

Form 3160-3  
(April 2004)FORM APPROVED  
OMB No. 1004-0137  
Expires March 31, 2007UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. SHL NM-025497, BHL NM-063530
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Cimarex Energy Co. of Colorado		7. If Unit or CA Agreement, Name and No.
3a. Address 600 N. Marlenfeld St., Ste. 600, Midland, TX 79701		8. Lease Name and Well No. <b>&lt;38371&gt;</b> East Lusk 15 Federal Com No. 1Y
3b. Phone No. (includes area code) 432-571-7800		9. API Well No. 30-08-025-40300
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At Surface <b>Unit P</b> 660 FSL & 380 FEL At Bottom Hole <b>Unit m</b> 660 FSL & 660 FWL At proposed prod. Zone 660 FSL & 330 FEL Horizontal Bone Spring test		10. Field and Pool, or Exploratory Lusk; Bone Spring, E <b>&lt;41442&gt;</b>
11. Sec., T., R. M. or B.L. and Survey or Area 15-19S-32E		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) 660'	16. No of acres in lease NM-025497 - 920 acres NM-063530 - 440 acres	17. Spacing Unit dedicated to this well S2S2 160
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft 50' N/A	19. Proposed Depth Pilot Hole 10100' MD 13882' TVD 9987'	20. BLM/DIA Bond No. on File NM-2575
21. Elevations (Show whether DP, KDB, RI, GL, etc.) 3615' GR	22. Approximate date work will start* 09.24.11	23. Estimated duration 25-30 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 <b>Zeno Farris</b>	Name (Printed/Typed) Zeno Farris	Date 09.21.11
Title Manager Operations Administration		
Approved By (Signature) <b>[Signature]</b>	Name (Printed/Typed) Don Peterson	Date 9/21/11
Title <b>AFM</b>		Office CARLSBAD FIELD 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

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.

(Instructions on page 2)

SEP 27 2011

Application to Drill  
**East Lusk 15 Federal Com No. 1**  
 Cimarex Energy Co. of Colorado  
 Unit P, Section 15  
 T19S-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 660 FSL & 660 FEL  
 BHL ~~661 FSL & 851 FEL~~ *660'S & 660' W per New plat of 8/18/10 - CR*
- 2 Elevation above sea level: 3615' 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: Pilot Hole 10200' MD 13882' TVD 9987'
- 6 Estimated tops of geological markers:

Rustler	1200'	Bone Spring	7850'
Yates	3020'	Wolfcamp	11100'
Capitan	3650'	Strawn	12110'
Delaware	5180'	Morrow	12820'
- 7 Possible mineral bearing formation:

Bone Spring	Oil
Delaware	Oil
Yates/7 Rivers	Oil

8 Proposed Mud Circulating System:

Depth	Mud Wt	Visc	Fluid Loss	Type Mud
0' to <sup>1185'</sup> <del>575'</del>	8.4 - 8.6	28	NC	FW
<sup>1185'</sup> <del>575'</del> to 5200'	10.0	30-32	NC	Brine water
5200' to 13882'	8.4 - 9.5	30-32	NC	FW, 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.

Proposed drilling Plan

Drill 8 3/4" pilot hole to 10100' and log. Set 250 sx Class H cmt plug from 9550-10100.' Kick off 8 3/4" lateral @ 9800' and drill to TD @ 13882.' Run 5 1/2" 17# P-110 LTC from 0-13882.'

Application to Drill  
**East Lusk 15 Federal Com No. 1**  
 Cimarex Energy Co. of Colorado  
 Unit P, Section 15  
 T19S-R32E, Lea County, NM

9 Casing & Cementing Program *See COA*

String	Hole Size	Depth	Casing OD	Weight	Collar	Grade
Surface	17½"	0' to 575'	New 13½"	48#	STC	H-40
Intermediate	12¼"	0' to 5200'	New 9½"	40#	LTC	H-55
Production	8¾"	0' to 13882'	New 5½"	17#	LTC	P-110

*N-80 Per Operator  
ie 22-10 DW*

10 Cementing:

**Surface** 650 sx Premium Plus + 2% CaCl<sub>2</sub> (wt 14.8, yld 1.35)  
**TOC Surface**

*See COA* **Intermediate** Lead 415 sx Econocem + 3% Salt + 2% CaCl<sub>2</sub> + 3 lbm/sk Gilsonite (wt 11.7, yld 2.06)  
Tail 650 sks Premium Plus + 1% CaCl<sub>2</sub> (wt 14.8, yld 1.34)  
**TOC Surface**

**Production** Lead: 500 sx EconoCem + 5# Gilsonite (wt 11.9, yld 2.48)  
Tail: 1730 sx Halcem (wt 15.6, yld 1.19)  
**TOC 5000'**

Fresh water zones will be protected by setting 13½" casing at 575' and cementing to surface. Hydrocarbon zones will be protected by setting 9½" casing at 5200' and cementing to surface, and by setting 5½" casing at 13882' and cementing to 5000'

<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 13½" 5000 PSI working pressure BOP tested to 3000 psi consisting of one set of blind rams and one set of 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 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 unit will be hydraulically operated. BOP will be nipped up 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. From the base of the 20" surface pipe, the well will be equipped with a 2M diverter system with rotating head (see exhibit E-1). From the base of the 13½" casing through the running of production casing, the well will be equipped with a 5000 psi BOP system tested to 3000 psi.

BOPS will be tested by an independent service company to 250 psi low and 3000 psi high. Hydril will be tested to 250 psi low and 1500 psi high.

Cimarex Energy Co. of Colorado (operator) requests a variance if Cactus 101 (rig name) is used to drill this well to use a co-flex line between the BOP and choke manifold.

Manufacturer: Midwest Hose & Specialty

Serial Number: 63270

Length: 35' Size: 4-1/16" Ends flanges/clamps

WP rating 10,000 psi Anchors required by manufacturer – Yes/No (No)

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Unit P, Section 15  
T19S-R32E, Lea County, NM

12 Testing, Logging and Coring Program: See COA

- A. Mud logging program: 2 man unit from 5200' to TD
- B. Electric logging program: CNL / LDT / CAL / GR, DLL / CAL / GR
- C. No DSTs or cores are planned at this time.

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 H<sub>2</sub>S from the surface to the Bone Spring formations to meet the BLM's minimum requirements for the submission of an "H<sub>2</sub>S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have an H<sub>2</sub>S Safety package on all wells, attached is an "H<sub>2</sub>S 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      3000 psi      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 Energy Co.

Location Lea County, NM  
Field (East 15) Sec 15, T19S, R32E  
Facility East Lusk 15 Fed Com No. 1H

Slot No 1H SHL  
Well No 1H  
Wellbore No 1H PWB



## Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	0.00	0.000	269.720	0.00	0.00	0.00	0.00	0.00
EST KOP	9800.00	0.000	269.720	9800.00	0.00	0.00	0.00	0.00
END OF CURVE	10100.20	90.060	269.720	9990.99	-0.93	-191.18	30.00	191.19
No 1H PBHL	13881.97	90.060	269.720	9987.00	-19.38	-3972.91	0.00	3972.96

Plot reference wellpath is Prelim\_2

True vertical depths are referenced to Rig on No. 1H SHL (GL)

Measured depths are referenced to Rig on No. 1H SHL (GL)

Rig on No. 1H SHL (GL) to Mean Sea Level 3615 feet

Mean Sea Level to Mud line (Facility East Lusk 15 Fed Com No. 1H) -3615 feet

Coordinates are in feet referenced to SL

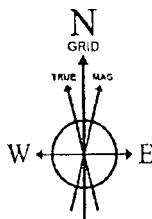
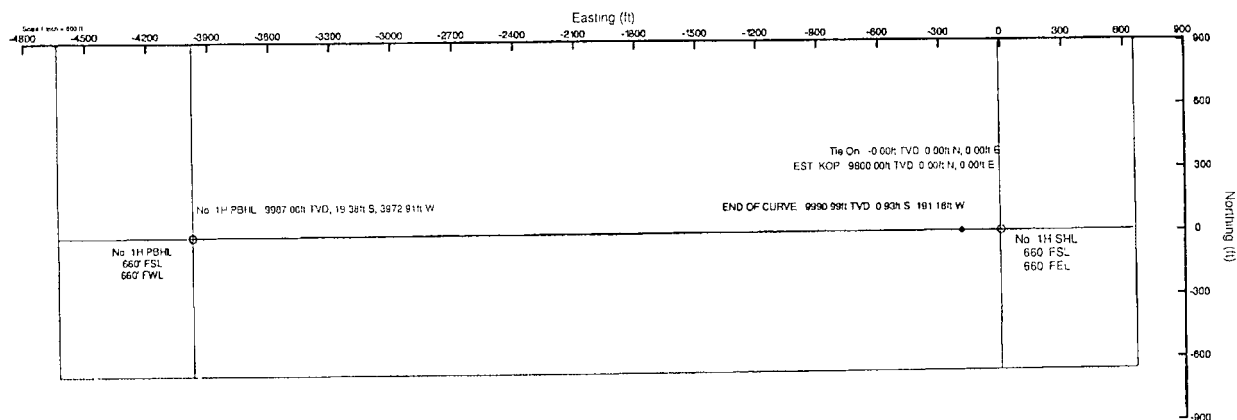
Grid System NAD83 / 1M New Mexico State Planes Eastern Zone (3001), US feet

North Reference Grid north

Scale True distance

Depths are in feet

Created by Victor Hernandez on 8/11/2010

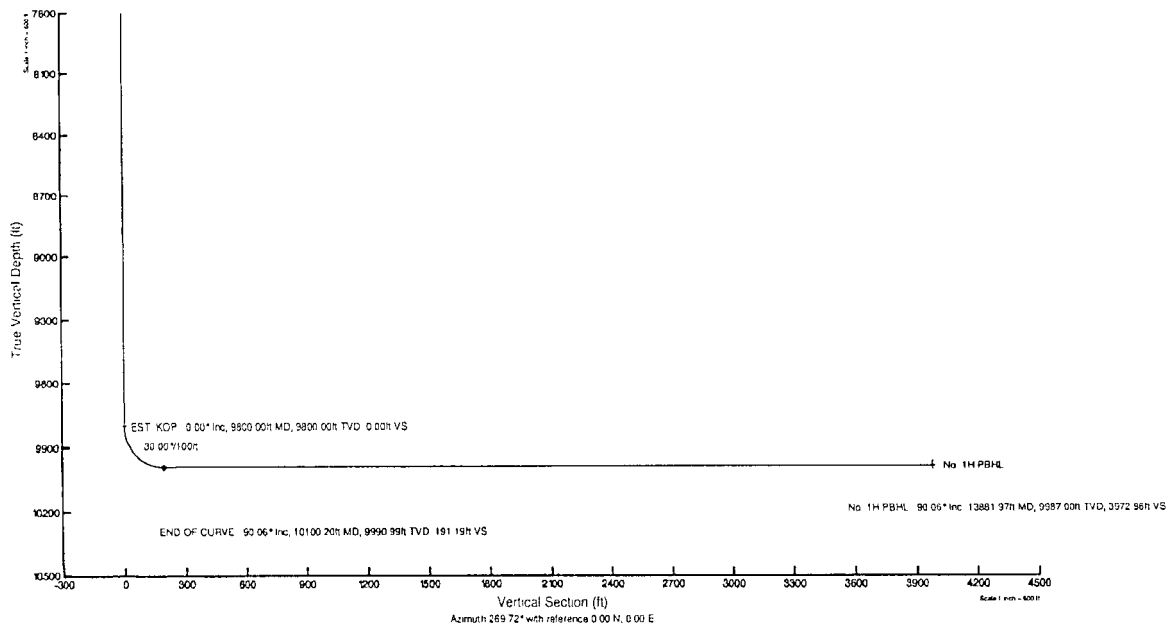


BGGM (1945.0 to 2011.0) Dip 60.59° Field 49008.9 nT  
Magnetic North is 7.84 degrees East of True North (at 8/10/2010)  
Grid North is 0.32 degrees East of True North

To correct azimuth from True to Grid subtract 0.32 degrees

To correct azimuth from Magnetic to Grid add 7.52 degrees

For example if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.52 = 97.52





# Planned Wellpath Report

Prelim\_2  
Page 1 of 3



## REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 1H SHL
Area	Lea County, NM	Well	No. 1H
Field	(East 15) Sec 15, T19S, R32E	Wellbore	No. 1H PWB
Facility	East Lusk 15 Fed Com No. 1H		

## REPORT SETUP INFORMATION

Projection System	NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect® 2.0
North Reference	Grid	User	Victor Hernandez
Scale	0.999946	Report Generated	8/11/2010 at 11:58:21 AM
Convergence at slot	0.32° East	Database/Source file	WA_Midland/No._1H_PWB.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	0.00	0.00	721609.60	602497.70	32°39'17.807"N	103°44'51.325"W
Facility Reference Pt			721609.60	602497.70	32°39'17.807"N	103°44'51.325"W
Field Reference Pt			721939.70	602500.30	32°39'17.815"N	103°44'47.464"W

## WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 1H SHL (GL) to GL	0.00ft
Horizontal Reference Pt	SL	Rig on No. 1H SHL (GL) to Mean Sea Level	3615.00ft
Vertical Reference Pt	Rig on No. 1H SHL (GL)	GL to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 1H SHL (GL)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	269.72°



# Planned Wellpath Report

Prelim\_2  
Page 2 of 3



REFERENCE WELLPATH IDENTIFICATION			
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Facility	East Lusk 15 Fed Com No. 1H		

WELLPATH DATA (44 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	269.720	0.00	0.00	0.00	0.00	721609.60	602497.70	32°39'17.807"N	103°44'51.325"W	0.00	Tie On
9800.00	0.000	269.720	9800.00	0.00	0.00	0.00	721609.60	602497.70	32°39'17.807"N	103°44'51.325"W	0.00	EST. KOP
9900.00†	30.000	269.720	9895.49	25.59	-0.12	-25.59	721584.01	602497.58	32°39'17.807"N	103°44'51.625"W	30.00	
10000.00†	60.000	269.720	9965.40	95.49	-0.47	-95.49	721514.11	602497.23	32°39'17.808"N	103°44'52.442"W	30.00	
10100.00†	90.000	269.720	9990.99	190.99	-0.93	-190.98	721418.63	602496.77	32°39'17.808"N	103°44'53.559"W	30.00	
10100.20	90.060	269.720	9990.99	191.19	-0.93	-191.18	721418.43	602496.77	32°39'17.808"N	103°44'53.562"W	30.00	END OF CURVE
10200.00†	90.060	269.720	9990.88	290.99	-1.42	-290.98	721318.63	602496.28	32°39'17.809"N	103°44'54.729"W	0.00	
10300.00†	90.060	269.720	9990.78	390.99	-1.91	-390.98	721218.64	602495.79	32°39'17.810"N	103°44'55.898"W	0.00	
10400.00†	90.060	269.720	9990.67	490.99	-2.40	-490.98	721118.65	602495.30	32°39'17.810"N	103°44'57.068"W	0.00	
10500.00†	90.060	269.720	9990.56	590.99	-2.88	-590.98	721018.65	602494.82	32°39'17.811"N	103°44'58.238"W	0.00	
10600.00†	90.060	269.720	9990.46	690.99	-3.37	-690.98	720918.66	602494.33	32°39'17.811"N	103°44'59.407"W	0.00	
10700.00†	90.060	269.720	9990.35	790.99	-3.86	-790.98	720818.67	602493.84	32°39'17.812"N	103°45'00.577"W	0.00	
10800.00†	90.060	269.720	9990.25	890.99	-4.35	-890.97	720718.67	602493.35	32°39'17.813"N	103°45'01.747"W	0.00	
10900.00†	90.060	269.720	9990.14	990.99	-4.83	-990.97	720618.68	602492.87	32°39'17.813"N	103°45'02.916"W	0.00	
11000.00†	90.060	269.720	9990.04	1090.99	-5.32	-1090.97	720518.69	602492.38	32°39'17.814"N	103°45'04.086"W	0.00	
11100.00†	90.060	269.720	9989.93	1190.99	-5.81	-1190.97	720418.70	602491.89	32°39'17.814"N	103°45'05.255"W	0.00	
11200.00†	90.060	269.720	9989.83	1290.99	-6.30	-1290.97	720318.70	602491.40	32°39'17.815"N	103°45'06.425"W	0.00	
11300.00†	90.060	269.720	9989.72	1390.99	-6.79	-1390.97	720218.71	602490.91	32°39'17.816"N	103°45'07.595"W	0.00	
11400.00†	90.060	269.720	9989.62	1490.99	-7.27	-1490.97	720118.72	602490.43	32°39'17.816"N	103°45'08.764"W	0.00	
11500.00†	90.060	269.720	9989.51	1590.99	-7.76	-1590.97	720018.72	602489.94	32°39'17.817"N	103°45'09.934"W	0.00	
11600.00†	90.060	269.720	9989.41	1690.99	-8.25	-1690.96	719918.73	602489.45	32°39'17.817"N	103°45'11.103"W	0.00	
11700.00†	90.060	269.720	9989.30	1790.99	-8.74	-1790.96	719818.74	602488.96	32°39'17.818"N	103°45'12.273"W	0.00	
11800.00†	90.060	269.720	9989.19	1890.98	-9.22	-1890.96	719718.74	602488.48	32°39'17.818"N	103°45'13.443"W	0.00	
11900.00†	90.060	269.720	9989.09	1990.98	-9.71	-1990.96	719618.75	602487.99	32°39'17.819"N	103°45'14.612"W	0.00	
12000.00†	90.060	269.720	9988.98	2090.98	-10.20	-2090.96	719518.76	602487.50	32°39'17.820"N	103°45'15.782"W	0.00	
12100.00†	90.060	269.720	9988.88	2190.98	-10.69	-2190.96	719418.76	602487.01	32°39'17.820"N	103°45'16.952"W	0.00	
12200.00†	90.060	269.720	9988.77	2290.98	-11.18	-2290.96	719318.77	602486.52	32°39'17.821"N	103°45'18.121"W	0.00	
12300.00†	90.060	269.720	9988.67	2390.98	-11.66	-2390.96	719218.78	602486.04	32°39'17.821"N	103°45'19.291"W	0.00	
12400.00†	90.060	269.720	9988.56	2490.98	-12.15	-2490.96	719118.78	602485.55	32°39'17.822"N	103°45'20.460"W	0.00	
12500.00†	90.060	269.720	9988.46	2590.98	-12.64	-2590.95	719018.79	602485.06	32°39'17.822"N	103°45'21.630"W	0.00	



# Planned Wellpath Report

Prelim\_2  
Page 3 of 3



## REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 1H SHL
Area	Lea County, NM	Well	No. 1H
Field	(East 15) Sec 15, T19S, R32E	Wellbore	No. 1H PWB
Facility	East Lusk 15 Fed Com No. 1H		

## WELLPATH DATA (44 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12600.00†	90.060	269.720	9988.35	2690.98	-13.13	-2690.95	718918.80	602484.57	32°39'17.823"N	103°45'22.800"W	0.00	
12700.00†	90.060	269.720	9988.25	2790.98	-13.62	-2790.95	718818.80	602484.09	32°39'17.824"N	103°45'23.969"W	0.00	
12800.00†	90.060	269.720	9988.14	2890.98	-14.10	-2890.95	718718.81	602483.60	32°39'17.824"N	103°45'25.139"W	0.00	
12900.00†	90.060	269.720	9988.03	2990.98	-14.59	-2990.95	718618.82	602483.11	32°39'17.825"N	103°45'26.309"W	0.00	
13000.00†	90.060	269.720	9987.93	3090.98	-15.08	-3090.95	718518.82	602482.62	32°39'17.825"N	103°45'27.478"W	0.00	
13100.00†	90.060	269.720	9987.82	3190.98	-15.57	-3190.95	718418.83	602482.13	32°39'17.826"N	103°45'28.648"W	0.00	
13200.00†	90.060	269.720	9987.72	3290.98	-16.05	-3290.95	718318.84	602481.65	32°39'17.826"N	103°45'29.817"W	0.00	
13300.00†	90.060	269.720	9987.61	3390.98	-16.54	-3390.94	718218.85	602481.16	32°39'17.827"N	103°45'30.987"W	0.00	
13400.00†	90.060	269.720	9987.51	3490.98	-17.03	-3490.94	718118.85	602480.67	32°39'17.827"N	103°45'32.157"W	0.00	
13500.00†	90.060	269.720	9987.40	3590.98	-17.52	-3590.94	718018.86	602480.18	32°39'17.828"N	103°45'33.326"W	0.00	
13600.00†	90.060	269.720	9987.30	3690.98	-18.01	-3690.94	717918.87	602479.70	32°39'17.828"N	103°45'34.496"W	0.00	
13700.00†	90.060	269.720	9987.19	3790.98	-18.49	-3790.94	717818.87	602479.21	32°39'17.829"N	103°45'35.665"W	0.00	
13800.00†	90.060	269.720	9987.09	3890.98	-18.98	-3890.94	717718.88	602478.72	32°39'17.829"N	103°45'36.835"W	0.00	
13881.97	90.060	269.720	9987.00	3972.96	-19.38	-3972.91	717636.91	602478.32	32°39'17.830"N	103°45'37.794"W	0.00	No 1H PBHL

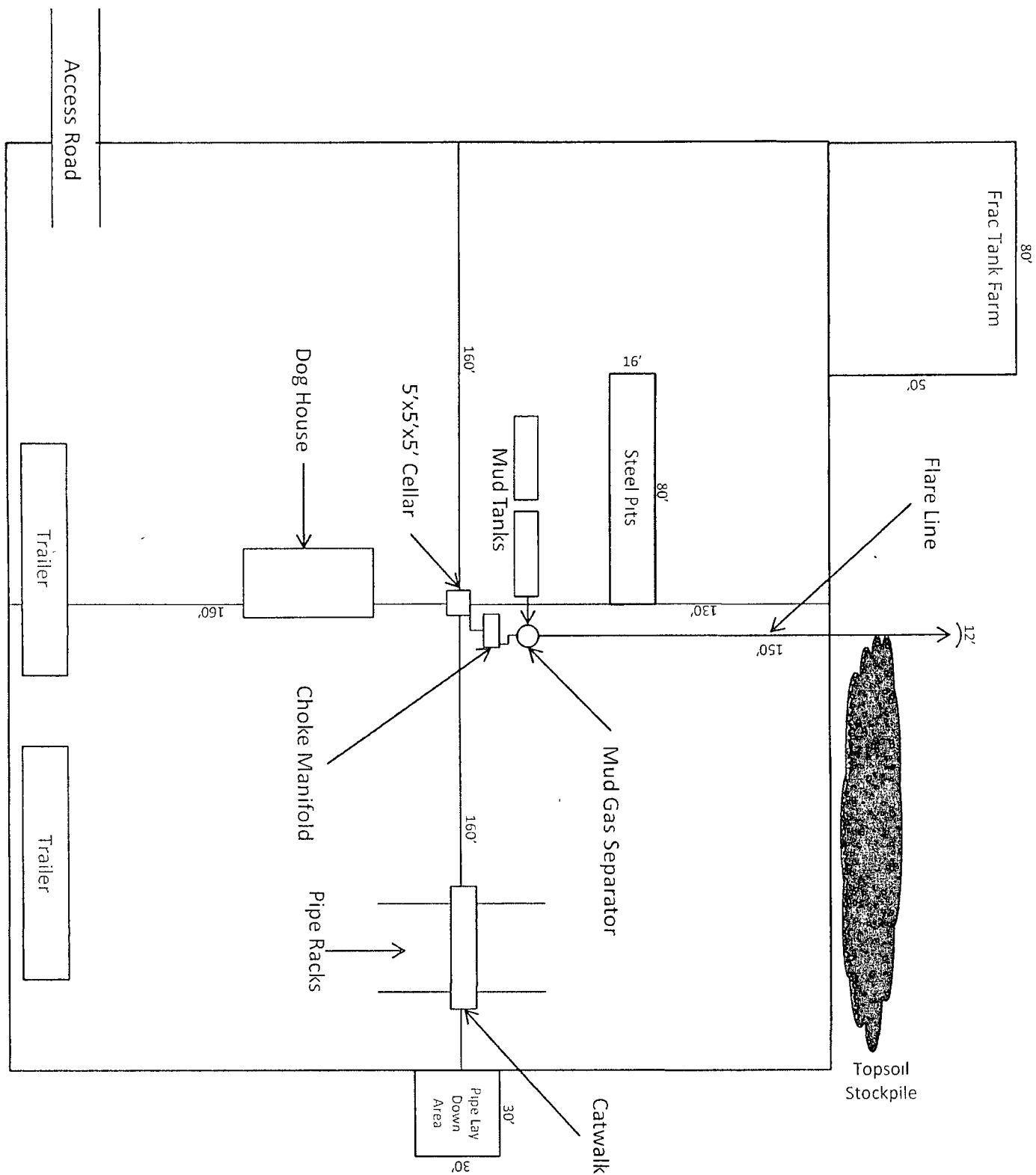
## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) No. 1H PBHL	13881.97	9987.00	-19.38	-3972.91	717636.91	602478.32	32°39'17.830"N	103°45'37.794"W	point

## SURVEY PROGRAM Ref Wellbore: No. 1H PWB Ref Wellpath: Prelim\_2

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	13881.97	NaviTrak (Standard)		No. 1H PWB





1"=50'



Exhibit D – Rig Diagram  
**East Lusk 15 Federal Com No. 1**  
 Cimarex Energy Co. of Colorado  
 15-19S-32E  
 SHL 660 FSL & 660 FEL  
 BHL 660 FSL & 660 FWL  
 Lea County, NM

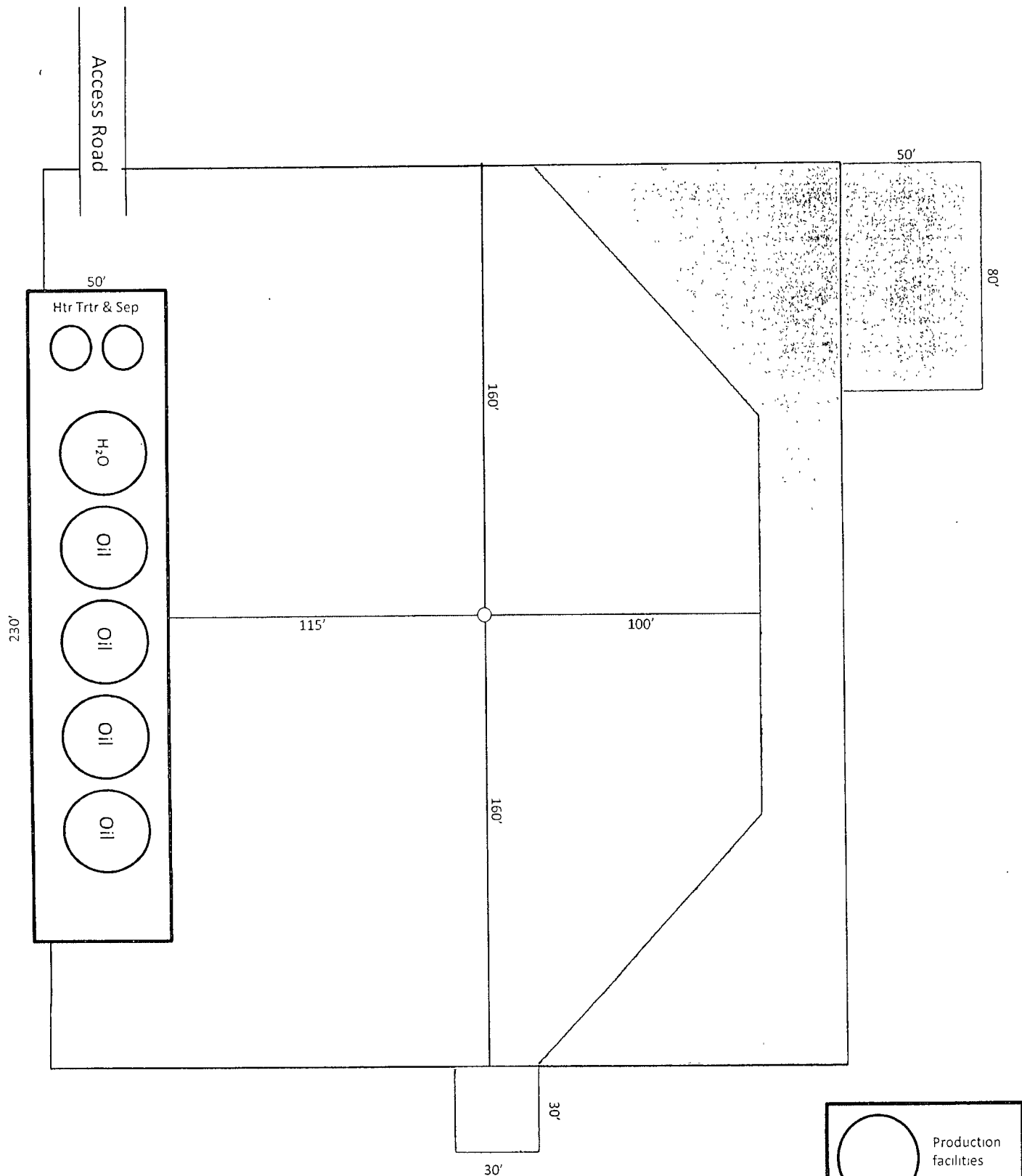
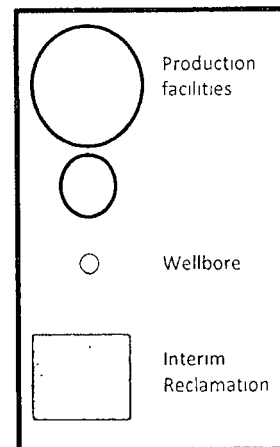


Exhibit D-1  
 Production Facilities Layout Diagram  
**East Lusk 15 Federal Com No. 1**  
 Cimarex Energy Co. of Colorado  
 15-19S-32E  
 SHL 660 FSL & 660 FEL  
 BHL 660 FSL & 660 FWL  
 Lea County, NM



1"=50'

SR & A

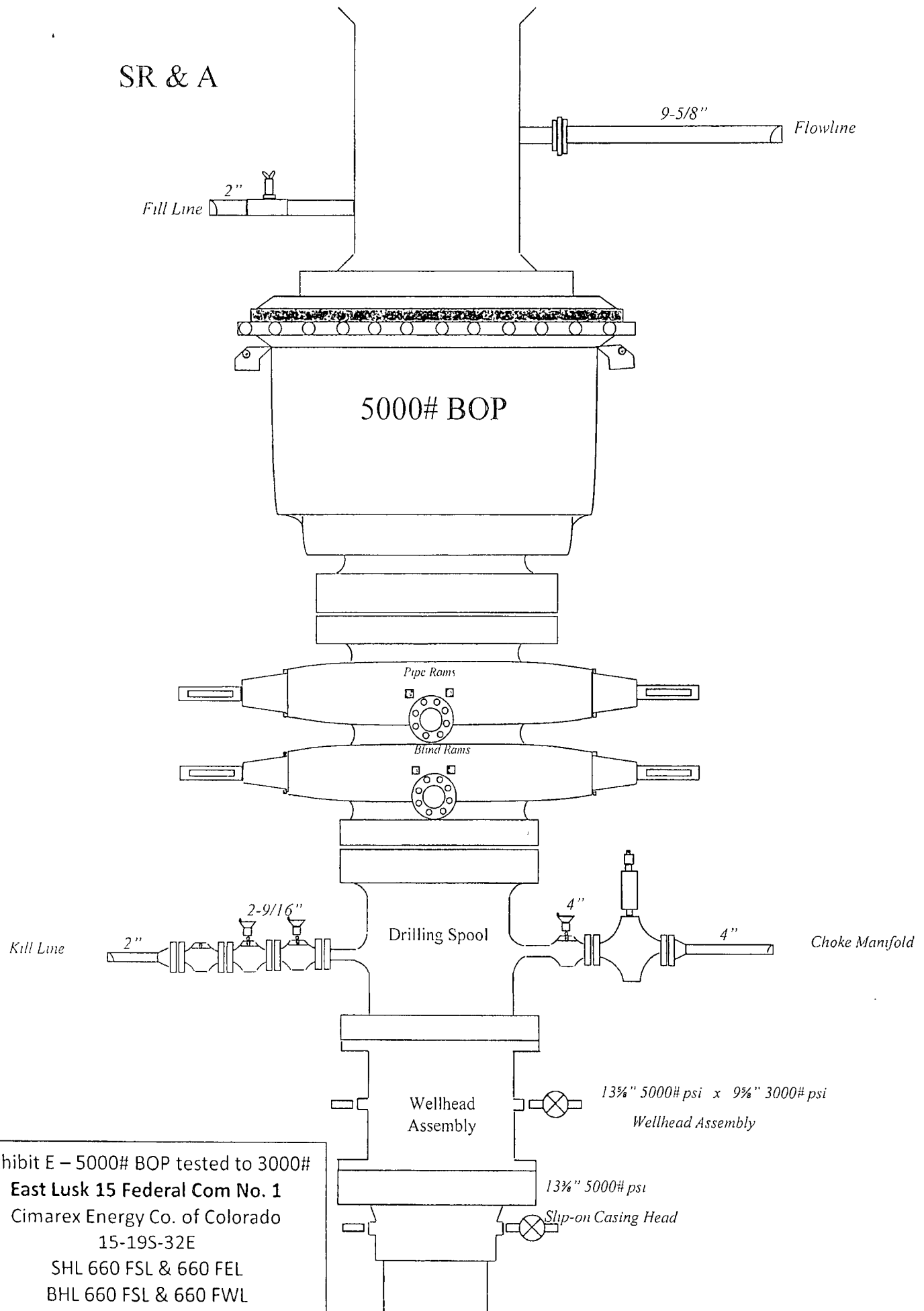


Exhibit E – 5000# BOP tested to 3000#

**East Lusk 15 Federal Com No. 1**

Cimarex Energy Co. of Colorado

15-19S-32E

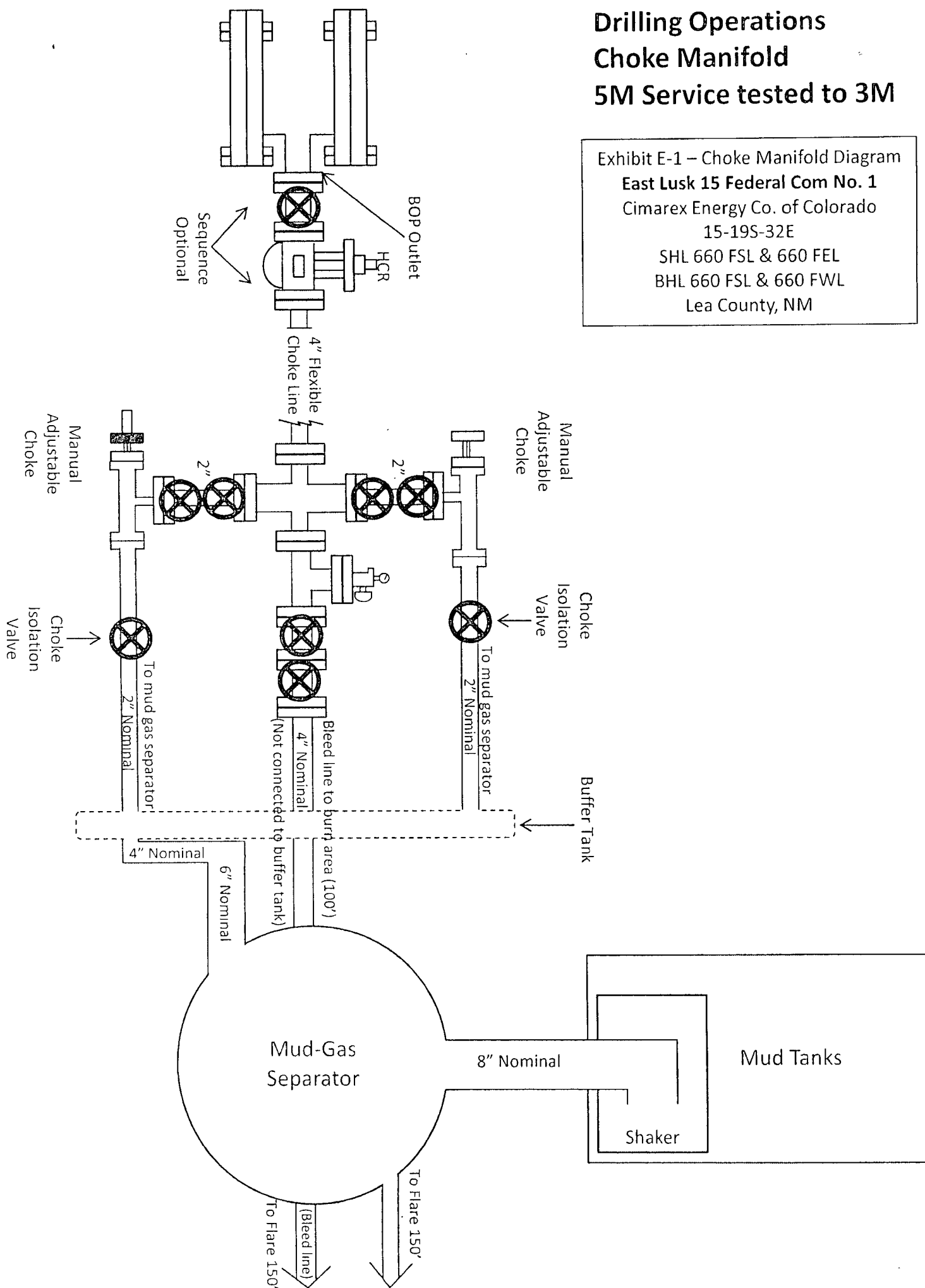
SHL 660 FSL & 660 FEL

BHL 660 FSL & 660 FWL

Lea County, NM

# Drilling Operations Choke Manifold 5M Service tested to 3M

Exhibit E-1 – Choke Manifold Diagram  
East Lusk 15 Federal Com No. 1  
Cimarex Energy Co. of Colorado  
15-19S-32E  
SHL 660 FSL & 660 FEL  
BHL 660 FSL & 660 FWL  
Lea County, NM





Midwest Hose  
& Specialty, Inc.

## 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.

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

16958

TERM ASSIGNMENT OF OIL & GAS LEASE  
And Reservation of Overriding Royalty

RECEIVED

NOV 23 2010

HOBBSUCD

STATE OF NEW MEXICO     §  
                                     §  
COUNTY OF LEA           §

FOR CONSIDERATION PAID, the receipt and sufficiency of which is hereby acknowledged, **John H. Hendrix Corporation**, whose address is 110 N. Marienfeld, suite # 400, Midland, TX 79701-4461 (hereinafter referred to as "**Assignor**") does hereby grant, sell, assign and convey unto **Cimarex Energy Co.**, a Delaware corporation, whose address is 600 N. Marienfeld, Suite 600, Midland, Texas 79701, (hereinafter referred to as "**Assignee**"), all of **Assignor's** right, title and interest in and to the oil and gas operating rights and working interest production in and to the leases set forth on Exhibit "A" attached hereto (hereinafter referred to as the "Lease Acreage").

This assignment is made subject to the following terms and conditions:

1. **Term:** Subject to the further provisions of this Paragraph 1, the rights and interests assigned hereby shall be for a term of two (2) years from the effective date set forth below ("Primary Term") and thereafter so long as (a) a well drilled or re-entered by **Assignee** on the Lease Acreage is capable of commercially producing oil and/or gas, (b) the Lease Acreage is partially or completely included in a proration unit prescribed by lawful authority ("Spacing Unit") which contains a well capable of commercially producing oil and/or gas and the Spacing Unit must be communitized under a Communitization Agreement approved by the State of New Mexico prior to expiration of the Primary Term, or (c) any lease saving operation permitted under said oil and gas lease or applicable Communitization Agreement is being diligently conducted on the Lease Acreage or on acreage included in the Spacing Unit with no cessation of more than 60 consecutive days. In addition, if **Assignee** (i) has completed a well as a commercial producer or abandoned as a dry hole within 30 days prior to the expiration of the Primary Term or (ii) is engaged in actual drilling or reworking operations on a well on the Lease Acreage or in a Spacing Unit including the Lease Acreage at the expiration of the Primary Term which reworking operations subsequently result in completion as a producer or abandonment as a dry hole, **Assignee** shall have the option, but not the obligation, to conduct a continuous development program on the Lease Acreage or lands communitized therewith. If **Assignee** elects to conduct such program it shall then commence, at its sole cost, risk and expense, the drilling of a well at a location of its choice on the Lease Acreage or on lands included in a Spacing Unit assigned to the well, within 180 days from completion or abandonment of said well drilled or reworked and completed prior to or over expiration of the Primary Term. Thereafter, not more than 180 days shall have

elapsed between completion of one well and the commencement of actual drilling operations (i.e. "turning to the right") on the next succeeding well. For purposes of this assignment, completion shall be deemed to be the date of drilling rig release. **Assignee** shall act in accordance with good oilfield practices in its drilling, testing and completion operations.

At the end of the Primary Term hereof or the expiration of the continuous development program as described in this Paragraph 1, whichever is later, this assignment shall automatically terminate as to (i) all of the lease acreage not then included in a Spacing Unit assigned to a producing well or well then capable of commercially producing oil and/or gas and (ii) all depths below 100 feet below the stratigraphic equivalent of the base of the deepest formation in the Spacing Unit for each said producible well then capable of commercially producing oil and/or gas. This assignment shall also automatically terminate as to the Lease Acreage within each retained Spacing Unit and depths retained in connection therewith when commercial production and/or operations cease as provided above without restoration of commercial production. Despite the automatic termination of this assignment in the above specified situations **Assignee** shall in each instance promptly execute and deliver to **Assignor** a reassignment of the terminated Lease Acreage free and clear of all burdens and liens created or incurred by **Assignee** or which may have become a burden or lien on the operating rights assigned hereby as a consequence of ownership thereof by **Assignee**. Said reassignment to be delivered to **Assignor** within thirty (30) days after written notice by **Assignor** to **Assignee**. The rights of reverter and the rights of reassignment retained herein by **Assignor** shall be superior to all liens, encumbrances, debts, judgments, claims, overriding royalty and production payment interests and other obligations created or incurred by **Assignee** as asserted against the rights and interests assigned hereby.

2. **Ingress and Egress:** **Assignee** shall have the rights of ingress and egress to the Lease Acreage as permitted by said oil and gas lease and applicable law to the extent it may deem necessary in conducting drilling and other operations thereon.

3. **Compliance with Lease, Laws and Regulations:** While this assignment is in force and effect, **Assignee** will promptly, and as a prudent operator, comply with all covenants and conditions applicable to said oil and gas lease, the terms of this assignment and with all applicable laws, rules and regulations affecting drilling, completing and other petroleum operations on the lease acreage or on lands communitized therewith.

6. **Assignor's Override:** **Assignor** hereby reserves an overriding royalty equal to the positive difference between 25% and existing royalty, if any, on the lease and other overriding royalty interests and other non-expense bearing interests burdening the rights and interests assigned hereby. Said reserved override shall be subject to proportionate reduction in the event **Assignor** assigns less than 100% of its rights and

interests in the Lease Acreage to **Assignee** in this assignment. The override reserved herein to **Assignor** shall be free and clear of all costs and expenses, except applicable taxes and except as otherwise expressly provided herein, said overriding royalty shall be computed and paid in the same fashion and in the same manner as royalty payable under the applicable leases is computed and paid, and **Assignor** shall be responsible for its proportionate part of all applicable taxes from the production of oil and/or gas. **Assignor's** override may be committed by **Assignee** to one or more Communitization Agreements for the purpose of forming a well Spacing Unit without necessity of joinder or consent by **Assignor**.

8. **Reservation:** Notwithstanding anything in this agreement to the contrary, it is expressly understood and agreed that this agreement shall not cover, and shall not be deemed to have conveyed, or have any obligation to convey (i) any well located within the Lease Acreage (as defined) that as of the effective date of this Assignment is producing or capable of producing oil and/or gas, including all personal property associated with, or used in connection with any such well, including, but not limited to, casing, tubing, surface equipment, tanks pipelines compressors and all other associated personal property, (ii) any rights to production from any such well, and (iii) any leasehold interest in the spacing or proration unit allocated to any such well by applicable governmental authority. This paragraph also applies to any well that has been temporarily abandoned and any type of injection or saltwater disposal well.

9. **Well Information:** Upon written request, **Assignee** shall furnish **Assignor** with copies of drilling reports, logs, test results and all other information obtained by **Assignee** relative to any well that may be drilled hereunder by **Assignee** on the Lease Acreage or on lands pooled therewith.

10. **Abandonment of wells:** Prior to the abandonment of any well drilled hereunder on the Lease Acreage, **Assignor** shall have the right within forty-eight (48) hours after receipt of notice of **Assignee's** intention so to abandon, to take over the well or wells for additional testing by any method, with **Assignor** being solely responsible for all costs and expenses in connection therewith, including standby rig time and plugging costs, if required. If the well is taken over by **Assignor** for the limited purposes expressed hereinabove, and such work results in a completion attempt wherein a well capable of commercial production is encountered, all of **Assignee's** rights in such well and unit established for such well shall automatically cease, provided that **Assignor** agrees to pay **Assignee** the reasonable salvage value of any salvageable material in the hole which **Assignee** has contributed, less the cost of salvaging same.



11. **Relationship of the Parties:** This assignment is not intended to create, and nothing herein shall be construed to create, an association, trust, joint venture, mining partnership or other partnership or entity of any kind.

12. **Special Warranty of Title:** Assignor agrees to warrant and defend title to the rights and interests herein assigned to Assignee against the claims and demands of all persons claiming or to claim the same or any part thereof, by, through or under Assignor, but not otherwise.

13. **Counterparts:** This instrument may be executed in any number of counterparts, each of which shall be considered an original for all purposes, and for the purpose of filing this instrument of record each original counterpart may be combined to form a single instrument.

Dated and executed this 15<sup>th</sup> day of March 2010, but effective the 1<sup>st</sup> day of March 2010.

**ASSIGNOR:**

John H. Hendrix Corporation,  
a Texas corporation

By: 

Title: Vice-President, Finance

**ASSIGNEE:**

Cimarex Energy Co.,  
a Delaware corporation

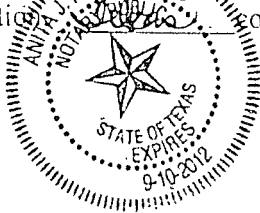
By:  

Roger Alexander, Attorney-in-Fact

ACKNOWLEDGEMENTS

STATE OF TEXAS                    )  
  ) ss.  
COUNTY OF Midland )

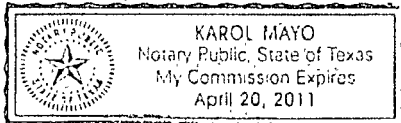
The foregoing instrument was acknowledged before me this 23<sup>rd</sup> day of March 2010, by James H. Hendrix as VP - Finance, of John H. Hendrix Corporation, on behalf of said corporation.



Anita J. Henderson  
Notary Public

STATE OF TEXAS                    )  
  ) ss.  
COUNTY OF MIDLAND )

The foregoing instrument was acknowledged before me this 8<sup>th</sup> day of April 2010, by Roger Alexander, as Attorney-in-Fact., of Cimarex Energy Co., a Delaware corporation, on behalf of said corporation.



Karol Mayo  
Notary Public



Exhibit "A"

Attached to and made part of that certain Term Assignment dated March 15<sup>th</sup>, 2010, by and between John H. Hendrix Corporation, as Assignor, and Cimarex Energy Co., a Delaware corporation, as Assignee.

LEASE DATE: 09/01/1956  
LESSOR: United States of America  
LESSEE: Howard W. Jennings  
LEASE NUMBER: NM-025497  
DESCRIPTION: Insofar and only insofar as lease covers:

E/2. E/2 W/2 of Section 15, Township 19 South, Range 32 East, N.M.P.M.

STATE OF NEW MEXICO  
COUNTY OF LEA  
FILED

MAY 04 2010

at 2:08 o'clock P M  
and recorded in Book 1677  
Page 858  
Pat Chappelle, Lea County Clerk  
By J. G. Deputy



16958



COUNTY OF NEW MEXICO  
STATE OF NEW MEXICO

NEW MEXICO  
JAN 28 1908  
COUNTY OF NEW MEXICO  
STATE OF NEW MEXICO

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