

CD-HOBBS

HOBBS OCD

Form 3160-3
(April 2004)

AUG 10 2011

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No LC-060329	
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. Marienfeld St., Ste. 600; Midland, TX 79701		8. Lease Name and Well No <38399> HT 18 Federal No. 7	
3b Phone No. (include area code) 432-571-7800		9. API Well No 30-015- 025-40234	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At Surface 990 FNL & 990 FWL Unit D		10. Field and Pool, or Exploratory Maljamar; Yeso-West <44500>	
At proposed prod. Zone		11. Sec., T. R. M. or Blk. and Survey or Area 18-17S-32E	
14. Distance in miles and direction from nearest town or post office*		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) 330	16. No of acres in lease 323.76	17. Spacing Unit dedicated to this well NWNW 40.91	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 805'	19. Proposed Depth 7000'	20. BLM/BIA Bond No. on File NM-2575	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3966' GR	22. Approximate date work will start* 06.01.11	23. Estimated duration 10-15 days	

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

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

25. Signature Zeno Farris	Name (Printed/Typed) Zeno Farris	Date 03.24.11
Title Manager Operations Administration		
Approved By (Signature) /s/ Don Peterson	Name (Printed/Typed) CARLSBAD FIELD OFFICE	Date AUG - 5 2011
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

*(Instructions on page 2)

Roswell Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations Attached

AUG 15 2011

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Application to Drill
 HT 18 Federal No. 7
 Cimarex Energy Co. of Colorado
 Lot 1, Section 18
 T17S R32E, Lea County, NM

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I + E Corp
 11-539

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

- 1 Location: SHL 990 FNL & 990 FWL
- 2 Elevation above sea level: 3966' 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: 7,000'
- 6 Estimated tops of geological markers:

Rustler	760'
T. Salt	900'
B. Salt	1600'
Yates	2025'
7 Rivers	2340'
Queen	2960'
San Andres	3690'
Glorieta	5235'
Paddock	5290'
Blinbry	5875'
Tubb	6715'
- 7 Possible mineral bearing formation:

Paddock	Oil
Blinbry	Oil

8 Proposed Mud Circulating System:

Depth	Mud Wt	Visc	Fluid Loss	Type Mud
0' to 785' ^{740'}	8.4 - 8.8	40-45	NC	FW
785' to 1975' ^{2010'}	9.9 - 10.1	28-32	NC	Brine
1975' to 7000'	9.1	28-32	NC	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.

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9 Casing Plan:

String	Hole Size	Depth	Casing OD	Weight	Thread	Collar	Grade
Surface	16"	0' to 740 ^{785'}	New 11 1/4"	42#	8-R	STC	H-40
Intermediate	11"	0' to 2010 ^{1975'}	New 8 5/8"	24#	8-R	STC	K-55
Production	7 7/8"	0' to 7000'	New 5 1/2"	17#	8-R	LTC	J-55

10 Cementing Plan:

Surface	<u>Lead:</u> 450 sx Class C + 4% D-20 + 0.2% D-46 + 0.125 ppg D-130 (wt 12.9 ppg, yield 1.99)
100% Excess	<u>Tail:</u> 200 sx Class C + 0.125 pps D130 (wt 14.80, yield 1.34)
	TOC Surface Centralizers per Onshorder 2.III.B.1.f
Intermediate	<u>Lead:</u> 270 sx 35:65 Poz: Class C + 0.2% Defoamer (D046) + 5% D044 (Salt) + 6% D020 (Extender Gel) + 1/8 pps Polyflake (D130)
70% Excess	+ 2 pps Gilsonite (D042) (wt 12.6, yld 2.07)
	<u>Tail:</u> 200 sx Class C + 0.2% D-13 (wt 14.8, yld 1.33)
	TOC Surface
Production	<u>Lead:</u> 575 sacks 35:65 POZC + 0.2% Defoamer (D046) + 0.6% Fluid Loss (D167) + 1 lb/sx Extender (D042) + 0.02% Retarder
25% Excess	(D013) + 23 lbs/sx Silica (D178) + 40 lbs/sx Extender (D124) (wt 9.9, yield 2.35)
	<u>Tail:</u> 450 sacks PVL + 1.3% NaCl (D044) + 0.2% Fluid Loss (D167) + 0.2% Cement Retarder (D013) + 0.2% Dispersant (D065) (wt 13, yld 1.4)
	TOC 1775'

According to the State Engineer, depth to groundwater is 200.' Fresh water zones will be protected by setting 11 1/4" casing at ~~740~~ ^{785'} and cementing to surface. Hydrocarbon zones will be protected by setting 8 5/8" casing at ~~1975~~ ^{2010'} and cementing to surface and by setting 5 1/2" casing at 7000' and cementing to 1775.'

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

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11 Pressure control Equipment: ✓

✓ A 13½" 3000 PSI working pressure B.O.P. consisting of a one set of blind rams and one set of pipe rams and a 3000 psi annular-type preventor. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. 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. Test BOP equipment and choke manifold to 250 psi low and 3000 psi high and annular BOP to 250 psi low and 1500 psi high by an independent service company. Mud gas separator will be available if drilling in H2S areas.

BOP unit will be hydraulically operated. Below intermediate casing shoe, BOP will be 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 surface pipe through the running of production casing, the well will be equipped with a 3000 psi BOP system.

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.

12 Testing, Logging and Coring Program:

* See COA

A. Mud logging No mud logging program.

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. The area has a potential H2S hazard. An H2S drilling plan is attached. 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 **2300 psi** Estimated BHT **110°**

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

Drilling expected to take 10-15 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.

Blinebry pay will be perforated and stimulated.

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

SR & A

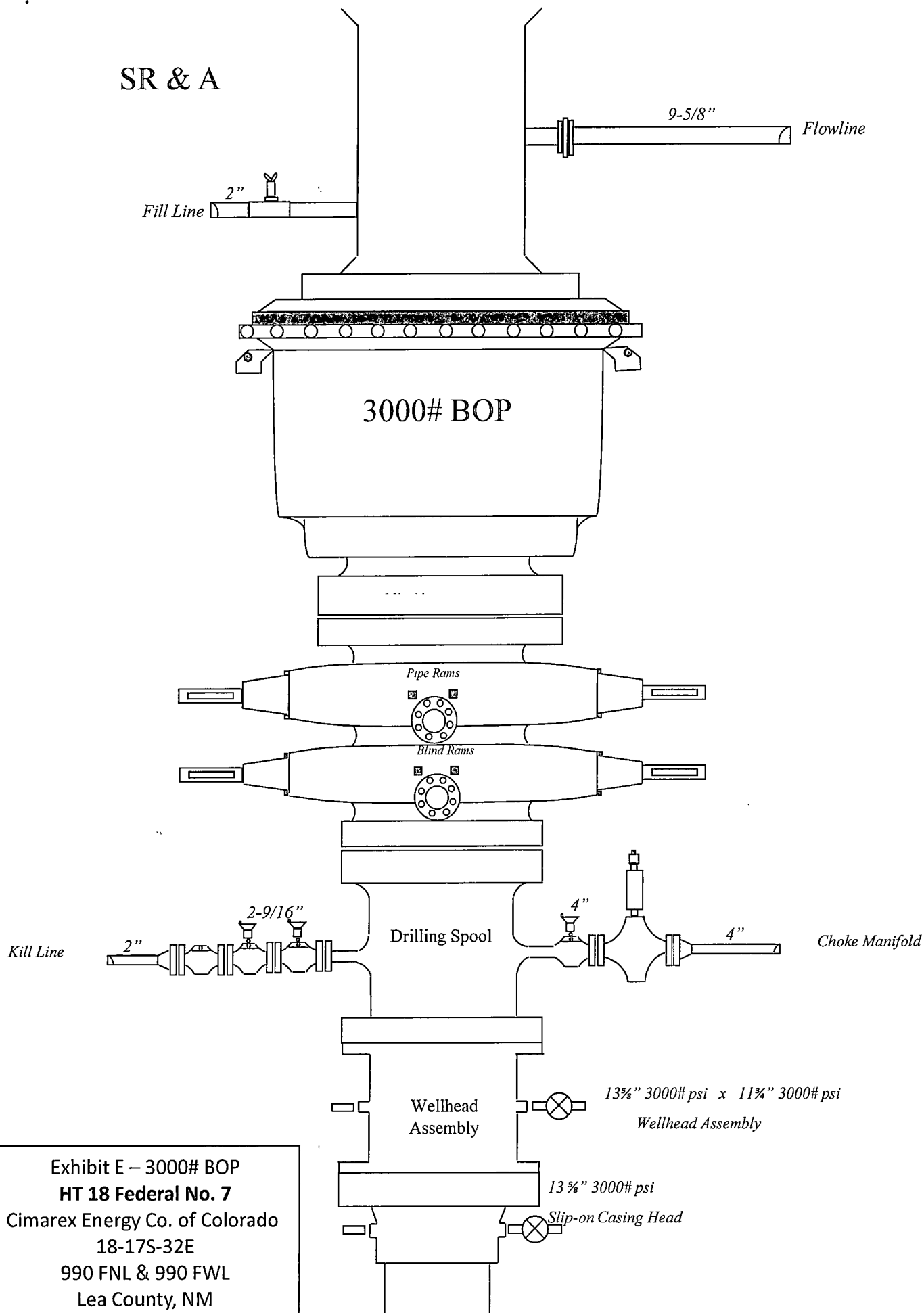


Exhibit E – 3000# BOP

HT 18 Federal No. 7

Cimarex Energy Co. of Colorado

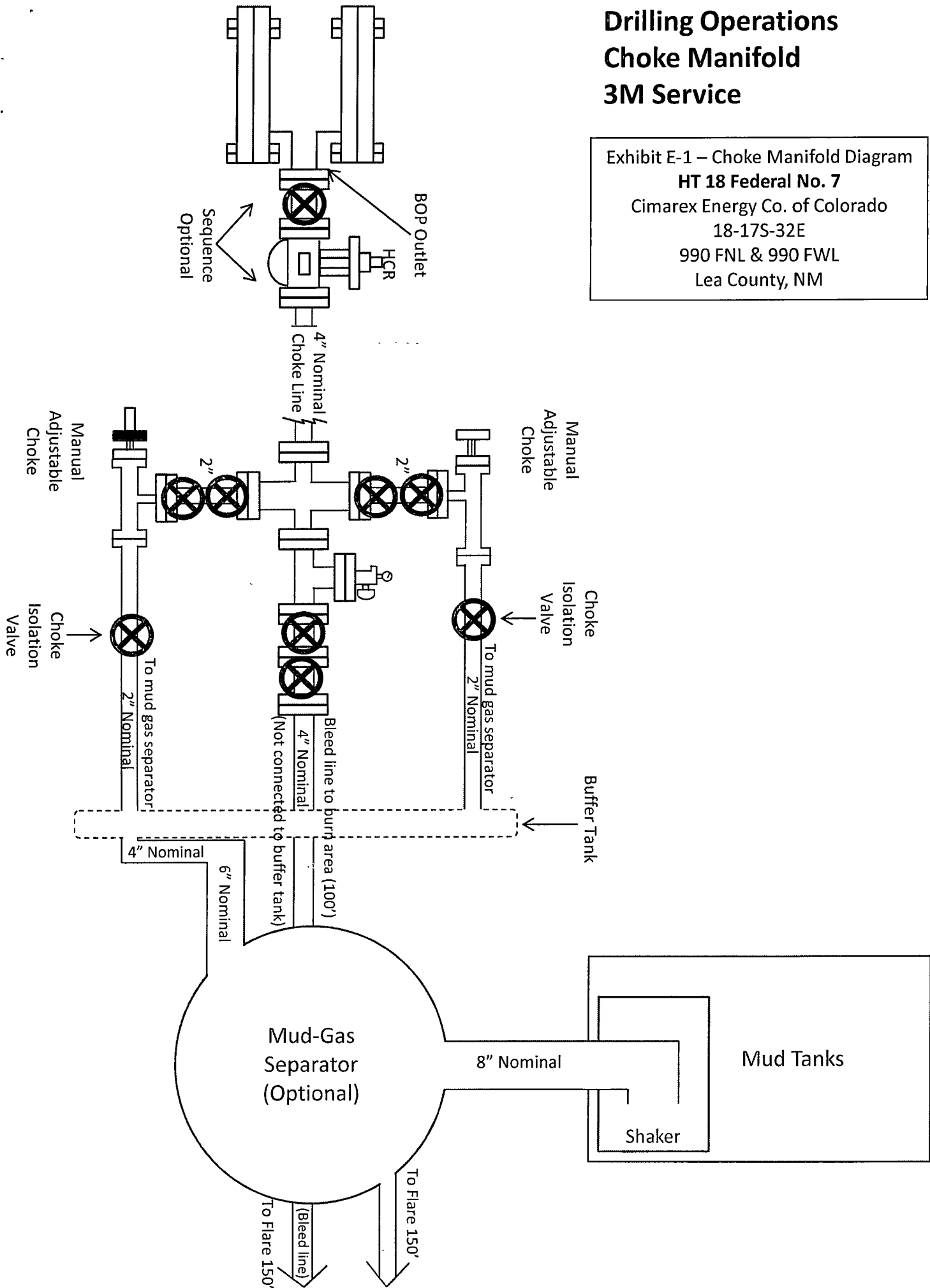
18-17S-32E

990 FNL & 990 FWL

Lea County, NM

Drilling Operations
Choke Manifold
3M Service

Exhibit E-1 – Choke Manifold Diagram
HT 18 Federal No. 7
Cimarex Energy Co. of Colorado
18-17S-32E
990 FNL & 990 FWL
Lea County, NM



Silver Oak #3

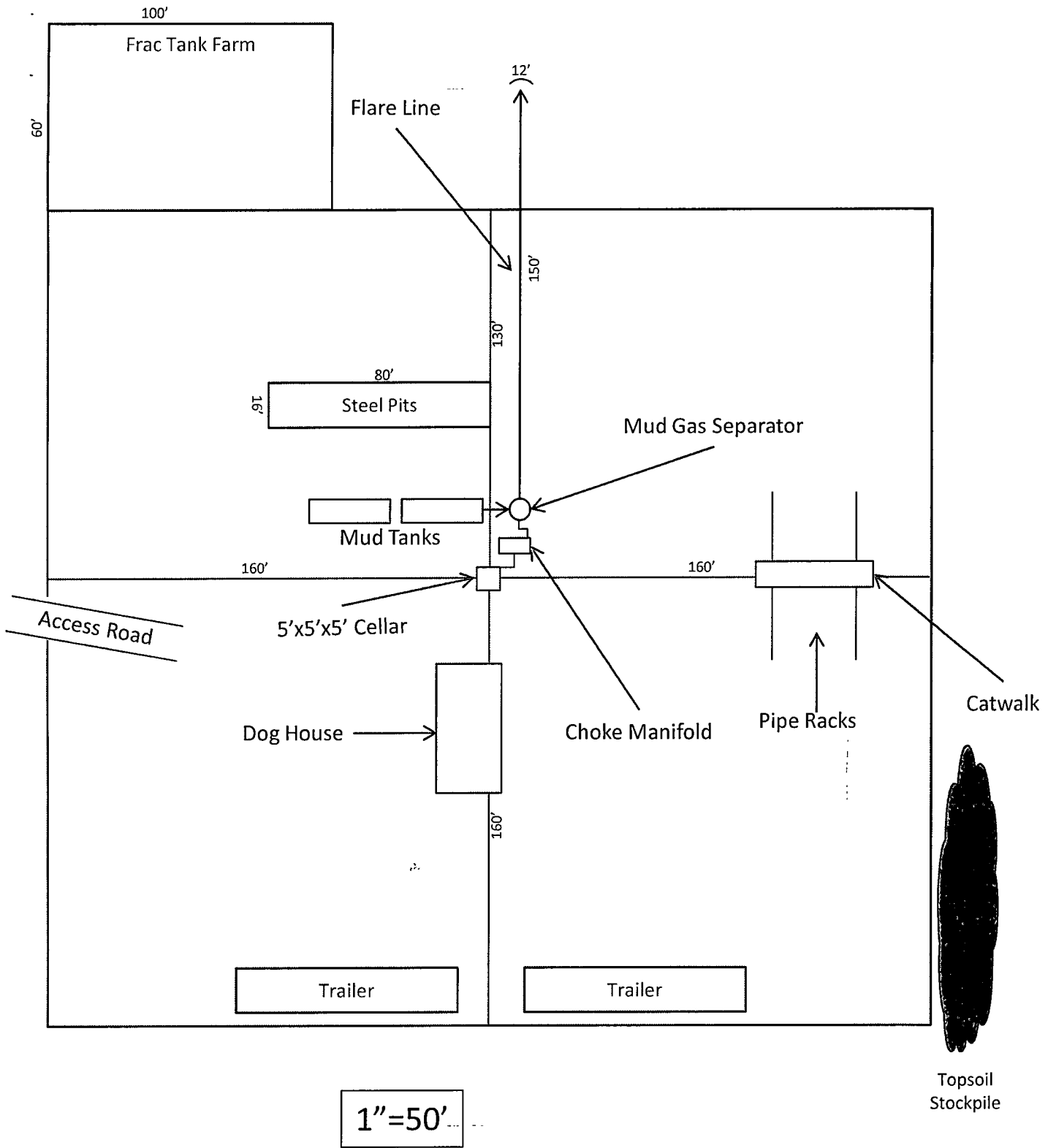


Exhibit D – Rig Diagram
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18-17S-32E
990 FNL & 990 FWL
Lea County, NM