

Split Estate

ATS 14-210

Form 3160-3
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD HOBBS

APR 15 2014

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

NDS 12/13

RECEIVED

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-92199
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 CAZA OPERATING, LLC. (249099)		7. If Unit or CA Agreement, Name and No. ----- (40064)
3a. Address 200 NORTH LORAIN SUITE 1550 MIDLAND, TEXAS 79701	3b. Phone No. (include area code) 432-682-7424	8. Lease Name and Well No. WEST COPPERLINE 29 FED/STAT COM #4H
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface SL: 150' FNL & 660' FWL SECTION 29 T23S-R34E At proposed prod. zone BHL 330' FSL & 660' FWL SECTION 29 T23S-R34E		9. API Well No. 30-025-41802 (2209)
14. Distance in miles and direction from nearest town or post office* Approximately 25 miles Northwest of Jal New Mexico		10. Field and Pool, or Exploratory ANTELOPE RIDGE AS, WEST
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 150'	16. No. of acres in lease 560	11. Sec., T. R. M. or Blk. and Survey or Area SECTION 29 T23S-R34e
17. Spacing Unit dedicated to this well 160	18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 180'	12. County or Parish LEA CO.
19. Proposed Depth No TVD-10,560' Pilot MD-15,146' Hole	20. BLM/BIA Bond No. on file NMB-000471	13. State NM
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3563' GL.	22. Approximate date work will start* WHEN APPROVED	23. Estimated duration 35 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. | 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 must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM. |

25. Signature <i>Joe T. Janica</i>	Name (Printed/Typed) Joe T. Janica	Date 01/14/14
Title Permit Eng.		
Approved by (Signature) <i>SI/STEPHEN J. CAFFEY</i>	Name (Printed/Typed)	Date APR 9 2014
Title FIELD MANAGER		
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.

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)

Lea County Controlled Water Basin (Continued on page 2)

Approval Subject to General Requirements
& Special Stipulations Attached

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

APR 23 2014

OPERATOR 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 the 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 that 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 a false statement.

OPERATORS REPRESENTATIVES

BEFORE CONSTRUCTION

TIERRA EXPLORATION, INC.

P. O. BOX 2188

HOBBS, NEW MEXICO 88241

OFFICE PHONE 575-391-8503

JOE T. JANICA CELL PH. 575-390-1598

DURING AND AFTER CONSTRUCTION

CAZA OPERATING, LLC.

200 NORTH LORAIN

SUITE 1550

MIDLAND, TEXAS 79701

RICHARD WRIGHT

OFFICE PH. 432-682-7424

CELL PH 432-556-7595

NAME Joe T. Janica

TITLE Permit Eng.

DATE 01/14/14

APPLICATION TO DRILL

CAZA OPERATING, LLC.
 WEST COPPERLINE 29 FED/STATE COM. #4H
 UNIT "D" SECTION 29
 T23S-R34E LEA CO. NM

In response to questions asked under Section II of Bulletin NTL-6, the following information on the above well will be provided.

1. LOCATION: SL: 150' FNL & 660' FWL SECTION 29 T23S-R34E
 BHL 330' FSL & 660' FWL SECTION 29 T23S-R34E
2. ELEVATION ABOVE SEA LEVEL:
3. GEOLOGICAL NAME OF SURFACE FORMATION: Quaternary Aeolian Deposits;
4. DRILLING TOOLS AND ASSOCIATED EQUIPMENT: Conventional rotary drilling rig using drilling mud as a circulating medium for the removal of solids.
5. PROPOSED DRILLING DEPTH: TVD-10,560'
 MD-15,146'
6. ESTIMATED TOPS OF GEOLOGICAL FORMATIONS:

Rustler Anhydrite	1036'	Cherry Canyon	6016'
Top of Salt	1886'	Brushy Canyon	7286'
Castile	2936'	Bone Spring	8636'
Base of Salt	4856'	1st Bone Spring Sand	9741'
Lamar	4950'	2nd Bone Spring Sand	10,276'
Bell Canyon	5181'	3rd Bone Spring Sand	11,226'
		Wolfcamp	11,486'
7. POSSIBLE MINERAL BEARING FORMATIONS:

Bell Canyon	Oil/Gas/Water	2nd Bone Spring Sd.	Oil/GAS?Water
Cherry Canyon	Oil/Gas/Water	3rd Bone Spring Sd.	Oil/Gas/Water
Brushy Canyon	Oil/Gas/Water	Wolfcamp	Oil/Gas/Water
1st Bone Spring Sd.	Oil/Gas/Water		
8. CASING PROGRAM: Possible Fresh Water 250±'

HOLE SIZE	INTERVAL	CASING OD	WEIGHT	THREAD	COLLAR	GRADE	CONDITION
26"	0-140'	20"	NA	Welded	Na	Conductor	New
17½"	0- ¹¹⁷⁵ 1070 '	13 3/8"	54.5#	8-R	ST&C	J-55	New
12½"	0-5085'	9 5/8"	40#	8-R	LT&C	J-55 HCK-55	New
8 3/4"	0-15,146'	5½"	20#	Butress	BT&C	HCP-110	New

CASING SAFETY FACTORS: Collapse 1.125 Burst 1.00 Body Yield 1.5
 Joint Strength 8-Round 1.8
 Buttress 1.6

APPLICATION TO DRILL

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UNIT "D" SECTION 29
T23S-R34E LEA CO. NM

9. CASING-CEMENTING AND SETTING DEPTHS:

20"	Conductor	Run and set 140' of 20" welded Conductor pipe and cement to surface with Redi-mix.
13 3/8"	Surface	Run and set ¹¹⁷⁵ 1070' of 13 3/8" 54.5# ST&C J-55 casing. Cement with 613 Sx. of Class "C" cement + 4% Gel, + 2% CaCl, Yield 1.74, tail in with 280 Sx. of Class "C" cement + 2% CaCl, Yield 1.32, 50% Excess circulate cement to surface.
9 5/8"	Intermediste	Run and set 5085' of 9 5/8" 40# casing as follows: 1085' of 9 5/8" 40# HCK-55 LT&C , 4000' of 9 5/8" 40# J-55 LT&C . Cement with 990 Sx of Class Class "C" 35/65 POZ cement + 5% Salt, + 6% Gel, Yield 2.09 tail in with 300 Sx. of Class "C" cement + 1% CaCl, Yield 1.32. circulate cement to surface. 75% Excess.
5 1/2"	Production	Run and set 15,146' of 5 1/2" 20# HCP-110 BT&C casing. Cement with 1225 Sx. of Class "H" cement + 35/65 POZ cement + 11b/Sx of KOL Seal + retarderYield 1.93, tail in with 619 Sx. of Class "H" SoluCem + fluid loss control + defoamer, Yield 2.61. 50% Excess estimate top of cement 4500' from surface

10. PRESSURE CONTROL EQUIPMENT:

Exhibit "E" shows a 5000 PSI working pressure B.O.P. consisting of a packoff an annular bag type preventor, blind rams. and pipe rams. A 13 5/8" B.O.P. will be nipped up on the 13 3/8" surface casing and will remain on the well to TD. The B.O.P. will be tested by a third party testing company to 3000 PSI. The B.O.P. will be operated at least once in each 25 hour period and the blind rams will be operated when the drill pipe is out of the hole on trips. A full opening stabbing valve and an upper kelly cock will be available on the derrick floor at all times and will be compatible with the drill pipe being used to drill this well. Exhobit "E-1" shows a 3" 5000 PSI choke manifold with a manual choke and a hydraulically remote choke. The choke manifold will be regid connection to the B.O.P. No abnormal pressures or abnormal temperatures are expected in this well during drilling operations, other wells drilled in the area did not encounter high temperatures or pressures. No H2S present in offset wells.

APPLICATION TO DRILL

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 UNIT "D" SECTION 29
 T23S-R34E LEA CO. NM

11. PROPOSED MUD CIRCULATING SYSTRM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD SYSTEM
140-1070' 1175	8.6-8.9	29-32	NC	Fresh water spud mud. use paper to control seepage, and high viscosity to clean hole.
1070-5085'	10.0- 10.2	29-36	NC	Brine water using paper to control seepage and high viscosity sweeps to clean hole.
5085-15,146'	8.6-9.2	29-38	NC	Fresh water with the possibility of going to cut brine system, using high viscosity sweeps to clean hole.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DST's, open hole logs, cut cores and casing, the viscosity, water loss and other properties may have to be altered to meet these requirements. Pit level will be monitored visually and electronic pit level monitor will be used.

THIS WELL WILL BE DRILLED USING A CLOSED MUD SYSTEM.

APPLICATION TO DRILL

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UNIT "D" SECTION 29
T23S-R34E LEA CO. NM

12. LOGGING, CORING, AND TESTING PROGRAM:

- A. Open hole logs: Run Dual Laterolog, CNL, LDT, Gamma Ray FMI Sonic, from End of verticle hole (10,080'±) back to Intermediate casing (5085')
Run Gamma Ray, Neutron from intermediate casing shoe back to surface.
- B. Rig up mud logger on hole at 5085' and remain on hole to TD.
- C. No DST's or cores are planned at this time unless Geologist requests one to determine quality of reservoir.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of H²S in this area. If H²S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP Est. 5350 PSI, and Estimated BHT Est. 195°. No H2S presnt in offset wells.

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operation and drilling is expected to take 35 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flowlines in order to place well on production.

15. OTHER FACETS OF OPERATIONS:

After running casing, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The Bone Spring formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialled as a Bone Spring producer.

LONG'S METHOD OF SURVEY COMPUTATION

OBLIQUE CIRCULAR ARC INTERPOLATION

6000	MD OF INTERPOLATION DEPTH, (feet)
#N/A	TVD COORDINATE OF THE DEPTH (feet)
#N/A	N/S COORDINATE OF DEPTH (feet)
#N/A	E/W COORDINATE OF DEPTH (feet)

3 D DISTANCE BETWEEN STATION A AND STATION B

DISTANCE TABLE

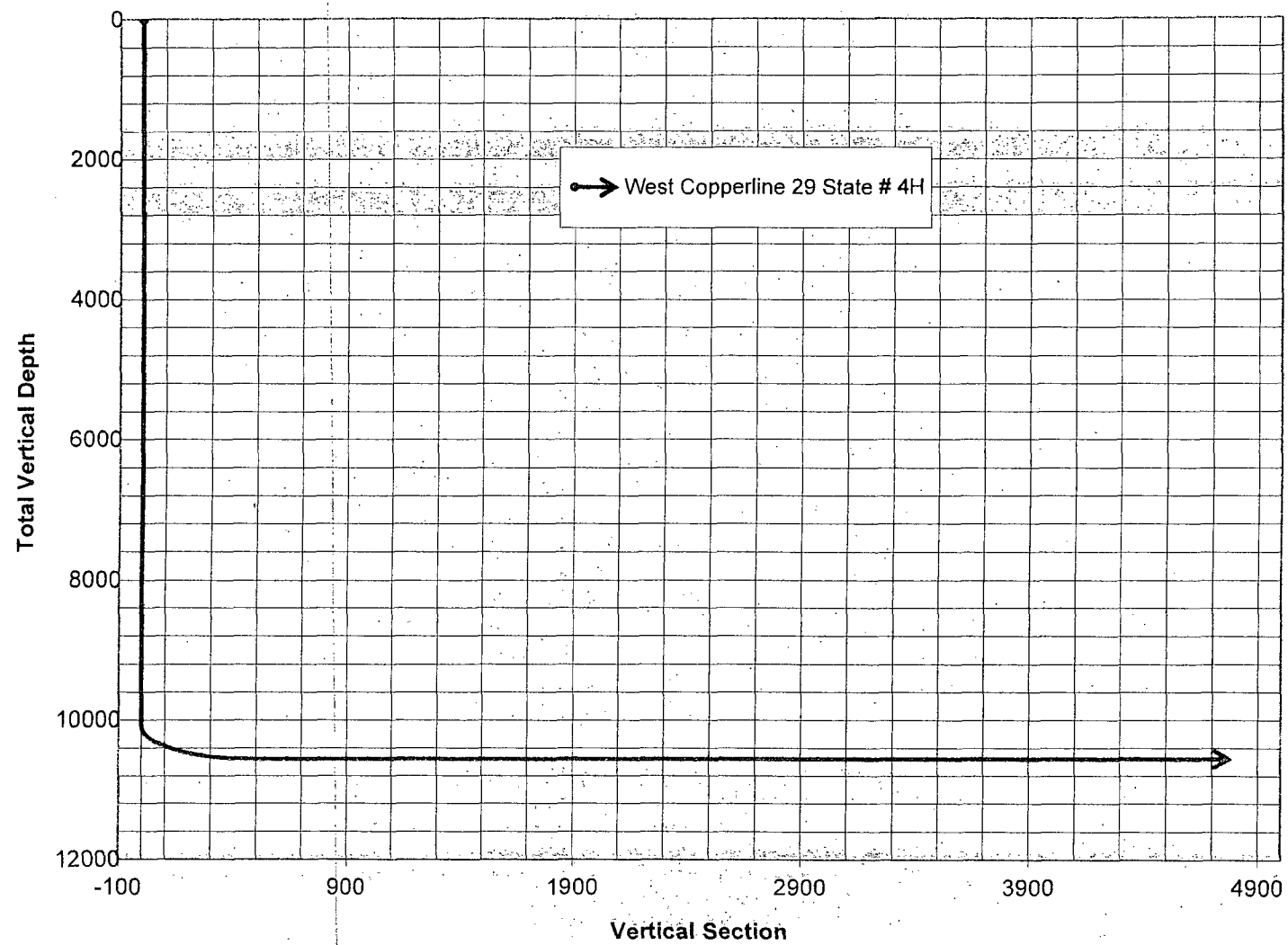
STATION A	STATION B
400.00	600.00
300.00	400.00
100.00	300.00
300.00	ft

TABLE OF SURVEY STATIONS

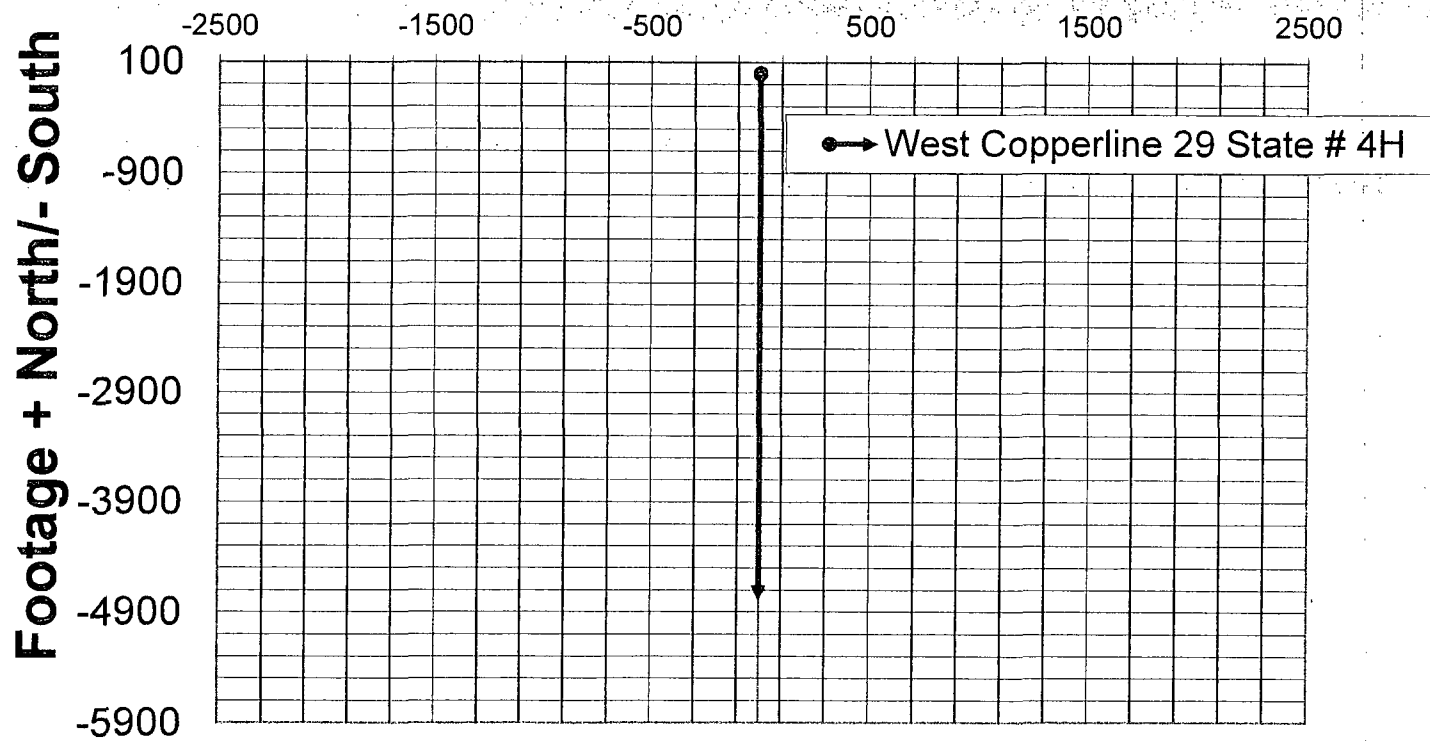
Calculator =

STA #	ΔMD ft	INCL deg	AZIM deg	MD ft	TVD ft	N+S- ft	E+W- ft	DLS deg/100FT
1	TIE POINT =>	0	0	10080.00	10080.00	0.00	0.00	-
2	100	12	180	10180.00	10179.27	-10.43	0.00	12.00
3	100	24	180	10280.00	10274.20	-41.28	0.00	12.00
4	100	36	180	10380.00	10360.65	-91.19	0.00	12.00
5	100	48	180	10480.00	10434.83	-157.98	0.00	12.00
6	100	60	180	10580.00	10493.50	-238.73	0.00	12.00
7	100	72	180	10680.00	10534.10	-329.92	0.00	12.00
8	100	84	180	10780.00	10554.85	-427.56	0.00	12.00
9	100	90	180	10880.00	10560.08	-527.37	0.00	6.00
10	100	90	180	10980.00	10560.08	-627.37	0.00	0.00
11	100	90	180	11080.00	10560.08	-727.37	0.00	0.00
12	100	90	180	11180.00	10560.08	-827.37	0.00	0.00
13	100	90	180	11280.00	10560.08	-927.37	0.00	0.00
14	100	90	180	11380.00	10560.08	-1027.37	0.00	0.00
15	100	90	180	11480.00	10560.08	-1127.37	0.00	0.00
16	100	90	180	11580.00	10560.08	-1227.37	0.00	0.00
17	100	90	180	11680.00	10560.08	-1327.37	0.00	0.00
18	100	90	180	11780.00	10560.08	-1427.37	0.00	0.00
19	100	90	180	11880.00	10560.08	-1527.37	0.00	0.00
20	100	90	180	11980.00	10560.08	-1627.37	0.00	0.00
21	100	90	180	12080.00	10560.08	-1727.37	0.00	0.00
22	100	90	180	12180.00	10560.08	-1827.37	0.00	0.00
23	100	90	180	12280.00	10560.08	-1927.37	0.00	0.00
24	100	90	180	12380.00	10560.08	-2027.37	0.00	0.00
25	100	90	180	12480.00	10560.08	-2127.37	0.00	0.00
26	100	90	180	12580.00	10560.08	-2227.37	0.00	0.00
27	100	90	180	12680.00	10560.08	-2327.37	0.00	0.00
28	100	90	180	12780.00	10560.08	-2427.37	0.00	0.00
29	100	90	180	12880.00	10560.08	-2527.37	0.00	0.00
30	100	90	180	12980.00	10560.08	-2627.37	0.00	0.00
31	100	90	180	13080.00	10560.08	-2727.37	0.00	0.00
32	100	90	180	13180.00	10560.08	-2827.37	0.00	0.00
33	100	90	180	13280.00	10560.08	-2927.37	0.00	0.00
34	100	90	180	13380.00	10560.08	-3027.37	0.00	0.00
35	100	90	180	13480.00	10560.08	-3127.37	0.00	0.00
36	100	90	180	13580.00	10560.08	-3227.37	0.00	0.00
37	100	90	180	13680.00	10560.08	-3327.37	0.00	0.00
38	100	90	180	13780.00	10560.08	-3427.37	0.00	0.00
39	100	90	180	13880.00	10560.08	-3527.37	0.00	0.00
40	100	90	180	13980.00	10560.08	-3627.37	0.00	0.00
41	100	90	180	14080.00	10560.08	-3727.37	0.00	0.00
42	100	90	180	14180.00	10560.08	-3827.37	0.00	0.00
43	100	90	180	14280.00	10560.08	-3927.37	0.00	0.00
44	100	90	180	14380.00	10560.08	-4027.37	0.00	0.00
45	100	90	180	14480.00	10560.08	-4127.37	0.00	0.00
46	100	90	180	14580.00	10560.08	-4227.37	0.00	0.00
47	100	90	180	14680.00	10560.08	-4327.37	0.00	0.00
48	100	90	180	14780.00	10560.08	-4427.37	0.00	0.00
49	100	90	180	14880.00	10560.08	-4527.37	0.00	0.00
50	100	90	180	14980.00	10560.08	-4627.37	0.00	0.00
51	100	90	180	15080.00	10560.08	-4727.37	0.00	0.00
52	66	90	180	15146.00	10560.08	-4793.37	0.00	0.00
53								

Copperline Prospect

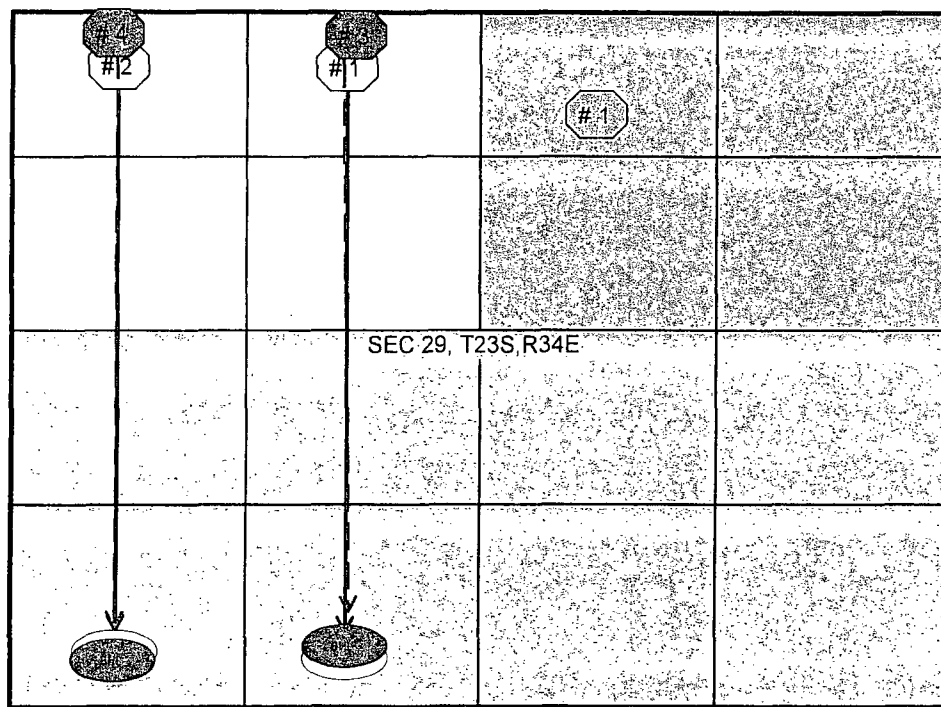


Horizontal Plane Footage +East/-West



West Copperline 29 State #4H Horizontal

Sec 29, (NW/NW)_T-23-S, R-34-E, Lea County, New Mexico



Well Name

Surface Location

Depth and Strata

Target TD

Bottom Hole
Location

West Copperline 29 St # 4H	330 FNL & 660 FWL	TD = 10,990' 2nd Bone Sprngs Hrzs	10,140 MD	330 FSL & 660 FWL	± 10,560 TVD
W. Copperline 29 St # 3H	330 FNL & 1980 FWL	TD = 11,630 Wolfcamp Hrzs	15210 MD	330 FSL & 1980 FWL	± 11,630 TVD
W. Copperline 29 St # 2H	330 FNL & 660 FWL	TD = 11,480 3rd Bone Sprgs Hrzs	15880 MD	330 FSL & 660 FWL	± 11,480 TVD
W. Copperline 29 St # 1H	330 FNL & 1980 FWL	TD = 11,480 3rd Bone Sprgs Hrzs	15880 MD	330 FSL & 1980 FWL	± 11,480 TVD
Antelbellum Unit #2	990 FNL & 1980 FEL	TD= 10860-9532'. B. Sprgs Vert	14,318 Penn	Same	

West Copperline 29 Fed/State Com #3H

5000 PSI BOP Schematic

Minimum requirement 1 1/2 inch

1 3/8 9 Td

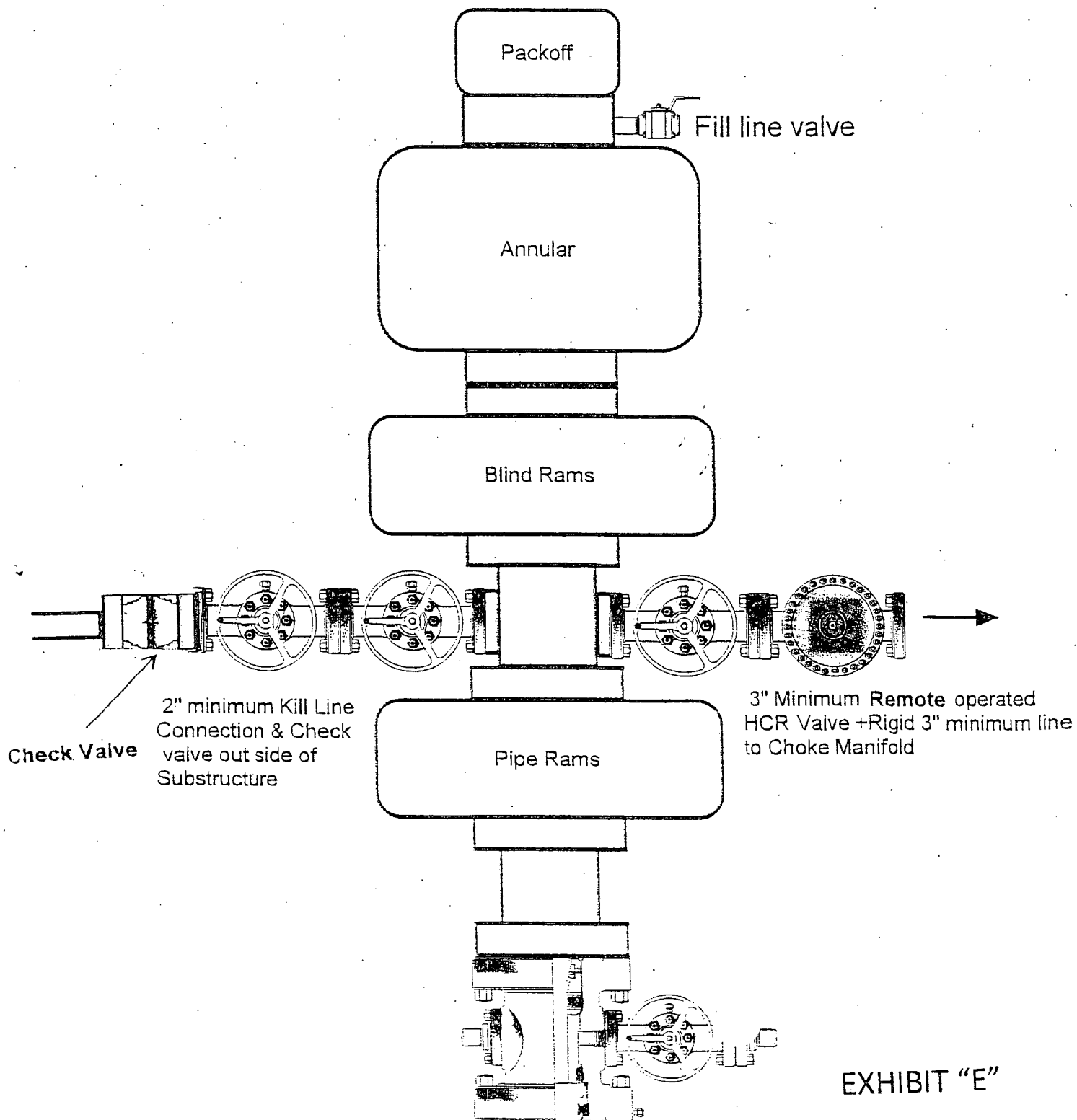
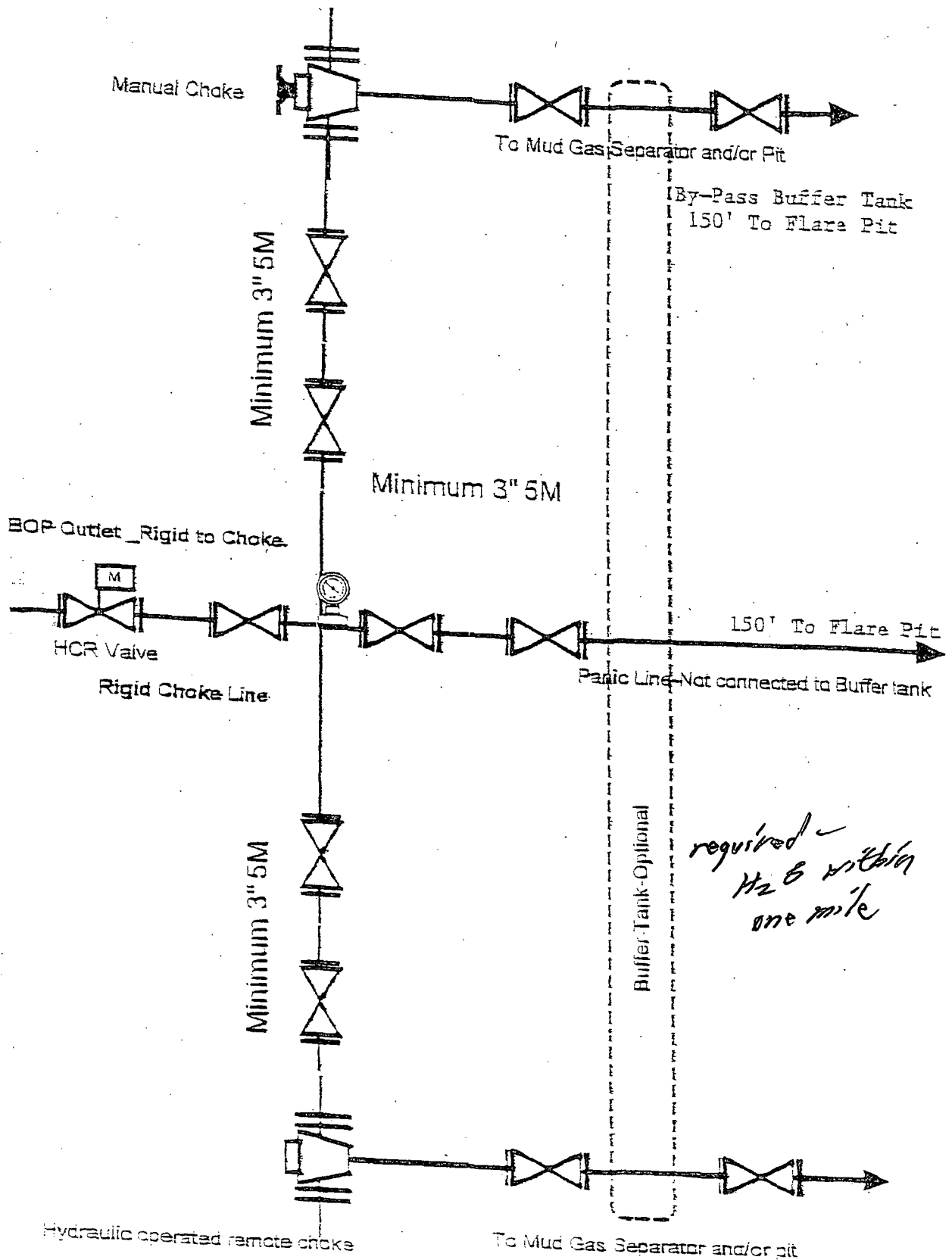
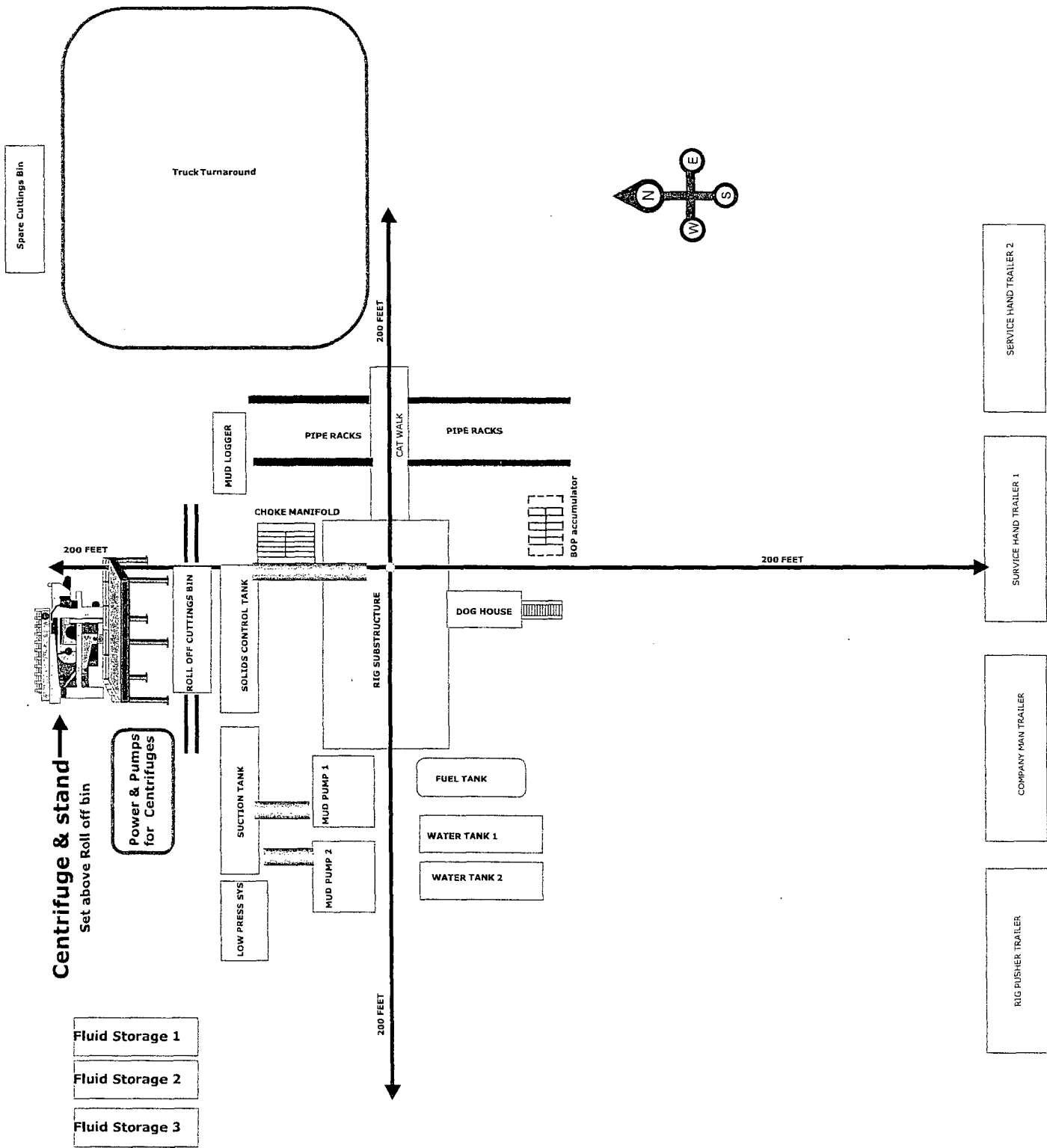


EXHIBIT "E"

5,000 psi Manifold Equipment - Configuration of chokes may vary.



Closed Loop Oil Well W. Copperline 29 State Com# 4H



Note: The Rig and Closed System Company for this well have not been selected thus the set up shown is simply generic.



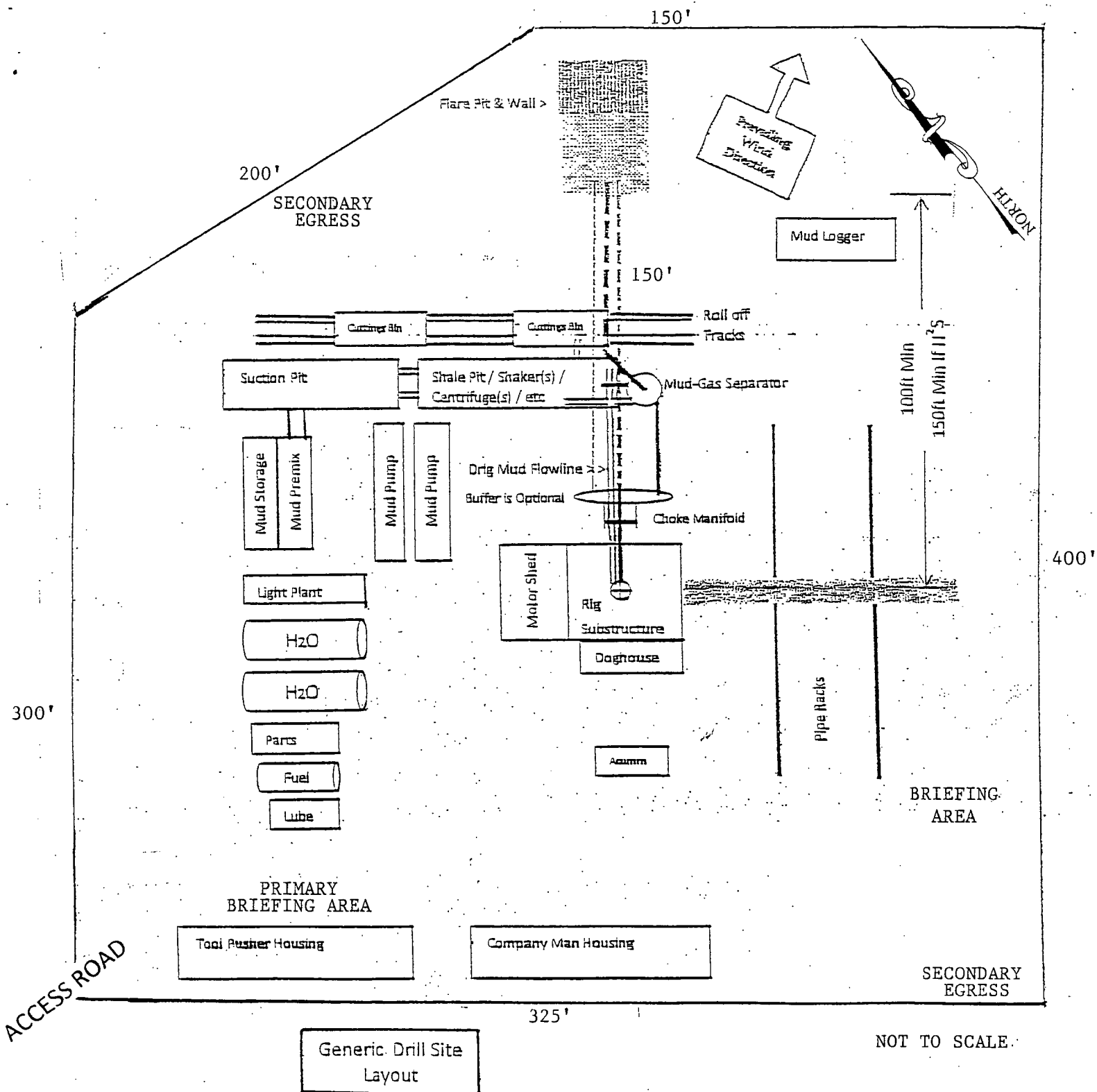
West Copperline 29 State Com # 4H Closed Loop Drilling System

Operations and Maintenance Plan

Closed Loop equipment will be inspected and monitored closely on a daily basis by each drilling rig Tour and by those hired specifically to operate the equipment. Any leak or release detected will be repaired immediately and the proper NMOCD official will be notified within the 48 hr requirement. A large release will require Caza Operating, LLC representatives to contact BLM immediately at the Carlsbad office "575 234 5972" Hobbs "575 393 3612" as well as the NMOCD @ 575 393 6161 as stated by NMOCD rule 116.

Closure Plan

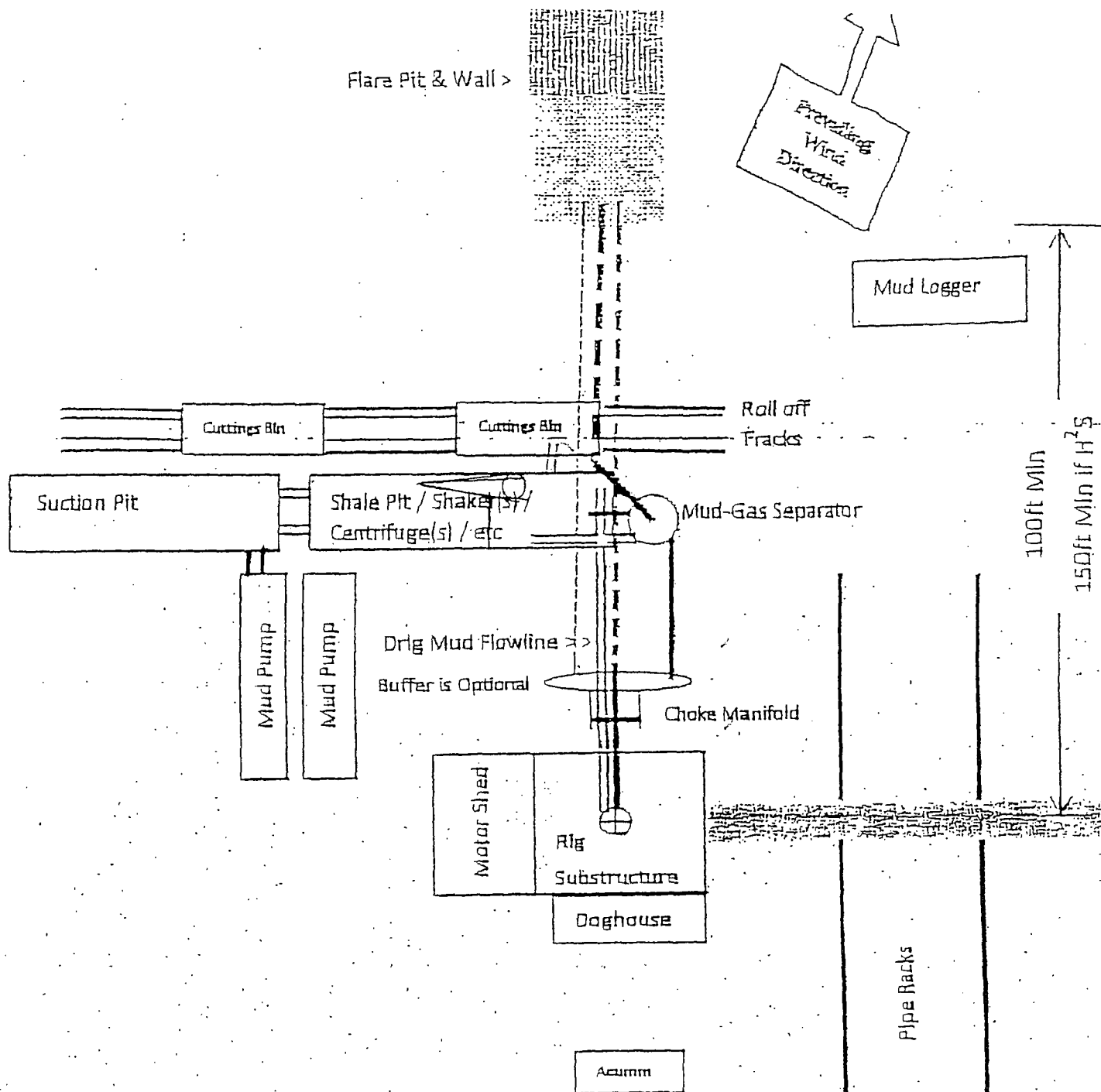
During and after drilling operations, liquids (which apply), all drill cuttings and drilling fluids will be hauled and disposed of at the R-360 disposal (permit number NM 01-0006) located about 30 miles East of Carlsbad, New Mexico. An alternate approved disposal site has been selected Parabo disposal "Sundance " which is 4 miles East of Eunice (permit number NM 01-0003). The Second site would be used in the event of economics or physical problems with R-360 disposal.



Preplanning reasonable spacing accommodations for a useable "Closed Loop" drillsite layout is challenging. Particular site specific conflicts need to be resolved. This generic APD plat was prepared to demonstrate several necessary elements. The plat should include: a north arrow, prevailing wind direction, spacing access for truck removal of cutting bins, flare pit location, and piping provision to vent all combustible gas to the flare pit. Include the choke manifold and mud-gas separator location and their connection routing.

EXHIBIT "D" RIG LAY OUT PLAT

CAZA OPERATING, LLC.
WEST COPPERLINE 29 FED/STATE COM. #4H
UNIT "D" SECTION 29
T23S-R34E LEA CO. NM



EXPANDED VIEW OF
FLOW LINES TO MUD-GAS
SEPERATOR & BLOW DOWN
LINES TO FLARE PIT