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

Form C-101
August 1, 2011

Permit 306273

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address	2. OGRID Number
CIMAREX ENERGY CO. OF COLORADO 600 N. Marienfeld Street Midland, TX 79701	162683
	3. API Number 30-015-49194

4. Property Code	5. Property Name	6. Well No.
332091	Parkway 16 State Com	004H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
L	15	19S	29E		1360	S	390	W	Eddy

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
M	16	19S	29E	M	802	S	100	W	Eddy

9. Pool Information

SCANLON DRAW;BONE SPRING	55510

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
New Well	OIL		State	3340
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	13833	3rd Bone Spring Sand		3/1/2022
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ **We will be using a closed-loop system in lieu of lined pits**

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	48	260	168	0
Int1	12.25	9.625	36	3110	792	0
Prod	8.75	7	29	8416	358	2900
Prod	8.75	5.5	17	13833	1790	2900

Casing/Cement Program: Additional Comments

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular	2000	2000	Cameran
Annular	3000	3000	Cameran

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. **I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒, if applicable.** Signature:		**OIL CONSERVATION DIVISION**	
Printed Name:	Electronically filed by Ashley Bergen	Approved By:	Katherine Pickford
Title:	Regulatory Manager	Title:	Geoscientist
Email Address:	abergen@cimarex.com	Approved Date: 1/14/2022	Expiration Date: 1/14/2024
Date: 1/7/2022	Phone: 432-620-1974	Conditions of Approval Attached	

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-015- 49194	~~98199~~ 55510	~~Parkway; Bone Spring, West~~ Scanlon Draw;Bone Spring

[4] Property Code	[5] Property Name	[6] Well Number
332091	PARKWAY 16 STATE COM	4H

[7] OGRID No.	[8] Operator Name	[9] Elevation
162683	CIMAREX ENERGY CO. OF COLORADO	3340.3'

[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
L	15	19S	29E		1360	SOUTH	390	WEST	EDDY

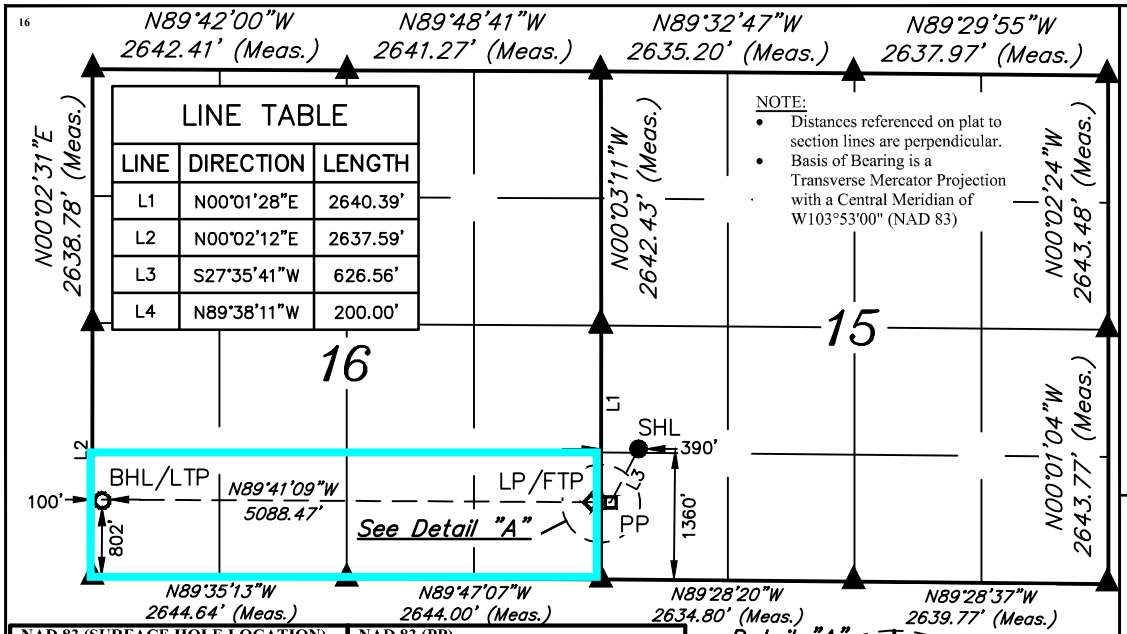
[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	16	19S	29E		802	SOUTH	100	WEST	EDDY

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
160			

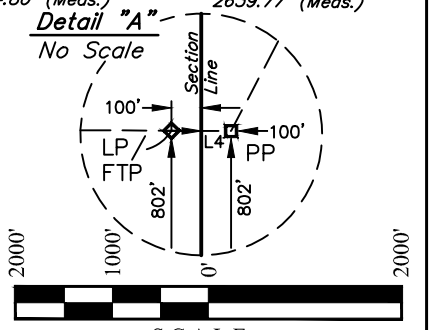
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

[16]



NAD 83 (SURFACE HOLE LOCATION)	NAD 83 (PP)
LATITUDE = 32°39'26.17" (32.657269°)	LATITUDE = 32°39'20.67" (32.655742°)
LONGITUDE = 104°04'11.73" (104.069925°)	LONGITUDE = 104°04'15.11" (104.070865°)
NAD 27 (SURFACE HOLE LOCATION)	**NAD 27 (PP)**
LATITUDE = 32°39'25.74" (32.657151°)	LATITUDE = 32°39'20.25" (32.655624°)
LONGITUDE = 104°04'09.91" (104.069418°)	LONGITUDE = 104°04'13.29" (104.070358°)
STATE PLANE NAD 83 (N.M. EAST)	**STATE PLANE NAD 83 (N.M. EAST)**
N: 602946.01' E: 622403.24'	N: 602389.62' E: 622115.43'
STATE PLANE NAD 27 (N.M. EAST)	**STATE PLANE NAD 27 (N.M. EAST)**
N: 602883.73' E: 581223.48'	N: 602327.35' E: 580935.65'
NAD 83 (LP/FTP)	**NAD 83 (BHL/LTP)**
LATITUDE = 32°39'20.68" (32.655744°)	LATITUDE = 32°39'20.86" (32.655795°)
LONGITUDE = 104°04'17.45" (104.071514°)	LONGITUDE = 104°05'16.96" (104.088044°)
NAD 27 (LP/FTP)	**NAD 27 (BHL/LTP)**
LATITUDE = 32°39'20.25" (32.655626°)	LATITUDE = 32°39'20.44" (32.655677°)
LONGITUDE = 104°04'15.63" (104.071008°)	LONGITUDE = 104°05'15.13" (104.087537°)
STATE PLANE NAD 83 (N.M. EAST)	**STATE PLANE NAD 83 (N.M. EAST)**
N: 602390.04' E: 621915.47'	N: 602396.38' E: 616828.13'
STATE PLANE NAD 27 (N.M. EAST)	**STATE PLANE NAD 27 (N.M. EAST)**
N: 602327.77' E: 580735.69'	N: 602334.14' E: 575648.35'

● = SURFACE HOLE LOCATION
□ = PENETRATION POINT
◇ = LANDING POINT/ FIRST TAKE POINT



SCALE
DRAWN BY: C.M.T. 11-30-18
REV: 4 10-28-21 Z.L.
(WELLBORE CHANGE)

○ = BOTTOM HOLE LOCATION/ LAST TAKE POINT
▲ = SECTION CORNER LOCATED

[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.

Fatima Vasquez 01/04/2022
Signature Date

Fatima Vasquez
Printed Name

fatima.vasquez@coterra.com
E-mail Address

[18] SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

June 10, 2021
Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number:

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

Form APD Conditions

Permit 306273

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
CIMAREX ENERGY CO. OF COLORADO [162683] 600 N. Marienfeld Street Midland, TX 79701	30-015-49194
	Well: Parkway 16 State Com #004H

OCD Reviewer	Condition
kpickford	The pool assignment for this well has been corrected. Subsequent sundries must reflect the correct pool.
kpickford	Notify OCD 24 hours prior to casing & cement
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104
kpickford	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud
kpickford	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing
kpickford	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system

Intent ☐ As Drilled ☐

API #

Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County

Latitude	Longitude	NAD

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County

Latitude	Longitude	NAD

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County

Latitude	Longitude	NAD

Is this well the defining well for the Horizontal Spacing Unit? ☐

Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #

Operator Name:	Property Name:	Well Number

Schlumberger

Cimarex Parkway 16 State Com #4H Rev2 IC 06Dec21 Proposal Geodetic Report

(Def Plan)

CIMAREX

Report Date:	December 06, 2021 - 09:04 AM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	Cimarex Energy	**Vertical Section Azimuth:**	270.070 ° (Grid North)
Field:	NM Eddy County (NAD 83)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Cimarex Parkway 16-17 State Com Pad / New Slot	**TVD Reference Datum:**	RKB
Well:	Parkway 16 State Com #4H	**TVD Reference Elevation:**	3362.300 ft above MSL
Borehole:	Parkway 16 State Com #4H	**Seabed / Ground Elevation:**	3340.300 ft above MSL
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	7.058 °
Survey Name:	Cimarex Parkway 16 State Com #4H Rev2 IC 06Dec21	**Total Gravity Field Strength:**	998.5129mgn (9.80665 Based)
Survey Date:	November 30, 2021	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	105.367 ° / 5827.451 ft / 5.977 / 0.650	**Total Magnetic Field Strength:**	47758.896 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	60.341 °
Location Lat / Long:	N 32° 39' 26.16844", W 104° 4' 11.72966"	**Declination Date:**	December 06, 2021
Location Grid N/E Y/X:	N 602946.010 ftUS, E 622403.240 ftUS	**Magnetic Declination Model:**	HDGM 2021
CRS Grid Convergence Angle:	0.1421 °	**North Reference:**	Grid North
Grid Scale Factor:	0.99991662	**Grid Convergence Used:**	0.1421 °
Version / Patch:	2.10.826.8	**Total Corr Mag North->Grid North:**	6.9161 °
		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 (N/S ° ' ")	Longitude (E/W ° ' ")
SHL [1360' FSL, 390' FWL]	0.00	0.00	221.26	0.00	0.00	0.00	0.00	N/A	602946.01	622403.24	N 32 39 26.17	W 104 4 11.73
	100.00	0.00	221.26	100.00	0.00	0.00	0.00	0.00	602946.01	622403.24	N 32 39 26.17	W 104 4 11.73
	200.00	0.00	221.26	200.00	0.00	0.00	0.00	0.00	602946.01	622403.24	N 32 39 26.17	W 104 4 11.73
	300.00	0.00	221.26	300.00	0.00	0.00	0.00	0.00	602946.01	622403.24	N 32 39 26.17	W 104 4 11.73
	400.00	0.00	221.26	400.00	0.00	0.00	0.00	0.00	602946.01	622403.24	N 32 39 26.17	W 104 4 11.73
	500.00	0.00	221.26	500.00	0.00	0.00	0.00	0.00	602946.01	622403.24	N 32 39 26.17	W 104 4 11.73
	600.00	0.00	221.26	600.00	0.00	0.00	0.00	0.00	602946.01	622403.24	N 32 39 26.17	W 104 4 11.73
	700.00	0.00	221.26	700.00	0.00	0.00	0.00	0.00	602946.01	622403.24	N 32 39 26.17	W 104 4 11.73
	800.00	0.00	221.26	800.00	0.00	0.00	0.00	0.00	602946.01	622403.24	N 32 39 26.17	W 104 4 11.73
	900.00	0.00	221.26	900.00	0.00	0.00	0.00	0.00	602946.01	622403.24	N 32 39 26.17	W 104 4 11.73
	1000.00	0.00	221.26	1000.00	0.00	0.00	0.00	0.00	602946.01	622403.24	N 32 39 26.17	W 104 4 11.73
	1100.00	0.00	221.26	1100.00	0.00	0.00	0.00	0.00	602946.01	622403.24	N 32 39 26.17	W 104 4 11.73
	1200.00	0.00	221.26	1200.00	0.00	0.00	0.00	0.00	602946.01	622403.24	N 32 39 26.17	W 104 4 11.73
	1300.00	0.00	221.26	1300.00	0.00	0.00	0.00	0.00	602946.01	622403.24	N 32 39 26.17	W 104 4 11.73
	1400.00	0.00	221.26	1400.00	0.00	0.00	0.00	0.00	602946.01	622403.24	N 32 39 26.17	W 104 4 11.73
Nudge 2° DLS	1500.00	0.00	221.26	1500.00	0.00	0.00	0.00	0.00	602946.01	622403.24	N 32 39 26.17	W 104 4 11.73
	1600.00	2.00	221.26	1599.98	1.15	-1.31	-1.15	2.00	602944.70	622402.09	N 32 39 26.16	W 104 4 11.74
	1700.00	4.00	221.26	1699.84	4.60	-5.25	-4.60	2.00	602940.76	622398.64	N 32 39 26.12	W 104 4 11.78
	1800.00	6.00	221.26	1799.45	10.34	-11.80	-10.35	2.00	602934.21	622392.89	N 32 39 26.05	W 104 4 11.85
Hold	1884.16	7.68	221.26	1883.01	16.94	-19.33	-16.96	2.00	602926.68	622386.28	N 32 39 25.98	W 104 4 11.93
	1900.00	7.68	221.26	1898.71	18.33	-20.92	-18.36	0.00	602925.09	622384.88	N 32 39 25.96	W 104 4 11.94
	2000.00	7.68	221.26	1997.81	27.14	-30.98	-27.18	0.00	602915.04	622376.07	N 32 39 25.86	W 104 4 12.05
	2100.00	7.68	221.26	2096.91	35.94	-41.03	-35.99	0.00	602904.99	622367.25	N 32 39 25.76	W 104 4 12.15
	2200.00	7.68	221.26	2196.01	44.75	-51.08	-44.81	0.00	602894.94	622358.43	N 32 39 25.66	W 104 4 12.26
	2300.00	7.68	221.26	2295.12	53.55	-61.13	-53.63	0.00	602884.89	622349.62	N 32 39 25.56	W 104 4 12.36
	2400.00	7.68	221.26	2394.22	62.36	-71.18	-62.44	0.00	602874.84	622340.80	N 32 39 25.47	W 104 4 12.46
	2500.00	7.68	221.26	2493.32	71.16	-81.23	-71.26	0.00	602864.79	622331.98	N 32 39 25.37	W 104 4 12.57

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	2600.00	7.68	221.26	2592.42	79.97	-91.28	-80.08	0.00	602854.74	622323.17	N 32 39 25.27	W 104 4 12.67
	2700.00	7.68	221.26	2691.53	88.77	-101.33	-88.90	0.00	602844.69	622314.35	N 32 39 25.17	W 104 4 12.77
	2800.00	7.68	221.26	2790.63	97.58	-111.38	-97.71	0.00	602834.64	622305.53	N 32 39 25.07	W 104 4 12.88
	2900.00	7.68	221.26	2889.73	106.38	-121.43	-106.53	0.00	602824.59	622296.72	N 32 39 24.97	W 104 4 12.98
	3000.00	7.68	221.26	2988.83	115.19	-131.48	-115.35	0.00	602814.54	622287.90	N 32 39 24.87	W 104 4 13.08
	3100.00	7.68	221.26	3087.93	123.99	-141.53	-124.17	0.00	602804.50	622279.09	N 32 39 24.77	W 104 4 13.19
	3200.00	7.68	221.26	3187.04	132.80	-151.58	-132.98	0.00	602794.45	622270.27	N 32 39 24.67	W 104 4 13.29
	3300.00	7.68	221.26	3286.14	141.60	-161.63	-141.80	0.00	602784.40	622261.45	N 32 39 24.57	W 104 4 13.39
	3400.00	7.68	221.26	3385.24	150.41	-171.68	-150.62	0.00	602774.35	622252.64	N 32 39 24.47	W 104 4 13.50
	3500.00	7.68	221.26	3484.34	159.21	-181.73	-159.43	0.00	602764.30	622243.82	N 32 39 24.37	W 104 4 13.60
	3600.00	7.68	221.26	3583.45	168.02	-191.78	-168.25	0.00	602754.25	622235.00	N 32 39 24.28	W 104 4 13.70
	3700.00	7.68	221.26	3682.55	176.82	-201.83	-177.07	0.00	602744.20	622226.19	N 32 39 24.18	W 104 4 13.81
	3800.00	7.68	221.26	3781.65	185.63	-211.88	-185.89	0.00	602734.15	622217.37	N 32 39 24.08	W 104 4 13.91
	3900.00	7.68	221.26	3880.75	194.43	-221.93	-194.70	0.00	602724.10	622208.55	N 32 39 23.98	W 104 4 14.01
	4000.00	7.68	221.26	3979.85	203.24	-231.98	-203.52	0.00	602714.05	622199.74	N 32 39 23.88	W 104 4 14.12
	4100.00	7.68	221.26	4078.96	212.04	-242.03	-212.34	0.00	602704.00	622190.92	N 32 39 23.78	W 104 4 14.22
	4200.00	7.68	221.26	4178.06	220.85	-252.08	-221.16	0.00	602693.95	622182.10	N 32 39 23.68	W 104 4 14.32
	4300.00	7.68	221.26	4277.16	229.65	-262.13	-229.97	0.00	602683.90	622173.29	N 32 39 23.58	W 104 4 14.43
	4400.00	7.68	221.26	4376.26	238.46	-272.18	-238.79	0.00	602673.86	622164.47	N 32 39 23.48	W 104 4 14.53
	4500.00	7.68	221.26	4475.37	247.26	-282.23	-247.61	0.00	602663.81	622155.65	N 32 39 23.38	W 104 4 14.63
	4600.00	7.68	221.26	4574.47	256.07	-292.28	-256.42	0.00	602653.76	622146.84	N 32 39 23.28	W 104 4 14.74
	4700.00	7.68	221.26	4673.57	264.87	-302.33	-265.24	0.00	602643.71	622138.02	N 32 39 23.18	W 104 4 14.84
	4800.00	7.68	221.26	4772.67	273.68	-312.38	-274.06	0.00	602633.66	622129.20	N 32 39 23.08	W 104 4 14.94
	4900.00	7.68	221.26	4871.77	282.48	-322.43	-282.88	0.00	602623.61	622120.39	N 32 39 22.99	W 104 4 15.05
	5000.00	7.68	221.26	4970.88	291.29	-332.48	-291.69	0.00	602613.56	622111.57	N 32 39 22.89	W 104 4 15.15
	5100.00	7.68	221.26	5069.98	300.09	-342.53	-300.51	0.00	602603.51	622102.75	N 32 39 22.79	W 104 4 15.25
	5200.00	7.68	221.26	5169.08	308.90	-352.58	-309.33	0.00	602593.46	622093.94	N 32 39 22.69	W 104 4 15.36
	5300.00	7.68	221.26	5268.18	317.70	-362.63	-318.15	0.00	602583.41	622085.12	N 32 39 22.59	W 104 4 15.46
	5400.00	7.68	221.26	5367.29	326.51	-372.68	-326.96	0.00	602573.36	622076.30	N 32 39 22.49	W 104 4 15.56
	5500.00	7.68	221.26	5466.39	335.31	-382.73	-335.78	0.00	602563.31	622067.49	N 32 39 22.39	W 104 4 15.67
	5600.00	7.68	221.26	5565.49	344.12	-392.78	-344.60	0.00	602553.26	622058.67	N 32 39 22.29	W 104 4 15.77
	5700.00	7.68	221.26	5664.59	352.92	-402.83	-353.41	0.00	602543.21	622049.86	N 32 39 22.19	W 104 4 15.87
	5800.00	7.68	221.26	5763.69	361.73	-412.88	-362.23	0.00	602533.17	622041.04	N 32 39 22.09	W 104 4 15.98
	5900.00	7.68	221.26	5862.80	370.53	-422.93	-371.05	0.00	602523.12	622032.22	N 32 39 21.99	W 104 4 16.08
	6000.00	7.68	221.26	5961.90	379.34	-432.98	-379.87	0.00	602513.07	622023.41	N 32 39 21.89	W 104 4 16.19
	6100.00	7.68	221.26	6061.00	388.14	-443.03	-388.68	0.00	602503.02	622014.59	N 32 39 21.79	W 104 4 16.29
	6200.00	7.68	221.26	6160.10	396.95	-453.08	-397.50	0.00	602492.97	622005.77	N 32 39 21.70	W 104 4 16.39
	6300.00	7.68	221.26	6259.21	405.75	-463.13	-406.32	0.00	602482.92	621996.96	N 32 39 21.60	W 104 4 16.50
	6400.00	7.68	221.26	6358.31	414.56	-473.18	-415.14	0.00	602472.87	621988.14	N 32 39 21.50	W 104 4 16.60
	6500.00	7.68	221.26	6457.41	423.36	-483.23	-423.95	0.00	602462.82	621979.32	N 32 39 21.40	W 104 4 16.70
	6600.00	7.68	221.26	6556.51	432.17	-493.28	-432.77	0.00	602452.77	621970.51	N 32 39 21.30	W 104 4 16.81
	6700.00	7.68	221.26	6655.61	440.97	-503.33	-441.59	0.00	602442.72	621961.69	N 32 39 21.20	W 104 4 16.91
	6800.00	7.68	221.26	6754.72	449.78	-513.38	-450.41	0.00	602432.67	621952.87	N 32 39 21.10	W 104 4 17.01
	6900.00	7.68	221.26	6853.82	458.58	-523.43	-459.22	0.00	602422.62	621944.06	N 32 39 21.00	W 104 4 17.12
	7000.00	7.68	221.26	6952.92	467.39	-533.48	-468.04	0.00	602412.57	621935.24	N 32 39 20.90	W 104 4 17.22
Drop 2° DLS	7031.87	7.68	221.26	6984.51	470.19	-536.68	-470.85	0.00	602409.37	621932.43	N 32 39 20.87	W 104 4 17.25
	7100.00	6.32	221.26	7052.13	475.66	-542.93	-476.33	2.00	602403.13	621926.95	N 32 39 20.81	W 104 4 17.32
	7200.00	4.32	221.26	7151.69	481.77	-549.90	-482.44	2.00	602396.16	621920.84	N 32 39 20.74	W 104 4 17.39
	7300.00	2.32	221.26	7251.52	485.58	-554.25	-486.26	2.00	602391.81	621917.02	N 32 39 20.70	W 104 4 17.43
	7400.00	0.32	221.26	7351.48	487.10	-555.98	-487.78	2.00	602390.07	621915.50	N 32 39 20.68	W 104 4 17.45
Hold	7416.04	0.00	221.26	7367.52	487.13	-556.02	-487.81	2.00	602390.04	621915.47	N 32 39 20.68	W 104 4 17.45
	7500.00	0.00	221.26	7451.48	487.13	-556.02	-487.81	0.00	602390.04	621915.47	N 32 39 20.68	W 104 4 17.45
	7600.00	0.00	221.26	7551.48	487.13	-556.02	-487.81	0.00	602390.04	621915.47	N 32 39 20.68	W 104 4 17.45
	7700.00	0.00	221.26	7651.48	487.13	-556.02	-487.81	0.00	602390.04	621915.47	N 32 39 20.68	W 104 4 17.45
	7800.00	0.00	221.26	7751.48	487.13	-556.02	-487.81	0.00	602390.04	621915.47	N 32 39 20.68	W 104 4 17.45
	7900.00	0.00	221.26	7851.48	487.13	-556.02	-487.81	0.00	602390.04	621915.47	N 32 39 20.68	W 104 4 17.45
	8000.00	0.00	221.26	7951.48	487.13	-556.02	-487.81	0.00	602390.04	621915.47	N 32 39 20.68	W 104 4 17.45
	8100.00	0.00	221.26	8051.48	487.13	-556.02	-487.81	0.00	602390.04	621915.47	N 32 39 20.68	W 104 4 17.45

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	8200.00	0.00	221.26	8151.48	487.13	-556.02	-487.81	0.00	602390.04	621915.47	N 32 39 20.68	W 104 4 17.45
	8300.00	0.00	221.26	8251.48	487.13	-556.02	-487.81	0.00	602390.04	621915.47	N 32 39 20.68	W 104 4 17.45
	8400.00	0.00	221.26	8351.48	487.13	-556.02	-487.81	0.00	602390.04	621915.47	N 32 39 20.68	W 104 4 17.45
KOP, Build 10° DLS	8416.04	0.00	221.26	8367.52	487.13	-556.02	-487.81	0.00	602390.04	621915.47	N 32 39 20.68	W 104 4 17.45
	8500.00	8.40	270.07	8451.18	493.27	-556.01	-493.95	10.00	602390.05	621909.33	N 32 39 20.68	W 104 4 17.52
	8600.00	18.40	270.07	8548.34	516.41	-555.98	-517.09	10.00	602390.08	621886.19	N 32 39 20.68	W 104 4 17.79
	8700.00	28.40	270.07	8640.00	556.07	-555.93	-556.75	10.00	602390.12	621846.54	N 32 39 20.68	W 104 4 18.26
	8800.00	38.40	270.07	8723.38	611.04	-555.87	-611.72	10.00	602390.19	621791.57	N 32 39 20.68	W 104 4 18.90
	8900.00	48.40	270.07	8795.95	679.66	-555.78	-680.34	10.00	602390.28	621722.96	N 32 39 20.69	W 104 4 19.70
	9000.00	58.40	270.07	8855.50	759.84	-555.68	-760.52	10.00	602390.37	621642.79	N 32 39 20.69	W 104 4 20.64
	9100.00	68.40	270.07	8900.23	849.14	-555.58	-849.82	10.00	602390.48	621553.50	N 32 39 20.69	W 104 4 21.69
Build 5° DLS	9166.04	75.00	270.07	8920.95	911.80	-555.50	-912.48	10.00	602390.56	621490.84	N 32 39 20.69	W 104 4 22.42
	9200.00	76.70	270.07	8929.26	944.73	-555.46	-945.41	5.00	602390.60	621457.91	N 32 39 20.70	W 104 4 22.80
	9300.00	81.70	270.07	8947.99	1042.93	-555.34	-1043.61	5.00	602390.72	621359.72	N 32 39 20.70	W 104 4 23.95
	9400.00	86.70	270.07	8958.10	1142.38	-555.21	-1143.06	5.00	602390.84	621260.28	N 32 39 20.70	W 104 4 25.12
Landing Point	9466.04	90.00	270.07	8960.00	1208.38	-555.13	-1209.06	5.00	602390.93	621194.28	N 32 39 20.71	W 104 4 25.89
	9500.00	90.00	270.07	8960.00	1242.35	-555.09	-1243.03	0.00	602390.97	621160.32	N 32 39 20.71	W 104 4 26.28
	9600.00	90.00	270.07	8960.00	1342.35	-554.96	-1343.03	0.00	602391.09	621060.33	N 32 39 20.71	W 104 4 27.45
	9700.00	90.00	270.07	8960.00	1442.35	-554.84	-1443.03	0.00	602391.22	620960.34	N 32 39 20.71	W 104 4 28.62
	9800.00	90.00	270.07	8960.00	1542.35	-554.71	-1543.03	0.00	602391.34	620860.35	N 32 39 20.72	W 104 4 29.79
	9900.00	90.00	270.07	8960.00	1642.35	-554.59	-1643.03	0.00	602391.47	620760.35	N 32 39 20.72	W 104 4 30.96
	10000.00	90.00	270.07	8960.00	1742.35	-554.47	-1743.03	0.00	602391.59	620660.36	N 32 39 20.72	W 104 4 32.13
	10100.00	90.00	270.07	8960.00	1842.35	-554.34	-1843.03	0.00	602391.72	620560.37	N 32 39 20.73	W 104 4 33.30
	10200.00	90.00	270.07	8960.00	1942.35	-554.22	-1943.03	0.00	602391.84	620460.38	N 32 39 20.73	W 104 4 34.47
	10300.00	90.00	270.07	8960.00	2042.35	-554.09	-2043.03	0.00	602391.97	620360.39	N 32 39 20.74	W 104 4 35.64
	10400.00	90.00	270.07	8960.00	2142.35	-553.97	-2143.02	0.00	602392.09	620260.40	N 32 39 20.74	W 104 4 36.81
	10500.00	90.00	270.07	8960.00	2242.35	-553.84	-2243.02	0.00	602392.22	620160.41	N 32 39 20.74	W 104 4 37.98
	10600.00	90.00	270.07	8960.00	2342.35	-553.72	-2343.02	0.00	602392.34	620060.42	N 32 39 20.75	W 104 4 39.15
	10700.00	90.00	270.07	8960.00	2442.35	-553.59	-2443.02	0.00	602392.47	619960.42	N 32 39 20.75	W 104 4 40.32
	10800.00	90.00	270.07	8960.00	2542.35	-553.47	-2543.02	0.00	602392.59	619860.43	N 32 39 20.75	W 104 4 41.49
	10900.00	90.00	270.07	8960.00	2642.35	-553.34	-2643.02	0.00	602392.72	619760.44	N 32 39 20.76	W 104 4 42.66
	11000.00	90.00	270.07	8960.00	2742.35	-553.22	-2743.02	0.00	602392.84	619660.45	N 32 39 20.76	W 104 4 43.83
	11100.00	90.00	270.07	8960.00	2842.35	-553.09	-2843.02	0.00	602392.97	619560.46	N 32 39 20.76	W 104 4 45.00
	11200.00	90.00	270.07	8960.00	2942.35	-552.97	-2943.02	0.00	602393.09	619460.47	N 32 39 20.77	W 104 4 46.17
	11300.00	90.00	270.07	8960.00	3042.35	-552.84	-3043.02	0.00	602393.22	619360.48	N 32 39 20.77	W 104 4 47.34
	11400.00	90.00	270.07	8960.00	3142.35	-552.72	-3143.02	0.00	602393.34	619260.48	N 32 39 20.78	W 104 4 48.51
	11500.00	90.00	270.07	8960.00	3242.35	-552.59	-3243.02	0.00	602393.47	619160.49	N 32 39 20.78	W 104 4 49.68
	11600.00	90.00	270.07	8960.00	3342.35	-552.47	-3343.02	0.00	602393.59	619060.50	N 32 39 20.78	W 104 4 50.85
	11700.00	90.00	270.07	8960.00	3442.35	-552.34	-3443.02	0.00	602393.72	618960.51	N 32 39 20.79	W 104 4 52.02
	11800.00	90.00	270.07	8960.00	3542.35	-552.22	-3543.02	0.00	602393.84	618860.52	N 32 39 20.79	W 104 4 53.19
	11900.00	90.00	270.07	8960.00	3642.35	-552.09	-3643.02	0.00	602393.97	618760.53	N 32 39 20.79	W 104 4 54.36
	12000.00	90.00	270.07	8960.00	3742.35	-551.97	-3743.02	0.00	602394.09	618660.54	N 32 39 20.80	W 104 4 55.53
	12100.00	90.00	270.07	8960.00	3842.35	-551.84	-3843.02	0.00	602394.22	618560.54	N 32 39 20.80	W 104 4 56.69
	12200.00	90.00	270.07	8960.00	3942.35	-551.72	-3943.02	0.00	602394.34	618460.55	N 32 39 20.80	W 104 4 57.86
	12300.00	90.00	270.07	8960.00	4042.35	-551.59	-4043.02	0.00	602394.47	618360.56	N 32 39 20.81	W 104 4 59.03
	12400.00	90.00	270.07	8960.00	4142.35	-551.47	-4143.02	0.00	602394.59	618260.57	N 32 39 20.81	W 104 5 0.20
	12500.00	90.00	270.07	8960.00	4242.35	-551.34	-4243.02	0.00	602394.72	618160.58	N 32 39 20.81	W 104 5 1.37
	12600.00	90.00	270.07	8960.00	4342.35	-551.22	-4343.02	0.00	602394.84	618060.59	N 32 39 20.82	W 104 5 2.54
	12700.00	90.00	270.07	8960.00	4442.35	-551.09	-4443.02	0.00	602394.97	617960.60	N 32 39 20.82	W 104 5 3.71
	12800.00	90.00	270.07	8960.00	4542.35	-550.97	-4543.02	0.00	602395.09	617860.60	N 32 39 20.83	W 104 5 4.88
	12900.00	90.00	270.07	8960.00	4642.35	-550.84	-4643.02	0.00	602395.22	617760.61	N 32 39 20.83	W 104 5 6.05
	13000.00	90.00	270.07	8960.00	4742.35	-550.72	-4743.02	0.00	602395.34	617660.62	N 32 39 20.83	W 104 5 7.22
	13100.00	90.00	270.07	8960.00	4842.35	-550.59	-4843.02	0.00	602395.46	617560.63	N 32 39 20.84	W 104 5 8.39
	13200.00	90.00	270.07	8960.00	4942.35	-550.47	-4943.02	0.00	602395.59	617460.64	N 32 39 20.84	W 104 5 9.56
	13300.00	90.00	270.07	8960.00	5042.35	-550.34	-5043.02	0.00	602395.71	617360.65	N 32 39 20.84	W 104 5 10.73
	13400.00	90.00	270.07	8960.00	5142.35	-550.22	-5143.02	0.00	602395.84	617260.66	N 32 39 20.85	W 104 5 11.90
	13500.00	90.00	270.07	8960.00	5242.35	-550.09	-5243.02	0.00	602395.96	617160.67	N 32 39 20.85	W 104 5 13.07

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	13600.00	90.00	270.07	8960.00	5342.35	-549.97	-5343.02	0.00	602396.09	617060.67	N 32 39 20.85	W 104 5 14.24
	13700.00	90.00	270.07	8960.00	5442.35	-549.84	-5443.02	0.00	602396.21	616960.68	N 32 39 20.86	W 104 5 15.41
	13800.00	90.00	270.07	8960.00	5542.35	-549.72	-5543.02	0.00	602396.34	616860.69	N 32 39 20.86	W 104 5 16.58
Cimarex Parkway 16 State Com #4H - PBHL [802' FSL, 100' FWL]	13832.56	90.00	270.07	8960.00	5574.91	-549.68	-5575.59	0.00	602396.38	616828.13	N 32 39 20.86	W 104 5 16.96

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 3 *** 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	22.000	1/100.000	30.000	30.000		A001Mb_MWD-Depth Only	Parkway 16 State Com #4H / Cimarex Parkway 16 State Com
	1	22.000	13832.564	1/100.000	30.000	30.000		A001Mb_MWD	Parkway 16 State Com #4H / Cimarex Parkway 16 State Com

Schlumberger

Cimarex Energy

Rev 2

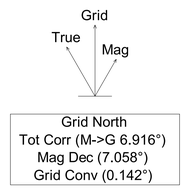
CIMAREX

Borehole:	Well:	Field:	Structure:
Parkway 16 State Com #4H	Parkway 16 State Com #4H	NM Eddy County (NAD 83)	Cimarex Parkway 16-17 State Com Pad

Gravity & Magnetic Parameters						Surface Location		NAD83 New Mexico State Plane, Eastern Zone, US Feet				Miscellaneous			
Model:	HDGM 2021	Dip:	60.341°	Date:	06-Dec-2021	Lat:	N 32 39 26.17	Northing:	602946.01ftUS	Grid Conv:	0.1421°	Slot:	New Slot	TVD Ref:	RKB(3362.3ft above MSL)
MagDec:	7.058°	FS:	47758.896nT	Gravity FS:	998.513mgn (9.80665 Based)	Lon:	W 104 4 11.73	Easting:	622403.24ftUS	Scale Fact:	0.99991662	Plan:	Cimarex Parkway 16 State Com #4H Rev2 IC 06Dec21		

Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHL [1360' FSL, 390' FWL]	0.00	0.00	221.26	0.00	0.00	0.00	0.00	
Nudge 2° DLS	1500.00	0.00	221.26	1500.00	0.00	0.00	0.00	0.00
Hold	1884.16	7.68	221.26	1883.01	16.94	-19.33	-16.96	2.00
Drop 2° DLS	7031.87	7.68	221.26	6984.51	470.19	-536.68	-470.85	0.00
Hold	7416.04	0.00	221.26	7367.52	487.13	-556.02	-487.81	2.00
KOP, Build 10° DLS	8416.04	0.00	221.26	8367.52	487.13	-556.02	-487.81	0.00
Build 5° DLS	9166.04	75.00	270.07	8920.95	911.80	-555.50	-912.48	10.00
Landing Point	9466.04	90.00	270.07	8960.00	1208.38	-555.13	-1209.06	5.00
Cimarex Parkway 16 State Com #4H - PBHL [802' FSL, 100' FWL]	13832.56	90.00	270.07	8960.00	5574.91	-549.68	-5575.59	0.00

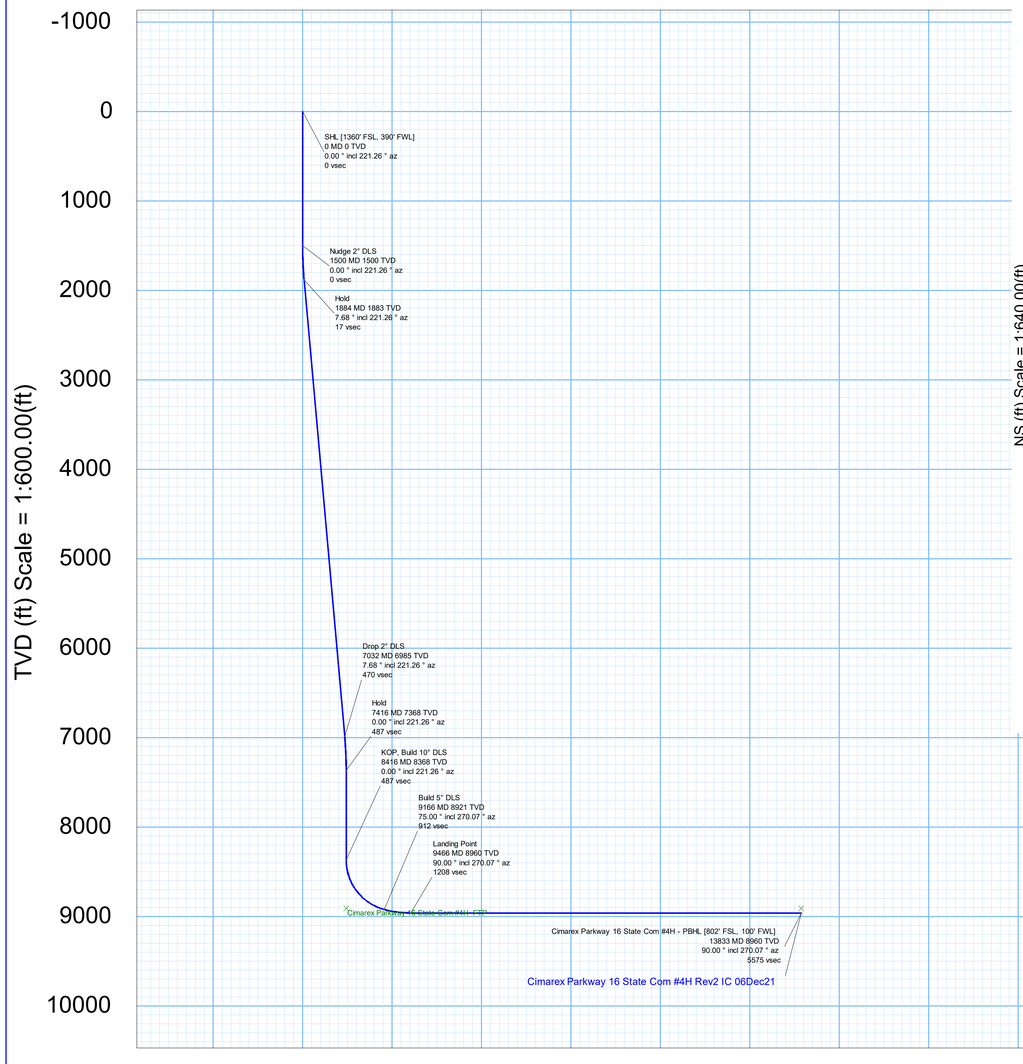


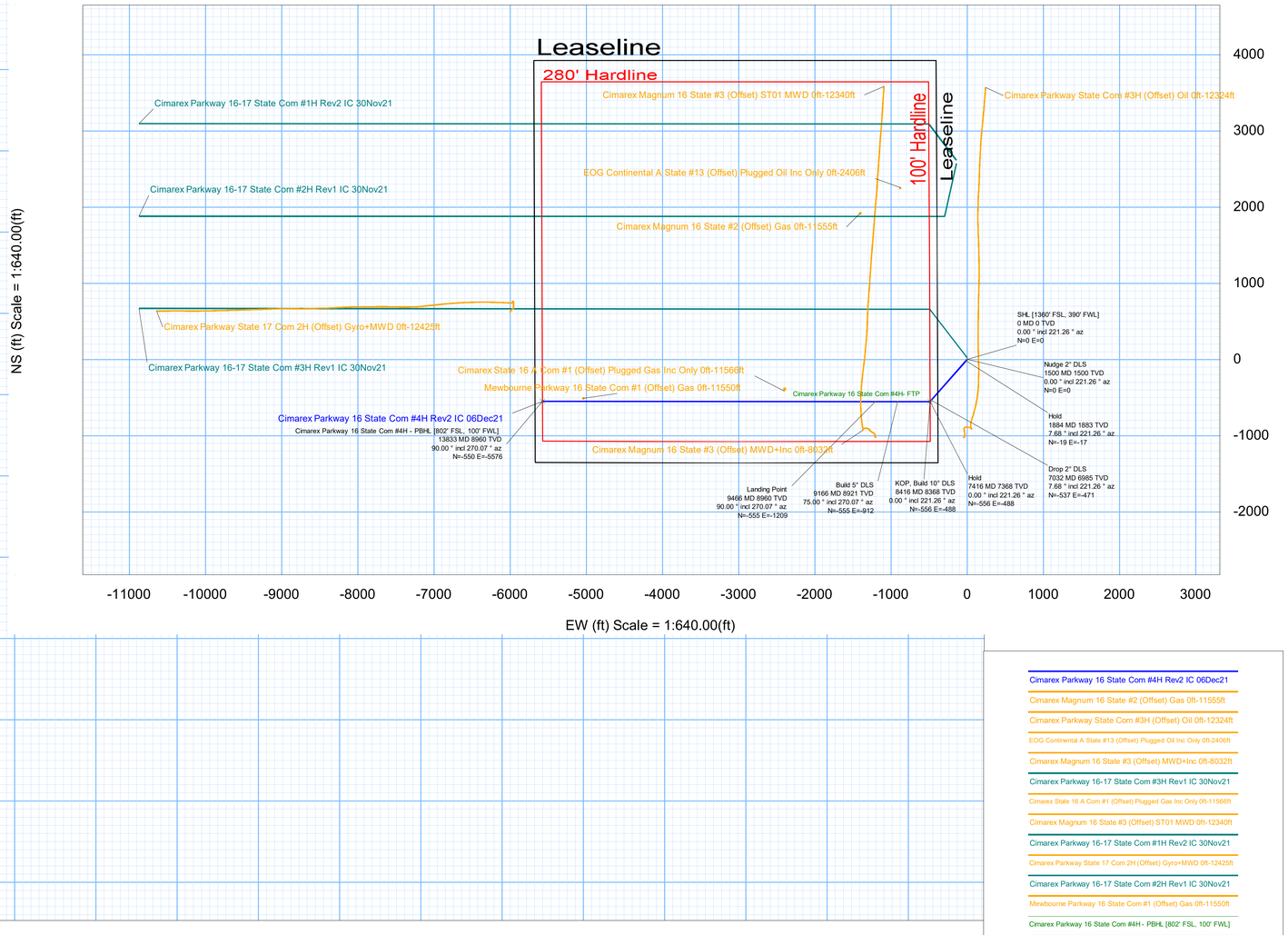
D
E
C **CONTROLLED**

Plan ref	Cimarex Parkway 16 State Com #4H Rev2 IC 06Dec21
Drawing ref	
Copy number	of 3
Date	06-Dec-2021

1	Client	
2	Client	
3	Office	
4	Office	

Copy number for





Cimarex Parkway 16 State Com #4H Rev2 IC 06Dec21
Cimarex Magnum 16 State #2 (Offset) Gas 0ft-11555ft
Cimarex Parkway State Com #3H (Offset) Oil 0ft-12324ft
EOG Continental A State #13 (Offset) Plugged Oil Inc Only 0ft-2406ft
Cimarex Magnum 16 State #3 (Offset) MWD+Inc 0ft-8032ft
Cimarex Parkway 16-17 State Com #3H Rev1 IC 30Nov21
Cimarex State 16 A Com #1 (Offset) Plugged Gas Inc Only 0ft-11566ft
Cimarex Magnum 16 State #3 (Offset) ST01 MWD 0ft-12340ft
Cimarex Parkway 16-17 State Com #1H Rev2 IC 30Nov21
Cimarex Parkway State 17 Com 2H (Offset) Gyro+MWD 0ft-12425ft
Cimarex Parkway 16-17 State Com #2H Rev1 IC 30Nov21
Mewbourne Parkway 16 State Com #1 (Offset) Gas 0ft-11550ft
Cimarex Parkway 16 State Com #4H - PBHL [802' FSL, 100' FWL]
Cimarex Parkway 16 State Com #4H - Leaselines
Cimarex Parkway 16 State Com #4H- FTP
Cimarex Parkway 16 State Com #4H - 280' x 100' Hardline

1. Geological Formations

TVD of target 8,960
MD at TD 13,833

Pilot Hole TD N/A
Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	210	N/A	
Top Salt	300	N/A	
Base Salt	1030	N/A	
Capitan	2640	N/A	
Bell Canyon	3260	N/A	
Bone Spring	4437	N/A	
1st Bone Spring SS	6947	Hydrocarbons	
2nd Bone Spring SS	7668	Hydrocarbons	
3rd Bone Spring Carb	7971	Hydrocarbons	
3rd Bone Spring SS	8631	Hydrocarbons	
Wolfcamp	8996	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	260	260	13-3/8"	48.00	H-40/J-55 Hybrid	ST&C	6.36	14.88	25.80
12 1/4	0	3110	3110	9-5/8"	36.00	J-55	LT&C	1.25	2.18	4.05
8 3/4	0	8416	8416	7"	29.00	L-80	LT&C	1.74	2.03	3.85
8 3/4	8416	13833	8960	5-1/2"	17.00	L-80	BT&C	1.47	1.81	42.93
						BLM Minimum Safety Factor		1.125	1	1.6 Dry 1.8 Wet

TVD was used on all calculations.
All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

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

3. Cementing Program

Casing	# Sks	Wt. lb/gal	Yld ft3/sack	H2O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	168	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate	610	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
	182	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Production	358	10.50	3.45	22.18	N/A	Lead: NeoCem
	1790	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	25
Intermediate	0	47
Production	2900	25

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

4. Pressure Control Equipment

	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.

BOP installed and tested before drilling which hole?	Size	Min Required WP	Type		Tested To
12 1/4	13 5/8	2M	Annular	X	50% of working pressure
			Blind Ram		2M
			Pipe Ram		
			Double Ram	X	
			Other		
8 3/4	13 5/8	3M	Annular	X	50% of working pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram	X	
			Other		

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 260'	FW Spud Mud	8.10 - 8.60	30-32	N/C
260' to 3110'	Brine Water	9.50 - 10.00	30-32	N/C
3110' to 13833'	Cut Brine or OBM	8.70 - 9.20	27-70	N/C

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

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring

6. Logging and Testing Procedures

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

Additional Logs Planned	Interval

7. Drilling Conditions

Condition	
BH Pressure at deepest TVD	4286 psi
Abnormal Temperature	No

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

8. Other Facets of Operation

9. Wellhead

A multi-bowl wellhead system will be utilized.

After running the 13-3/8" surface casing, a 13 5/8" BOP/BOPE system with a minimum working pressure of 3000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 3000 psi test. Annular will be tested to 50% of working pressure. The pressure test will be repeated at least every 30 days, as per Onshore Order No. 2.

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

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

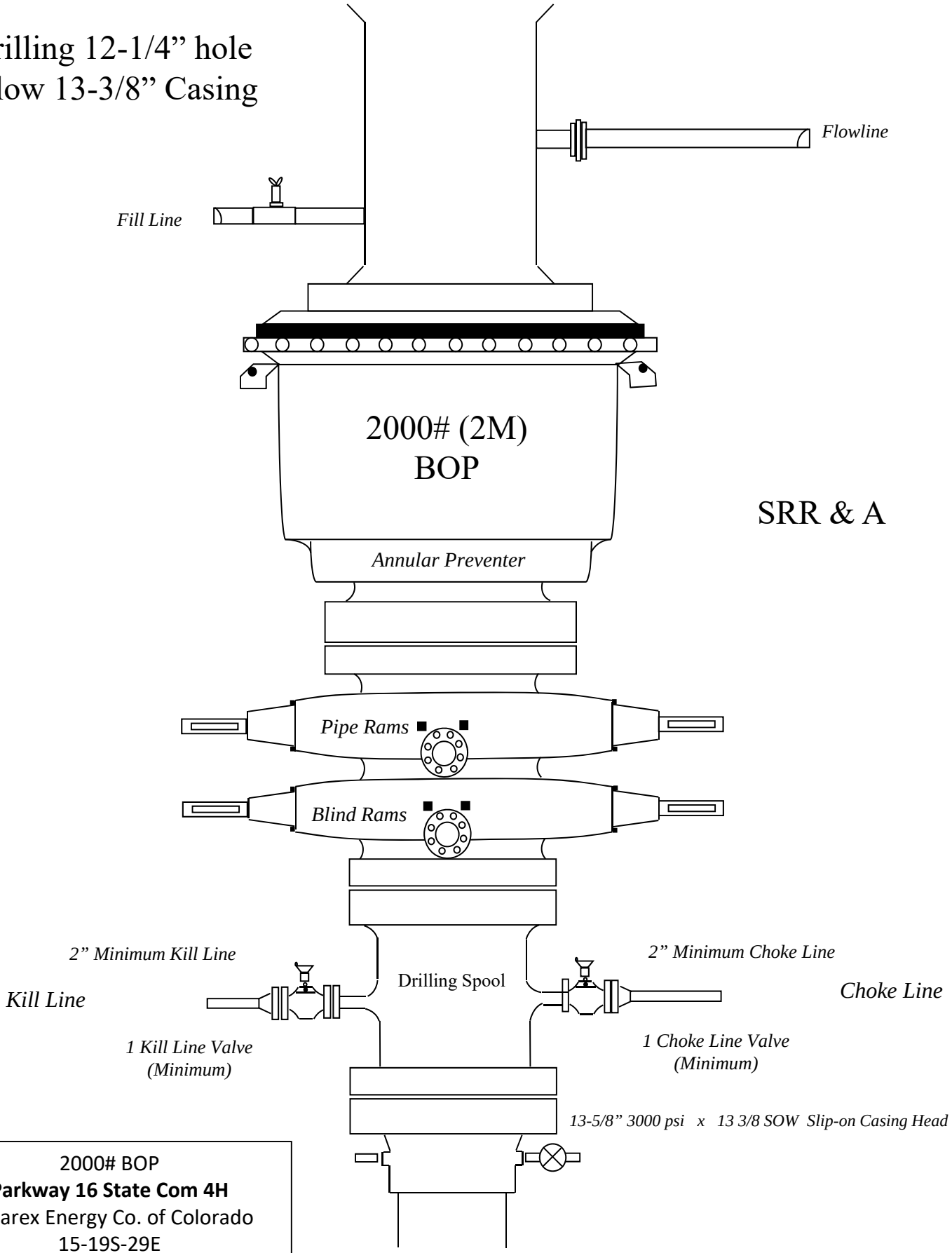
All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type.

A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 3000 psi.

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

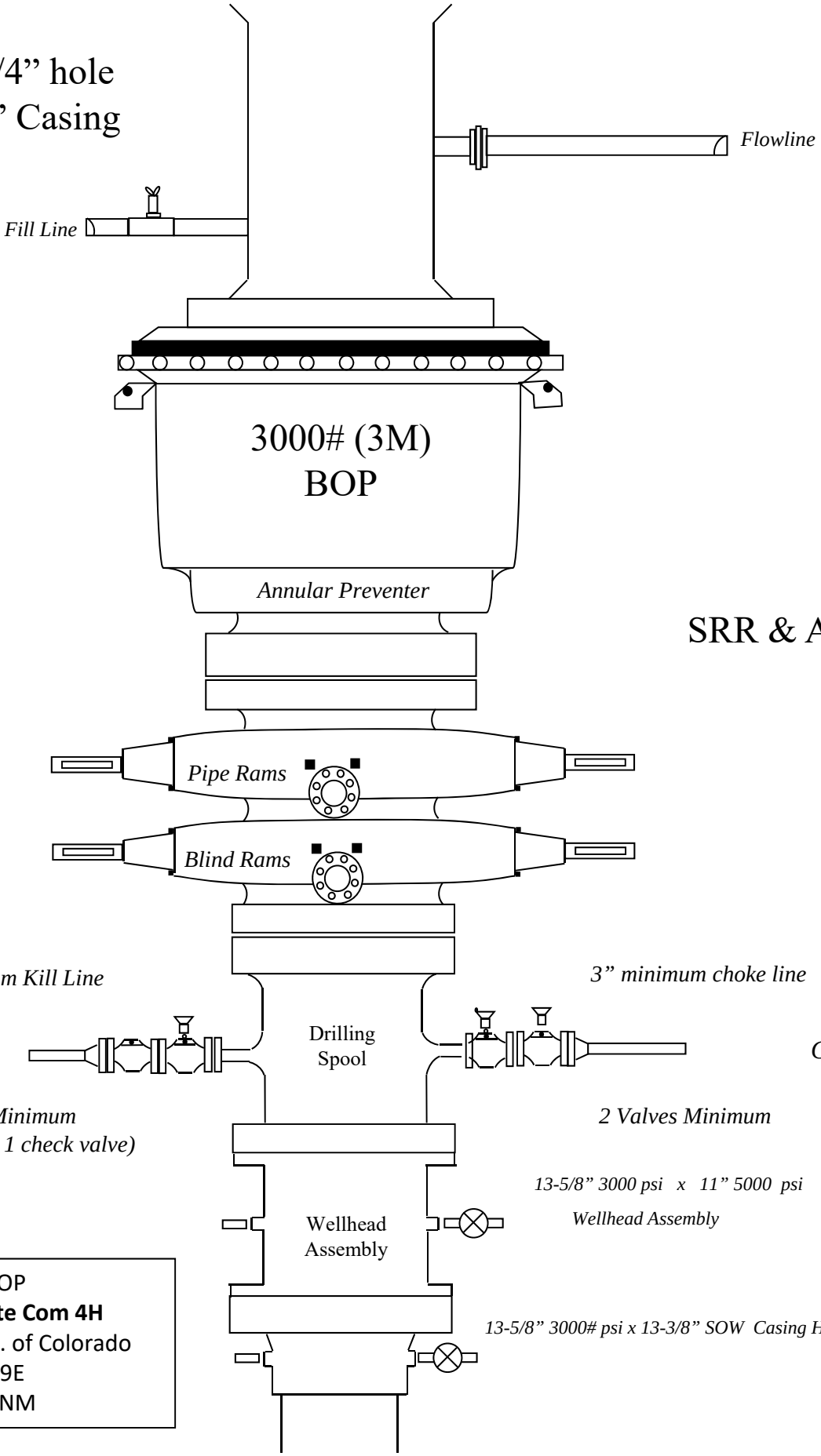
If well conditions dictate conventional slips will be set and BOPE will be tested to appropriate pressures based on permitted pressure requirements.

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



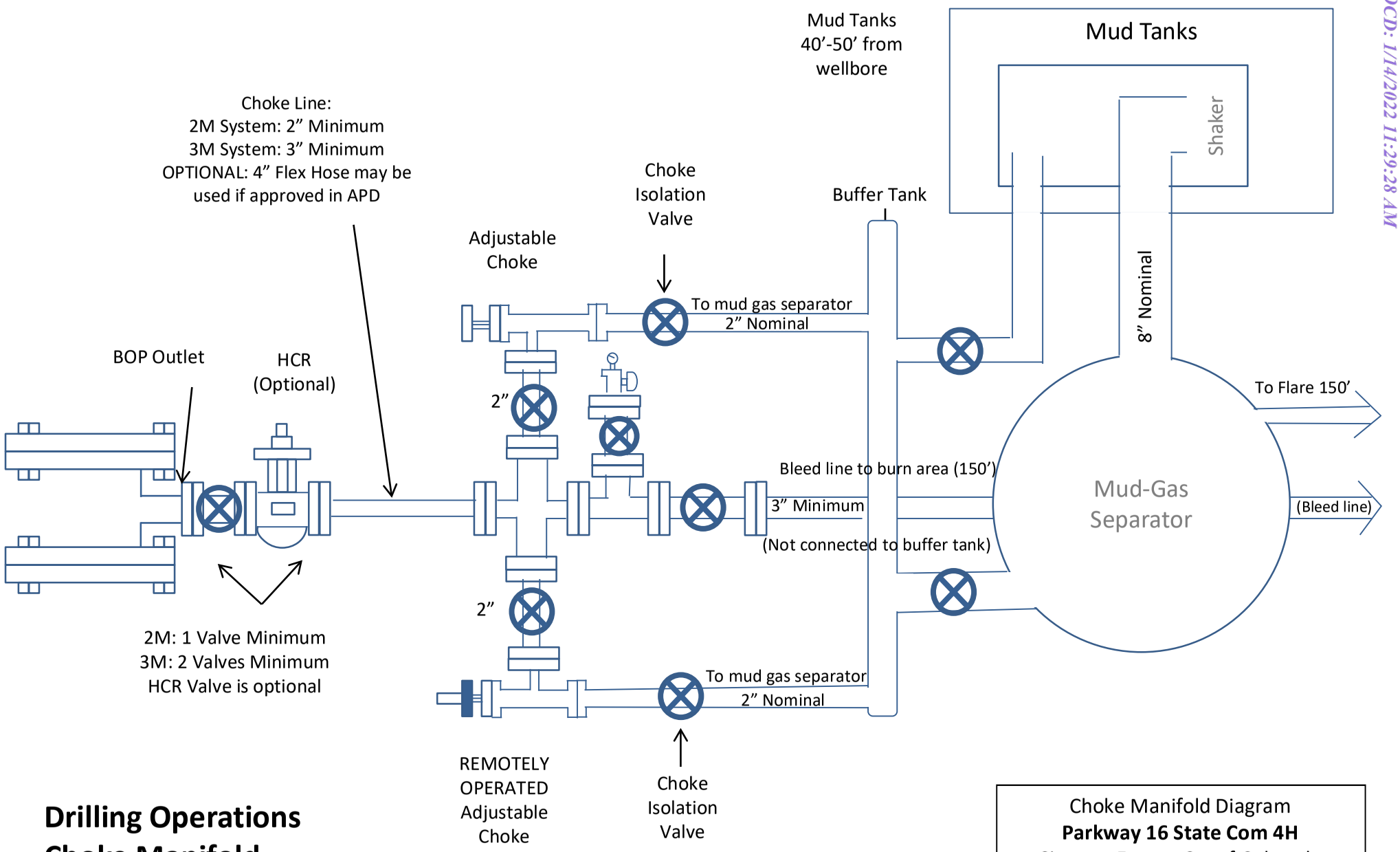
2000# BOP
Parkway 16 State Com 4H
Cimarex Energy Co. of Colorado
15-19S-29E
Eddy Co., NM

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



SRR & A

3000# BOP
Parkway 16 State Com 4H
Cimarex Energy Co. of Colorado
15-19S-29E
Eddy Co., NM



Drilling Operations
Choke Manifold
2M/3M Service

Choke Manifold Diagram
Parkway 16 State Com 4H
Cimarex Energy Co. of Colorado
15-19S-29E
Eddy Co., NM

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: Cimarex Energy Co. of Colorado **OGRID:** 162683 **Date:** 01 / 07 / 2022

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Parkway 16-17 State Com 3H		L-15-19S-29E	1380 FSL/390 FWL	1076	1800	2059
Parkway 16 State Com 4H		L-15-19S-29E	1360 FSL/390 FWL	569	1200	1390

IV. Central Delivery Point Name: Parkway 15-14 North State Com CDP Sales [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Parkway 16-17 State Com 3H		03/01/2022	07/01/2022	01/01/2023	04/01/2023	04/01/2023
Parkway 16 State Com 4H		03/01/2022	07/01/2022	01/01/2023	04/01/2023	04/01/2023

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☐ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- **(a)** power generation on lease;
- **(b)** power generation for grid;
- **(c)** compression on lease;
- **(d)** liquids removal on lease;
- **(e)** reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- **(i)** other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:	Fatima Vasquez
Printed Name:	Fatima Vasquez
Title:	Regulatory Analyst
E-mail Address:	fatima.vasquez@coterra.com
Date:	01/07/2022
Phone:	432-620-1933

OIL CONSERVATION DIVISION **(Only applicable when submitted as a standalone form)**
Approved By:
Title:
Approval Date:
Conditions of Approval:

From State of New Mexico, Natural Gas Management Plan

VI. Separation Equipment: Attach a complete description of how Operator will size separation equipment to optimize gas capture.

XEC Standard Response

Standard facility gas process flow begins at the inlet separator. These vessels are designed based off of forecasted rates and residence times in accordance with, and often greater than, API 12J. The separated gas is then routed to an additional separation vessel (ie sales scrubber) in order to extract liquids that may have carried over or developed due to the decrease in pressure. The sales scrubber is sized based on API 521. From the sales scrubber, the gas leaves the facility and enters the gas midstream gathering network.

Cimarex
VII. Operational Practices

Cimarex values the sustainable development of New Mexico's natural resources. Venting and flaring of natural gas is a source of waste in the industry, and Cimarex will ensure that its values are aligned with those of NMOCD. As such, Cimarex plans to take pointed steps to ensure compliance with Subsection A through F of 19.15.27.8 NMAC.

Specifically, below are the steps Cimarex will plan to follow under routine well commissioning and operations.

1. Capture or combust natural gas during drilling operations where technically feasible, using the best industry practices and control technologies.
    a. All flares during these operations will be a minimum of 100ft away from the nearest surface-hole location.
2. All gas present during post-completion drill-out and flow back will be routed through separation equipment, and, if technically feasible, flare unsellable vapors rather than vent. Lastly, formal sales separator commissioning to process well-stream fluids and send gas to a gas flow line/collection system or use the gas for on-site fuel or beneficial usage, gas as soon as is safe and technically feasible.
3. Cimarex will ensure the flare or combustion equipment is properly sized to handle expected flow rates, ensure this equipment is equipped with an automatic or continuous ignition source, and ensure this equipment is designed for proper combustion efficiency.
4. If Cimarex must flare because gas is not meeting pipeline specifications, Cimarex will limit flaring to <60 days, analyze gas composition at least twice per week, and route gas into a gathering pipeline as soon as pipeline specifications are met.
5. Under routine production operations, Cimarex will not flare/vent unless:
    a. Venting or flaring occurs due to an emergency or equipment malfunction.
    b. Venting or flaring occurs as a result of unloading practices, and an operator is onsite (or within 30 minutes of drive time and posts contact information at the wellsite) until the end of unloading practice.
    c. The venting or flaring occurs during automated plungerlift operations, in which case the Cimarex operator will work to optimize the plungerlift system to minimize venting/flaring.
    d. The venting or flaring occurs during downhole well maintenance, in which case Cimarex will work to minimize venting or flaring operations to the extent that it does not pose a risk to safe operations.
    e. The well is an exploratory well, the division has approved the well as an exploratory well, venting or flaring is limited to 12 months, as approved by the division, and venting/flaring does not cause Cimarex to breach its State-wide 98% gas capture requirement.
    f. Venting or flaring occurs because the stock tanks or other low-pressure vessels are being gauged, sampled, or liquids are being loaded out.
    g. The venting or flaring occurs because pressurized vessels are being maintained and are being blown-down or depressurized.
    h. Venting or flaring occurs as a result of normal dehydration unit operations.

i. Venting or flaring occurs as a result of bradenhead testing.
j. Venting or flaring occurs as a result of normal compressor operations, including general compressor operations, compressor engines and turbines.
k. Venting or flaring occurs as a result of a packer leakage test.
l. Venting or flaring occurs as a result of a production test lasting less than 24 hours unless otherwise approved by the division.
m. Venting or flaring occurs as a result of new equipment commissioning and is necessary to purge impurities from the pipeline or production equipment.

6. Cimarex will maintain its equipment in accordance with its Operations and Maintenance Program, to ensure venting or flaring events are minimized and that equipment is properly functioning.
7. Cimarex will install automatic tank gauging equipment on all production facilities constructed after May 25, 2021, to ensure minimal emissions from tank gauging practices.
8. By November 25, 2022, all Cimarex facilities equipped with flares or combustors will be equipped with continuous pilots or automatic igniters, and technology to ensure proper function, i.e. thermocouple, fire-eye, etc…
9. Cimarex will perform AVO (audio, visual, olfactory) facility inspections in accordance with NMOCD requirements. Specifically, Cimarex will:
    a. Perform weekly inspections during the first year of production, and so long as production is greater than 60 MCFD.
    b. If production is less than 60 MCFD, Cimarex will perform weekly AVO inspections when an operator is present on location, and inspections at least once per calendar month with at least 20 calendar days between inspections.
10. Cimarex will measure or estimate the volume of vented, flared or beneficially used natural gas, regardless of the reason or authorization for such venting or flaring.
11. On all facilities constructed after May 25, 2021, Cimarex will install metering where feasible and in accordance with available technology and best engineering practices, in an effort to measure how much gas could have been vented or flared.
    a. In areas where metering is not technically feasible, such as low-pressure/low volume venting or flaring applications, engineering estimates will be used such that the methodology could be independently verified.
12. Cimarex will fulfill the division's requirements for reporting and filing of venting or flaring that exceeds 50 MCF in volume or last eight hours or more cumulatively within any 24-hour period.

VIII. Best Management Practices to minimize venting during active and planned maintenance

Cimarex strives to ensure minimal venting occurs during active and planned maintenance activities. Below is a description of common maintenance practices, and the steps Cimarex takes to limit venting exposure.

- **Workovers:**
  - Always strive to kill well when performing downhole maintenance.
  - If vapors or trapped pressure is present and must be relieved then:
    - Initial blowdown to production facility:
      - Route vapors to LP flare if possible/applicable
    - Blowdown to portable gas buster tank:
      - Vent to existing or portable flare if applicable.

- **Stock tank servicing:**
  - Minimize time spent with thief hatches open.
  - When cleaning or servicing via manway, suck tank bottoms to ensure minimal volatiles exposed to atmosphere.
    - Connect vacuum truck to low pressure flare while cleaning bottoms to limit venting.
  - Isolate the vent lines and overflows on the tank being serviced from other tanks.

- **Pressure vessel/compressor servicing and associated blowdowns:**
  - Route to flare where possible.
  - Blow vessel down to minimum available pressure via pipeline, prior to venting vessel.
  - Preemptively changing anodes to reduce failures and extended corrosion related servicing.
  - When cleaning or servicing via manway, suck vessel bottoms to ensure minimal volatiles exposed to atmosphere.

- **Flare/combustor maintenance:**
  - Minimize downtime by coordinating with vendor and Cimarex staff travel logistics.
  - Utilizing preventative and predictive maintenance programs to replace high wear components before failure.
  - Because the flare/combustor is the primary equipment used to limit venting practices, ensure flare/combustor is properly maintained and fully operational at all times via routine maintenance, temperature telemetry, onsite visual inspections.

The Cimarex expectation is to limit all venting exposure. Equipment that may not be listed on this document is still expected to be maintained and associated venting during such maintenance minimized.

Hydrogen Sulfide Drilling Operations Plan
Parkway 16 State Com 4H
Cimarex Energy Co. of Colorado
UL: L, Sec. 15, 19S, 29E
Eddy Co., NM

1 All Company and Contract personnel admitted on location must be trained by a qualified H2S safety instructor to the following:

A. Characteristics of H_2S
B. Physical effects and hazards
C. Principal and operation of H2S detectors, warning system and briefing areas.
D. Evacuation procedure, routes and first aid.
E. Proper use of safety equipment & life support systems
F. Essential personnel meeting Medical Evaluation criteria will receive additional training on the proper use of 30 minute pressure demand air packs.

H_2S Detection and Alarm Systems:

A. H2S sensors/detectors to be located on the drilling rig floor, in the base of the sub structure/cellar area, on the mud pits in the shale shaker area. Additional H2S detectors may play placed as deemed necessary.

B. An audio alarm system will be installed on the derrick floor and in the top doghouse.

3 Windsock and/or wind streamers:

A. Windsock at mudpit area should be high enough to be visible.
B. Windsock on the rig floor and / or top doghouse should be high enough to be visible.

4 Condition Flags and Signs

A. Warning sign on access road to location.
B. Flags to be displayed on sign at entrance to location. Green flag indicates normal safe condition. Yellow flag indicates potential pressure and danger. Red flag indicates danger (H_2S present in dangerous concentration). Only H2S trained and certified personnel admitted to location.

5 Well control equipment:

A. See exhibit "E-1"

6 Communication:

A. While working under masks chalkboards will be used for communication.
B. Hand signals will be used where chalk board is inappropriate.
C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.

7 Drillstem Testing:
No DSTs r cores are planned at this time.

8 Drilling contractor supervisor will be required to be familiar with the effects H_2S has on tubular goods and other mechanical equipment.

9 If H2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H2S scavengers if necessary.

H_2S Contingency Plan
Parkway 16 State Com 4H
Cimarex Energy Co. of Colorado
UL: L, Sec. 15, 19S, 29E
Eddy Co., NM

Emergency Procedures

In the event of a release of gas containing H_2S, the first responder(s) must:

« Isolate the area and prevent entry by other persons into the 100 ppm ROE.
« Evacuate any public places encompassed by the 100 ppm ROE.
« Be equipped with H_2S monitors and air packs in order to control the release.
« Use the "buddy system" to ensure no injuries occur during the 432-620-1975
« Take precautions to avoid personal injury during this operation.
« Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
« Have received training in the:
  · Detection of H_2S, and
  · Measures for protection against the gas,
  · Equipment used for protection and emergency response.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO_2). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas.

Characteristics of H_2S and SO_2

Please see attached International Chemical Safety Cards.

Contacting Authorities

Cimarex Energy Co. of Colorado's personnel must liaise with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. Cimarex Energy Co. of Colorado's response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER).

H_2S Contingency Plan Emergency Contacts
Parkway 16 State Com 4H
Cimarex Energy Co. of Colorado
UL: L, Sec. 15, 19S, 29E
Eddy Co., NM

Company Office			
Cimarex Energy Co. of Colorado	800-969-4789		
Co. Office and After-Hours Menu			

Key Personnel

Name	Title	Office	Mobile
Larry Seigrist	Drilling Manager	432-620-1934	580-243-8485
Charlie Pritchard	Drilling Superintendent	432-620-1975	432-238-7084
Roy Shirley	Construction Superintendent		432-634-2136

Artesia			
Ambulance	911		
State Police	575-746-2703		
City Police	575-746-2703		
Sheriff's Office	575-746-9888		
Fire Department	**575-746-2701**		
Local Emergency Planning Committee	575-746-2122		
New Mexico Oil Conservation Division	575-748-1283		

Carlsbad			
Ambulance	911		
State Police	575-885-3137		
City Police	575-885-2111		
Sheriff's Office	575-887-7551		
Fire Department	**575-887-3798**		
Local Emergency Planning Committee	575-887-6544		
US Bureau of Land Management	575-887-6544		

Santa Fe			
New Mexico Emergency Response Commission (Santa Fe)	505-476-9600		
New Mexico Emergency Response Commission (Santa Fe) 24 Hrs	505-827-9126		
New Mexico State Emergency Operations Center	505-476-9635		

National			
National Emergency Response Center (Washington, D.C.)	800-424-8802		

Medical			
Flight for Life - 4000 24th St.; Lubbock, TX	806-743-9911		
Aerocare - R3, Box 49F; Lubbock, TX	806-747-8923		
Med Flight Air Amb - 2301 Yale Blvd S.E., #D3; Albuquerque, NM	505-842-4433		
SB Air Med Service - 2505 Clark Carr Loop S.E.; Albuquerque, NM	505-842-4949		

Other			
Boots & Coots IWC	800-256-9688	or	281-931-8884
Cudd Pressure Control	432-699-0139	or	432-563-3356
Halliburton	575-746-2757		
B.J. Services	575-746-3569		