

HOBBS OCD
JAN 15 2014

ATS-13-1142

SECRETARY'S 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 ☒ DRILL ☐ REENTER		5. Lease Serial No. SHL: NMNM124662; BHL: NMLC0061144	
1b. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator Cimarex Energy Co.		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. <40388> Perry 22 Federal Com #1H	
3b. Phone No. (include area code) 918-585-1100		9. API Well No. 30-025-41605	
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At Surface 335 FNL & 330 FEL At proposed prod. Zone 330 FSL & 660 FEL		10. Field and Pool, or Exploratory LEA; Bone Spring Wildcat SOUTH	
11. Sec., T. R. M. or Blk. and Survey and Area 22, 20S, 34E		12. County or Parish Lea	
13. State NM		14. Distance in miles and direction from nearest town or post office* Eunice NM is 23 miles to the East of location.	
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 NMLC0061144=80 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. 1226' to #2	
19. Proposed Depth Pilot Hole TD: 11,200 15,504 MD 10,900 TVD		20. BLM/BIA Bond No. on File NM2575; NMB000835	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3655 GR		22. Approximate date work will start* 12/13/13	
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:

- Well plat certified by a registered surveyor
- A Drilling Plan
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator Certification
- 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
Title Regulatory Compliance		
Approved By (Signature) 	Name (Printed/Typed) Aden L. Seidlitz	Date JAN - 6 2014
Title STATE DIRECTOR		
Office NM STATE OFFICE		

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

Approval Subject to General Requirements
& Special Stipulations Attached

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

JAN 21 2014

Application to Drill
Perry 22 Federal Com #1H
 Cimarex Energy Co.
 UL: A, 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:

Casing Type	Type	Sacks	Yield	Weight	Cubic Feet	Cement Blend
Surface	Lead	1067	1.75	13.50	1867	Class C + Bentonite + Calcium Chloride + LCM, 8.829 gps water
	Tail	218	1.34	14.80	291	Class C + LCM, 6.32 gps water
	TOC: 0	85% Excess		Centralizers per Onshore Order 2.III.B.1f		
Intermediate	Lead	1254	1.88	12.90	2356	35:65 (poz/C) + Salt + Bentonite + LCM + retarder, 9.65 gps water
	Tail	292	1.34	14.80	391	Class C + retarder + LCM, 6.32 gps water
	TOC: 0	81% Excess				
Production	Lead	613	2.40	11.90	1471	35:65 (poz/H) + salt + Sodium Metasilicate + Bentonite + Fluid Loss + Dispersant + LCM + Retarder, 13.80 gps water
	Tail	1377	1.24	14.50	1707	50:50 (poz/H) + Bentonite + Salt + Fluid Loss + Dispersant + LCM + Retarder, 5.55 gps water
	TOC: 5400	25% Excess		No centralizers planned in the lateral section. 1 every jt from EOC to KOP. 1 every 4th joint from KOP to 500' inside previous casing.		

Cement volumes will be adjusted depending on hole size

9a. Proposed Drilling Plan:

Pilot Hole TD: 11,200' KOP: 10,598' EOC: 11,368'

Set OH mechanical whipstock w/ 552 ft of 2.875 tubing and pump 30 bbls of Mudpush @ 12 ppg, followed by 268 sks Type H cement, dispersant 0.080 gals/sk, retarder 0.045 gals/sk @ 17.50 ppg, 0.94 cuft/sk, & 0% excess from pilot hole TD to KOP. KO lateral and drill through the curve to TD. Run production csg to TD and cement.

500' tie back Secretary's Potash

Application to Drill
Perry 22 Federal Com #1H
Cimarex Energy Co.
UL: A, Sec. 22, 20S, 34E
Lea Co., NM

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.

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' <i>5350'</i>	10.00	30-32	NC	Brine Water
5600' to 15504'	9.00	30-32	NC	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 Coring Program:

- A. Mud logging program: 2 man unit from 5600 to TD
- B. Electric logging program: CNL / LDT / CAL / GR, DLL / GR -- Inter. Csg to TD
CNL / GR -- Surf to Inter. Csg
- C. No DSTs or cores are planned at this time
- D. CBL w/ CCL from as far as gravity will let it fall to TOC

13. Potential Hazards: *See COA*

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.

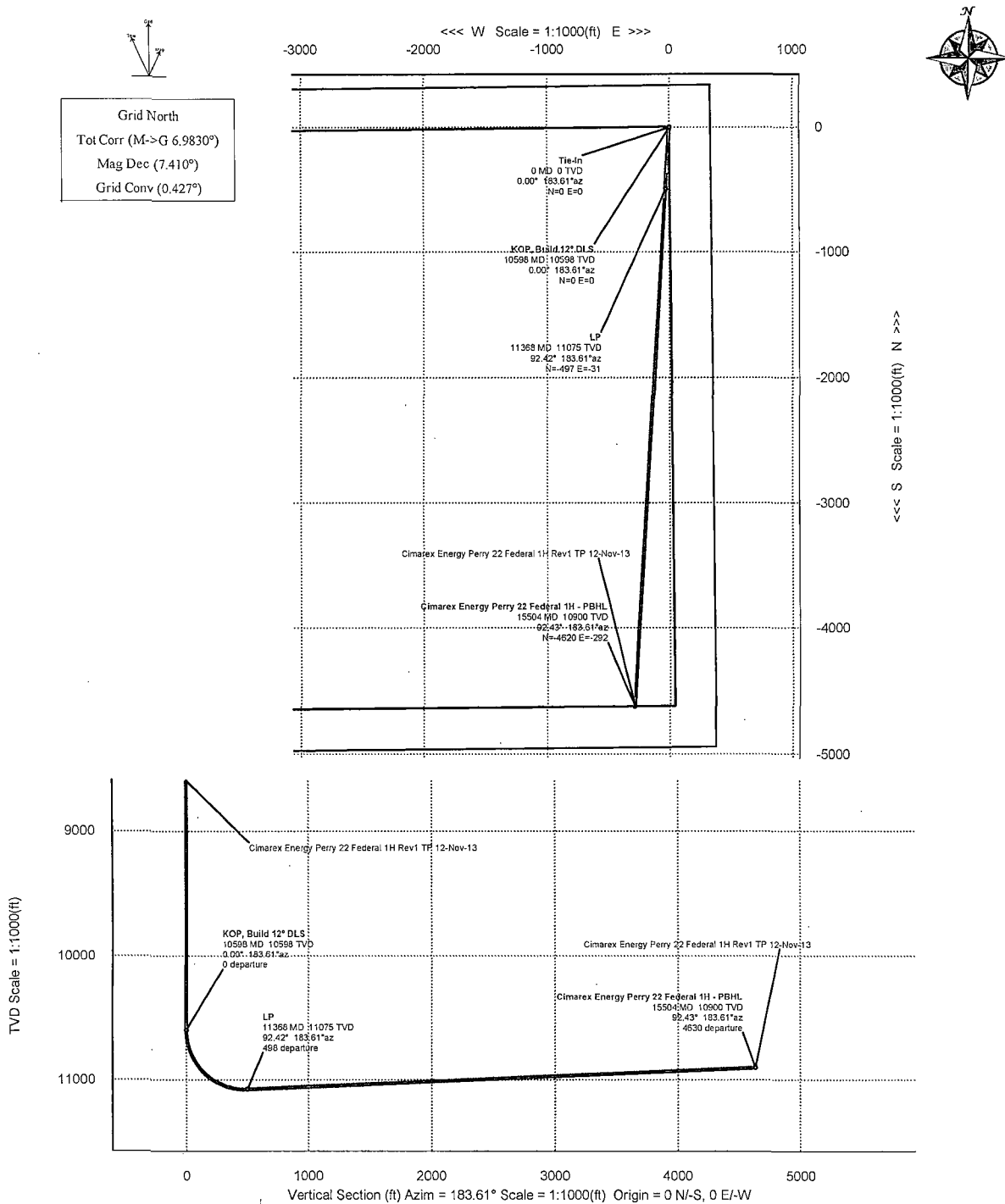
The proposed well will be tested and potentialized as **Oil**



Cimarex Energy

PATHFINDER
A Schlumberger Company

WELL	Perry 22 Federal 1H		FIELD	NM Lea County (NAD 83)		STRUCTURE	Cimarex Perry 22 Federal 1H	
Magnetic Parameters Model: ROGMI 2012 Dip: 62.404° Mag Dec: 7.410°	DATE: November 12, 2013 F6: 48543.207	Surface Location Lat: N 32 33 53.887 Lon: W 103 32 36.129	NAD83 New Mexico State Plane, Eastern Zone, US Feet Northing: 670175.701658 Easting: 785563.301105		Grid Center: 0.437° Scale Factor: 0.99997740	Miscellaneous Well: Perry 22 Federal 1H Plan: Cimarex Energy Perry 22 Federal 04/Rev/12/02/2008 13	TVD Ref: Ground Level (3655.8 above MSL)	



Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+) / S(-)	E(+) / W(-)	DLS
Tie-In	0.00	0.00	183.61	0.00	0.00	0.00	0.00	
KOP, Build 12° DLS	10598.00	0.00	183.61	10598.00	0.00	0.00	0.00	0.00
LP	11368.10	92.42	183.61	11075.00	497.58	-496.60	-31.33	12.00
Cimarex Energy Perry 22 Federal 1H - PBHL	15503.82	92.43	183.61	10900.00	4629.60	-4620.41	-291.51	0.00

Cimarex Energy Perry 22 Federal 1H Rev1 TP 12-Nov-13 Proposal Report

(Non-Def Plan)

Report Date: November 12, 2013 - 10:13 AM
Client: Cimarex Energy
Field: NM Lea County (NAD 83)
Structure / Slot: Cimarex Perry 22 Federal 1H / Perry 22 Federal 1H
Well: Perry 22 Federal 1H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Cimarex Energy Perry 22 Federal 1H Rev1 TP 12-Nov-13
Survey Date: July 10, 2013
Tort / AHD / DDI / ERD Ratio: 92.430 ° / 4629.600 ft / 5.777 / 0.418
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 33' 53.88690", W 103° 32' 26.12048"
Location Grid N/E Y/X: N 570175.700 ftUS, E 785563.300 ftUS
CRS Grid Convergence Angle: 0.4267 °
Grid Scale Factor: 0.9999774

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 183.610 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: Ground Level
TVD Reference Elevation: 3655.000 ft above MSL
Seabed / Ground Elevation: 3655.000 ft above MSL
Magnetic Declination: 7.410 °
Total Field Strength: 48543.243 nT
Magnetic Dip Angle: 60.404 °
Declination Date: November 12, 2013
Magnetic Declination Model: BGGM 2012
North Reference: Grid North
Grid Convergence Used: 0.4267 °
Total Corr Mag North->Grid North: 6.9830 °
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	183.61	0.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	N/A
	100.00	0.00	183.61	100.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	200.00	0.00	183.61	200.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	300.00	0.00	183.61	300.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	400.00	0.00	183.61	400.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	500.00	0.00	183.61	500.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	600.00	0.00	183.61	600.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	700.00	0.00	183.61	700.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	800.00	0.00	183.61	800.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	900.00	0.00	183.61	900.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	1000.00	0.00	183.61	1000.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	1100.00	0.00	183.61	1100.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	1200.00	0.00	183.61	1200.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	1300.00	0.00	183.61	1300.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	1400.00	0.00	183.61	1400.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	1500.00	0.00	183.61	1500.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	1600.00	0.00	183.61	1600.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	1700.00	0.00	183.61	1700.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	1800.00	0.00	183.61	1800.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	1900.00	0.00	183.61	1900.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	2000.00	0.00	183.61	2000.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	2100.00	0.00	183.61	2100.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	2200.00	0.00	183.61	2200.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	2300.00	0.00	183.61	2300.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	2400.00	0.00	183.61	2400.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	2500.00	0.00	183.61	2500.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	2600.00	0.00	183.61	2600.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	2700.00	0.00	183.61	2700.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	2800.00	0.00	183.61	2800.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	2900.00	0.00	183.61	2900.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	3000.00	0.00	183.61	3000.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	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	183.61	8600.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	8700.00	0.00	183.61	8700.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	8800.00	0.00	183.61	8800.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	8900.00	0.00	183.61	8900.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	9000.00	0.00	183.61	9000.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	9100.00	0.00	183.61	9100.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	9200.00	0.00	183.61	9200.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	9300.00	0.00	183.61	9300.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	9400.00	0.00	183.61	9400.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	9500.00	0.00	183.61	9500.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	9600.00	0.00	183.61	9600.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	9700.00	0.00	183.61	9700.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	9800.00	0.00	183.61	9800.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	9900.00	0.00	183.61	9900.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	10000.00	0.00	183.61	10000.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	10100.00	0.00	183.61	10100.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	10200.00	0.00	183.61	10200.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	10300.00	0.00	183.61	10300.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	10400.00	0.00	183.61	10400.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	10500.00	0.00	183.61	10500.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
KOP, Build 12" DLS	10598.00	0.00	183.61	10598.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	0.00	0.00
	10600.00	0.24	183.61	10600.00	0.00	0.00	0.00	570175.70	785563.30	N 32 33 53.89	W 103 32 26.12	0.00	183.61	12.00
	10700.00	12.24	183.61	10699.23	10.85	-10.83	-0.68	570164.87	785562.62	N 32 33 53.78	W 103 32 26.13	10.85	183.61	12.00
	10800.00	24.24	183.61	10794.03	42.10	-42.02	-2.65	570133.68	785560.65	N 32 33 53.47	W 103 32 26.16	42.10	183.61	12.00
	10900.00	36.24	183.61	10880.26	92.37	-92.19	-5.82	570083.51	785557.48	N 32 33 52.98	W 103 32 26.20	92.37	183.61	12.00
	11000.00	48.24	183.61	10954.15	159.48	-159.16	-10.04	570016.54	785553.26	N 32 33 52.31	W 103 32 26.25	159.48	183.61	12.00
	11100.00	60.24	183.61	11012.48	240.48	-240.01	-15.14	569935.70	785548.16	N 32 33 51.51	W 103 32 26.32	240.48	183.61	12.00
	11200.00	72.25	183.61	11052.69	331.84	-331.18	-20.89	569844.52	785542.41	N 32 33 50.61	W 103 32 26.39	331.84	183.61	12.00
	11300.00	84.25	183.61	11073.02	429.57	-428.72	-27.05	569747.00	785536.25	N 32 33 49.65	W 103 32 26.47	429.57	183.61	12.00
LP	11368.10	92.42	183.61	11075.00	497.58	-496.60	-31.33	569679.11	785531.97	N 32 33 48.98	W 103 32 26.53	497.58	183.61	12.00
	11400.00	92.42	183.61	11073.65	529.45	-528.40	-33.34	569647.31	785529.96	N 32 33 48.66	W 103 32 26.56	529.45	183.61	0.00
	11500.00	92.42	183.61	11069.43	629.36	-628.11	-39.63	569547.60	785523.67	N 32 33 47.68	W 103 32 26.64	629.36	183.61	0.00
	11600.00	92.42	183.61	11065.21	729.27	-727.83	-45.92	569447.89	785517.38	N 32 33 46.69	W 103 32 26.72	729.27	183.61	0.00
	11700.00	92.42	183.61	11060.98	829.19	-827.54	-52.21	569348.18	785511.09	N 32 33 45.70	W 103 32 26.80	829.19	183.61	0.00
	11800.00	92.42	183.61	11056.76	929.10	-927.25	-58.50	569248.47	785504.80	N 32 33 44.72	W 103 32 26.88	929.10	183.61	0.00
	11900.00	92.42	183.61	11052.53	1029.01	-1026.96	-64.79	569148.76	785498.51	N 32 33 43.73	W 103 32 26.97	1029.01	183.61	0.00
	12000.00	92.42	183.61	11048.31	1128.92	-1126.68	-71.08	569049.05	785492.22	N 32 33 42.74	W 103 32 27.05	1128.92	183.61	0.00
	12100.00	92.42	183.61	11044.08	1228.83	-1226.39	-77.37	568949.34	785485.93	N 32 33 41.76	W 103 32 27.13	1228.83	183.61	0.00
	12200.00	92.42	183.61	11039.86	1328.74	-1326.10	-83.66	568849.63	785479.64	N 32 33 40.77	W 103 32 27.21	1328.74	183.61	0.00
	12300.00	92.42	183.61	11035.63	1428.65	-1425.81	-89.95	568749.92	785473.35	N 32 33 39.79	W 103 32 27.30	1428.65	183.61	0.00
	12400.00	92.42	183.61	11031.41	1528.56	-1525.53	-96.25	568650.21	785467.06	N 32 33 38.80	W 103 32 27.38	1528.56	183.61	0.00
	12500.00	92.42	183.61	11027.18	1628.47	-1625.24	-102.54	568550.50	785460.77	N 32 33 37.81	W 103 32 27.46	1628.47	183.61	0.00
	12600.00	92.42	183.61	11022.95	1728.38	-1724.95	-108.83	568454.79	785454.48	N 32 33 36.83	W 103 32 27.54	1728.38	183.61	0.00
	12700.00	92.42	183.61	11018.72	1828.29	-1824.66	-115.12	568351.08	785448.18	N 32 33 35.84	W 103 32 27.62	1828.29	183.61	0.00
	12800.00	92.42	183.61	11014.49	1928.20	-1924.38	-121.41	568251.37	785441.89	N 32 33 34.86	W 103 32 27.71	1928.20	183.61	0.00
	12900.00	92.42	183.61	11010.27	2028.11	-2024.09	-127.70	568151.66	785435.60	N 32 33 33.87	W 103 32 27.79	2028.11	183.61	0.00
	13000.00	92.42	183.61	11006.04	2128.02	-2123.80	-133.99	568051.95	785429.31	N 32 33 32.88	W 103 32 27.87	2128.02	183.61	0.00
	13100.00	92.42	183.61	11001.81	2227.93	-2223.51	-140.28	567952.24	785423.02	N 32 33 31.90	W 103 32 27.95	2227.93	183.61	0.00
	13200.00	92.42	183.61	10997.58	2327.84	-2323.23	-146.57	567852.53	785416.73	N 32 33 30.91	W 103 32 28.04	2327.84	183.61	0.00
	13300.00	92.42	183.61	10993.35	2427.75	-2422.94	-152.86	567752.82	785410.44	N 32 33 29.92	W 103 32 28.12	2427.75	183.61	0.00
	13400.00	92.43	183.61	10989.11	2527.67	-2522.65	-159.16	567653.11	785404.15	N 32 33 28.94	W 103 32 28.20	2527.67	183.61	0.00
	13500.00	92.43	183.61	10984.88	2627.58	-2622.36	-165.45	567553.40	785397.86	N 32 33 27.95	W 103 32 28.28	2627.58	183.61	0.00
	13600.00	92.43	183.61	10980.65	2727.49	-2722.07	-171.74	567453.69	785391.57	N 32 33 26.97	W 103 32 28.36	2727.49	183.61	0.00
	13700.00	92.43	183.61	10976.42	2827.40	-2821.79	-178.03	567353.98	785385.28	N 32 33 25.98	W 103 32 28.45	2827.40	183.61	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	183.61	10972.19	2927.31	-2921.50	-184.32	567254.27	785378.99	N 32 33 24.99	W 103 32 28.53	2927.31	183.61	0.00
	13900.00	92.43	183.61	10967.95	3027.22	-3021.21	-190.61	567154.56	785372.69	N 32 33 24.01	W 103 32 28.61	3027.22	183.61	0.00
	14000.00	92.43	183.61	10963.72	3127.13	-3120.92	-196.90	567054.85	785366.40	N 32 33 23.02	W 103 32 28.69	3127.13	183.61	0.00
	14100.00	92.43	183.61	10959.49	3227.04	-3220.63	-203.19	566955.14	785360.11	N 32 33 22.04	W 103 32 28.77	3227.04	183.61	0.00
	14200.00	92.43	183.61	10955.25	3326.95	-3320.35	-209.48	566855.44	785353.82	N 32 33 21.05	W 103 32 28.86	3326.95	183.61	0.00
	14300.00	92.43	183.61	10951.02	3426.86	-3420.06	-215.77	566755.73	785347.53	N 32 33 20.06	W 103 32 28.94	3426.86	183.61	0.00
	14400.00	92.43	183.61	10946.78	3526.77	-3519.77	-222.07	566656.02	785341.24	N 32 33 19.08	W 103 32 29.02	3526.77	183.61	0.00
	14500.00	92.43	183.61	10942.54	3626.68	-3619.48	-228.36	566556.31	785334.95	N 32 33 18.09	W 103 32 29.10	3626.68	183.61	0.00
	14600.00	92.43	183.61	10938.31	3726.59	-3719.19	-234.65	566456.60	785328.66	N 32 33 17.11	W 103 32 29.19	3726.59	183.61	0.00
	14700.00	92.43	183.61	10934.07	3826.50	-3818.91	-240.94	566356.89	785322.37	N 32 33 16.12	W 103 32 29.27	3826.50	183.61	0.00
	14800.00	92.43	183.61	10929.83	3926.41	-3918.62	-247.23	566257.18	785316.08	N 32 33 15.13	W 103 32 29.35	3926.41	183.61	0.00
	14900.00	92.43	183.61	10925.60	4026.32	-4018.33	-253.52	566157.47	785309.79	N 32 33 14.15	W 103 32 29.43	4026.32	183.61	0.00
	15000.00	92.43	183.61	10921.36	4126.23	-4118.04	-259.81	566057.76	785303.50	N 32 33 13.16	W 103 32 29.51	4126.23	183.61	0.00
	15100.00	92.43	183.61	10917.12	4226.14	-4217.75	-266.10	565958.05	785297.20	N 32 33 12.17	W 103 32 29.60	4226.14	183.61	0.00
	15200.00	92.43	183.61	10912.88	4326.05	-4317.47	-272.39	565858.34	785290.91	N 32 33 11.19	W 103 32 29.68	4326.05	183.61	0.00
	15300.00	92.43	183.61	10908.64	4425.96	-4417.18	-278.68	565758.63	785284.62	N 32 33 10.20	W 103 32 29.76	4425.96	183.61	0.00
	15400.00	92.43	183.61	10904.40	4525.87	-4516.89	-284.98	565658.92	785278.33	N 32 33 9.22	W 103 32 29.84	4525.87	183.61	0.00
	15500.00	92.43	183.61	10900.16	4625.78	-4616.60	-291.27	565559.21	785272.04	N 32 33 8.23	W 103 32 29.92	4625.78	183.61	0.00
Cimarex Energy Perry 22 Federal 1H - PBHL	15503.82	92.43	183.61	10900.00	4629.60	-4620.41	-291.51	565555.40	785271.80	N 32 33 8.19	W 103 32 29.93	4629.60	183.61	0.00

Survey Type: Non-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 1H Rev1
	10598.000	15503.823	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Energy Perry 22 Federal 1H Rev1

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

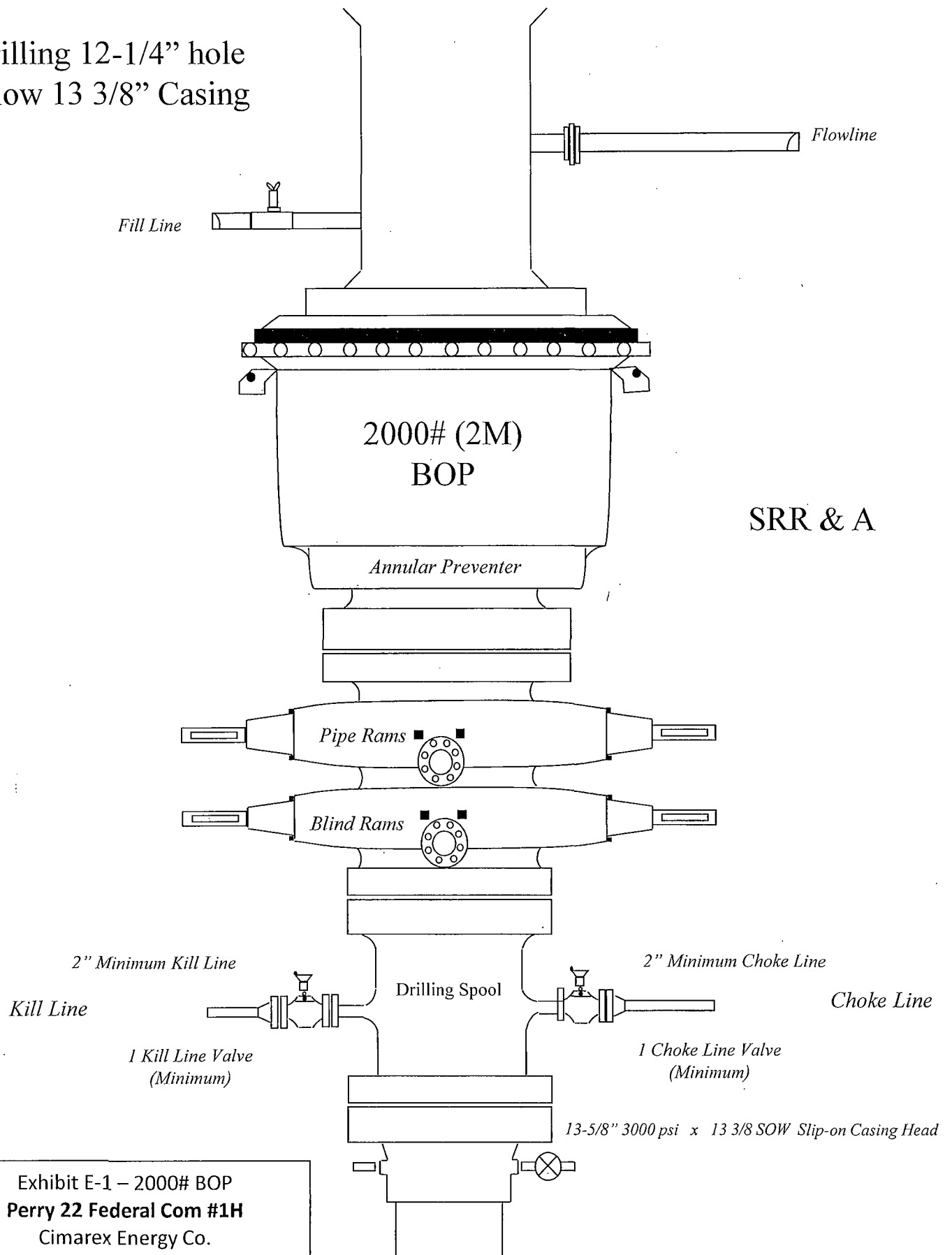
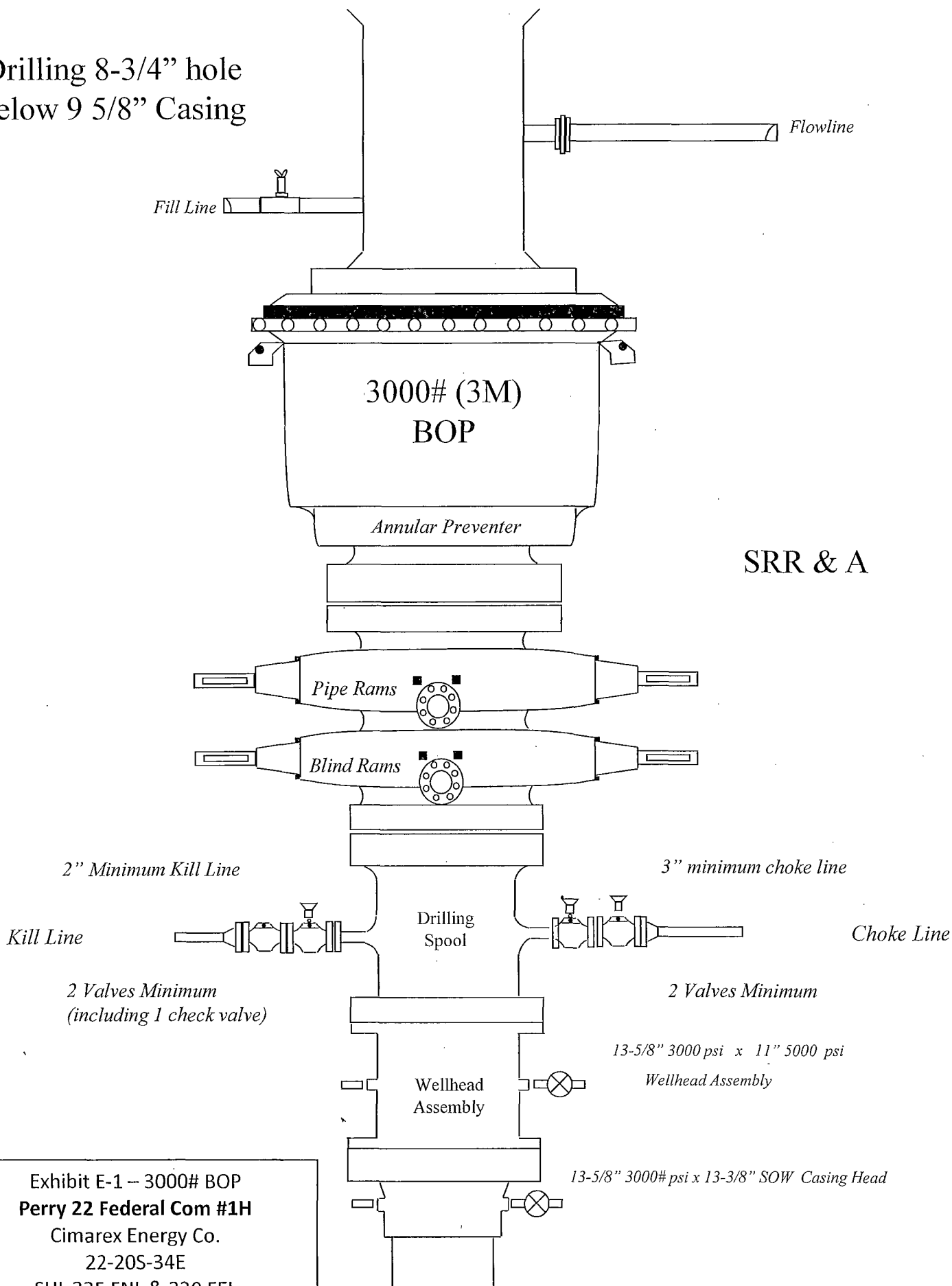


Exhibit E-1 – 2000# BOP
Perry 22 Federal Com #1H
Cimarex Energy Co.
22-20S-34E
SHL 335 FNL & 330 FEL
BHL 330 FSL & 660 FEL
Lea County, NM

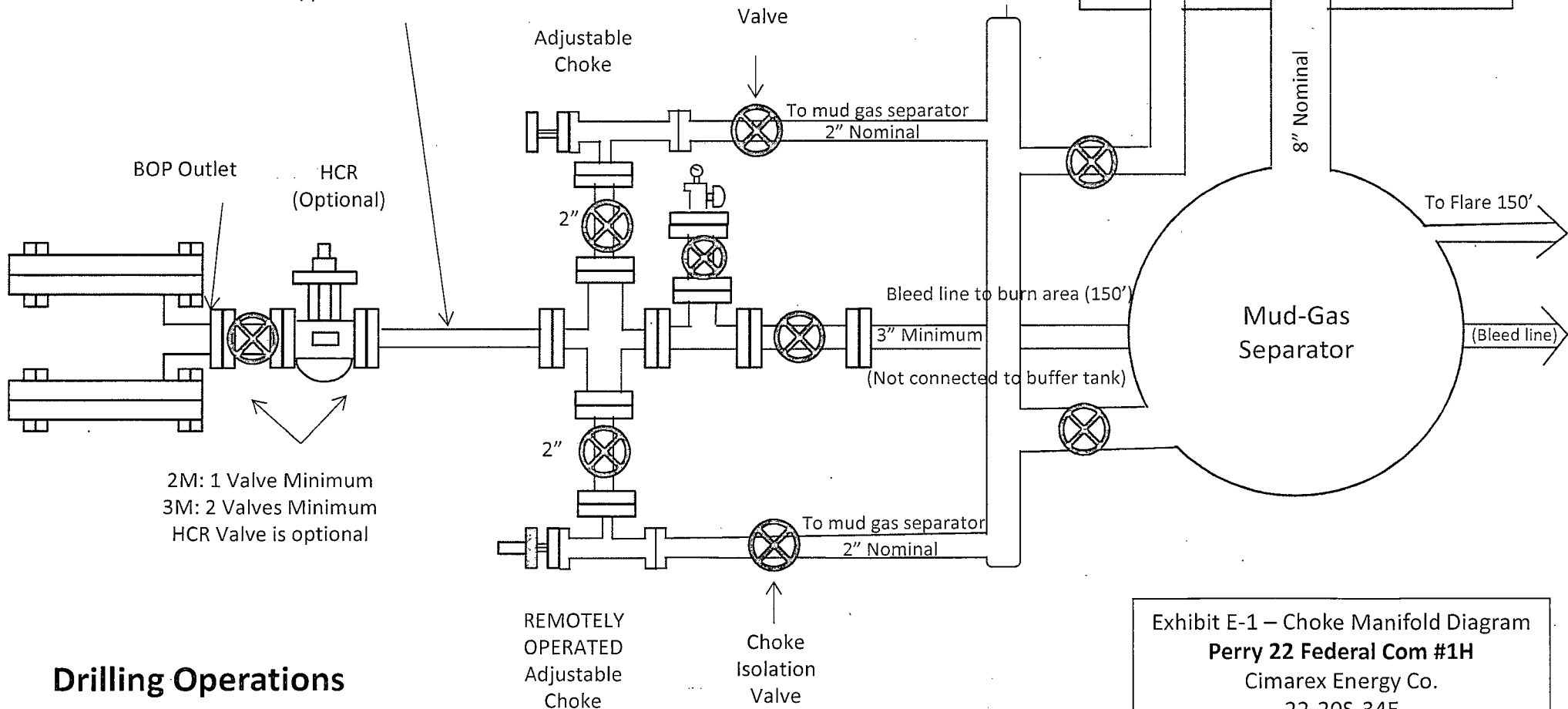
Drilling 8-3/4" hole
below 9 5/8" Casing



SRR & A

Exhibit E-1 – 3000# BOP
Perry 22 Federal Com #1H
Cimarex Energy Co.
22-20S-34E
SHL 335 FNL & 330 FEL
BHL 330 FSL & 660 FEL
Lea County, NM

Choke Line:
 2M System: 2" Minimum
 3M System: 3" Minimum
 OPTIONAL: 4" Flex Hose may be
 used if approved in APD



Drilling Operations Choke Manifold 2M/3M Service

Exhibit E-1 – Choke Manifold Diagram
Perry 22 Federal Com #1H
 Cimarex Energy Co.
 22-20S-34E
 SHL 335 FNL & 330 FEL
 BHL 330 FSL & 660 FEL
 Lea County, NM

Exhibit F-1 – Co-Flex Hose Hydrostatic Test

Perry 22 Federal Com #1H

Cimarex Energy Co.

22-20S-34E

SHL 335 FNL & 330 FEL

BHL 330 FSL & 660 FEL

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 Choke & Kill Hose		Hose Length: 45'ft.	
I.D. 4 INCHES		O.D. 9 INCHES	
WORKING PRESSURE	TEST PRESSURE	BURST PRESSURE	
10,000 PSI	15,000 PSI	0 PSI	
COUPLINGS			
Stem Part No.		Ferrule No.	
OKC OKC		OKC OKC	
Type of Coupling:			
Swage-It			
PROCEDURE			
<u>Hose assembly pressure tested with water at ambient temperature.</u>			
TIME HELD AT TEST PRESSURE		ACTUAL BURST PRESSURE:	
15 MIN.		0 PSI	
Hose Assembly Serial Number:		Hose Serial Number:	
79793		OKC	
Comments:			
Date:	Tested:	Approved:	
3/8/2011	<i>A. James Jones</i>	<i>Kevin Lee</i>	



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Graph

Customer: Houston

Pick Ticket #: 94260

Hose Specifications

Hose Type
C & K
I.D.
4"
Working Pressure
10000 PSI

Length
45'

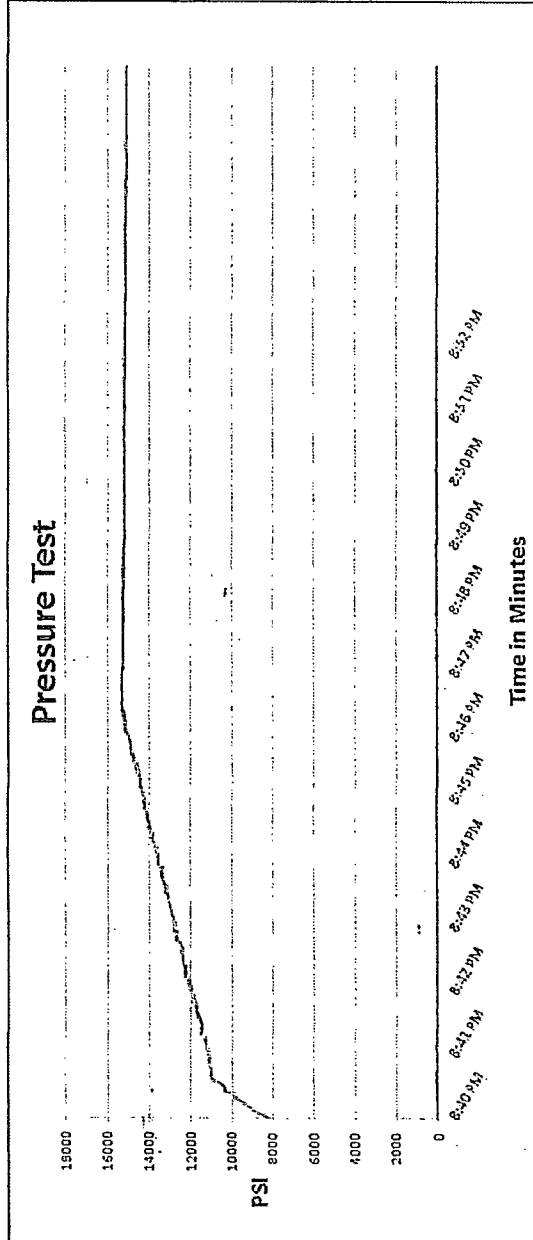
O.D.
6.09"

Burst Pressure
Standard Safety Multiplier Applies

Verification

Type of Fitting
4 1/16 10K
Die Size
6.38"
Hose Serial #
5544
Coupling Method
Swage
Final O.D.
6.25"
Hose Assembly Serial #
79793

Pressure Test



Test Pressure
15000 PSI

Time Held at Test Pressure
11 Minutes

Actual Burst Pressure

Peak Pressure
15483 PSI

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

Tested By: Zac McConnell

Approved By: Kim Thomas

[Signature]

[Signature]

Exhibit F-1 - Co-Flex Hose Hydrostatic Test
Perry 22 Federal Com #1H
Cimarex Energy Co.
22-20S-34E
SHL 335 FNL & 330 FEL
BHL 330 FSL & 660 FEL
Lea County, NM

March 3, 2011



Midwest Hose
& Specialty, Inc.

Exhibit F -3- Co-Flex Hose
Perry 22 Federal Com #1H
Cimarex Energy Co.
22-20S-34E
SHL 335 FNL & 330 FEL
BHL 330 FSL & 660 FEL
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, unbolt 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 #1H
Cimarex Energy Co.
22-20S-34E
SHL 335 FNL & 330 FEL
BHL 330 FSL & 660 FEL
Lea County, NM

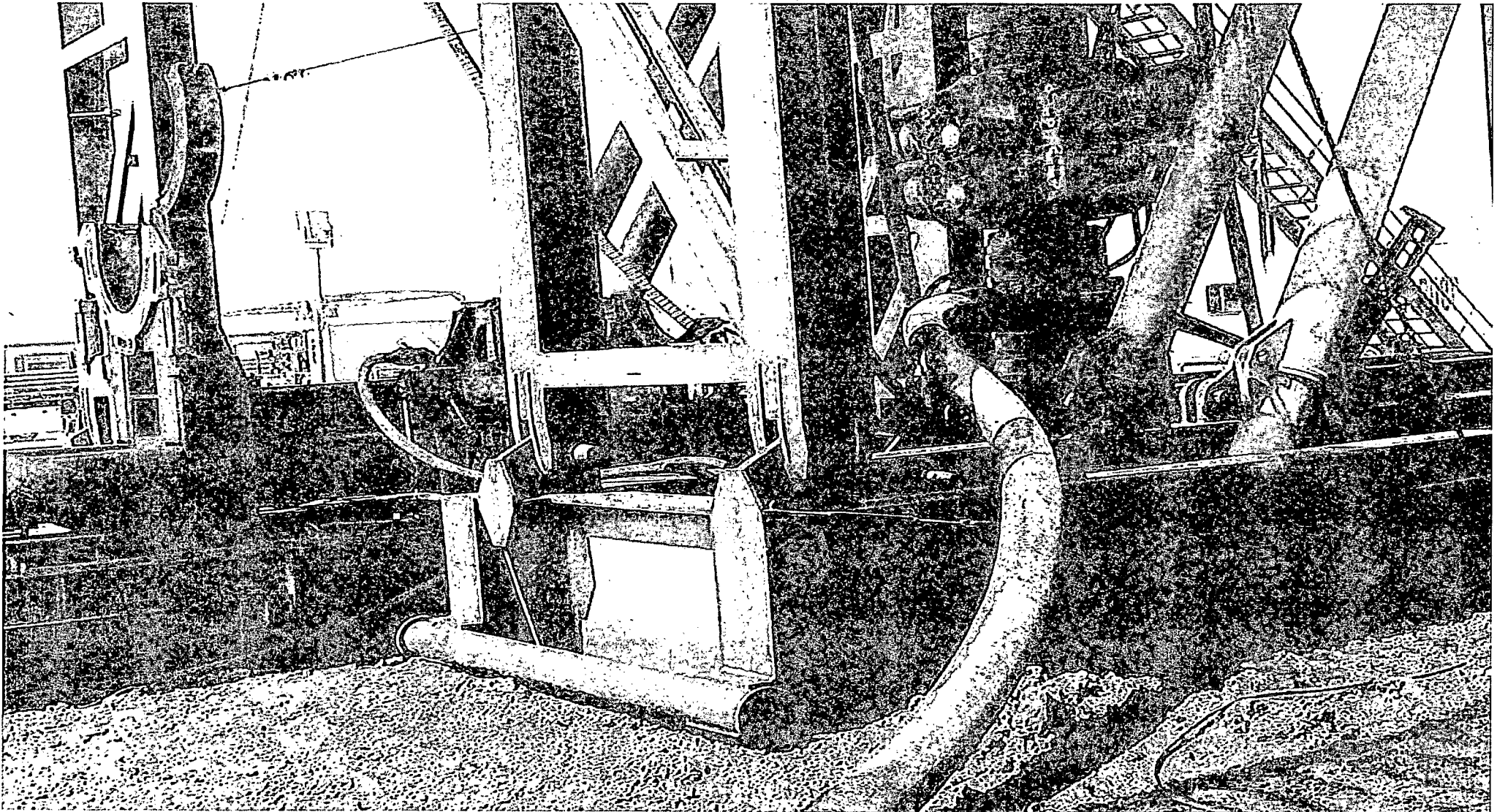


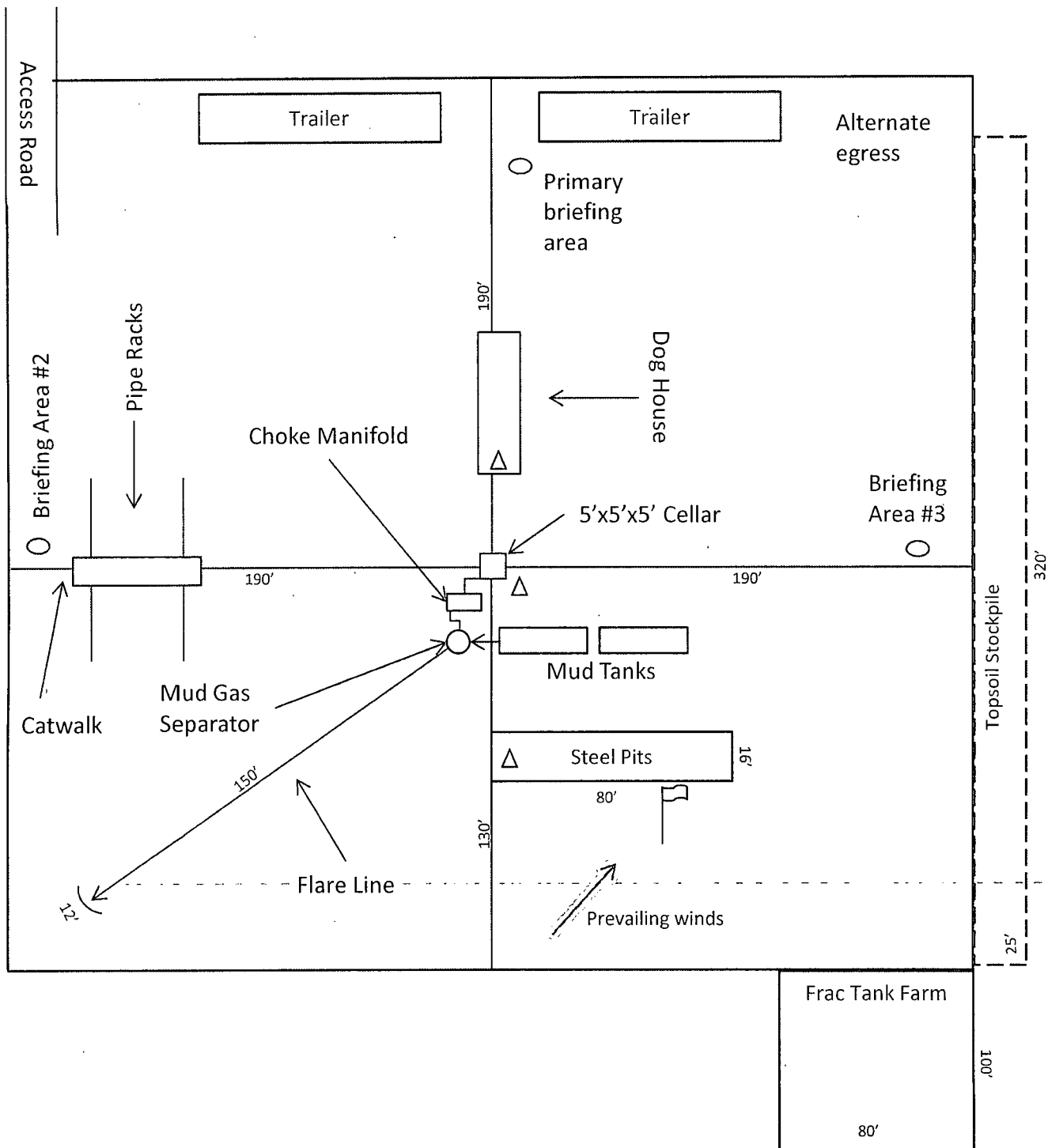
Midwest Hose & Specialty, Inc.

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:
Jared Garcia		3/8/2011

Exhibit F – Co-Flex Hose
Perry 22 Federal Com #1H
Cimarex Energy Co.
22-20S-34E
SHL 335 FNL & 330 FEL
BHL 330 FSL & 660 FEL
Lea County, NM





Wind Direction Indicators
(wind sock or streamers)



• H2S Monitors
(alarms at bell nipple and shale shaker)



Briefing Areas

N



Exhibit D – Rig Diagram
Perry 22 Federal Com #1H
Cimarex Energy Co.
22-20S-34E
SHL 335 FNL & 330 FEL
BHL 330 FSL & 660 FEL
Lea County, NM