

HOBBS OCD

SEP 19 2013

Form 3160-3
(March 2012)

OCD Hobbs

RECEIVED

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 20145. Lease Serial No.
NMNM127895

6. If Indian, Allottee or Tribe Name

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

8. Lease Name and Well No.
Double X 25 Federal #99. API Well No.
30025-10. Field and Book or Exploration
Maple X, Bone Spring, West11. Sec., T. R. M. or Blk. and Survey or Area
25 24S 32E12. County or Parish
Lea13. State
nm1a. Type of work: ☒ DRILL ☐ REENTER1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2. Name of Operator Cimarex Energy Co.

3a. Address 600 N. Marienfeld St Ste 600; Midland, Tx
797013b. Phone No. (include area code)
432571-7800

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

At surface 330' FNL & 660' FWL

At proposed prod. zone 330' FSL & 660' FWL

14. Distance in miles and direction from nearest town or post office*
29 miles West of Jal NM15. Distance from proposed* 330'
location to nearest
property or lease line, ft.
(Also to nearest drig. unit line, if any)16. No. of acres in lease
64017. Spacing Unit dedicated to this well
160 acres18. Distance from proposed location* 75'
to nearest well, drilling, completed,
applied for, on this lease, ft.19. Proposed Depth
MD: 14143; TVD 972520. BLM/BIA Bond No. on file
NM2575; NMB00083521. Elevations (Show whether DF, KDB, RT, GL, etc.)
GR 3583'22. Approximate date work will start*
03/01/201223. Estimated duration
25-30 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, must 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 must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature

Name (Printed/Typed)
Terri StathemDate
11/12/2012

Title

Coordinator Regulation Compliance

Approved by (Signature):

/s/ STEPHEN J. CAFFEY

Name (Printed/Typed)

Date

Title

FIELD MANAGER

Office

CARLSBAD FIELD OFFICE

SEP 16 2013

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.C. 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

SEE ATTACHED FOR
CONDITIONS OF APPROVALApproval Subject to General Requirements
& Special Stipulations Attached

SEP 23 2013

Drilling Plan
Double X 25 Federal No. 9
 Cimarex Energy Co.
 Unit D, Section 25
 T24S-R32E, Lea County, NM

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

- 1 Location: SHL 330 FNL & 660 FWL
 BHL 330 FSL & 660 FWL
- 2 Elevation above sea level: 3583' 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: MD 14143' TVD 9725'

6 Estimated tops of geological markers:

Groud water per OSE	100'	Avalon	9275'	
Rustler	1080'	FBSS	10000'	Hydrocarbons
Top of Salt	1400'			
Castile	3400'			
Base of Salt	4680'			
Bell Canyon	4990'	Hydrocarbons		
Cherry Canyon	7480'			
Brushy Canyon	8660'			
Bone Spring	8900'			

7 Possible mineral bearing formations:

See above

8 Proposed Mud Circulating System:

Depth	Mud Wt	Visc	Fluid Loss	Type Mud
0' to 1195'	8.4 - 8.6	28	NC	FW
1195' to 4900'	10.0	30-32	NC	Brine
4900' to 14143'	8.4-9.0	30-32	NC	FW and brine, 2% KCL in the lateral

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.

Proposed drilling Plan

Set surface and intermediate string. Drill 7 7/8" or 8 3/4" hole to 9248'. Set whipstock, continue drilling lateral through the curve to TD @ 14143' MD, 9725' TVD. Run 5 1/2" casing and cement per plan.

Drilling Plan
Double X 25 Federal No. 9
 Cimarex Energy Co.
 Unit D, Section 25
 T24S-R32E, Lea County, NM

9 Casing & Cementing Program:

String	Hole Size	Depth	Casing OD	Weight	Collar	Grade
Surface 1	17 1/2"	0' to 1195'	New 13 3/8"	48#	STC	H-40
Intermediate	12 1/4"	0' to 3400'	New 9 5/8"	36#	LTC	J-55
Intermediate	12 1/4"	3400' to 4900'	New 9 5/8"	40#	LTC	J-55
Production	7 7/8" or 8 3/4"	0' to 9248'	New 5 1/2"	17#	LTC	P-110
Production	7 7/8" or 8 3/4"	9248' to 14143'	New 5 1/2"	17#	BTC	P-110

10 Cementing:

Surface

Lead: 702 C + Bentonite + Calcium Chloride + LCM – mw 13.5 ppg yield 1.75

Tail: 143 sx Class C + LCM – mw 14.8 ppg yield 1.34

85% Excess **TOC Surf** **Centralizers per Onshorder 2.III.B.1.f**

Intermediate

Lead: 1122 sx 35:65 (poz/C) + Salt + Bentonite + LCM + retarder – mw 12.9 ppg yield 1.88

Tail: 286 sx + retarder + LCM – mw 14.8 ppg yield 1.32

81% Excess **TOC Surface**

Production

Lead: 383 sx 35:65 (poz/H) + salt + Sodium Metasilicate + Bentonite + Fluid Loss + Dispersant + LCM + Retarder – MW 11.9 ppg yield 2.4

Tail: 942 sx 50:50 (poz/H) + Bentonite + Salt + Fluid Loss + Dispersant + LCM + Retarder – MW 14.5 ppg yield 1.24

Cement volumes will be adjusted according to hole size.

25% Excess **TOC 4400'** **Centralizers every 3rd joint through the curve or legal location hardline to provide adequate cement coverage every 100' unless hole conditions require greater spacing between centralizers.**

See COA

<u>Collapse Factor</u>	<u>Burst Factor</u>	<u>Tension Factor</u>
1.125	1.125	1.6

11 Pressure control Equipment:

Exhibit "E". A 13 5/8" 5000 PSI working pressure B.O.P. consisting of one set of 10K blind rams and two sets of 10K pipe rams and a 5000# annular type preventer. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. Rotating head below 4900'. 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. Mud gas separator will be available if drilling in H2S areas.

BOP unit will be hydraulically operated. BOP will be installed and operated at least once a day while drilling and the blind rams will be operated when out of hole during trips. No abnormal pressure or temperature is expected while drilling.

Before drilling out of the surface casing BOPs will be tested to 250 psi low and 5000 psi high by an independent service company. Hydril will be tested to 250 psi low and 1500 psi high. Before drilling out of the intermediate casing BOPs will be tested to 250 psi low and 5000 psi high. Hydril will be tested to 250 psi low and 2500 high.

Cimarex Energy Co. of Colorado requests a variance to use a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. 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

Drilling Plan
Double X 25 Federal No. 9
Cimarex Energy Co.
Unit D, Section 25
T24S-R32E, Lea County, NM

12 Testing, Logging and Coring Program:

- A. Mud logging program: 2 man unit from 4900 to TD
- B. Electric logging program: CNL / LDT / CAL / GR, DLL / CAL / GR Surface to TD
- C. No DSTs or cores are planned at this time.

13 Potential Hazards:

el
2/28
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 4376 Estimated BHT 130°

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

Drilling expected to take 30-35 days

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

15 Other Facets of Operations:

After running casing, cased hole gamma ray neutron collar logs will be run from total depth over possible pay intervals.

Bone Spring pay will be perforated and stimulated.

The proposed well will be tested and potentialized as **an oil well.**



Cimarex

PATHFINDER
A Schlumberger Company

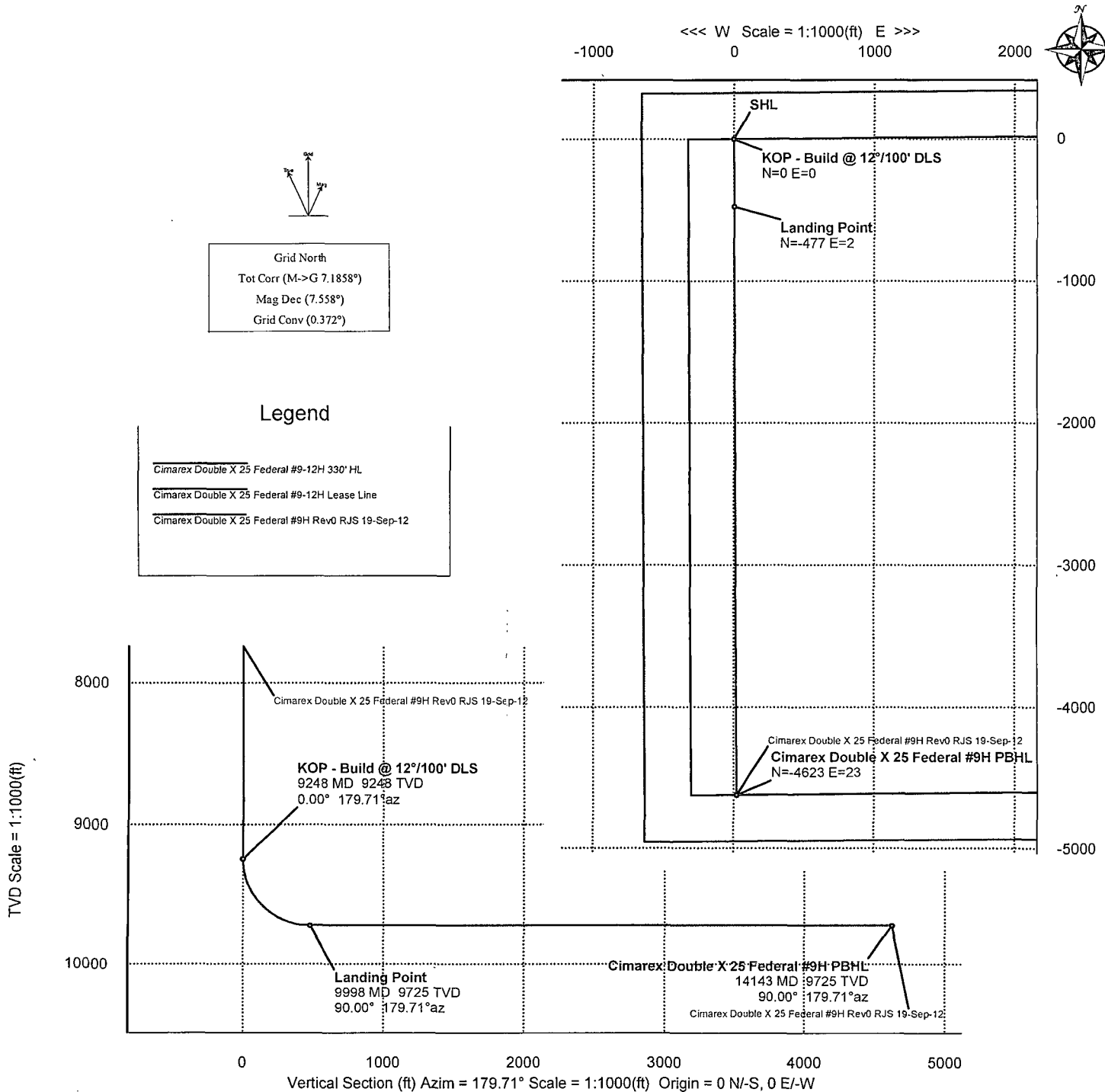
WELL		Double X 25 Federal #9H		FIELD		NM Lea County		STRUCTURE		TBD		
Magnetic Parameters				Surface Location		NAD83 New Mexico State Plane, Eastern Zone, US Feet		Miscellaneous				
Model:	BGGM 2012	Dip:	60.079°	Date:	September 19, 2012	Lat:	N 32 11 42.051	Northing:	435382.50 IJUS	Grid Conv:	0.372°	
		Mag Dec:	7.558°	FS:	48/54.7nT	Lon:	W 103 38 4.993	Easting:	757441.90 IJUS	Scale Fact:	0.99996258	
								Slot:		Double X 25 Federal #9H	TVD Ref:	Ground Level(3563ft above MSL)
								Plan:		Rev0 RJS 19-Sep-12	Srvy Date:	September 19, 2012



Grid North
Tot Corr (M->G 7.1858°)
Mag Dec (7.558°)
Grid Conv (0.372°)

Legend

Cimarex Double X 25 Federal #9-12H 330° HL
Cimarex Double X 25 Federal #9-12H Lease Line
Cimarex Double X 25 Federal #9H Rev0 RJS 19-Sep-12



Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
Marker MudLine	0.00	0.00	179.71	0.00	0.00	0.00	0.00	0.00
SHL	0.00	0.00	179.71	0.00	0.00	0.00	0.00	0.00
KOP - Build @ 12°/100' DLS	9247.50	0.00	179.71	9247.50	0.00	0.00	0.00	0.00
Landing Point	9997.56	90.00	179.71	9725.00	477.50	-477.49	2.38	12.00
Cimarex Double X 25 Federal #9H PBHL	14143.29	90.00	179.71	9725.00	4623.24	-4623.18	23.00	0.00



Cimarex Double X 25 Federal #9H Rev0 RJS 19-Sep-12 Proposal Report

PATHFINDER
A Schlumberger Company

(Non-Def Plan)

Report Date: September 20, 2012 - 09:53 AM
Client: Cimarex
Field: NM Lea County (NAD 83)
Structure / Slot: TBD / Cimarex Double X 25 Federal #9H
Well: Cimarex Double X 25 Federal #9H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Cimarex Double X 25 Federal #9H Rev0 RJS 19-Sep-12
Survey Date: September 19, 2012
Tort / AHD / DDI / ERD Ratio: 90.000 ° / 4623.239 ft / 5.782 / 0.475
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 11' 42.05065", W 103° 38' 4.99324"
Location Grid N/E Y/X: N 435382.500 ftUS, E 757441.900 ftUS
CRS Grid Convergence Angle: 0.3722 °
Grid Scale Factor: 0.99996258

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 179.715 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: Ground Level
TVD Reference Elevation: 3583.000 ft above MSL
Seabed / Ground Elevation: 3583.000 ft above MSL
Magnetic Declination: 7.558 °
Total Gravity Field Strength: 999.1452 mgn (9.8 based)
Total Magnetic Field Strength: 48454.693 nT
Magnetic Dip Angle: 60.079 °
Declination Date: September 19, 2012
Magnetic Declination Model: BGGM 2012
North Reference: Grid North
Grid Convergence Used: 0.3722 °
Total Corr Mag North->Grid North: 7.1858 °

Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	BR (°/100ft)	TR (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL	0.00	0.00	179.71	0.00	-3583.00	0.00	0.00	0.00	N/A	N/A	N/A	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99
KOP - Build @ 12"/100' DLS	9247.50	0.00	179.71	9247.50	5664.50	0.00	0.00	0.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99
Landing Point	9997.56	90.00	179.71	9725.00	6142.00	477.50	-477.49	2.38	12.00	12.00	0.00	434905.02	757444.28	N 32 11 37.33	W 103 38 5.00
Cimarex Double X 25 Federal #9H	14143.29	90.00	179.71	9725.00	6142.00	4623.24	-4623.18	23.00	0.00	0.00	0.00	430759.50	757464.90	N 32 10 56.30	W 103 38 5.08
PBHL															

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	14143.295	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Double X 25 Federal #9H Rev0



Cimarex Double X 25 Federal #9H Rev0 RJS 19-Sep-12 Proposal Report 100' Interpolated (Non-Def Plan)



Report Date: September 20, 2012 - 04:47 PM
Client: Cimarex
Field: NM Lea County (NAD 83)
Structure / Slot: TBD / Cimarex Double X 25 Federal #9H
Well: Cimarex Double X 25 Federal #9H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Cimarex Double X 25 Federal #9H Rev0 RJS 19-Sep-12
Survey Date: September 19, 2012
Tort / AHD / DDI / ERD Ratio: 90.000 ° / 4623.239 ft / 5.782 / 0.475
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 11' 42.05065", W 103° 38' 4.99324"
Location Grid N/E Y/X: N 435382.500 ftUS, E 757441.900 ftUS
CRS Grid Convergence Angle: 0.3722 °
Grid Scale Factor: 0.99996258

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 179.715 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: Ground Level
TVD Reference Elevation: 3583.000 ft above MSL
Seabed / Ground Elevation: 3583.000 ft above MSL
Magnetic Declination: 7.558 °
Total Gravity Field Strength: 999.1452 mgn (9.8 based)
Total Magnetic Field Strength: 48454.693 nT
Magnetic Dip Angle: 60.079 °
Declination Date: September 19, 2012
Magnetic Declination Model: BGGM 2012
North Reference: Grid North
Grid Convergence Used: 0.3722 °
Total Corr Mag North->Grid North: 7.1858 °
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)
SHL Double X 25 Federal #9H	0.00	0.00	179.71	0.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	N/A
	100.00	0.00	179.71	100.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	200.00	0.00	179.71	200.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	300.00	0.00	179.71	300.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	400.00	0.00	179.71	400.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	500.00	0.00	179.71	500.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	600.00	0.00	179.71	600.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	700.00	0.00	179.71	700.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	800.00	0.00	179.71	800.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	900.00	0.00	179.71	900.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	1000.00	0.00	179.71	1000.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	1100.00	0.00	179.71	1100.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	1200.00	0.00	179.71	1200.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	1300.00	0.00	179.71	1300.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	1400.00	0.00	179.71	1400.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	1500.00	0.00	179.71	1500.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	1600.00	0.00	179.71	1600.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	1700.00	0.00	179.71	1700.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	1800.00	0.00	179.71	1800.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	1900.00	0.00	179.71	1900.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	2000.00	0.00	179.71	2000.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	2100.00	0.00	179.71	2100.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	2200.00	0.00	179.71	2200.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	2300.00	0.00	179.71	2300.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	2400.00	0.00	179.71	2400.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	2500.00	0.00	179.71	2500.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	2600.00	0.00	179.71	2600.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	2700.00	0.00	179.71	2700.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	2800.00	0.00	179.71	2800.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	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)
	8400.00	0.00	179.71	8400.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	8500.00	0.00	179.71	8500.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	8600.00	0.00	179.71	8600.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	8700.00	0.00	179.71	8700.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	8800.00	0.00	179.71	8800.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	8900.00	0.00	179.71	8900.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	9000.00	0.00	179.71	9000.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	9100.00	0.00	179.71	9100.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	9200.00	0.00	179.71	9200.00	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
KOP - Build @ 12"/100' DLS	9247.50	0.00	179.71	9247.50	0.00	0.00	0.00	435382.50	757441.90	N 32 11 42.05	W 103 38 4.99	0.00	0.00	0.00
	9300.00	6.30	179.71	9299.89	2.88	-2.88	0.01	435379.62	757441.91	N 32 11 42.02	W 103 38 4.99	2.88	179.71	12.00
	9400.00	18.30	179.71	9397.42	24.15	-24.15	0.12	435358.36	757442.02	N 32 11 41.81	W 103 38 4.99	24.15	179.71	12.00
	9500.00	30.30	179.71	9488.40	65.22	-65.22	0.32	435317.28	757442.22	N 32 11 41.41	W 103 38 4.99	65.22	179.71	12.00
	9600.00	42.30	179.71	9568.84	124.31	-124.31	0.62	435258.20	757442.52	N 32 11 40.82	W 103 38 5.00	124.31	179.71	12.00
	9700.00	54.30	179.71	9635.25	198.83	-198.83	0.99	435183.68	757442.89	N 32 11 40.08	W 103 38 5.00	198.83	179.71	12.00
	9800.00	66.30	179.71	9684.71	285.53	-285.53	1.42	435096.98	757443.32	N 32 11 39.23	W 103 38 5.00	285.53	179.71	12.00
	9900.00	78.29	179.71	9715.07	380.62	-380.62	1.89	435001.90	757443.79	N 32 11 38.28	W 103 38 5.00	380.62	179.71	12.00
Landing Point	9997.56	90.00	179.71	9725.00	477.50	-477.49	2.38	434905.02	757444.28	N 32 11 37.33	W 103 38 5.00	477.50	179.71	12.00
	10000.00	90.00	179.71	9725.00	479.94	-479.94	2.39	434902.58	757444.29	N 32 11 37.30	W 103 38 5.00	479.94	179.71	0.00
	10100.00	90.00	179.71	9725.00	579.94	-579.94	2.89	434802.59	757444.79	N 32 11 36.31	W 103 38 5.00	579.94	179.71	0.00
	10200.00	90.00	179.71	9725.00	679.94	-679.94	3.38	434702.59	757445.28	N 32 11 35.32	W 103 38 5.01	679.94	179.71	0.00
	10300.00	90.00	179.71	9725.00	779.94	-779.94	3.88	434602.60	757445.78	N 32 11 34.33	W 103 38 5.01	779.94	179.71	0.00
	10400.00	90.00	179.71	9725.00	879.94	-879.93	4.38	434502.60	757446.28	N 32 11 33.34	W 103 38 5.01	879.94	179.71	0.00
	10500.00	90.00	179.71	9725.00	979.94	-979.93	4.88	434402.61	757446.78	N 32 11 32.35	W 103 38 5.01	979.94	179.71	0.00
	10600.00	90.00	179.71	9725.00	1079.94	-1079.93	5.37	434302.61	757447.27	N 32 11 31.36	W 103 38 5.01	1079.94	179.71	0.00
	10700.00	90.00	179.71	9725.00	1179.94	-1179.93	5.87	434202.62	757447.77	N 32 11 30.37	W 103 38 5.01	1179.94	179.71	0.00
	10800.00	90.00	179.71	9725.00	1279.94	-1279.93	6.37	434102.62	757448.27	N 32 11 29.39	W 103 38 5.02	1279.94	179.71	0.00
	10900.00	90.00	179.71	9725.00	1379.94	-1379.93	6.87	434002.63	757448.77	N 32 11 28.40	W 103 38 5.02	1379.94	179.71	0.00
	11000.00	90.00	179.71	9725.00	1479.94	-1479.93	7.36	433902.63	757449.26	N 32 11 27.41	W 103 38 5.02	1479.94	179.71	0.00
	11100.00	90.00	179.71	9725.00	1579.94	-1579.93	7.86	433802.64	757449.76	N 32 11 26.42	W 103 38 5.02	1579.94	179.71	0.00
	11200.00	90.00	179.71	9725.00	1679.94	-1679.92	8.36	433702.64	757450.26	N 32 11 25.43	W 103 38 5.02	1679.94	179.71	0.00
	11300.00	90.00	179.71	9725.00	1779.94	-1779.92	8.86	433602.65	757450.75	N 32 11 24.44	W 103 38 5.02	1779.94	179.71	0.00
	11400.00	90.00	179.71	9725.00	1879.94	-1879.92	9.35	433502.65	757451.25	N 32 11 23.45	W 103 38 5.03	1879.94	179.71	0.00
	11500.00	90.00	179.71	9725.00	1979.94	-1979.92	9.85	433402.66	757451.75	N 32 11 22.46	W 103 38 5.03	1979.94	179.71	0.00
	11600.00	90.00	179.71	9725.00	2079.94	-2079.92	10.35	433302.66	757452.25	N 32 11 21.47	W 103 38 5.03	2079.94	179.71	0.00
	11700.00	90.00	179.71	9725.00	2179.94	-2179.92	10.85	433202.67	757452.74	N 32 11 20.48	W 103 38 5.03	2179.94	179.71	0.00
	11800.00	90.00	179.71	9725.00	2279.94	-2279.92	11.34	433102.67	757453.24	N 32 11 19.49	W 103 38 5.03	2279.94	179.71	0.00
	11900.00	90.00	179.71	9725.00	2379.94	-2379.92	11.84	433002.68	757453.74	N 32 11 18.50	W 103 38 5.04	2379.94	179.71	0.00
	12000.00	90.00	179.71	9725.00	2479.94	-2479.91	12.34	432902.68	757454.24	N 32 11 17.51	W 103 38 5.04	2479.94	179.71	0.00
	12100.00	90.00	179.71	9725.00	2579.94	-2579.91	12.84	432802.69	757454.73	N 32 11 16.52	W 103 38 5.04	2579.94	179.71	0.00
	12200.00	90.00	179.71	9725.00	2679.94	-2679.91	13.33	432702.69	757455.23	N 32 11 15.53	W 103 38 5.04	2679.94	179.71	0.00
	12300.00	90.00	179.71	9725.00	2779.94	-2779.91	13.83	432602.70	757455.73	N 32 11 14.54	W 103 38 5.04	2779.94	179.71	0.00
	12400.00	90.00	179.71	9725.00	2879.94	-2879.91	14.33	432502.70	757456.23	N 32 11 13.55	W 103 38 5.04	2879.94	179.71	0.00
	12500.00	90.00	179.71	9725.00	2979.94	-2979.91	14.83	432402.71	757456.72	N 32 11 12.56	W 103 38 5.05	2979.94	179.71	0.00
	12600.00	90.00	179.71	9725.00	3079.94	-3079.91	15.32	432302.71	757457.22	N 32 11 11.57	W 103 38 5.05	3079.94	179.71	0.00
	12700.00	90.00	179.71	9725.00	3179.94	-3179.91	15.82	432202.72	757457.72	N 32 11 10.58	W 103 38 5.05	3179.94	179.71	0.00
	12800.00	90.00	179.71	9725.00	3279.94	-3279.90	16.32	432102.73	757458.22	N 32 11 9.59	W 103 38 5.05	3279.94	179.71	0.00
	12900.00	90.00	179.71	9725.00	3379.94	-3379.90	16.82	432002.73	757458.71	N 32 11 8.61	W 103 38 5.05	3379.94	179.71	0.00
	13000.00	90.00	179.71	9725.00	3479.94	-3479.90	17.31	431902.74	757459.21	N 32 11 7.62	W 103 38 5.05	3479.94	179.71	0.00
	13100.00	90.00	179.71	9725.00	3579.94	-3579.90	17.81	431802.74	757459.71	N 32 11 6.63	W 103 38 5.06	3579.94	179.71	0.00
	13200.00	90.00	179.71	9725.00	3679.94	-3679.90	18.31	431702.75	757460.21	N 32 11 5.64	W 103 38 5.06	3679.94	179.71	0.00
	13300.00	90.00	179.71	9725.00	3779.94	-3779.90	18.81	431602.75	757460.70	N 32 11 4.65	W 103 38 5.06	3779.94	179.71	0.00
	13400.00	90.00	179.71	9725.00	3879.94	-3879.90	19.30	431502.76	757461.20	N 32 11 3.66	W 103 38 5.06	3879.94	179.71	0.00
	13500.00	90.00	179.71	9725.00	3979.94	-3979.90	19.80	431402.76	757461.70	N 32 11 2.67	W 103 38 5.06	3979.94	179.71	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)
	13600.00	90.00	179.71	9725.00	4079.94	-4079.89	20.30	431302.77	757462.20	N 32 11 1.68	W 103 38 5.07			4079.94	179.71	0.00
	13700.00	90.00	179.71	9725.00	4179.94	-4179.89	20.80	431202.77	757462.69	N 32 11 0.69	W 103 38 5.07			4179.94	179.71	0.00
	13800.00	90.00	179.71	9725.00	4279.94	-4279.89	21.29	431102.78	757463.19	N 32 10 59.70	W 103 38 5.07			4279.94	179.71	0.00
	13900.00	90.00	179.71	9725.00	4379.94	-4379.89	21.79	431002.78	757463.69	N 32 10 58.71	W 103 38 5.07			4379.94	179.71	0.00
	14000.00	90.00	179.71	9725.00	4479.94	-4479.89	22.29	430902.79	757464.19	N 32 10 57.72	W 103 38 5.07			4479.94	179.71	0.00
	14100.00	90.00	179.71	9725.00	4579.94	-4579.89	22.79	430802.79	757464.68	N 32 10 56.73	W 103 38 5.07			4579.94	179.71	0.00
Cimarex Double X 25 Federal #9H PBHL	14143.29	90.00	179.71	9725.00	4623.24	-4623.18	23.00	430759.50	757464.90	N 32 10 56.30	W 103 38 5.08			4623.24	179.71	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	14143.295	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Double X 25 Federal #9H Rev0

SR & A

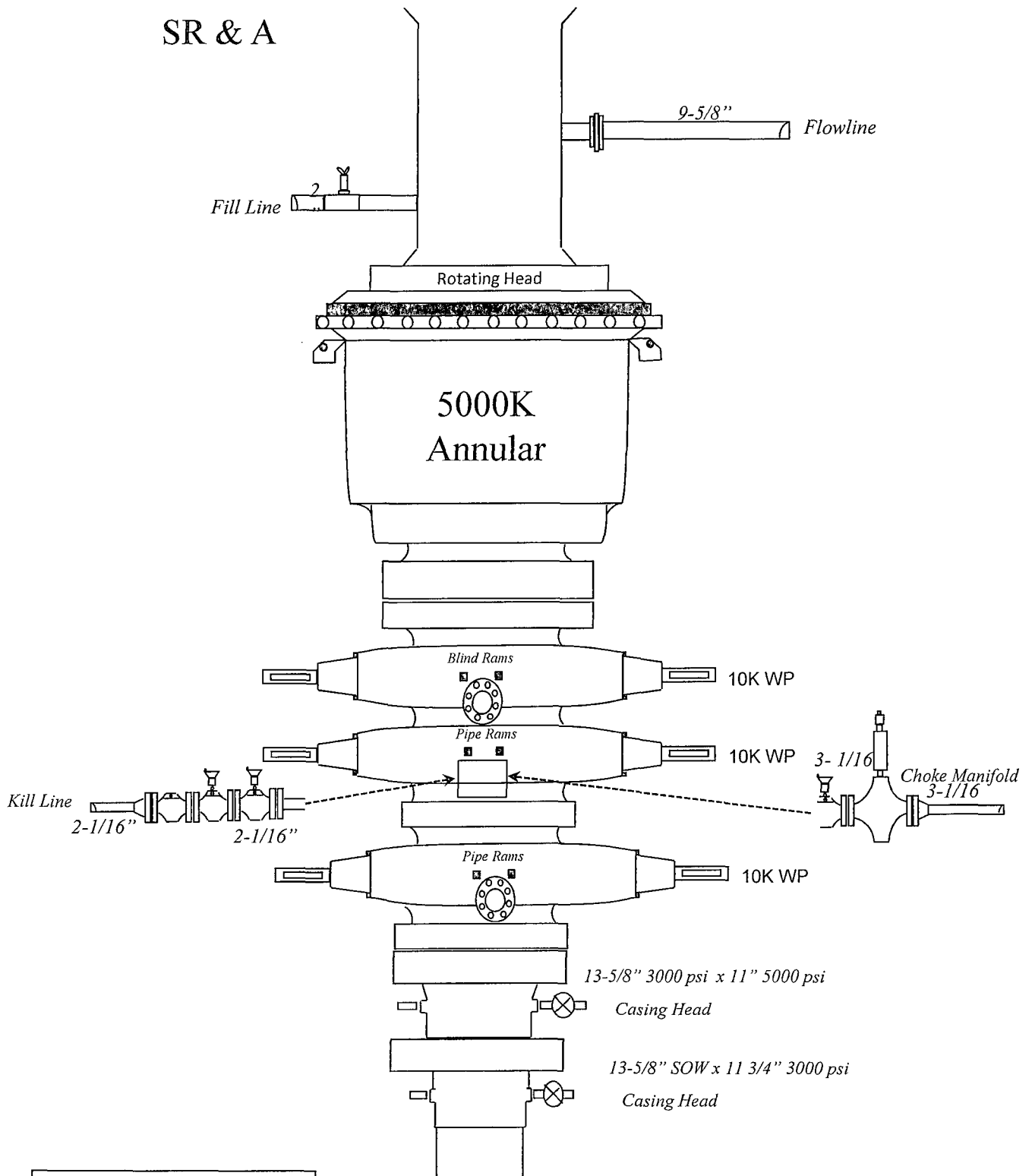


Exhibit "E"

5M BOP

Double X 25 Federal 9

Cimarex Energy Co.

25-24S-32E

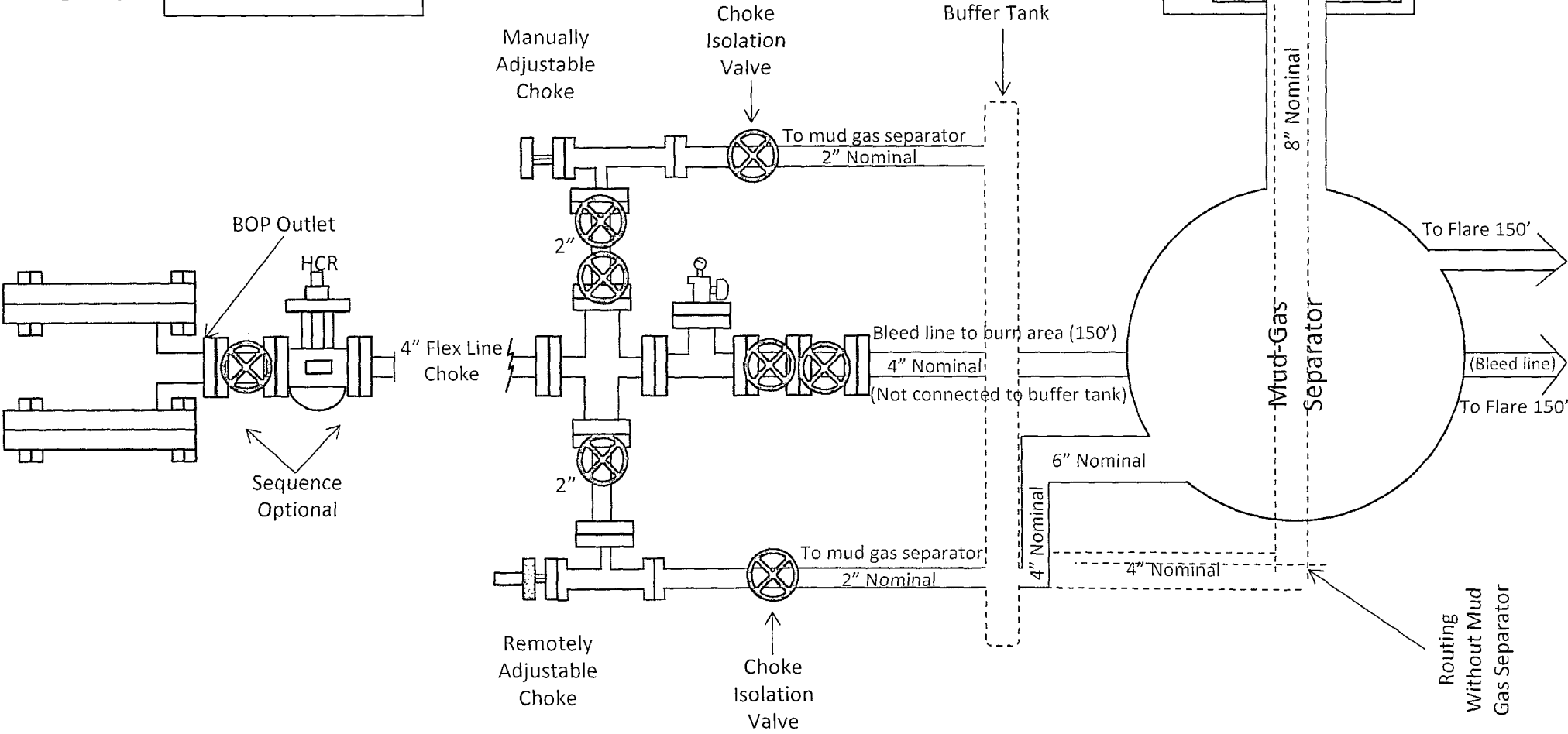
SHL 330' FNL & 660' FWL

BHL 330' FSL & 660' FWL

Lea County, NM

Drilling Operations
Choke Manifold
5M Service

Exhibit "E-1"
Choke Manifold Diagram
Double X 25 Federal 9
Cimarex Energy Co.
25-24S-32E
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>David Garcia</i>		3/8/2011



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. Jimenez</i>		Approved: <i>Kevin Hef</i>



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Graph

March 3, 2011

Customer: Houston

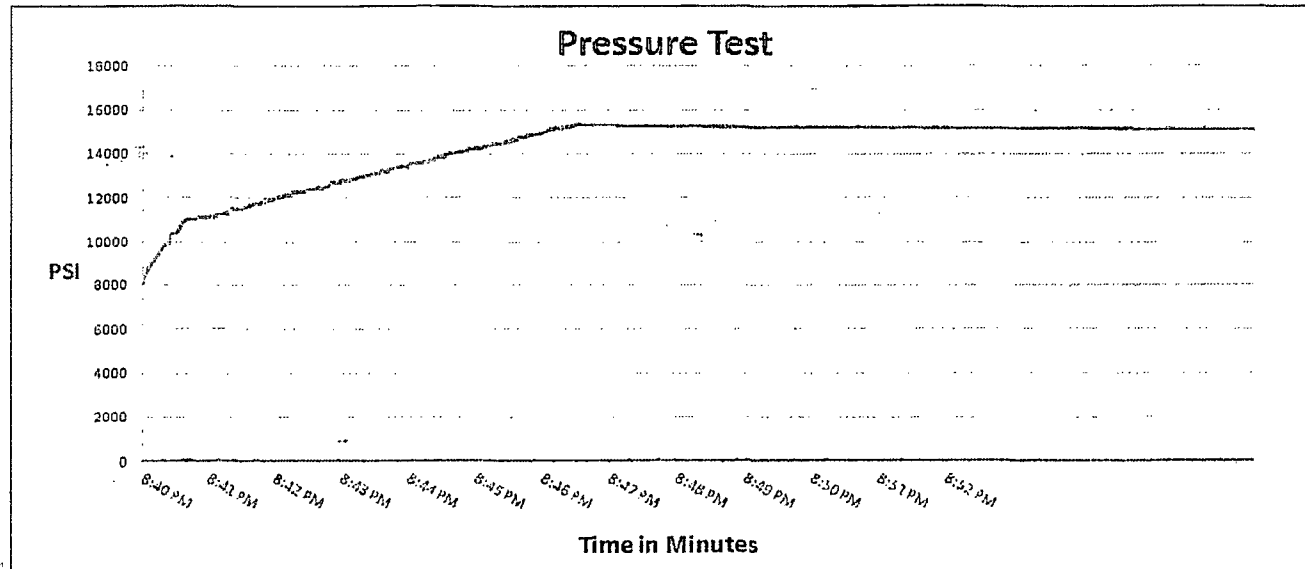
Pick Ticket #: 94260

Hose Specifications

<u>Hose Type</u>	<u>Length</u>
C & K	45'
<u>I.D.</u>	<u>O.D.</u>
4"	6.09"
<u>Working Pressure</u>	<u>Burst Pressure</u>
10000 PSI	Standard Safety Multiplier Applies

Verification

<u>Type of Fitting</u>	<u>Coupling Method</u>
41/16 10K	Swage
<u>Die Size</u>	<u>Final O.D.</u>
6.30"	6.25"
<u>Hose Serial #</u>	<u>Hose Assembly Serial #</u>
5544	79793



Test Pressure
15000 PSI

Time Held at Test Pressure
11 Minutes

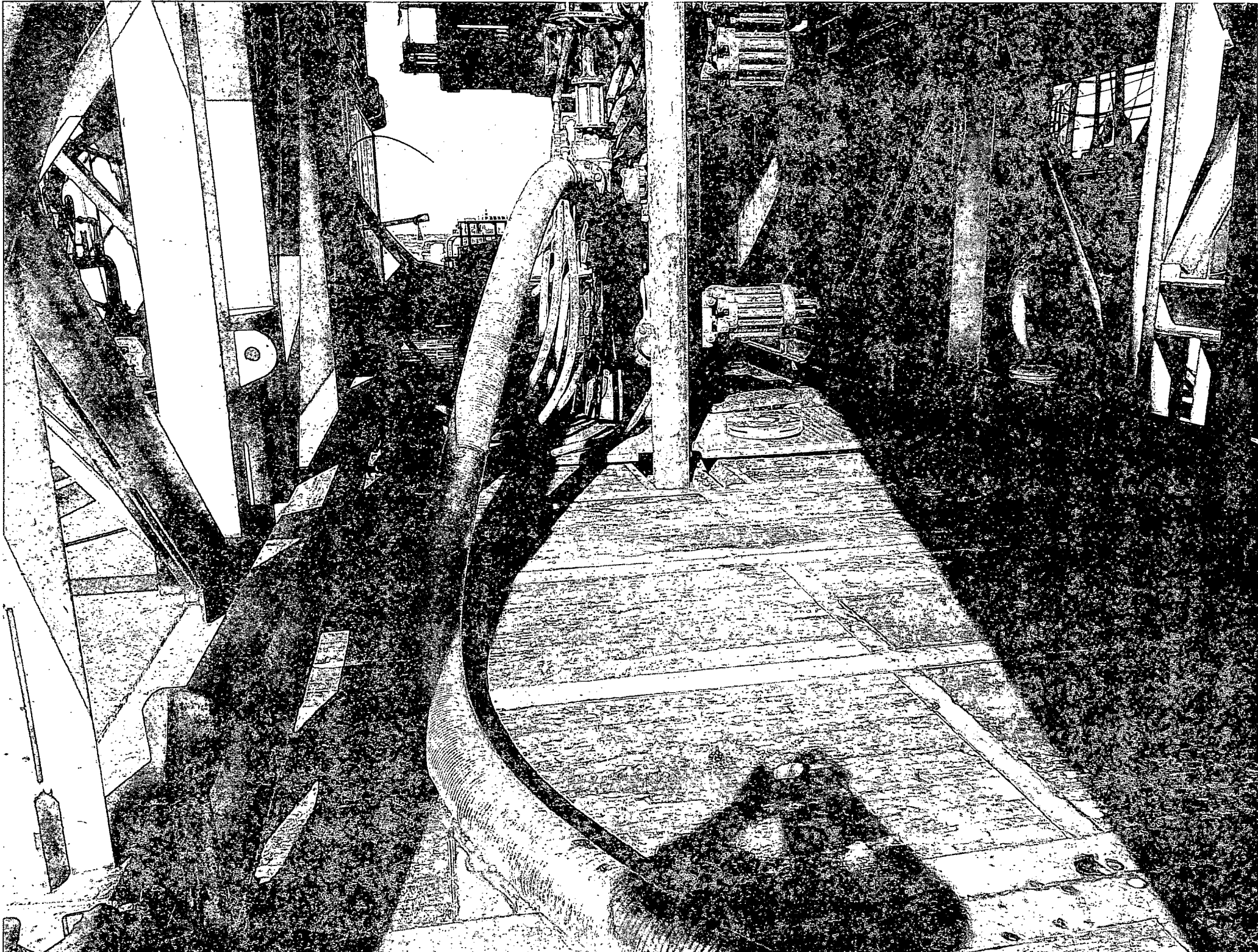
Actual Burst Pressure

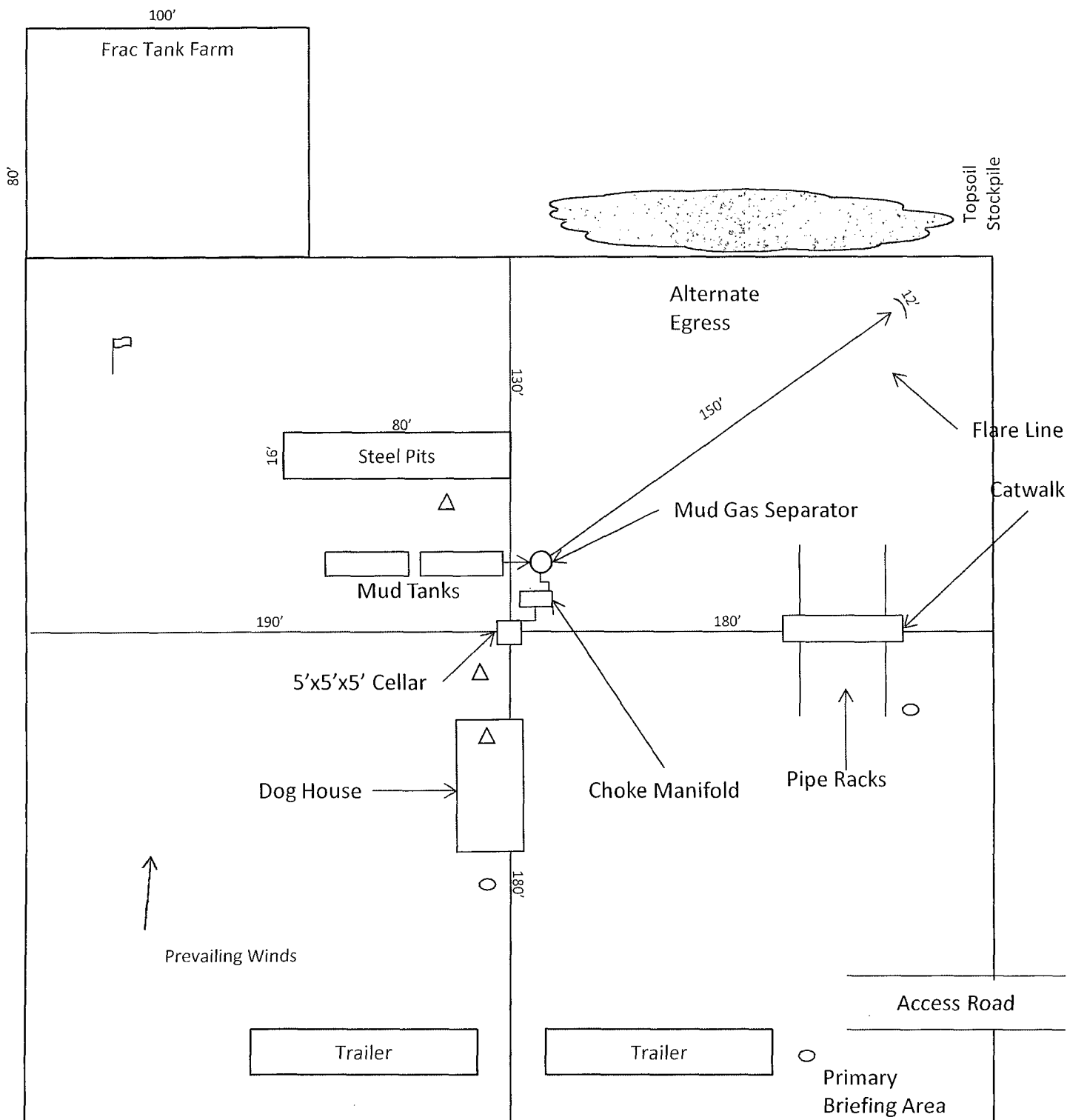
Peak Pressure
15483 PSI

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

Tested By: Zac McConnell

Approved By: Kim Thomas





Wind Direction Indicators
(wind sock or streamers)



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



Briefing Areas

N



Exhibit "D"

Rig Diagram

Double X 25 Federal 9

Cimarex Energy Co.

25-24S-32E

SHL 330' FNL & 660' FWL

BHL 330' FSL & 660' FWL

Lea County, NM