

14-504

HOBBS OCD

SEP 12 2014

Form 3160-3
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs

RECEIVED

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

5. Lease Serial No.
SHLABHL: NMNM 031224

6. If Indian, Allottee or Tribe Name

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work ☒ DRILL ☐ REENTER

1b. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2. Name of Operator

Cimarex Energy Co.

3a. Address

202 S. Cheyenne Ave.; Ste 1000, Tulsa, OK 74103

3b. Phone No. (include area code)

918-585-1100

4. Location of Well (Report location clearly and in accordance with any State requirements.)*

At Surface 350 FSL & 1330 FWL

At proposed prod. Zone 330 FNL & 1320 FWL

Bone Spring

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

8. Lease Name and Well No.
Triste Draw 30 Federal #6H

9. API Well No.

30-025-42107

10. Field and Pool, or Exploratory

TRISTE X; BONE SPRING, WEL

11. Sec. T. R. M. or Blk. and Survey and Area

30, 23S, 33E

14. Distance in miles and direction from nearest town or post office*

28 miles NW of Jal, NM

12. County or Parish

Lea

13. State

NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line if any)

350

16. No of acres in lease

NMNM 031224=591.68 acres

17. Spacing Unit dedicated to this well

160.00

18. Distance from proposed* location to nearest well, drilling, completed, applied for, on this lease, ft.

20' to the #7H

19. Proposed Depth

Pilot Hole TD: N/A

14,271 MD

9,875 TVD

20. BLM/BIA Bond No. on File

NM2575; NMB000835

21. Elevations (Show whether DF, KDB, RT, GL, etc.)

3693 GR

22. Approximate date work will start*

5/12/14

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
2. A Drilling Plan
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).

4. Bond to cover the operations unless covered by an existing bond on file (see Item 5. Operator Certification
6. Such other site specific information and/or plans as may be required by the authority.

25. Signature

Aricka Easterling

Name (Printed/Typed)

Aricka Easterling

Date

3/12/14

Title

Regulatory Compliance

Approved By (Signature)

Steve Caffey

Name (Printed/Typed)

CARLSBAD FIELD OFFICE

Date

SEP 9 2014

Title

FIELD MANAGER

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)

*(Instructions on page 2)

Carlsbad Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations Attached

SEE ATTACHED FOR SEP 16 2014
CONDITIONS OF APPROVAL

E-PERMITTING -- New Well ☒ TA
Comp ☐ P&A ☐ Loc Chng
CSNG ☐ Add New Well
ReComp ☐ Create Pool
Canc Well ☐

Operator Certification Statement

Triste Draw 30 Federal #6H

Cimarex Energy Co.

UL: N, Sec. 30, 23S, 33E

Lea Co., NM

Operator's Representative

Cimarex Energy Co. of Colorado

600 N. Marienfeld St., Ste. 600

Midland, TX 79701

Office Phone: (432) 571-7800

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CERTIFICATION: I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this-APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this 12 day of March, 2014

NAME


Aricka Easterling

TITLE: Regulatory Compliance

ADDRESS: 202 S. Cheyenne Ave., Ste 1000, Tulsa, OK 74103

TELEPHONE: 918-585-1100

EMAIL: AEasterling@cimarex.com

Field Representative: Same as above

Application to Drill
Triste Draw 30 Federal #6H
 Cimarex Energy Co.
 UL: N, Sec. 30, 23S, 33E
 Lea Co., NM

SEP 12 2014

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In response to questions asked under Section II B of Bulletin NTL-6, the following information is provided for your consideration:

1. **Location:** SHL 350 FSL & 1330 FWL
 BHL 330 FNL & 1320 FWL
2. **Elevation Above Sea Level:** 3,693' GR
3. **Geologic Name of Surface Formation:** Quaternary Alluvium Deposits
4. **Drilling Tools and Associated Equipment:** Conventional rotary drilling rig using fluid as a circulating medium for solids removal
5. **Proposed Drilling Depth:** 14,271 MD 9,875 TVD Pilot Hole TD: N/A
6. **Estimated Tops of Geological Markers:**

Formation	Est Top	Bearing
Rustler	1250	N/A
Salt	1740	N/A
Castille	3600	N/A
Base Last Salt	4815	N/A
Lamar	5060	N/A
Bell Canyon	5110	N/A
Cherry Canyon	6150	N/A
Brushy Canyon	7200	Hydrocarbons
Bone Spring	8900	Hydrocarbons
Avalon Shale	9350	Hydrocarbons

7. **Possible Mineral Bearing Formation:** Shown above

7A. **OSE Ground Water Estimated Depth:** 425'

8. **Casing Program:**

Name	Casing Depth From (ft)	Casing Setting Depth (ft) MD	Casing Setting Depth (ft) TVD	Open Hole Size (inches)	Casing Size (inches)	Casing Weight (lb/ft)	Casing Grade	Thread	Condition	BHP (psig)	Anticipated Mud Weight (ppg)	Collapse SF at Full Evacuation(1.125)	Collapse SF at 1/3 Evacuation(1.125)	Burst SF (1.125)	Cumulative Air Weight	Cumulative Bouyed Weight (lbs)	Bouyant Tension SF (1.8)
Surface	0	1300	1300	17 1/2	13-3/8"	48.00	H-40	ST&C	New	594	8.8	1.24		2.91	62,400	54,016	5.96
Intermediate	0	5080	5080	12 1/4	9-5/8"	36.00	J-55	LT&C	New	2668	10.1		1.17	1.32	182,880	154,680	2.93
Production	0	9398	9398	8 3/4	5-1/2"	17.00	L-80	LT&C	New	4496	9.2	1.40		1.72	167,875	144,295	2.34
Production	9398	14271	9875	8 3/4	5-1/2"	17.00	L-80	BT&C	New	4724	9.2	1.33		1.64	8,109	6,970	56.96

Note: Operator may drill a 8-1/2" OH from end of curve to TD of the well. This is to reduce the need to ream the conventionally drilled curve to run a RSS assembly into the lateral.

Application to Drill
Triste Draw 30 Federal #6H
 Cimarex Energy Co.
 UL: N, Sec. 30, 23S, 33E
 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 Completion System	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	619	1.75	13.50	1083	Class C + Bentonite + Calcium Chloride + LCM, 8.829 gps water
	Tail	168	1.34	14.80	225	Class C + LCM, 6.32 gps water
	TOC: 0		45% Excess			Centralizers per Onshore Order 2.III.B.1f
Intermediate	Lead	912	1.88	12.90	1714	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		44% Excess			
Production	Lead	524	2.40	11.90	1257	35:65 (poz/H) + salt + Sodium Metasilicate + Bentonite + Fluid Loss + Dispersant + LCM + Retarder, 13.80 gps water
	Tail	1205	1.24	14.50	1493	50:50 (poz/H) + Bentonite + Salt + Fluid Loss + Dispersant + LCM + Retarder, 5.55 gps water
	TOC: 4880		16% 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: No Pilot KOP: 9,398' EOC: 10,148'

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.

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
Triste Draw 30 Federal #6H
Cimarex Energy Co.
UL: N, Sec. 30, 23S, 33E
Lea Co., NM

11. Proposed Mud Circulating System:

Depth	Mud Weight	Visc	Fluid Loss	Type Mud
0' to 1300'	7.80 - 8.30	28	NC	FW Spud Mud
1300' to 5080'	9.50 - 10.00	30-32	NC	Brine Water
5080' to 14271'	8.50 - 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 5080 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:

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: 4444 psi

Estimated BHT: 159°

14. Construction and Drilling:

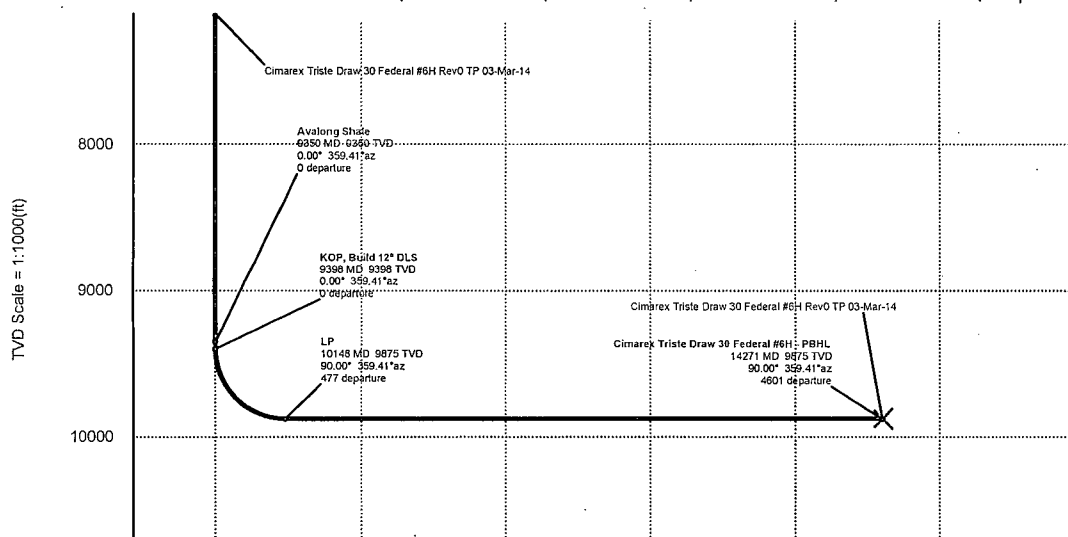
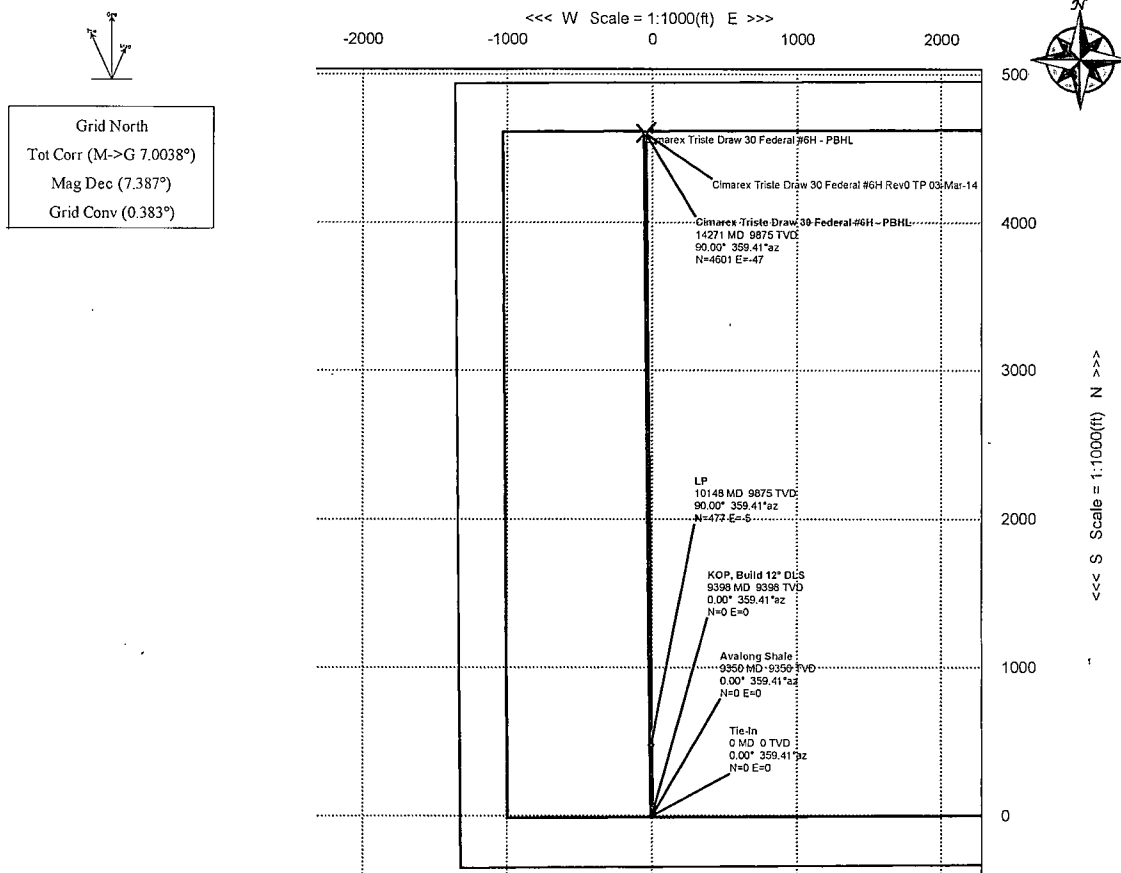
Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved.
Drilling expected to take: 35 days.
If production casing is run an additional 30 days will be required to complete and construct surface facilities.

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**



WELL	Triste Draw 30 Federal #6H		FIELD	NM Lea County (NAD 83)		STRUCTURE	Cimarex Triste Draw 30 Federal #6H	
Magnetic Parameters	Model	BOGM 2013	Dip	60.142°	Date	March 03, 2014	Surface Location	NAD83 New Mexico State Plane, Eastern Zone, US Feet
			Mag Dec	7.387°			Lat	N 32 16 10.024
							Lon	W 103 38 55.813
							Nothing	Nothing
							Eastings	763222.60 NUS
							Grid Conv	0.383°
							Scale Fact	0.9999548
							Mechanisms	SBT
							Plan	Triste Draw 30 Federal #6H TVD Ref: Unknown (3893ft above MSL)
								Cimarex Triste Draw 30 Federal #6H Rev0 TP03-Mar-14



Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
Tie-In	0.00	0.00	359.41	0.00	0.00	0.00	0.00	
Avalong Shale	9350.00	0.00	359.41	9350.00	0.00	0.00	0.00	0.00
KOP, Build 12° DLS	9397.54	0.00	359.41	9397.54	0.00	0.00	0.00	0.00
LP	10147.54	90.00	359.41	9875.00	477.46	477.44	-4.92	12.00
Cimarex Triste Draw 30 Federal #6H - PBHL	14271.29	90.00	359.41	9875.00	4601.21	4600.97	-47.30	0.00

Cimarex Triste Draw 30 Federal #6H Rev0 TP 03-Mar-14 Proposal Report

(Non-Def Plan)

Report Date: March 03, 2014 - 02:12 PM
Client:
Field: NM Lea County (NAD 83)
Structure / Slot: Cimarex Triste Draw 30 Federal #6H / Triste Draw 30 Federal #6H
Well: Triste Draw 30 Federal #6H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Cimarex Triste Draw 30 Federal #6H Rev0 TP 03-Mar-14
Survey Date: March 03, 2014
Tort / AHD / DDI / ERD Ratio: 90.002 ° / 4601.211 ft / 5.777 / 0.465
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 16' 10.02397", W 103° 36' 55.61330"
Location Grid N/E Y/X: N 462501.500 ftUS, E 763222.600 ftUS
CRS Grid Convergence Angle: 0.3833 °
Grid Scale Factor: 0.99996548

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 359.411 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: Unknown
TVD Reference Elevation: 3693.000 ft above MSL
Seabed / Ground Elevation: 3693.000 ft above MSL
Magnetic Declination: 7.387 °
Total Field Strength: 48346.020 nT
Magnetic Dip Angle: 60.140 °
Declination Date: March 03, 2014
Magnetic Declination Model: BGGM 2013
North Reference: Grid North
Grid Convergence Used: 0.3833 °
Total Corr Mag North->Grid North: 7.0038 °
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	359.41	0.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	N/A
	100.00	0.00	359.41	100.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	200.00	0.00	359.41	200.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	300.00	0.00	359.41	300.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	400.00	0.00	359.41	400.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	500.00	0.00	359.41	500.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	600.00	0.00	359.41	600.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	700.00	0.00	359.41	700.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	800.00	0.00	359.41	800.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	900.00	0.00	359.41	900.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	1000.00	0.00	359.41	1000.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	1100.00	0.00	359.41	1100.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	1200.00	0.00	359.41	1200.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	1300.00	0.00	359.41	1300.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	1400.00	0.00	359.41	1400.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	1500.00	0.00	359.41	1500.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	1600.00	0.00	359.41	1600.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	1700.00	0.00	359.41	1700.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	1800.00	0.00	359.41	1800.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	1900.00	0.00	359.41	1900.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	2000.00	0.00	359.41	2000.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	2100.00	0.00	359.41	2100.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	2200.00	0.00	359.41	2200.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	2300.00	0.00	359.41	2300.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	2400.00	0.00	359.41	2400.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	2500.00	0.00	359.41	2500.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	2600.00	0.00	359.41	2600.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	2700.00	0.00	359.41	2700.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	2800.00	0.00	359.41	2800.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	2900.00	0.00	359.41	2900.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	3000.00	0.00	359.41	3000.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00

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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	359.41	8600.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	8700.00	0.00	359.41	8700.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	8800.00	0.00	359.41	8800.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	8900.00	0.00	359.41	8900.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	9000.00	0.00	359.41	9000.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	9100.00	0.00	359.41	9100.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	9200.00	0.00	359.41	9200.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	9300.00	0.00	359.41	9300.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
Avalong Shale	9350.00	0.00	359.41	9350.00	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
KOP, Build 12° DLS	9397.54	0.00	359.41	9397.54	0.00	0.00	0.00	462501.50	763222.60	N 32 16 10.02	W 103 36 55.61	0.00	0.00	0.00
	9400.00	0.30	359.41	9400.00	0.01	0.01	0.00	462501.51	763222.60	N 32 16 10.02	W 103 36 55.61	0.01	359.41	12.00
	9500.00	12.30	359.41	9499.22	10.95	10.95	-0.11	462512.45	763222.49	N 32 16 10.13	W 103 36 55.61	10.95	359.41	12.00
	9600.00	24.30	359.41	9593.99	42.29	42.28	-0.44	462543.78	763222.16	N 32 16 10.44	W 103 36 55.62	42.29	359.41	12.00
	9700.00	36.30	359.41	9680.17	92.64	92.63	-0.95	462594.13	763221.65	N 32 16 10.94	W 103 36 55.62	92.64	359.41	12.00
	9800.00	48.30	359.41	9754.01	159.81	159.80	-1.65	462661.30	763220.95	N 32 16 11.61	W 103 36 55.62	159.81	359.41	12.00
	9900.00	60.30	359.41	9812.26	240.87	240.85	-2.48	462742.34	763220.12	N 32 16 12.41	W 103 36 55.62	240.87	359.41	12.00
	10000.00	72.30	359.41	9852.39	332.26	332.24	-3.42	462833.73	763219.18	N 32 16 13.31	W 103 36 55.63	332.26	359.41	12.00
	10100.00	84.30	359.41	9872.64	430.00	429.98	-4.43	462931.46	763218.17	N 32 16 14.28	W 103 36 55.63	430.00	359.41	12.00
LP	10147.54	90.00	359.41	9875.00	477.46	477.44	-4.92	462978.92	763217.68	N 32 16 14.75	W 103 36 55.63	477.46	359.41	12.00
	10200.00	90.00	359.41	9875.00	529.92	529.90	-5.46	463031.38	763217.14	N 32 16 15.27	W 103 36 55.64	529.92	359.41	0.00
	10300.00	90.00	359.41	9875.00	629.92	629.89	-6.49	463131.37	763216.11	N 32 16 16.26	W 103 36 55.64	629.92	359.41	0.00
	10400.00	90.00	359.41	9875.00	729.92	729.89	-7.52	463231.36	763215.08	N 32 16 17.25	W 103 36 55.64	729.92	359.41	0.00
	10500.00	90.00	359.41	9875.00	829.92	829.88	-8.55	463331.35	763214.05	N 32 16 18.24	W 103 36 55.65	829.92	359.41	0.00
	10600.00	90.00	359.41	9875.00	929.92	929.88	-9.57	463431.34	763213.03	N 32 16 19.23	W 103 36 55.65	929.92	359.41	0.00
	10700.00	90.00	359.41	9875.00	1029.92	1029.87	-10.60	463531.33	763212.00	N 32 16 20.22	W 103 36 55.66	1029.92	359.41	0.00
	10800.00	90.00	359.41	9875.00	1129.92	1129.86	-11.63	463631.32	763210.97	N 32 16 21.20	W 103 36 55.66	1129.92	359.41	0.00
	10900.00	90.00	359.41	9875.00	1229.92	1229.86	-12.66	463731.31	763209.94	N 32 16 22.19	W 103 36 55.66	1229.92	359.41	0.00
	11000.00	90.00	359.41	9875.00	1329.92	1329.85	-13.69	463831.31	763208.91	N 32 16 23.18	W 103 36 55.67	1329.92	359.41	0.00
	11100.00	90.00	359.41	9875.00	1429.92	1429.85	-14.72	463931.30	763207.88	N 32 16 24.17	W 103 36 55.67	1429.92	359.41	0.00
	11200.00	90.00	359.41	9875.00	1529.92	1529.84	-15.75	464031.29	763206.85	N 32 16 25.16	W 103 36 55.68	1529.92	359.41	0.00
	11300.00	90.00	359.41	9875.00	1629.92	1629.84	-16.78	464131.28	763205.82	N 32 16 26.15	W 103 36 55.68	1629.92	359.41	0.00
	11400.00	90.00	359.41	9875.00	1729.92	1729.83	-17.81	464231.27	763204.79	N 32 16 27.14	W 103 36 55.69	1729.92	359.41	0.00
	11500.00	90.00	359.41	9875.00	1829.92	1829.83	-18.83	464331.26	763203.77	N 32 16 28.13	W 103 36 55.69	1829.92	359.41	0.00
	11600.00	90.00	359.41	9875.00	1929.92	1929.82	-19.86	464431.25	763202.74	N 32 16 29.12	W 103 36 55.69	1929.92	359.41	0.00
	11700.00	90.00	359.41	9875.00	2029.92	2029.82	-20.89	464531.24	763201.71	N 32 16 30.11	W 103 36 55.70	2029.92	359.41	0.00
	11800.00	90.00	359.41	9875.00	2129.92	2129.81	-21.92	464631.23	763200.68	N 32 16 31.10	W 103 36 55.70	2129.92	359.41	0.00
	11900.00	90.00	359.41	9875.00	2229.92	2229.81	-22.95	464731.23	763199.65	N 32 16 32.09	W 103 36 55.71	2229.92	359.41	0.00
	12000.00	90.00	359.41	9875.00	2329.92	2329.80	-23.98	464831.22	763198.62	N 32 16 33.08	W 103 36 55.71	2329.92	359.41	0.00
	12100.00	90.00	359.41	9875.00	2429.92	2429.80	-25.00	464931.21	763197.60	N 32 16 34.07	W 103 36 55.72	2429.92	359.41	0.00
	12200.00	90.00	359.41	9875.00	2529.92	2529.79	-26.03	465031.20	763196.57	N 32 16 35.06	W 103 36 55.72	2529.92	359.41	0.00
	12300.00	90.00	359.41	9875.00	2629.92	2629.79	-27.06	465131.19	763195.54	N 32 16 36.05	W 103 36 55.72	2629.92	359.41	0.00
	12400.00	90.00	359.41	9875.00	2729.92	2729.78	-28.09	465231.18	763194.51	N 32 16 37.04	W 103 36 55.73	2729.92	359.41	0.00
	12500.00	90.00	359.41	9875.00	2829.92	2829.78	-29.12	465331.17	763193.49	N 32 16 38.03	W 103 36 55.73	2829.92	359.41	0.00
	12600.00	90.00	359.41	9875.00	2929.92	2929.77	-30.14	465431.16	763192.46	N 32 16 39.02	W 103 36 55.74	2929.92	359.41	0.00
	12700.00	90.00	359.41	9875.00	3029.92	3029.76	-31.17	465531.15	763191.43	N 32 16 40.01	W 103 36 55.74	3029.92	359.41	0.00
	12800.00	90.00	359.41	9875.00	3129.92	3129.76	-32.20	465631.14	763190.40	N 32 16 40.99	W 103 36 55.74	3129.92	359.41	0.00
	12900.00	90.00	359.41	9875.00	3229.92	3229.75	-33.22	465731.14	763189.38	N 32 16 41.98	W 103 36 55.75	3229.92	359.41	0.00
	13000.00	90.00	359.41	9875.00	3329.92	3329.75	-34.25	465831.13	763188.35	N 32 16 42.97	W 103 36 55.75	3329.92	359.41	0.00
	13100.00	90.00	359.41	9875.00	3429.92	3429.74	-35.28	465931.12	763187.32	N 32 16 43.96	W 103 36 55.76	3429.92	359.41	0.00
	13200.00	90.00	359.41	9875.00	3529.92	3529.74	-36.31	466031.11	763186.30	N 32 16 44.95	W 103 36 55.76	3529.92	359.41	0.00
	13300.00	90.00	359.41	9875.00	3629.92	3629.73	-37.33	466131.10	763185.27	N 32 16 45.94	W 103 36 55.77	3629.92	359.41	0.00
	13400.00	90.00	359.41	9875.00	3729.92	3729.73	-38.36	466231.09	763184.24	N 32 16 46.93	W 103 36 55.77	3729.92	359.41	0.00
	13500.00	90.00	359.41	9875.00	3829.92	3829.72	-39.39	466331.08	763183.22	N 32 16 47.92	W 103 36 55.77	3829.92	359.41	0.00
	13600.00	90.00	359.41	9875.00	3929.92	3929.72	-40.41	466431.07	763182.19	N 32 16 48.91	W 103 36 55.78	3929.92	359.41	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)
	13700.00	90.00	359.41	9875.00	4029.92	4029.71	-41.44	466531.06	763181.16	N 32 16 49.90	W 103 36 55.78	4029.92	359.41	0.00
	13800.00	90.00	359.41	9875.00	4129.92	4129.71	-42.47	466631.06	763180.14	N 32 16 50.89	W 103 36 55.79	4129.92	359.41	0.00
	13900.00	90.00	359.41	9875.00	4229.92	4229.70	-43.49	466731.05	763179.11	N 32 16 51.88	W 103 36 55.79	4229.92	359.41	0.00
	14000.00	90.00	359.41	9875.00	4329.92	4329.70	-44.52	466831.04	763178.08	N 32 16 52.87	W 103 36 55.79	4329.92	359.41	0.00
	14100.00	90.00	359.41	9875.00	4429.92	4429.69	-45.54	466931.03	763177.06	N 32 16 53.86	W 103 36 55.80	4429.92	359.41	0.00
	14200.00	90.00	359.41	9875.00	4529.92	4529.69	-46.57	467031.02	763176.03	N 32 16 54.85	W 103 36 55.80	4529.92	359.41	0.00
Cimarex Triste Draw 30 Federal #6H - PBHL	14271.29	90.00	359.41	9875.00	4601.21	4600.97	-47.30	467102.30	763175.30	N 32 16 55.55	W 103 36 55.81	4601.21	359.41	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	14271.286	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Triste Draw 30 Federal #6H Rev0 TP 03-

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

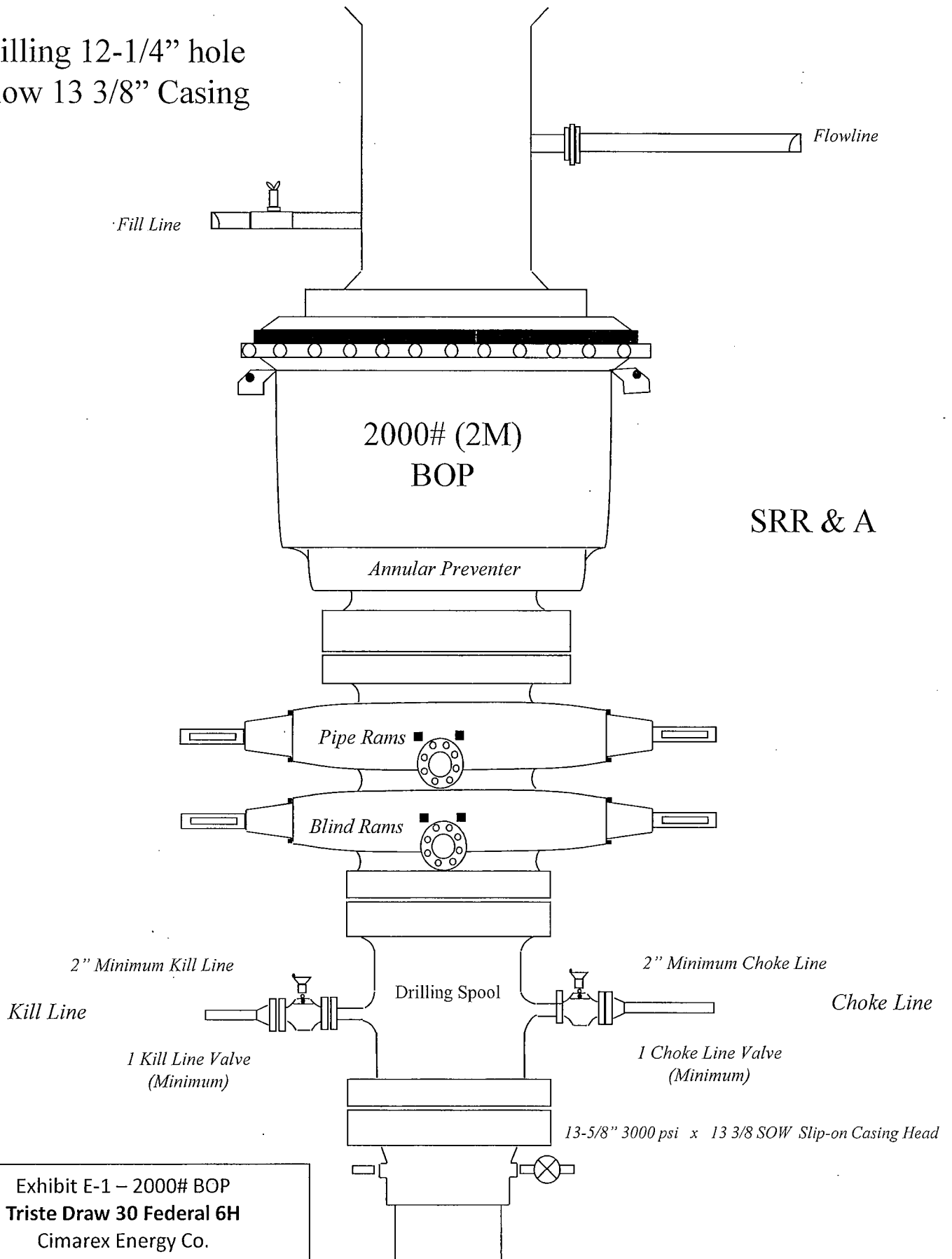


Exhibit E-1 – 2000# BOP
Triste Draw 30 Federal 6H
Cimarex Energy Co.
30-23S-33E
SHL 350 FSL & 1330 FWL
BHL 330 FNL & 1320 FWL
Lea County, NM

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

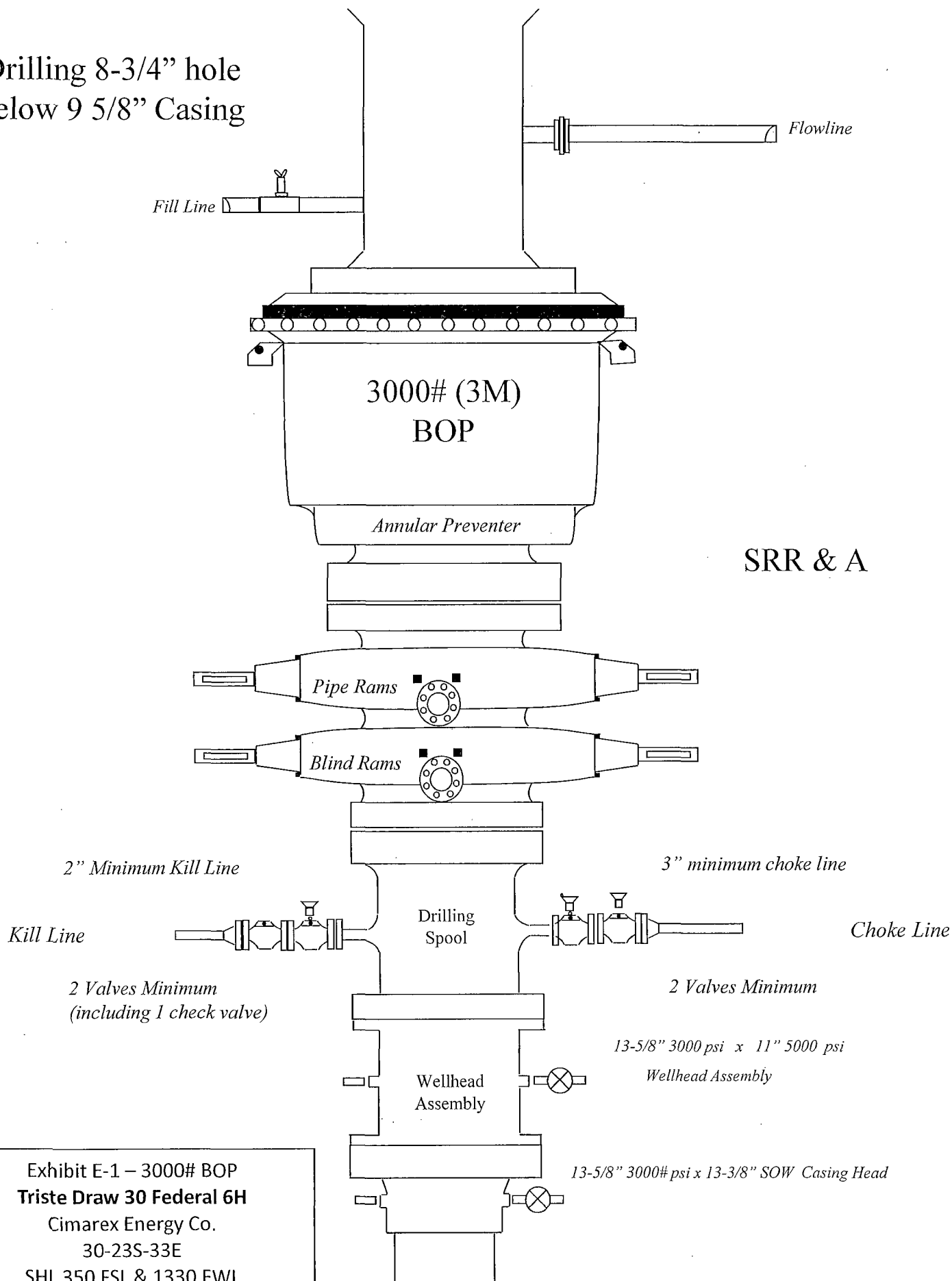
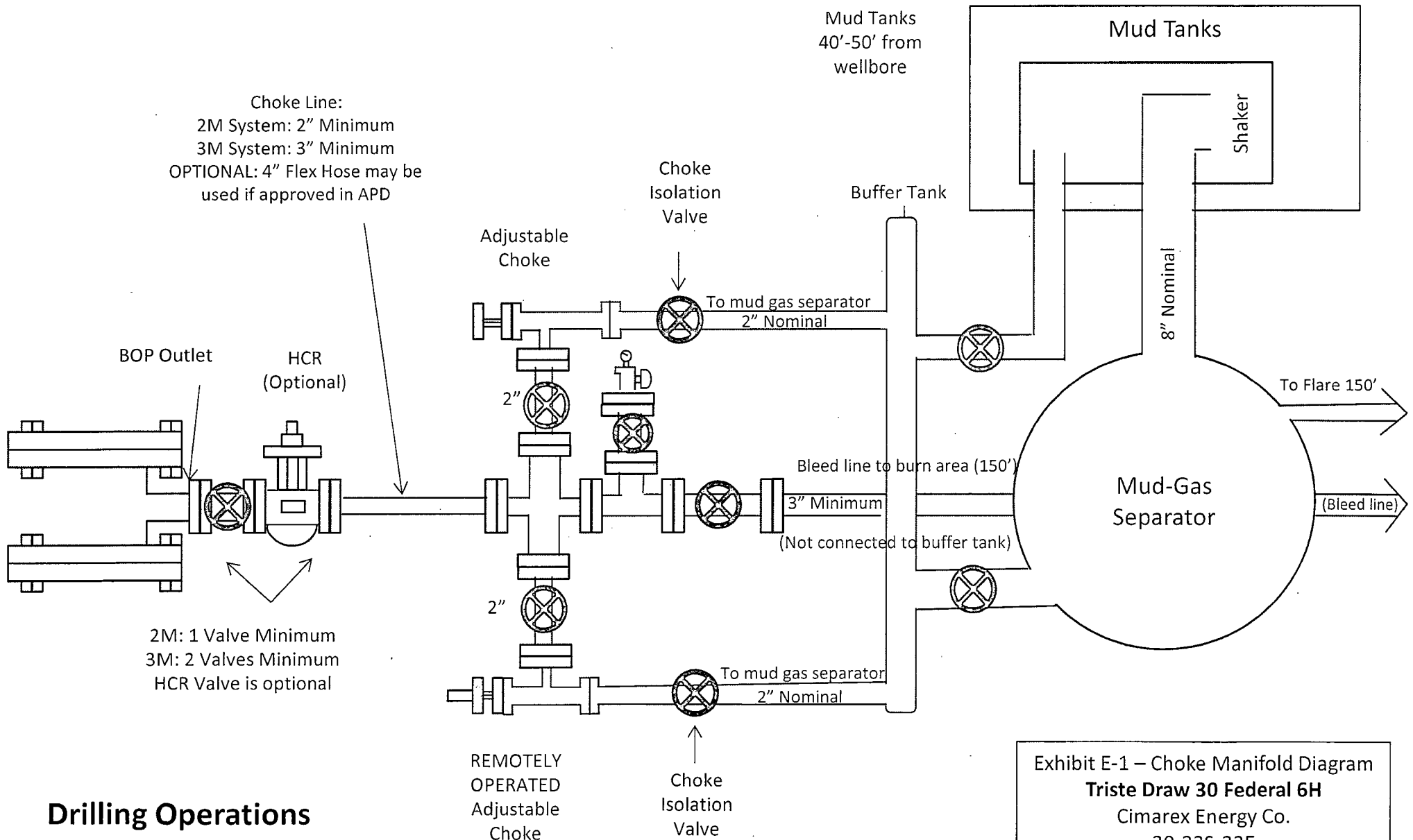


Exhibit E-1 – 3000# BOP
Triste Draw 30 Federal 6H
Cimarex Energy Co.
30-23S-33E
SHL 350 FSL & 1330 FWL
BHL 330 FNL & 1320 FWL
Lea County, NM

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
Triste Draw 30 Federal 6H
 Cimarex Energy Co.
 30-23S-33E
 SHL 350 FSL & 1330 FWL
 BHL 330 FNL & 1320 FWL
 Lea County, NM

Exhibit F-1 – Co-Flex Hose Hydrostatic Test

Triste Draw 30 Federal 6H

Cimarex Energy Co.

30-23S-33E

SHL 350 FSL & 1330 FWL

BHL 330 FNL & 1320 FWL

Lea County, NM



Midwest Hose & Specialty, Inc.

INTERNAL HYDROSTATIC TEST REPORT

Customer: Oderco Inc		P.O. Number: 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 10,000 PSI	TEST PRESSURE 15,000 PSI		BURST PRESSURE 0 PSI
COUPLINGS			
Stem Part No. OKC OKC		Ferrule No. OKC OKC	
Type of Coupling: Swage-It			
PROCEDURE			
<i>Hose assembly pressure tested with water at ambient temperature.</i>			
TIME HELD AT TEST PRESSURE 15 MIN.		ACTUAL BURST PRESSURE: 0 PSI	
Hose Assembly Serial Number: 79793		Hose Serial Number: OKC	
Comments:			
Date: 3/8/2011	Tested: <i>A. Davis Jones</i>		Approved: <i>Kevin Hef</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 Fittings
4 1/16 10K

Die Size
6.38"

Hose Serial #
5544

Coupling Method
Swage

Final O.D.
6.25"

Hose Assembly Serial #
79793

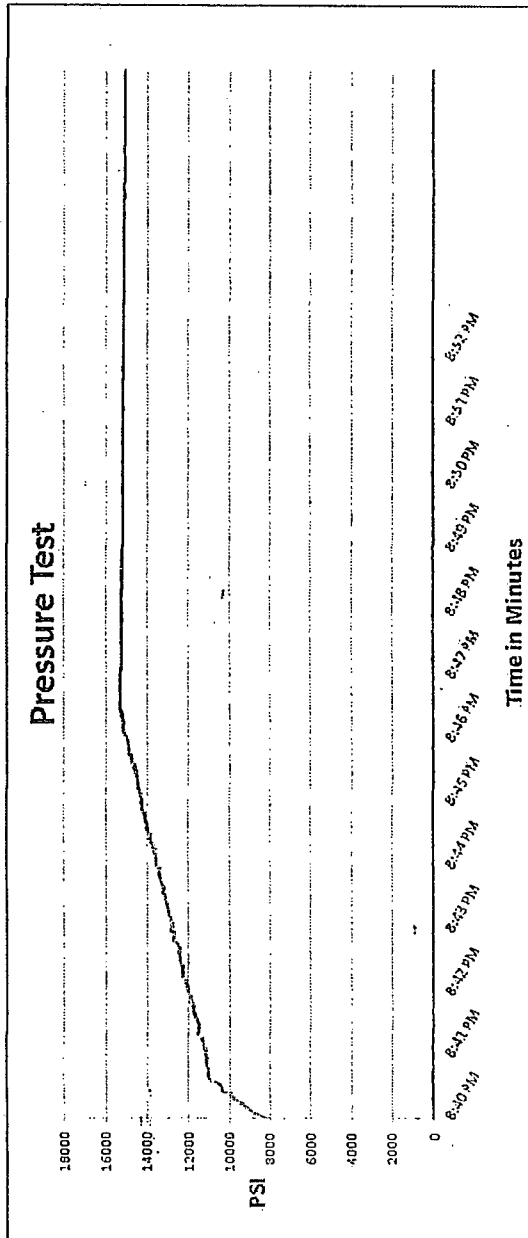


Exhibit F-2 – Co-Flex Hose
Triste Draw 30 Federal 6H

Cimarex Energy Co.
30-23S-33E

SHL 350 FSL & 1330 FWL

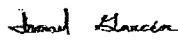
BHL 330 FNL & 1320 FWL

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:
		3/8/2011



Midwest Hose
& Specialty, Inc.

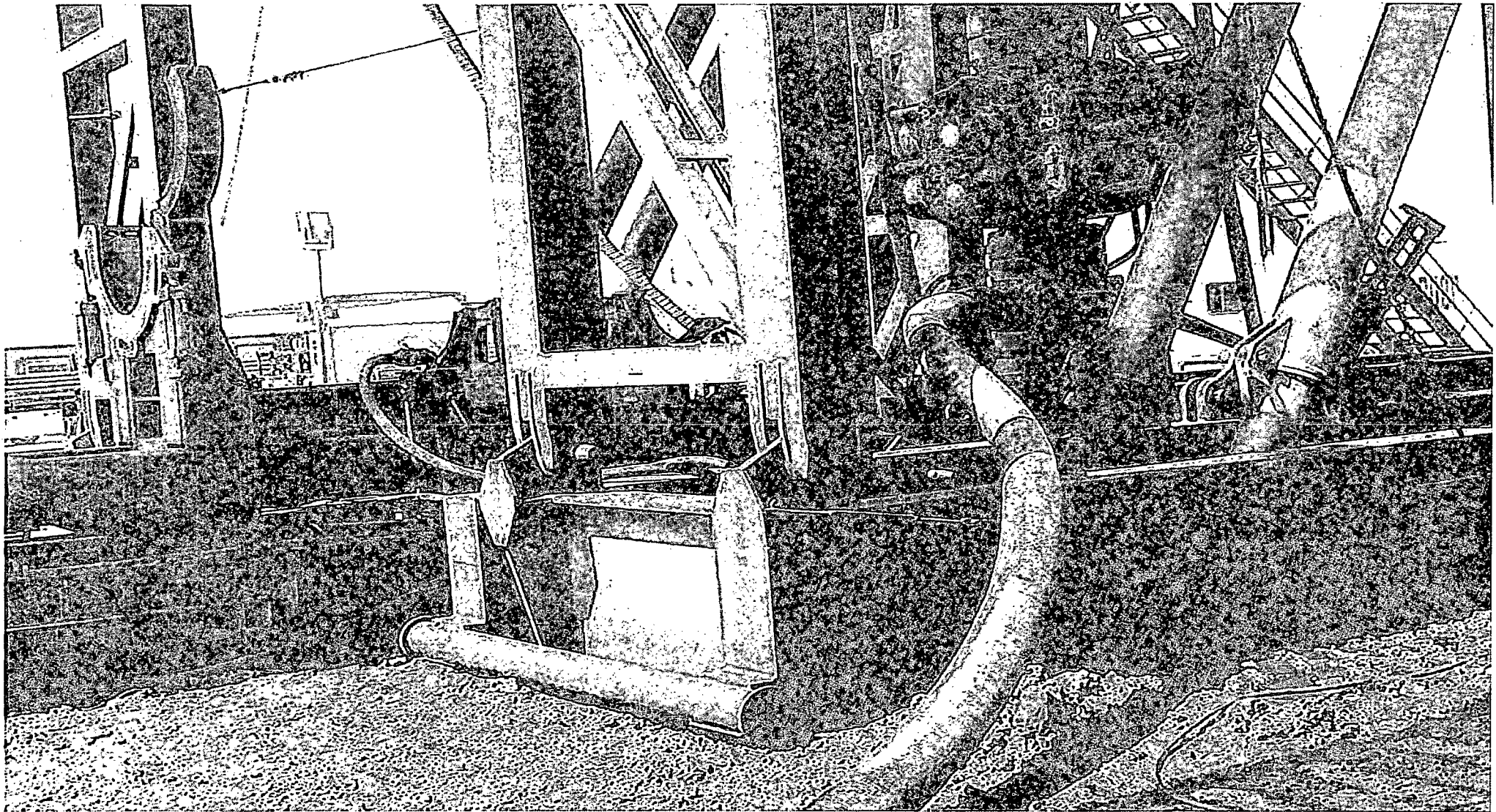
Exhibit F -3- Co-Flex Hose
Triste Draw 30 Federal 6H
Cimarex Energy Co.
30-23S-33E
SHL 350 FSL & 1330 FWL
BHL 330 FNL & 1320 FWL
Lea County, NM

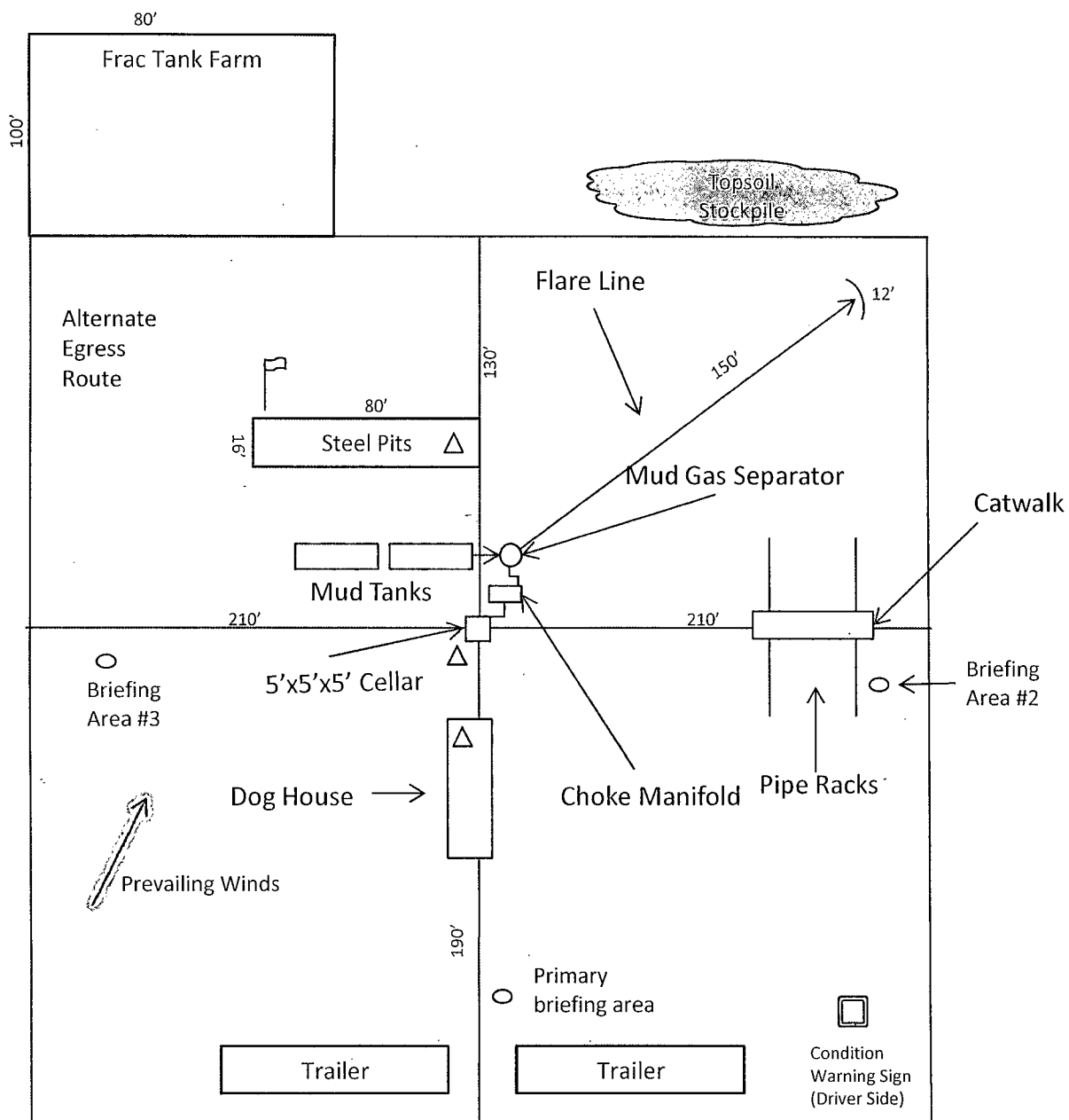
Specification Sheet Choke & Kill Hose

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, 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 – Co-Flex Hose
Triste Draw 30 Federal 6H
Cimarex Energy Co.
30-23S-33E
SHL 350 FSL & 1330 FWL
BHL 330 FNL & 1320 FWL
Lea County, NM





Wind Direction Indicators
(wind sock or streamers)



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



Briefing Areas

N



Exhibit D-1 – Rig Diagram
Triste Draw 30 Federal 6H
Cimarex Energy Co.
30-23S-33E
SHL 350 FSL & 1330 FWL
BHL 330 FNL & 1320 FWL
Lea County, NM