154.0	308.0	-139.9	0.00	0.00	0.00
11,500.0	0.00	0.00	11,490.2	154.0	308.0	-139.9	0.00	0.00	0.00
11,600.0	0.00	0.00	11,590.2	154.0	308.0	-139.9	0.00	0.00	0.00
11,700.0	0.00	0.00	11,690.2	154.0	308.0	-139.9	0.00	0.00	0.00
11,800.0	0.00	0.00	11,790.2	154.0	308.0	-139.9	0.00	0.00	0.00
11,900.0	0.00	0.00	11,890.2	154.0	308.0	-139.9	0.00	0.00	0.00
12,000.0	0.00	0.00	11,990.2	154.0	308.0	-139.9	0.00	0.00	0.00
12,098.3	0.00	0.00	12,088.5	154.0	308.0	-139.9	0.00	0.00	0.00
KOP(Merciless 13 FC#720H)									
12,100.0	0.21	180.00	12,090.2	154.0	308.0	-139.9	12.00	12.00	0.00
12,125.0	3.21	180.00	12,115.2	153.3	308.0	-139.2	12.00	12.00	0.00
12,150.0	6.21	180.00	12,140.1	151.2	308.0	-137.1	12.00	12.00	0.00
12,175.0	9.21	180.00	12,164.9	147.9	308.0	-133.8	12.00	12.00	0.00
12,200.0	12.21	180.00	12,189.4	143.2	308.0	-129.1	12.00	12.00	0.00
12,225.0	15.21	180.00	12,213.7	137.3	308.0	-123.2	12.00	12.00	0.00
12,250.0	18.21	180.00	12,237.7	130.1	308.0	-116.0	12.00	12.00	0.00
12,275.0	21.21	180.00	12,261.2	121.7	308.0	-107.6	12.00	12.00	0.00
12,300.0	24.21	180.00	12,284.3	112.0	308.0	-98.0	12.00	12.00	0.00
12,318.7	26.46	180.00	12,301.2	104.0	308.0	-90.0	12.00	12.00	0.00
FTP(Merciless 13 FC#720H)									
12,325.0	27.21	179.99	12,306.8	101.2	308.0	-87.1	12.00	12.00	-0.14
12,350.0	30.21	179.96	12,328.7	89.2	308.0	-75.1	12.00	12.00	-0.12
12,375.0	33.21	179.93	12,350.0	76.0	308.0	-62.0	12.00	12.00	-0.10
12,400.0	36.21	179.91	12,370.5	61.8	308.0	-47.8	12.00	12.00	-0.09
12,425.0	39.21	179.89	12,390.3	46.5	308.1	-32.5	12.00	12.00	-0.08
12,450.0	42.21	179.88	12,409.2	30.2	308.1	-16.2	12.00	12.00	-0.07
12,475.0	45.21	179.86	12,427.3	12.9	308.1	1.0	12.00	12.00	-0.06
12,500.0	48.21	179.85	12,444.5	-5.3	308.2	19.2	12.00	12.00	-0.05
12,525.0	51.21	179.84	12,460.6	-24.3	308.2	38.3	12.00	12.00	-0.05
12,550.0	54.21	179.83	12,475.8	-44.2	308.3	58.1	12.00	12.00	-0.04
12,575.0	57.21	179.81	12,489.9	-64.9	308.4	78.8	12.00	12.00	-0.04
12,600.0	60.21	179.81	12,502.8	-86.2	308.4	100.1	12.00	12.00	-0.04
12,625.0	63.21	179.80	12,514.7	-108.2	308.5	122.1	12.00	12.00	-0.04
12,650.0	66.21	179.79	12,525.4	-130.8	308.6	144.7	12.00	12.00	-0.03
12,675.0	69.21	179.78	12,534.8	-154.0	308.7	167.8	12.00	12.00	-0.03
12,700.0	72.21	179.77	12,543.1	-177.6	308.8	191.4	12.00	12.00	-0.03
12,725.0	75.21	179.76	12,550.1	-201.6	308.9	215.3	12.00	12.00	-0.03
12,750.0	78.21	179.76	12,555.9	-225.9	309.0	239.6	12.00	12.00	-0.03
12,775.0	81.21	179.75	12,560.3	-250.5	309.1	264.2	12.00	12.00	-0.03
12,800.0	84.21	179.74	12,563.5	-275.3	309.2	289.0	12.00	12.00	-0.03
12,825.0	87.21	179.73	12,565.4	-300.2	309.3	313.9	12.00	12.00	-0.03
12,848.3	90.00	179.73	12,565.9	-323.5	309.4	337.1	12.00	12.00	-0.03
12,900.0	90.00	179.73	12,565.9	-375.2	309.7	388.8	0.00	0.00	0.00
13,000.0	90.00	179.73	12,565.9	-475.2	310.1	488.7	0.00	0.00	0.00
13,100.0	90.00	179.73	12,565.9	-575.2	310.6	588.7	0.00	0.00	0.00
13,200.0	90.00	179.73	12,565.9	-675.2	311.1	688.6	0.00	0.00	0.00



Planning Report

Database:	PEDM	Local Co-ordinate Reference:	Well #720H
Company:	Midland	TVD Reference:	KB = 25 @ 3505.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3505.0usft
Site:	Merciless 13 Fed Com	North Reference:	Grid
Well:	#720H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,300.0	90.00	179.73	12,565.9	-775.2	311.6	788.5	0.00	0.00	0.00
13,400.0	90.00	179.73	12,565.9	-875.2	312.0	888.4	0.00	0.00	0.00
13,500.0	90.00	179.73	12,566.0	-975.2	312.5	988.3	0.00	0.00	0.00
13,600.0	90.00	179.73	12,566.0	-1,075.2	313.0	1,088.2	0.00	0.00	0.00
13,700.0	90.00	179.73	12,566.0	-1,175.2	313.5	1,188.2	0.00	0.00	0.00
13,800.0	90.00	179.73	12,566.0	-1,275.2	313.9	1,288.1	0.00	0.00	0.00
13,900.0	90.00	179.73	12,566.0	-1,375.2	314.4	1,388.0	0.00	0.00	0.00
14,000.0	90.00	179.73	12,566.0	-1,475.2	314.9	1,487.9	0.00	0.00	0.00
14,100.0	90.00	179.73	12,566.0	-1,575.2	315.4	1,587.8	0.00	0.00	0.00
14,200.0	90.00	179.73	12,566.0	-1,675.2	315.8	1,687.8	0.00	0.00	0.00
14,300.0	90.00	179.73	12,566.0	-1,775.2	316.3	1,787.7	0.00	0.00	0.00
14,400.0	90.00	179.73	12,566.0	-1,875.2	316.8	1,887.6	0.00	0.00	0.00
14,500.0	90.00	179.73	12,566.0	-1,975.2	317.3	1,987.5	0.00	0.00	0.00
14,600.0	90.00	179.73	12,566.0	-2,075.2	317.7	2,087.4	0.00	0.00	0.00
14,700.0	90.00	179.73	12,566.0	-2,175.2	318.2	2,187.3	0.00	0.00	0.00
14,800.0	90.00	179.73	12,566.0	-2,275.2	318.7	2,287.3	0.00	0.00	0.00
14,900.0	90.00	179.73	12,566.0	-2,375.2	319.2	2,387.2	0.00	0.00	0.00
15,000.0	90.00	179.73	12,566.0	-2,475.2	319.6	2,487.1	0.00	0.00	0.00
15,100.0	90.00	179.73	12,566.0	-2,575.2	320.1	2,587.0	0.00	0.00	0.00
15,200.0	90.00	179.73	12,566.0	-2,675.2	320.6	2,686.9	0.00	0.00	0.00
15,300.0	90.00	179.73	12,566.0	-2,775.2	321.1	2,786.8	0.00	0.00	0.00
15,400.0	90.00	179.73	12,566.0	-2,875.2	321.5	2,886.8	0.00	0.00	0.00
15,500.0	90.00	179.73	12,566.0	-2,975.2	322.0	2,986.7	0.00	0.00	0.00
15,600.0	90.00	179.73	12,566.0	-3,075.2	322.5	3,086.6	0.00	0.00	0.00
15,700.0	90.00	179.73	12,566.0	-3,175.2	323.0	3,186.5	0.00	0.00	0.00
15,800.0	90.00	179.73	12,566.0	-3,275.2	323.4	3,286.4	0.00	0.00	0.00
15,900.0	90.00	179.73	12,566.0	-3,375.2	323.9	3,386.4	0.00	0.00	0.00
16,000.0	90.00	179.73	12,566.0	-3,475.2	324.4	3,486.3	0.00	0.00	0.00
16,100.0	90.00	179.73	12,566.0	-3,575.2	324.9	3,586.2	0.00	0.00	0.00
16,200.0	90.00	179.73	12,566.0	-3,675.2	325.3	3,686.1	0.00	0.00	0.00
16,300.0	90.00	179.73	12,566.0	-3,775.2	325.8	3,786.0	0.00	0.00	0.00
16,400.0	90.00	179.73	12,566.0	-3,875.1	326.3	3,885.9	0.00	0.00	0.00
16,500.0	90.00	179.73	12,566.0	-3,975.1	326.8	3,985.9	0.00	0.00	0.00
16,600.0	90.00	179.73	12,566.0	-4,075.1	327.2	4,085.8	0.00	0.00	0.00
16,700.0	90.00	179.73	12,566.0	-4,175.1	327.7	4,185.7	0.00	0.00	0.00
16,800.0	90.00	179.73	12,566.0	-4,275.1	328.2	4,285.6	0.00	0.00	0.00
16,900.0	90.00	179.73	12,566.0	-4,375.1	328.7	4,385.5	0.00	0.00	0.00
17,000.0	90.00	179.73	12,566.0	-4,475.1	329.1	4,485.5	0.00	0.00	0.00
17,100.0	90.00	179.73	12,566.0	-4,575.1	329.6	4,585.4	0.00	0.00	0.00
17,200.0	90.00	179.73	12,566.0	-4,675.1	330.1	4,685.3	0.00	0.00	0.00
17,300.0	90.00	179.73	12,566.0	-4,775.1	330.6	4,785.2	0.00	0.00	0.00
17,400.0	90.00	179.73	12,566.0	-4,875.1	331.0	4,885.1	0.00	0.00	0.00
17,500.0	90.00	179.73	12,566.0	-4,975.1	331.5	4,985.0	0.00	0.00	0.00
17,599.9	90.00	179.73	12,566.0	-5,075.0	332.0	5,084.8	0.00	0.00	0.00
FED PP(Merciless 13 FC#720H)									
17,700.0	90.00	179.73	12,566.0	-5,175.1	332.5	5,184.9	0.00	0.00	0.00
17,800.0	90.00	179.72	12,566.0	-5,275.1	333.0	5,284.8	0.00	0.00	0.00
17,900.0	90.00	179.72	12,566.0	-5,375.1	333.4	5,384.7	0.00	0.00	0.00
18,000.0	90.00	179.72	12,566.0	-5,475.1	333.9	5,484.6	0.00	0.00	0.00
18,100.0	90.00	179.72	12,566.0	-5,575.1	334.4	5,584.6	0.00	0.00	0.00
18,200.0	90.00	179.72	12,566.0	-5,675.1	334.9	5,684.5	0.00	0.00	0.00
18,300.0	90.00	179.72	12,566.0	-5,775.1	335.4	5,784.4	0.00	0.00	0.00
18,400.0	90.00	179.71	12,566.0	-5,875.1	335.9	5,884.3	0.00	0.00	0.00

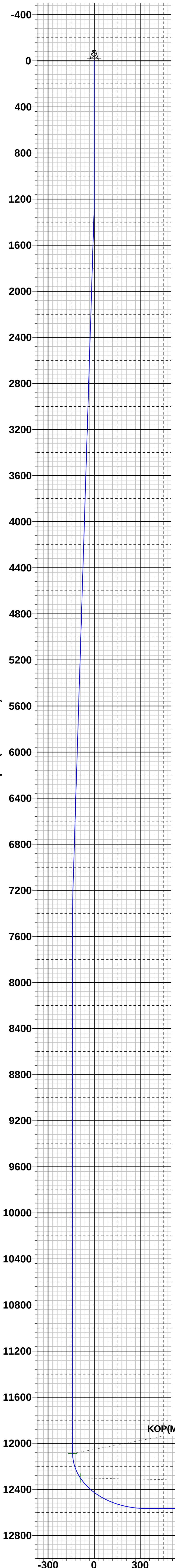


Planning Report

Database:	PEDM	Local Co-ordinate Reference:	Well #720H
Company:	Midland	TVD Reference:	KB = 25 @ 3505.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3505.0usft
Site:	Merciless 13 Fed Com	North Reference:	Grid
Well:	#720H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
18,500.0	90.00	179.71	12,566.0	-5,975.1	336.4	5,984.2	0.00	0.00	0.00	
18,600.0	90.00	179.71	12,566.0	-6,075.1	336.9	6,084.1	0.00	0.00	0.00	
18,700.0	90.00	179.71	12,566.0	-6,175.1	337.4	6,184.1	0.00	0.00	0.00	
18,800.0	90.00	179.71	12,566.0	-6,275.1	337.9	6,284.0	0.00	0.00	0.00	
18,900.0	90.00	179.71	12,566.0	-6,375.1	338.4	6,383.9	0.00	0.00	0.00	
19,000.0	90.00	179.70	12,566.0	-6,475.1	338.9	6,483.8	0.00	0.00	0.00	
19,100.0	90.00	179.70	12,566.0	-6,575.1	339.5	6,583.7	0.00	0.00	0.00	
19,200.0	90.00	179.70	12,566.0	-6,675.1	340.0	6,683.7	0.00	0.00	0.00	
19,300.0	90.00	179.70	12,566.0	-6,775.1	340.5	6,783.6	0.00	0.00	0.00	
19,400.0	90.00	179.70	12,566.0	-6,875.1	341.0	6,883.5	0.00	0.00	0.00	
19,500.0	90.00	179.70	12,566.0	-6,975.1	341.5	6,983.4	0.00	0.00	0.00	
19,600.0	90.00	179.69	12,566.0	-7,075.1	342.1	7,083.3	0.00	0.00	0.00	
19,700.0	90.00	179.69	12,566.0	-7,175.1	342.6	7,183.3	0.00	0.00	0.00	
19,800.0	90.00	179.69	12,566.0	-7,275.1	343.1	7,283.2	0.00	0.00	0.00	
19,900.0	90.00	179.69	12,566.0	-7,375.1	343.7	7,383.1	0.00	0.00	0.00	
20,000.0	90.00	179.69	12,566.0	-7,475.1	344.2	7,483.0	0.00	0.00	0.00	
20,100.0	90.00	179.69	12,566.0	-7,575.1	344.8	7,582.9	0.00	0.00	0.00	
20,140.9	90.00	179.69	12,566.0	-7,616.0	345.0	7,623.8	0.00	0.00	0.00	
PBHL(Merciless 13 FC#720H)										

Design Targets										
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
KOP(Merciless 13 FC#7 - plan hits target center - Point	0.00	0.00	12,088.5	154.0	308.0	414,520.00	757,905.00	32° 8' 15.578 N	103° 38' 1.183 W	
FTP(Merciless 13 FC#7 - plan hits target center - Point	0.00	0.00	12,301.2	104.0	308.0	414,470.00	757,905.00	32° 8' 15.083 N	103° 38' 1.186 W	
PBHL(Merciless 13 FC# - plan hits target center - Point	0.00	0.00	12,566.0	-7,616.0	345.0	406,750.00	757,942.00	32° 6' 58.688 N	103° 38' 1.339 W	
FED PP(Merciless 13 FC - plan hits target center - Point	0.00	0.00	12,566.0	-5,075.0	332.0	409,291.00	757,929.00	32° 7' 23.833 N	103° 38' 1.298 W	



To convert a Magnetic Direction to a Grid Direction, Add 6.17°
To convert a Magnetic Direction to a True Direction, Add 6.55° East
To convert a True Direction to a Grid Direction, Subtract 0.37°

Lea County, NM (NAD 83 NME)

Merciless 13 Fed Com #720H

Plan #0.1

PROJECT DETAILS: Lea County, NM (NAD 83 NME)

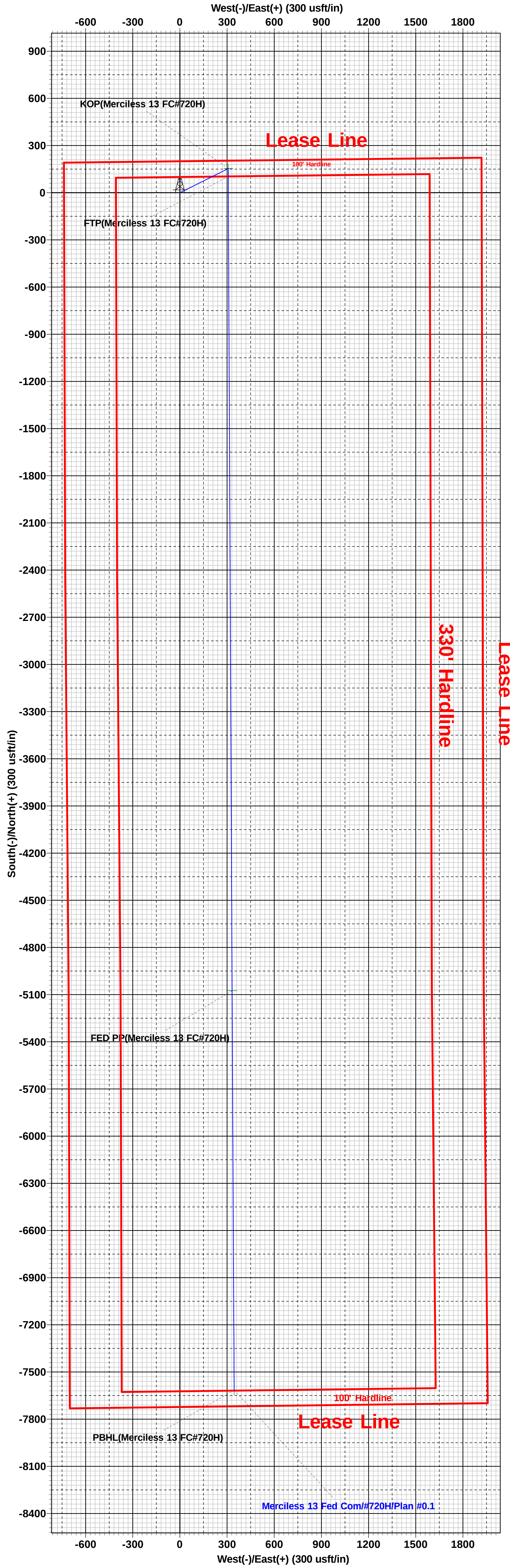
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

WELL DETAILS: #720H				
KB = 25 @ 3505.0usft				
3480.0				
Northing	Easting	Latitude	Longitude	
414366.00	757597.00	32° 8' 14.074 N	103° 38' 4.776 W	

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0	
3	1364.4	3.29	63.43	1364.3	2.1	4.2	2.00	63.43	-1.9	
4	7205.4	3.29	63.43	7195.7	151.9	303.8	0.00	0.00	-138.0	
5	7369.8	0.00	0.00	7360.0	154.0	308.0	2.00	180.00	-139.9	
6	12098.3	0.00	0.00	12088.5	154.0	308.0	0.00	0.00	-139.9	KOP(Merciless 13 FC#720H)
7	12318.7	26.46	180.00	12301.2	104.0	308.0	12.00	180.00	-90.0	FTP(Merciless 13 FC#720H)
8	12848.3	90.00	179.73	12565.9	-323.5	309.4	12.00	-0.30	337.1	
9	17599.9	90.00	179.73	12566.0	-5075.0	332.0	0.00	0.00	5084.8	FED PP(Merciless 13 FC#720H)
10	20140.9	90.00	179.69	12566.0	-7616.0	345.0	0.00	-88.11	7623.8	PBHL(Merciless 13 FC#720H)

CASING DETAILS
No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)					
Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP(Merciless 13 FC#720H)	12088.5	154.0	308.0	414520.00	757905.00
FTP(Merciless 13 FC#720H)	12301.2	104.0	308.0	414470.00	757905.00
FED PP(Merciless 13 FC#720H)	12566.0	-5075.0	332.0	409291.00	757929.00
PBHL(Merciless 13 FC#720H)	12566.0	-7616.0	345.0	406750.00	757942.00



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District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 47371

CONDITIONS

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 47371
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	9/20/2021