

HOBBS OCD

JAN 15 2014

R-111-POTASH

Form 3160-3
(March 2012)

RECEIVED

OCD Hobbs

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

Split Estate

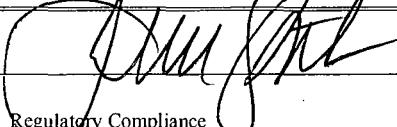
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. SHL: NMNM124662; BHL: NMNM0000082	
1b. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name	
2. Name of Operator Cimarex Energy Co. <i>(215099)</i>		7. If Unit or CA Agreement, Name and No.	
3a. Address 202 S. Cheyenne Ave., Ste 1000, Tulsa, OK 74103		8. Lease Name and Well No. Perry 22 Federal Com #4H <i>(40338)</i>	
3b. Phone No. (include area code) 918-585-1100		9. API Well No. <i>30-025-41608</i> <i>(31580)</i>	
10. Field and Pool, or Exploratory Bone Spring Wildcat - SOUTH		11. Sec., T. R. M. or Blk. and Survey and Area 22, 20S, 34E	
14. Distance in miles and direction from nearest town or post office* Eunice NM is 24 miles east of location.		12. County or Parish 13. State Lea NM	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line if any) 330'		16. No of acres in lease NMNM124662=440 acres NMNM0000082=600 acres	
		17. Spacing Unit dedicated to this well 160	
18. Distance from proposed* location to nearest well, drilling, completed, applied for, on this lease, ft. 917' to the Perry 22 Federal Com #3		19. Proposed Depth Pilot Hole TD: N/A 15,492 MD 10,900 TVD	
		20. BLM/BIA Bond No. on File NM2575 NMB00835	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3645 GR		22. Approximate date work will start* 1/31/14	
		23. Estimated duration 35 days	
24. Attachments			

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| 1. Well plat certified by a registered surveyor | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan | 5. Operator Certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the
SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature 	Name (Printed/Typed) Terri Stathem	Date 8/20/13
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Title Regulatory Compliance		
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Approved By (Signature) <i>/s/ Aden L. Seidlitz</i>	Name (Printed/Typed)	Date JAN - 6 2014
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Title STATE DIRECTOR	Office NM STATE OFFICE	
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Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

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

(Continued on page 2)
Capitan Controlled Water Basin

*(Instructions on page 2)

Approval Subject to General Requirements SEE ATTACHED FOR
& Special Stipulations Attached
JAN 21 2014 CONDITIONS OF APPROVAL

*KZ
01/16/14*

ZM

Application to Drill
Perry 22 Federal Com #4H
Cimarex Energy Co.
UL: D, Sec. 22, 20S, 34E
Lea Co., NM

8A. Casing Design and Casing Loading Assumptions:

Surface	Tension	A 1.8 design factor with effects of buoyancy: 8.30 ppg.
	Collapse	A 1.125 design factor with full internal evacuation and a collapse force equal to a 8.30 ppg mud gradient.
	Burst	A 1.125 design with a surface pressure equal to the fracture gradient at setting depth less gas gradient to surface.
Intermediate	Tension	A 1.8 design factor with effects of buoyancy: 10.00 ppg.
	Collapse	A 1.125 design factor evacuated 1/3 TVD of next casing string with a collapse force equal to a 10.00 ppg mud gradient.
	Burst	A 1.125 design with a surface pressure equal to the fracture gradient at setting depth less gas gradient to surface.
Production and/or Production Liner	Tension	A 1.8 design factor with effects of buoyancy: 9.00 ppg.
	Collapse	A 1.125 design factor with full internal evacuation of next casing string with a collapse force equal to a 9.00 ppg mud gradient.
	Burst	A 1.125 design with a surface pressure equal to the fracture gradient at setting depth less gas gradient to surface.

9. Cementing Program:

Cement volumes will be adjusted depending on hole size

9a. Proposed Drilling Plan:

Pilot Hole TD; No Pilot

KOP: 10,598'

EOC: 11,368'

Set Surface and Intermediate casing strings. Drill production hole to KOP. Continue drilling lateral through the curve to TD. Run prod casing & cement.

10. Pressure Control Equipment:

Exhibit "E-1". A BOP consisting of two rams with blind rams and pipe rams, and one annular preventer. Below the surface casing, a 2M system will be used. Below the intermediate casing, a 3M system will be used. See attachments for BOP and choke manifold diagrams. An accumulator that meets the requirements in Onshore Order #2 for the pressure rating of the BOP stack. A Rotating head may be installed as needed. A kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor.

BOP and associated equipment will be installed, used, maintained, and tested in a manner necessary to assure well control and shall be in place and operational prior to drilling the surface casing shoe. The Annular Preventer shall be functioned at least weekly. The pipe and blind rams will be operated each trip. No abnormal pressure or temperature is expected while drilling.

BOPS will be tested by an independent service company. The ram preventers, choke manifold, and safety valves will be tested as follows: On the surface casing, pressure tests will be made to 250 psi low and 2000 psi high. On the intermediate casing, pressure tests will be made to 250 psi low and 3000 psi high.

The Annular Preventer will be tested to 250 psi low and 1000 psi high on the surface casing, and 250 low and 1500 high on the intermediate casing.

See COA
Cimarex Energy Co. of Colorado requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached (please see Exhibit F, F-1, F-2, F-3). The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used.

Application to Drill
Perry 22 Federal Com #4H
Cimarex Energy Co.
UL: D, Sec. 22, 20S, 34E
Lea Co., NM

See COA

11. Proposed Mud Circulating System:

Depth	Mud Weight	Visc	Fluid Loss	Type Mud
0' to 1680'	8.30	28	NC	FW Spud Mud
1680' to 5600'	53.50 ¹	10.00	30-32	Brine Water
5600' to 15492'		9.00	30-32	FW/Cut Brine

Sufficient mud materials will be kept on location at all times in order to combat lost circulation or unexpected kicks. In order to run DSTs, open hole logs, and casing, the viscosity and water loss may have to be adjusted in order to meet these needs.

The Mud Monitoring System is an electronic Pason System satisfying requirements of Onshore Order 1.

12. Testing, Logging and Coding Program:

13. Potential Hazards:

No abnormal pressures or temperatures are expected. In accordance with Onshore Order 6, Cimarex does not anticipate that there will be enough H₂S from the surface to the Bone Spring formations to meet the BLM's minimum requirements for the submission of an "H₂S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have an H₂S Safety package on all wells, attached is an "H₂S Drilling Operations Plan." Adequate flare lines will be installed off the mud / gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used.

Estimated BHP: 4905 psi

Estimated BHT: 168°

14. Construction and Drilling:

Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved.

Drilling expected to take: 35 days.

If production casing is run an additional 30 days will be required to complete and construct surface facilities.

15. Other Facets of Operations:

If production casing is run an additional 30 days will be required to complete and construct surface facilities.

Bone Spring pay will be perforated and stimulated.

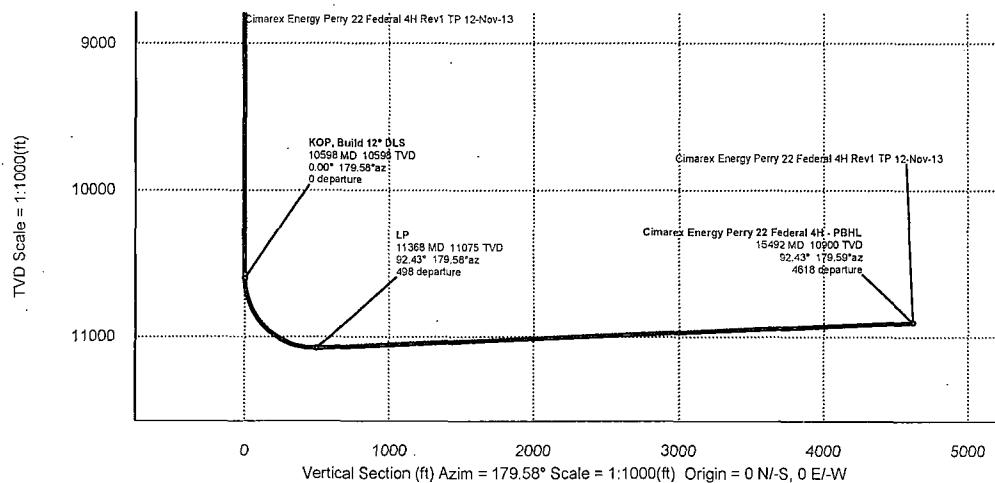
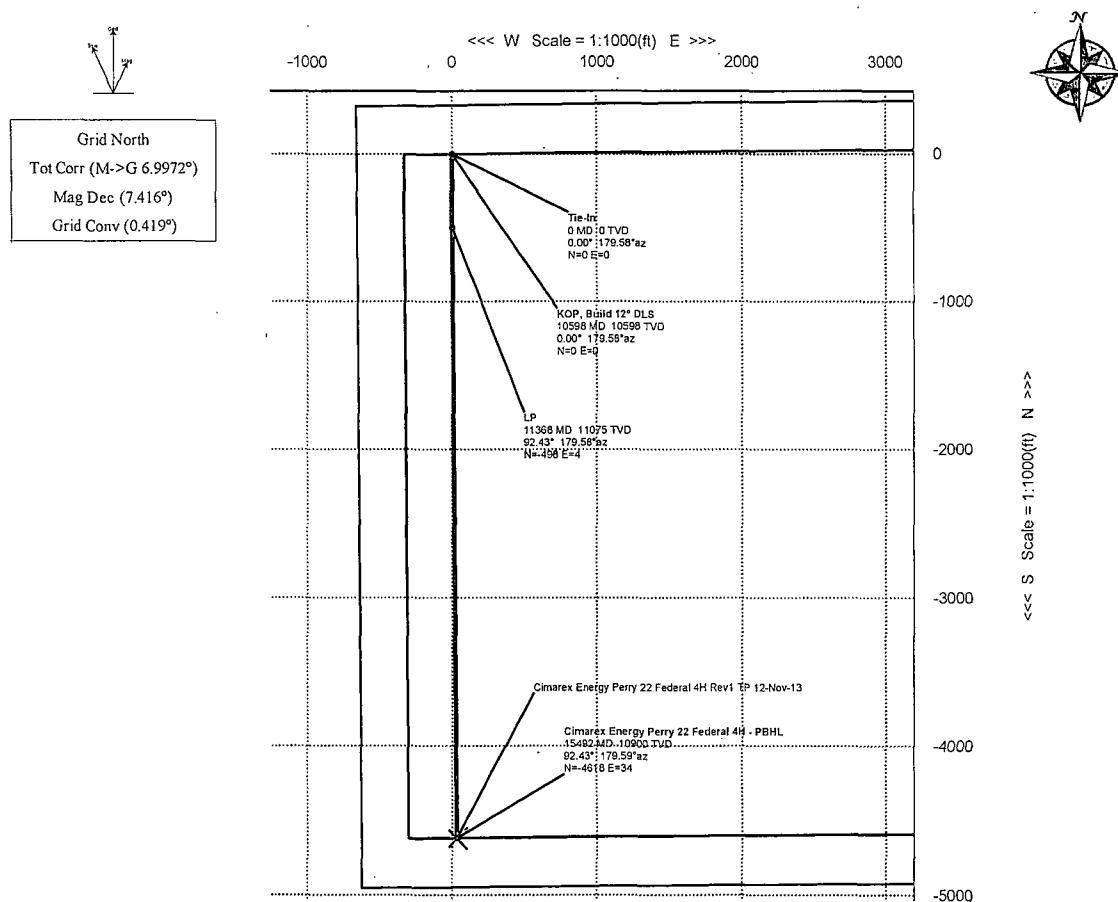
The proposed well will be tested and potentialized as Oil



Cimarex Energy

PATHFINDER
A Schlumberger Company

WELL	Perry 22 Federal 4H	FIELD	NM Lea County (NAD 83)	STRUCTURE	Cimarex Perry 22 Federal 4H
Magnetic Parameters Model: BGRM 2012	Dip: 60.402° Mag Dec: 7.416°	Date: November 12, 2013 FS: 48541.7ft	Surface Location Lat: N 32 33.93.856 Lon: W 103 33.16.273	NAD83 New Mexico State Plane, Eastern Zone, US Feet Northing: 575138.90 ftUS Easting: 781271.30 ftUS Grid Conv: 0.419° Scale Fact: 0.9997502	Miscellaneous Sect: Perry 22 Federal 4H Par: Cimarex Energy Perry 22 Federal 4H Rev1 TP 12-Nov-13 TVD Ref: Ground Level (3645ft above MSL)



Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
Tie-In	0.00	0.00	179.58	0.00	0.00	0.00	0.00	
KOP, Build 12° DLS	10598.00	0.00	179.58	10598.00	0.00	0.00	0.00	0.00
LP	11368.19	92.43	179.58	11075.00	-497.67	-497.66	3.65	12.00
Cimarex Energy Perry 22 Federal 4H - PBHL	15492.48	92.43	179.59	10900.00	4618.25	-4618.12	33.60	0.00

Cimarex Energy Perry 22 Federal 4H Rev1 TP 12-Nov-13 Proposal Report

(Def Plan)

Report Date:	November 12, 2013 - 12:27 PM	Survey / DLS Computation:	Minimum Curvature / Lubinski
Client:	Cimarex Energy	Vertical Section Azimuth:	179.583 ° (Grid North)
Field:	NM Lea County (NAD 83)	Vertical Section Origin:	0.000 ft, 0.000 ft
Structure / Slot:	Cimarex Perry 22 Federal 4H / Perry 22 Federal 4H	TVD Reference Datum:	Ground Level
Well:	Perry 22 Federal 4H	TVD Reference Elevation:	3645.000 ft above MSL
Borehole:	Original Borehole	Seabed / Ground Elevation:	3645.000 ft above MSL
UWI / API#:	Unknown / Unknown	Magnetic Declination:	7.416 °
Survey Name:	Cimarex Energy Perry 22 Federal 4H Rev1 TP 12-Nov-13	Total Field Strength:	48541.650 nT
Survey Date:	July 11, 2013	Magnetic Dip Angle:	60.402 °
Tort / AHD / DDI / ERD Ratio:	92.438 ° / 4618.247 ft / 5.776 / 0.417	Declination Date:	November 12, 2013
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Magnetic Declination Model:	BGGM 2012
Location Lat / Long:	N 32° 33' 53.83628", W 103° 33' 16.27339"	North Reference:	Grid North
Location Grid N/E Y/X:	N 570138.900 ftUS, E 781271.300 ftUS	Grid Convergence Used:	0.4192 °
CRS Grid Convergence Angle:	0.4192 °	Total Corr Mag North->Grid North: 6.9972 °	
Grid Scale Factor:	0.99997502	Local Coord Referenced To: Structure Reference Point	

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° '")	Longitude (E/W ° '")	Closure (ft)	Closure Azimuth (°)	DLS ("/100ft)
Tie-In	0.00	0.00	179.58	0.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	N/A
	100.00	0.00	179.58	100.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	200.00	0.00	179.58	200.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	300.00	0.00	179.58	300.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	400.00	0.00	179.58	400.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	500.00	0.00	179.58	500.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	600.00	0.00	179.58	600.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	700.00	0.00	179.58	700.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	800.00	0.00	179.58	800.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	900.00	0.00	179.58	900.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	1000.00	0.00	179.58	1000.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	1100.00	0.00	179.58	1100.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	1200.00	0.00	179.58	1200.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	1300.00	0.00	179.58	1300.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	1400.00	0.00	179.58	1400.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	1500.00	0.00	179.58	1500.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	1600.00	0.00	179.58	1600.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	1700.00	0.00	179.58	1700.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	1800.00	0.00	179.58	1800.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	1900.00	0.00	179.58	1900.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	2000.00	0.00	179.58	2000.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	2100.00	0.00	179.58	2100.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	2200.00	0.00	179.58	2200.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	2300.00	0.00	179.58	2300.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	2400.00	0.00	179.58	2400.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	2500.00	0.00	179.58	2500.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	2600.00	0.00	179.58	2600.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	2700.00	0.00	179.58	2700.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	2800.00	0.00	179.58	2800.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	2900.00	0.00	179.58	2900.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	3000.00	0.00	179.58	3000.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° '")	Longitude (E/W ° '")	Closure (ft)	Closure Azimuth (°)	DLS ('/100ft)
	8600.00	0.00	179.58	8600.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	8700.00	0.00	179.58	8700.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	8800.00	0.00	179.58	8800.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	8900.00	0.00	179.58	8900.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	9000.00	0.00	179.58	9000.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	9100.00	0.00	179.58	9100.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	9200.00	0.00	179.58	9200.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	9300.00	0.00	179.58	9300.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	9400.00	0.00	179.58	9400.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	9500.00	0.00	179.58	9500.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	9600.00	0.00	179.58	9600.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	9700.00	0.00	179.58	9700.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	9800.00	0.00	179.58	9800.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	9900.00	0.00	179.58	9900.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	10000.00	0.00	179.58	10000.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	10100.00	0.00	179.58	10100.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	10200.00	0.00	179.58	10200.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	10300.00	0.00	179.58	10300.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	10400.00	0.00	179.58	10400.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	10500.00	0.00	179.58	10500.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
KOP, Build 12° DLS	10598.00	0.00	179.58	10598.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	0.00	0.00
	10600.00	0.24	179.58	10600.00	0.00	0.00	0.00	570138.90	781271.30	N 32 33 53.84	W 103 33 16.27	0.00	179.58	12.00
	10700.00	12.24	179.58	10699.23	10.85	-10.85	0.08	570128.05	781271.38	N 32 33 53.73	W 103 33 16.27	10.85	179.58	12.00
	10800.00	24.24	179.58	10794.03	42.10	-42.10	0.31	570096.80	781271.61	N 32 33 53.42	W 103 33 16.27	42.10	179.58	12.00
	10900.00	36.24	179.58	10880.26	92.37	-92.37	0.68	570046.53	781271.98	N 32 33 52.92	W 103 33 16.27	92.37	179.58	12.00
	11000.00	48.24	179.58	10954.15	159.48	-159.47	1.17	569979.43	781272.47	N 32 33 52.26	W 103 33 16.27	159.48	179.58	12.00
	11100.00	60.24	179.58	11012.48	240.48	-240.47	1.76	569984.43	781273.06	N 32 33 51.46	W 103 33 16.27	240.48	179.58	12.00
	11200.00	72.25	179.58	11052.69	331.84	-331.83	2.43	569807.08	781273.73	N 32 33 50.55	W 103 33 16.27	331.84	179.58	12.00
	11300.00	84.25	179.58	11073.02	429.57	-429.55	3.15	569709.36	781274.45	N 32 33 49.59	W 103 33 16.27	429.57	179.58	12.00
LP	11368.19	92.43	179.58	11075.00	497.67	-497.66	3.65	569641.26	781274.95	N 32 33 48.91	W 103 33 16.27	497.67	179.58	12.00
	11400.00	92.43	179.58	11073.65	529.45	-529.44	3.88	569609.48	781275.18	N 32 33 48.60	W 103 33 16.27	529.45	179.58	0.00
	11500.00	92.43	179.58	11069.41	629.36	-629.34	4.61	569509.57	781275.91	N 32 33 47.61	W 103 33 16.27	629.36	179.58	0.00
	11600.00	92.43	179.58	11065.17	729.27	-729.25	5.34	569409.67	781276.64	N 32 33 46.62	W 103 33 16.27	729.27	179.58	0.00
	11700.00	92.43	179.58	11060.93	829.18	-829.16	6.08	569309.76	781277.38	N 32 33 45.63	W 103 33 16.27	829.18	179.58	0.00
	11800.00	92.43	179.58	11056.69	929.09	-929.07	6.81	569209.86	781278.11	N 32 33 44.64	W 103 33 16.27	929.09	179.58	0.00
	11900.00	92.43	179.58	11052.45	1029.00	-1028.97	7.54	569109.95	781278.84	N 32 33 43.65	W 103 33 16.27	1029.00	179.58	0.00
	12000.00	92.43	179.58	11048.21	1128.91	-1128.88	8.27	569010.05	781279.57	N 32 33 42.67	W 103 33 16.27	1128.91	179.58	0.00
	12100.00	92.43	179.58	11043.97	1228.82	-1228.79	9.00	568910.15	781280.30	N 32 33 41.68	W 103 33 16.27	1228.82	179.58	0.00
	12200.00	92.43	179.58	11039.73	1328.73	-1328.70	9.73	568810.24	781281.03	N 32 33 40.69	W 103 33 16.27	1328.73	179.58	0.00
	12300.00	92.43	179.58	11035.49	1428.64	-1428.60	10.46	568710.34	781281.76	N 32 33 39.70	W 103 33 16.27	1428.64	179.58	0.00
	12400.00	92.43	179.58	11031.24	1528.55	-1528.51	11.19	568610.43	781282.49	N 32 33 38.71	W 103 33 16.27	1528.55	179.58	0.00
	12500.00	92.43	179.58	11027.00	1628.46	-1628.42	11.92	568510.53	781283.22	N 32 33 37.72	W 103 33 16.27	1628.46	179.58	0.00
	12600.00	92.43	179.58	11022.76	1728.37	-1728.32	12.65	568410.62	781283.95	N 32 33 36.73	W 103 33 16.27	1728.37	179.58	0.00
	12700.00	92.43	179.58	11018.52	1828.28	-1828.23	13.38	568310.72	781284.68	N 32 33 35.75	W 103 33 16.27	1828.28	179.58	0.00
	12800.00	92.43	179.58	11014.28	1928.19	-1928.14	14.10	568210.81	781285.40	N 32 33 34.76	W 103 33 16.27	1928.19	179.58	0.00
	12900.00	92.43	179.58	11010.03	2028.10	-2028.05	14.83	568110.91	781286.13	N 32 33 33.77	W 103 33 16.27	2028.10	179.58	0.00
	13000.00	92.43	179.58	11005.79	2128.01	-2127.95	15.56	568011.00	781286.86	N 32 33 32.78	W 103 33 16.27	2128.01	179.58	0.00
	13100.00	92.43	179.58	11001.55	2227.92	-2227.86	16.29	567911.10	781287.59	N 32 33 31.79	W 103 33 16.27	2227.92	179.58	0.00
	13200.00	92.43	179.58	10997.31	2327.83	-2327.77	17.01	567811.19	781288.31	N 32 33 30.80	W 103 33 16.27	2327.83	179.58	0.00
	13300.00	92.43	179.58	10993.06	2427.74	-2427.68	17.74	567711.29	781289.04	N 32 33 29.81	W 103 33 16.27	2427.74	179.58	0.00
	13400.00	92.43	179.58	10988.82	2527.65	-2527.58	18.47	567611.39	781289.77	N 32 33 28.83	W 103 33 16.27	2527.65	179.58	0.00
	13500.00	92.43	179.58	10984.58	2627.55	-2627.49	19.19	567511.48	781290.49	N 32 33 27.84	W 103 33 16.27	2627.56	179.58	0.00
	13600.00	92.43	179.58	10980.33	2727.47	-2727.40	19.92	567411.58	781291.22	N 32 33 26.85	W 103 33 16.27	2727.47	179.58	0.00
	13700.00	92.43	179.58	10976.09	2827.38	-2827.30	20.64	567311.67	781291.94	N 32 33 25.86	W 103 33 16.27	2827.38	179.58	0.00

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° '")	Longitude (E/W ° '")	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)
	13800.00	92.43	179.58	10971.85	2927.29	-2927.21	21.37	567211.77	781292.67	N 32 33 24.87	W 103 33 16.27	2927.29	179.58	0.00
	13900.00	92.43	179.58	10967.60	3027.20	-3027.12	22.10	567111.86	781293.39	N 32 33 23.88	W 103 33 16.27	3027.20	179.58	0.00
	14000.00	92.43	179.58	10963.36	3127.11	-3127.03	22.82	567011.96	781294.12	N 32 33 22.89	W 103 33 16.27	3127.11	179.58	0.00
	14100.00	92.43	179.58	10959.12	3227.02	-3226.93	23.54	566912.05	781294.84	N 32 33 21.91	W 103 33 16.27	3227.02	179.58	0.00
	14200.00	92.43	179.58	10954.87	3326.93	-3326.84	24.27	566812.15	781295.57	N 32 33 20.92	W 103 33 16.27	3326.93	179.58	0.00
	14300.00	92.43	179.58	10950.63	3426.84	-3426.75	24.99	566712.24	781296.29	N 32 33 19.93	W 103 33 16.27	3426.84	179.58	0.00
	14400.00	92.43	179.59	10946.38	3526.75	-3526.66	25.72	566612.34	781297.02	N 32 33 18.94	W 103 33 16.27	3526.75	179.58	0.00
	14500.00	92.43	179.59	10942.14	3626.66	-3626.56	26.44	566512.43	781297.74	N 32 33 17.95	W 103 33 16.27	3626.66	179.58	0.00
	14600.00	92.43	179.59	10937.89	3726.57	-3726.47	27.16	566412.53	781298.46	N 32 33 16.96	W 103 33 16.27	3726.57	179.58	0.00
	14700.00	92.43	179.59	10933.65	3826.48	-3826.38	27.88	566312.63	781299.18	N 32 33 15.97	W 103 33 16.27	3826.48	179.58	0.00
	14800.00	92.43	179.59	10929.40	3926.39	-3926.28	28.61	566212.72	781299.91	N 32 33 14.99	W 103 33 16.27	3926.39	179.58	0.00
	14900.00	92.43	179.59	10925.16	4026.30	-4026.19	29.33	566112.82	781300.63	N 32 33 14.00	W 103 33 16.27	4026.30	179.58	0.00
	15000.00	92.43	179.59	10920.91	4126.21	-4126.10	30.05	566012.91	781301.35	N 32 33 13.01	W 103 33 16.27	4126.21	179.58	0.00
	15100.00	92.43	179.59	10918.67	4226.12	-4226.01	30.77	565913.01	781302.07	N 32 33 12.02	W 103 33 16.28	4226.12	179.58	0.00
	15200.00	92.43	179.59	10912.42	4326.03	-4325.91	31.49	565813.10	781302.79	N 32 33 11.03	W 103 33 16.28	4326.03	179.58	0.00
	15300.00	92.43	179.59	10908.17	4425.94	-4425.82	32.21	565713.20	781303.51	N 32 33 10.04	W 103 33 16.28	4425.94	179.58	0.00
	15400.00	92.43	179.59	10903.93	4525.85	-4525.73	32.93	565613.29	781304.23	N 32 33 9.05	W 103 33 16.28	4525.85	179.58	0.00
Cimarex Energy Perry 22 Federal 4H - PBHL	15492.48	92.43	179.59	10900.00	4618.25	-4618.12	33.60	565520.90	781304.90	N 32 33 8.14	W 103 33 16.28	4618.25	179.58	0.00

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	10598.000	1/100.000	30.000	30.000	SLB_NSG+MSHOT	Original Borehole / Cimarex Energy Perry 22 Federal 4H:Rev1
	10598.000	15405.253	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Energy Perry 22 Federal 4H Rev1

October 13, 2013

Bureau of Land Management
Carlsbad Field Office
620 E. Greene St.
Carlsbad, New Mexico 88220

VIA CERTIFIED MAIL RETURN RECEIPT NO.

Re: 4H – Perry 22 Federal Com, Lease LC061144
Township 20 South, Range 34 East, N.M.P.M.
Section 22: W/2W/2
Lea County, New Mexico

Gentlemen:

Per the Bureau of Land Management's ("BLM") letter dated, September 5, 2013, regarding Cimarex's Application for Permit to Drill ("APD") for the above captioned well, the BLM cited the following deficiency regarding the APD:

- "1-Operator does not appear to have operating rights on the bottom hole lease."

Cimarex owns 100% of Lease NMNM 124662, covering the W/2NW/4. Sundown Energy owns the W/2SW/4. Sundown Energy has received a well proposal and proposed joint Operating Agreement and has indicated that pending the finalizing of a joint development agreement, this deficiency will be cured.

Please let this letter serve as notice for curing the deficiency cited above in Cimarex's APD for the Perry 22 Fed Com #4H.

If you should have any questions, please contact the undersigned directly at (432) 571-7896 or by email at mcompton@cimarex.com.

Sincerely,

Cimarex Energy Co.

Mark Compton
Landman

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

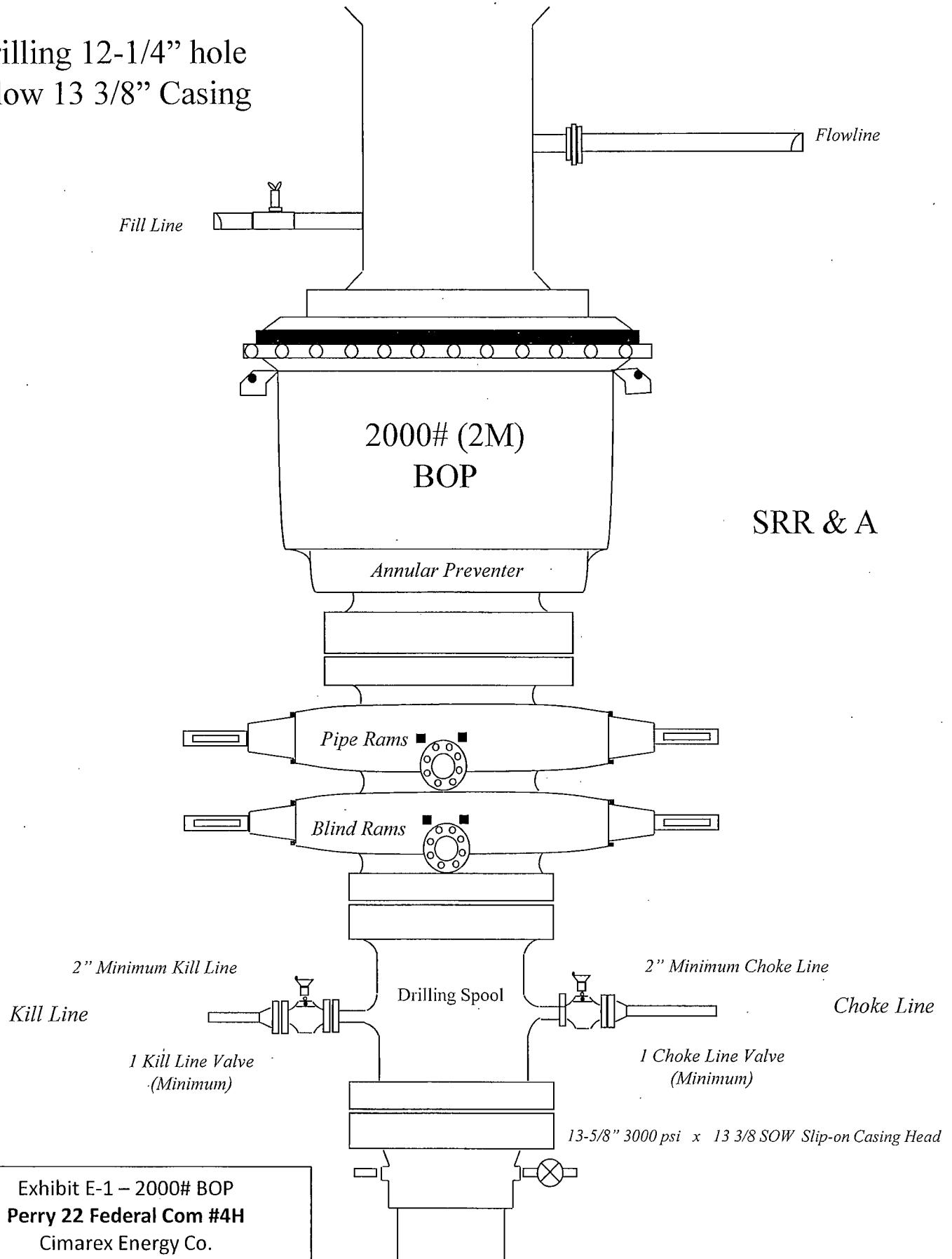
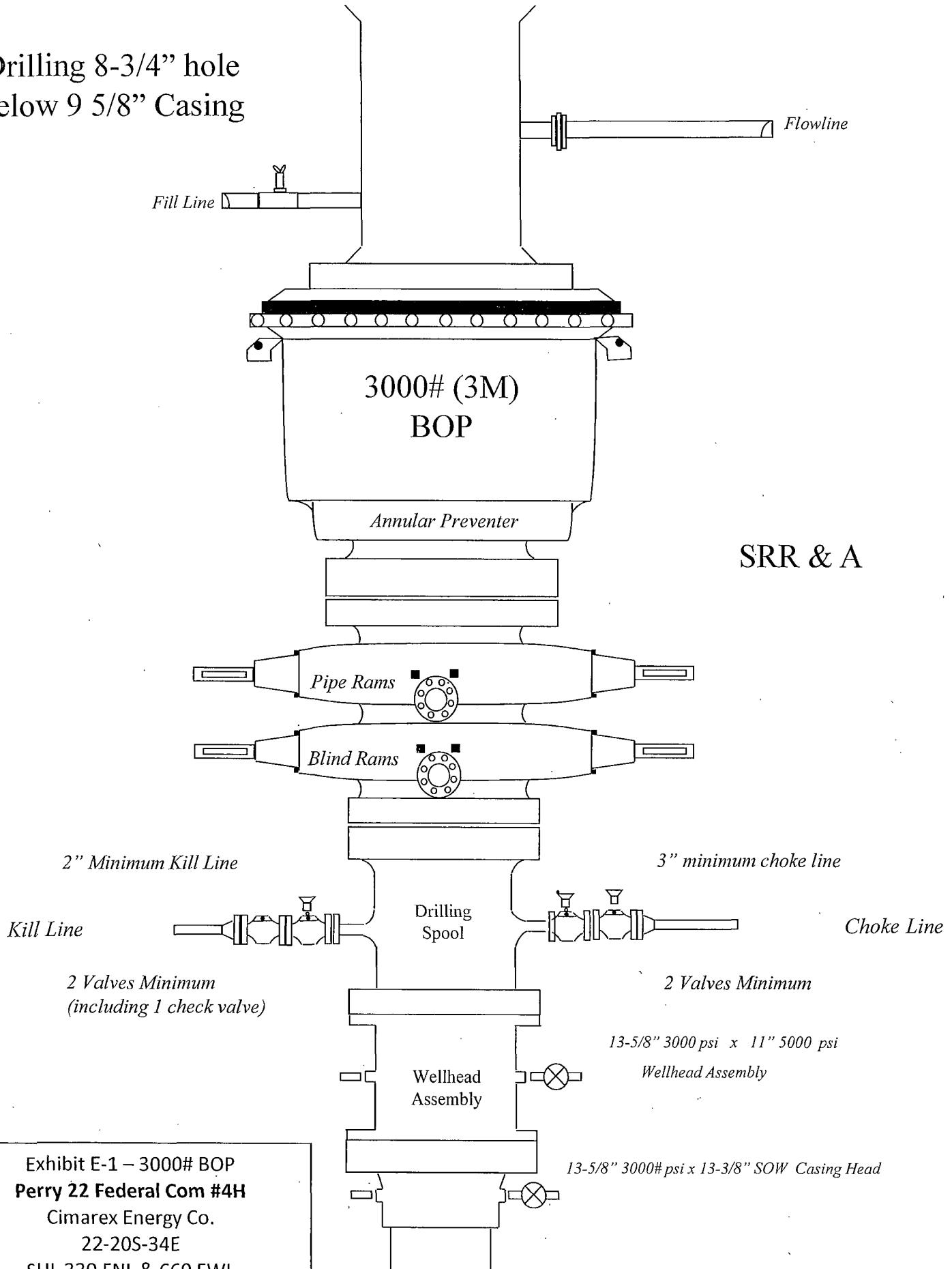


Exhibit E-1 – 2000# BOP
Perry 22 Federal Com #4H
Cimarex Energy Co.
22-20S-34E
SHL 330 FNL & 660 FWL
BHL 330 FSL & 660 FWL
Lea County, NM

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



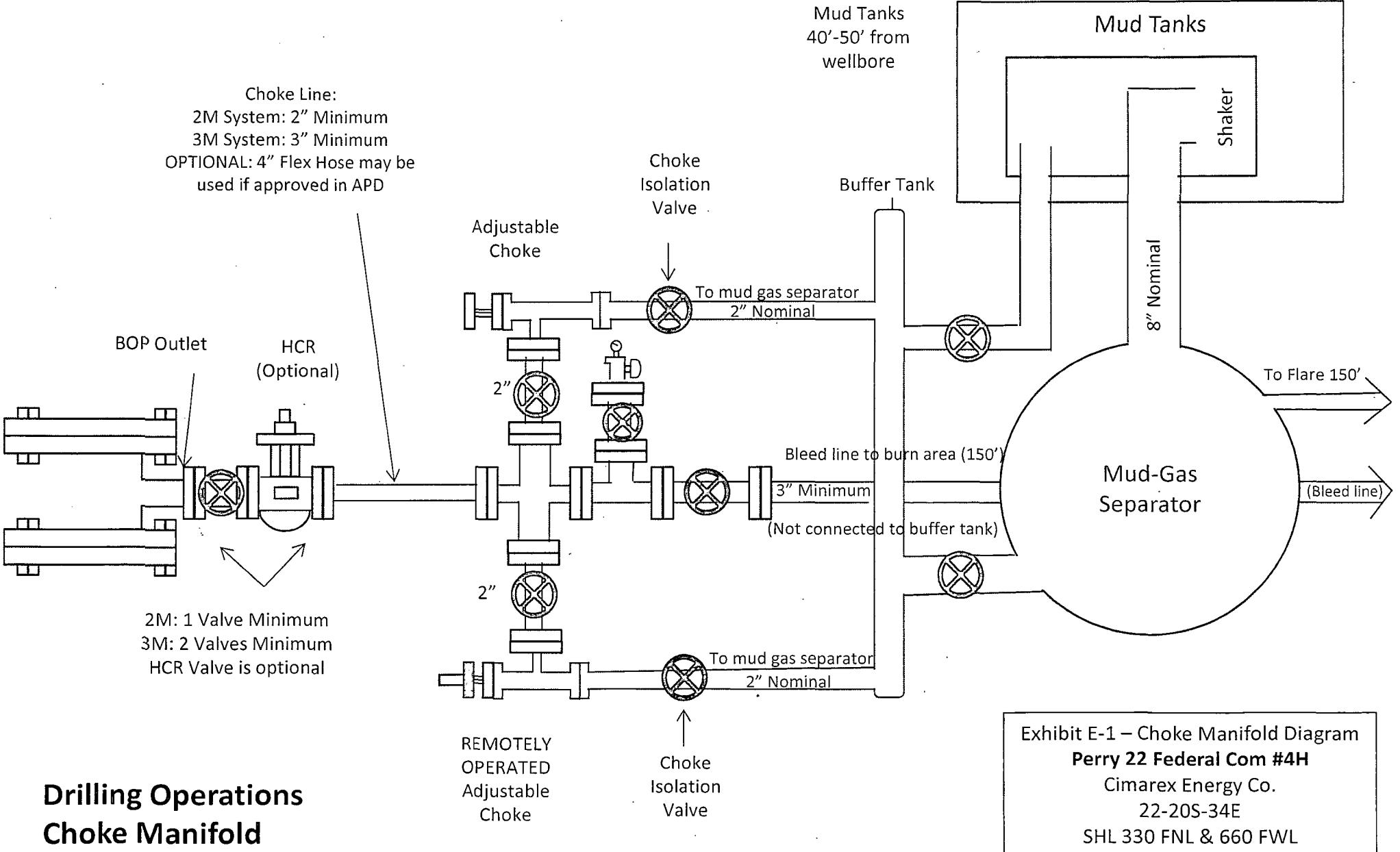


Exhibit E-1 – Choke Manifold Diagram
Perry 22 Federal Com #4H
 Cimarex Energy Co.
 22-20S-34E
 SHL 330 FNL & 660 FWL
 BHL 330 FSL & 660 FWL
 Lea County, NM

Exhibit F-1 – Co-Flex Hose Hydrostatic Test

Perry 22 Federal Com #4H

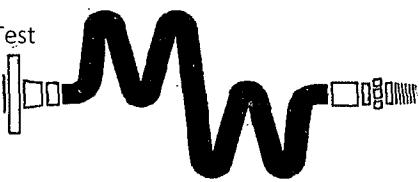
Cimarex Energy Co.

22-20S-34E

SHL 330 FNL & 660 FWL

BHL 330 FSL & 660 FWL

Lea County, NM



**Midwest Hose
& Specialty, Inc.**

INTERNAL HYDROSTATIC TEST REPORT

Customer:	P.O. Number:
Oderco Inc	odyd-271

HOSE SPECIFICATIONS

Type: Stainless Steel Armor	Hose Length: 45'ft.	
Choke & Kill Hose		
I.D. 4 INCHES	O.D. 9 INCHES	
WORKING PRESSURE 10,000 PSI	TEST PRESSURE 15,000 PSI	BURST PRESSURE 0 PSI

COUPLINGS

Stem Part No.	Ferrule No.
OKC	OKC
OKC	OKC

Type of Coupling:

Swage-It

PROCEDURE*Hose assembly pressure tested with water at ambient temperature.*

TIME HELD AT TEST PRESSURE	ACTUAL BURST PRESSURE:
15 MIN.	0 PSI
Hose Assembly Serial Number: 79793	Hose Serial Number: OKC

Comments:

Date: 3/8/2011	Tested: <i>A. John Sauer</i>	Approved: <i>Kevin J. Hart</i>
--------------------------	----------------------------------------	------------------------------------------

Exhibit F-1 – Co-Flex Hose Hydrostatic Test

Perry 22 Federal Com #4H

Cimarex Energy Co.

22-20S-34E

SHL 330 FNL & 660 FWL

BHL 330 FSL & 660 FWL

Lea County, NM

March 3, 2011

Internal Hydrostatic Test Graph

Custodian: Houston

Hose Specifications

Midwest Hose
& Specialty, Inc.

<u>Hose Specifications</u>	<u>I.</u>	<u>Burst</u>	<u>Standard size</u>
<u>Hose Type</u>	<u>C & K</u>	<u>4"</u>	<u>10000 PSI</u>

<u>Verification</u>	<u>Counting Method</u>
4-1/16" O.K.	Swage
Die Size:	Final Q.D.
6-3/8"	6-25"
Hose Serial #:	Hose Assembly Serial #
5544	75793

Pick Ticket #: 94260

Pressure Test

Test Pressure	Time Held at Test Pressure	Actual Burst Pressure	Peak Pressure
$e_1 p_H$	~100 min	~18000	~18000
$e_2 p_H$	~100 min	~17000	~17000
$e_3 p_H$	~100 min	~16000	~16000
$e_4 p_H$	~100 min	~15000	~15000
$e_5 p_H$	~100 min	~14000	~14000

Comments: Hose assembly pressure tested with water at ambient temperature.

Tested By: Zac McConnell

Approved By: *Kim Thomas*

Jim Johnson



Midwest Hose
& Specialty, Inc.

Exhibit F -3- Co-Flex Hose
Perry 22 Federal Com #4H
Cimarex Energy Co.
22-20S-34E
SHL 330 FNL & 660 FWL
BHL 330 FSL & 660 FWL
Lea County, NM

Specification Sheet Choke & Kill Hose

The Midwest Hose & Specialty Choke & Kill hose is manufactured with only premium components. The reinforcement cables, inner liner and cover are made of the highest quality material to handle the tough drilling applications of today's industry. The end connections are available with API flanges, API male threads, hubs, hammer unions or other special fittings upon request. Hose assembly is manufactured to API 7K. This assembly is wrapped with fire resistant vermiculite coated fiberglass insulation, rated at 2000 degrees with stainless steel armor cover.

Working Pressure:	5,000 or 10,000 psi working pressure
Test Pressure:	10,000 or 15,000 psi test pressure
Reinforcement:	Multiple steel cables
Cover:	Stainless Steel Armor
Inner Tube:	Petroleum resistant, Abrasion resistant
End Fitting:	API flanges, API male threads, threaded or butt weld hammer unions, unibolt and other special connections
Maximum Length:	110 Feet
ID:	2-1/2", 3", 3-1/2". 4"
Operating Temperature:	-22 deg F to +180 deg F (-30 deg C to +82 deg C)

Exhibit F-2 – Co-Flex Hose
Perry 22 Federal Com #4H
Cimarex Energy Co.
22-20S-34E
SHL 330 FNL & 660 FWL
BHL 330 FSL & 660 FWL
Lea County, NM



Midwest Hose & Specialty, Inc.

Certificate of Conformity

Customer:		PO
DEM		ODYD-271
SPECIFICATIONS		
Sales Order	Dated:	
79793	3/8/2011	
We hereby certify that the material supplied for the referenced purchase order to be true according to the requirements of the purchase order and current industry standards		
Supplier: Midwest Hose & Specialty, Inc. 10640 Tanner Road Houston, Texas 77041		
Comments:		
Approved:	Date:	
<i>[Signature]</i>		3/8/2011

Exhibit F – Co-Flex Hose
Perry 22 Federal Com #4H

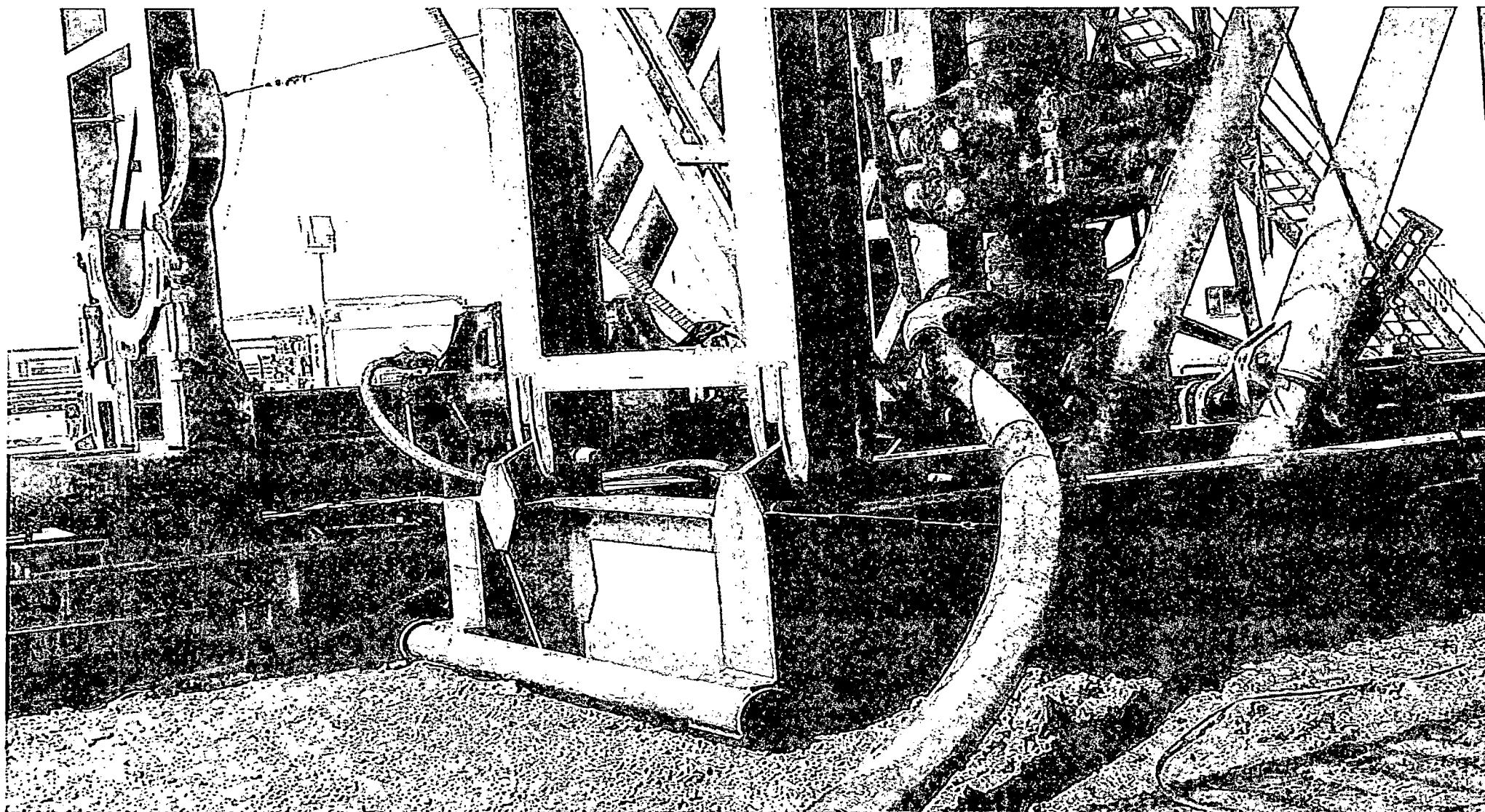
Cimarex Energy Co.

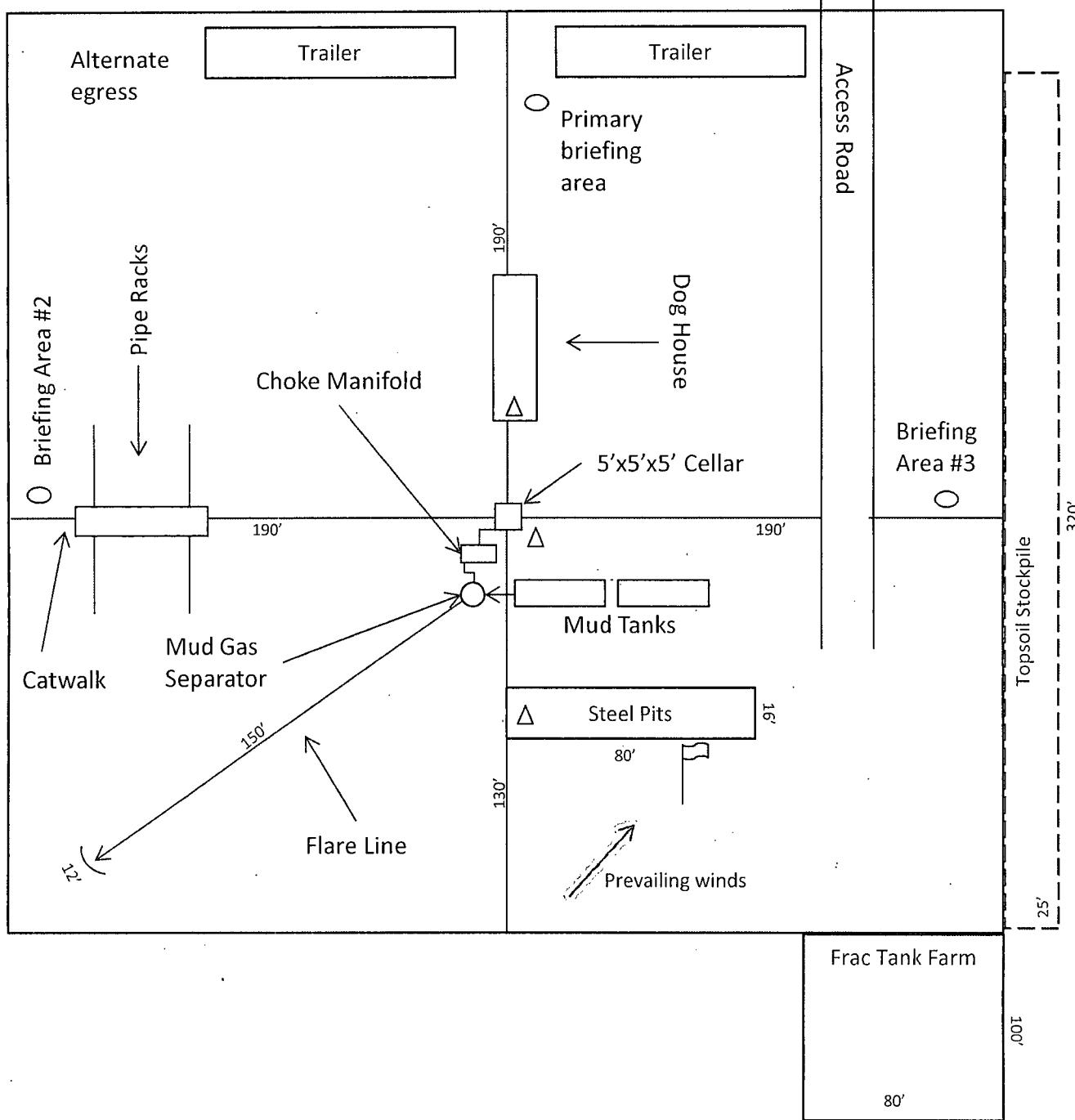
22-20S-34E

SHL 330 FNL & 660 FWL

BHL 330 FSL & 660 FWL

Lea County, NM





- Flag icon: Wind Direction Indicators (wind sock or streamers)
- H2S Monitors (alarms at bell nipple and shale shaker)
- Delta icon: Briefing Areas



Exhibit D – Rig Diagram
Perry 22 Federal Com #4H
Cimarex Energy Co.
22-20S-34E
SHL 330 FNL & 660 FWL
BHL 330 FSL & 660 FWL
Lea County, NM