

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs
HOBBSS OCD

APPLICATION FOR PERMIT TO DRILL OR REENTER

APR 23 2013

5. Lease Serial No.
NM-105562 (SL) NM-27507 (BHL)

6. If Indian, Allottee or Tribe Name

1a. Type of work: DRILL REENTER

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

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

8. Lease Name and Well No. <39842>
Red Hills West 22 BO Fed Com #1H

RECEIVED

2. Name of Operator Mewbourne Oil Company

9. API Well No. <147447>
30-025-41135

3a. Address PO Box 5270
Hobbs, NM 88241

3b. Phone No. (include area code)
575-393-5905

10. Field and Pool, or Exploratory <978387>
Jennings Upper Bone Spring Shale

4. Location of Well (Report location clearly and in accordance with any State requirements. *)
At surface 150' FNL & 2310' FEL, Sec. 22 T26S R32E
At proposed prod. zone 330' FSL & 2310' FEL, Sec. 22 T26S R32E

11. Sec., T. R. M. or Blk. and Survey or Area
Sec. 22 T26S R32E

14. Distance in miles and direction from nearest town or post office*
29.43 miles SW of Jal, NM

12. County or Parish
Lea

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 150'

16. No. of acres in lease
SL-320, BHL-640

17. Spacing Unit dedicated to this well
160

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 660' MOC's Red Hills West 22 CN #1H

19. Proposed Depth
14,029' - MD
9,437' - TVD

20. BLM/BIA Bond No. on file
NM-1693 Nationwide, NMB-000919

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3152' GL

22. Approximate date work will start*
03/01/2013

23. Estimated duration
60 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:

- 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 must 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 BLM.

25. Signature *Bradley Bishop* Name (Printed/Typed) **BRADLEY BISHOP** Date

Title

Approved by (Signature) */s/ James Stovall* Name (Printed/Typed) **/s/ James Stovall** Date **APR 19 2013**

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)

*(Instructions on page 2)

Carlsbad Controlled Water Basin

KZ 04/25/13

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements
& Special Stipulations Attached

Drilling Program
Mewbourne Oil Company
 Red Hills West 22 BO Fed Com #1H
 150' FNL & 2310' FEL (SHL)
 Sec 22-T26S-R32E
 Lea County, New Mexico

1. The estimated (TVD) tops of geological markers are as follows:

Rustler	850'
Top of Salt	1050'
Base of Salt	4270'
Delaware	4470'
Bell Canyon	4495'
Cherry Canyon	5700'
Manzanita Marker	5730'
Brushy Canyon	7050'
*Bone Springs	8550'
Wolfcamp	WILL NOT PENETRATE

2. Estimated depths of anticipated fresh water, oil, or gas:

Water	Fresh water is anticipated @ 200' and will be protected by setting surface casing at 875' and cementing to surface.
Hydrocarbons	Oil and gas are anticipated in the above (*) formations. These zones will be protected by casing as necessary.

3. Pressure control equipment:

A 2000# WP annular will be installed after running 13 3/8" casing. A 3000# WP double ram BOP and 3000# WP Annular will be installed after running 9 5/8" & 7" casing. Pressure tests will be conducted prior to drilling out under all casing strings. BOP controls will be installed prior to drilling under surface casing and will remain in use until completion of drilling operations. BOPs will be inspected and operated as recommended in Onshore Order #2. A Kelly cock and a sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position when the Kelly is not in use.

Will test the 13 3/8" annular to 1500# and the 9 5/8" & 7" BOPE to 3000# and annular to 1500# with a third party testing company before drilling below each shoe, but will test again, if needed, in 30 days from the 1st test as per BLM Onshore Oil and Gas Order #2.

4. Drilling Program:

MOC proposes to drill a vertical wellbore to 8849' & kick off to horizontal @ 9422' TVD. The well will be drilled to 14,049' MD (9437' TVD). See attached directional plan.

5. Proposed casing and cementing program:

A. Casing Program:

<u>Hole Size</u>	<u>Casing</u>	<u>Wt/Ft.</u>	<u>Grade</u>	<u>Depth</u>	<u>Jt Type</u>
17 1/2"	13 3/8" (new)	48#	H40	0'-875' 660	ST&C
12 1/4"	9 5/8" (new)	36#	J55	0'-3400'	LT&C
12 1/4"	9 5/8" (new)	40#	J55	3400'-4420'	LT&C
8 3/4"	7" (new)	26#	P110	0-8849' MD	LT&C
8 3/4"	7" (new)	26#	P110	8849'-9747'MD	BT&C
6 1/8"	4 1/2" (new)	13.5#	P110	9547'-TD	LT&C

Minimum casing design factors: Collapse 1.125, Burst 1.0, Tensile strength 1.8. *Subject to availability of casing.

B. Cementing Program:

- See COA
- i. 13^{3/8}" Surface Casing: 550 sacks *Lite "C" (35:65:4) cement w/salt and lost circulation additives. Yield at 1.75 cuft/sk. 200 sks class "C" w/2% CaCl₂. Yield at 1.34 cuft/sk. Cmt circulated to surface w/100% excess.
 - ii. 9^{5/8}" Intermediate Casing: 700 sacks *Lite "C" (35:65:4) cement w/salt and lost circulation material additives. Yield at 2.13 cuft/sk. 200 sks class "C" neat. Yield at 1.33 cuft/sk. Cmt circulated to surface w/25% excess.
 - iii. 7" Production Casing: 350 sacks *Lite "C" (60:40:0) cement w/salt and fluid loss additives. Yield at 2.12 cuft/sk. 300 sks class "H" w/salt and fluid loss additives. Yield at 1.19 cuft/sk. Cmt calculated to tieback into intermediate casing @ 4220' w/25% excess.
 - iv. 4^{1/2}" Production Liner: This will be a Packer/Port completion from TD up inside 7" casing with packer type liner hanger.

*Referring to above blends of lite cement: (wt% fly ash : wt% cement : wt% bentonite of the total of first two numbers). Generic names of additives are used since the availability of specific company and products are unknown at this time.

*Mewbourne Oil Company reserves the right to change cement designs as hole conditions may warrant.

6. Mud Program:

<u>Interval</u>	<u>Type System</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0'-875' 660	FW spud mud	8.6-9.0	32-34	NA
875'-4420'	Brine water	10.0	29-30	NA
4420'-9747'	FW mud	8.6-8.8	28-30	NA
9747'- TD	FW w/Polymer	8.5-8.7	32-35	15

*Visual mud monitoring system shall be in place to detect volume changes indicating loss or gain of circulation fluid volume.

7. Evaluation Program:

See COA

Samples: 10' samples from surface casing to TD
Logging: GR, CNL & Gyro from KOP-100' (8749') to surface and GR from KOP to TD.

8. Downhole Conditions

Zones of abnormal pressure: None anticipated
Zones of lost circulation: Anticipated in surface and intermediate holes
Maximum bottom hole temperature: 120 degree F
Maximum bottom hole pressure: 8.3 lbs/gal gradient or less (9437' x .43668 = 4120.95 psi per foot.)

9. Anticipated Starting Date:

Mewbourne Oil Company intends to drill this well as soon as possible after receiving approval with approximately 45 days involved in drilling operations and an additional 10 days involved in completion operations on the project.

Mewbourne Oil Co

Lea County, NM

Sec. 22, T26S, R32E, N.M.P.M

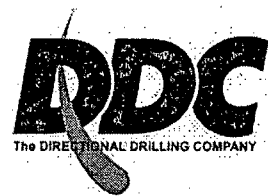
Red Hills West 22 BO Federal Com 1H

Wellbore #1

Plan: Design #1

DDC Well Planning Report

29 January, 2013



DDC
Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Red Hills West 22 BO Federal Com 1H
Company:	Mewbourne Oil Co	TVD Reference:	WELL @ 3172.0usft (Patterson #36)
Project:	Lea County, NM	MD Reference:	WELL @ 3172.0usft (Patterson #36)
Site:	Sec. 22, T26S, R32E, N.M.P.M	North Reference:	Grid
Well:	Red Hills West 22 BO Federal Com 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Lea County, NM		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Sec. 22, T26S, R32E, N.M.P.M				
Site Position:	Northing:	376,874.23 usft	Latitude:	32° 2' 3.858 N	
From: Map	Easting:	705,650.24 usft	Longitude:	103° 40' 10.894 W	
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.35 °

Well	Red Hills West 22 BO Federal Com 1H					
Well Position	+N/-S	254.0 usft	Northing:	377,128.25 usft	Latitude:	32° 2' 6.211 N
	+E/-W	2,636.4 usft	Easting:	708,286.66 usft	Longitude:	103° 39' 40.249 W
Position Uncertainty	0.0 usft	Wellhead Elevation:		Ground Level:	3,152.0 usft	

Wellbore	Wellbore #1			
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/29/2013	7.41	59.96	48,332

Design	Design #1			
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Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	179.62

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
8,849.0	0.00	0.00	8,849.0	0.0	0.0	0.00	0.00	0.00	0.00	
9,747.0	89.80	179.62	9,422.0	-570.9	3.8	10.00	10.00	20.00	179.62	
14,049.1	89.80	179.62	9,437.0	-4,872.9	32.6	0.00	0.00	0.00	0.00	PBHL Red Hills We

DDC
Well Planning Report



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Well:	Red Hills West 22 BO Federal Com 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Build 10° / 100'									
8,849.0	0.00	0.00	8,849.0	0.0	0.0	0.0	0.00	0.00	0.00
8,850.0	0.10	179.62	8,850.0	0.0	0.0	0.0	10.00	10.00	0.00
8,900.0	5.10	179.62	8,899.9	-2.3	0.0	2.3	10.00	10.00	0.00
8,950.0	10.10	179.62	8,949.5	-8.9	0.1	8.9	10.00	10.00	0.00
9,000.0	15.10	179.62	8,998.3	-19.8	0.1	19.8	10.00	10.00	0.00
9,050.0	20.10	179.62	9,045.9	-34.9	0.2	34.9	10.00	10.00	0.00
9,100.0	25.10	179.62	9,092.0	-54.1	0.4	54.1	10.00	10.00	0.00
9,150.0	30.10	179.62	9,136.3	-77.3	0.5	77.3	10.00	10.00	0.00
9,200.0	35.10	179.62	9,178.5	-104.2	0.7	104.2	10.00	10.00	0.00
9,250.0	40.10	179.62	9,218.1	-134.7	0.9	134.7	10.00	10.00	0.00
9,300.0	45.10	179.62	9,254.8	-168.5	1.1	168.5	10.00	10.00	0.00
9,350.0	50.10	179.62	9,288.6	-205.4	1.4	205.4	10.00	10.00	0.00
9,400.0	55.10	179.62	9,318.9	-245.1	1.6	245.1	10.00	10.00	0.00
9,450.0	60.10	179.62	9,345.7	-287.3	1.9	287.3	10.00	10.00	0.00
9,500.0	65.10	179.62	9,368.7	-331.7	2.2	331.7	10.00	10.00	0.00
9,550.0	70.10	179.62	9,387.7	-377.9	2.5	377.9	10.00	10.00	0.00
9,600.0	75.10	179.62	9,402.7	-425.6	2.8	425.6	10.00	10.00	0.00
9,650.0	80.10	179.62	9,413.4	-474.4	3.2	474.4	10.00	10.00	0.00
9,700.0	85.10	179.62	9,419.9	-524.0	3.5	524.0	10.00	10.00	0.00
EOB @ 89.80° Inc / 179.62° Azm / 9422' TVD									
9,747.0	89.80	179.62	9,422.0	-570.9	3.8	571.0	10.00	10.00	0.00
9,800.0	89.80	179.62	9,422.1	-623.9	4.2	624.0	0.00	0.00	0.00
9,900.0	89.80	179.62	9,422.5	-723.9	4.8	724.0	0.00	0.00	0.00
10,000.0	89.80	179.62	9,422.8	-823.9	5.5	824.0	0.00	0.00	0.00
10,100.0	89.80	179.62	9,423.2	-923.9	6.2	924.0	0.00	0.00	0.00
10,200.0	89.80	179.62	9,423.5	-1,023.9	6.9	1,024.0	0.00	0.00	0.00
10,300.0	89.80	179.62	9,423.9	-1,123.9	7.5	1,124.0	0.00	0.00	0.00
10,400.0	89.80	179.62	9,424.2	-1,223.9	8.2	1,224.0	0.00	0.00	0.00
10,500.0	89.80	179.62	9,424.6	-1,323.9	8.9	1,324.0	0.00	0.00	0.00
10,600.0	89.80	179.62	9,424.9	-1,423.9	9.5	1,424.0	0.00	0.00	0.00
10,700.0	89.80	179.62	9,425.3	-1,523.9	10.2	1,524.0	0.00	0.00	0.00
10,800.0	89.80	179.62	9,425.6	-1,623.9	10.9	1,624.0	0.00	0.00	0.00
10,900.0	89.80	179.62	9,426.0	-1,723.9	11.5	1,724.0	0.00	0.00	0.00
11,000.0	89.80	179.62	9,426.3	-1,823.9	12.2	1,824.0	0.00	0.00	0.00
11,100.0	89.80	179.62	9,426.7	-1,923.9	12.9	1,923.9	0.00	0.00	0.00
11,200.0	89.80	179.62	9,427.0	-2,023.9	13.6	2,023.9	0.00	0.00	0.00
11,300.0	89.80	179.62	9,427.4	-2,123.9	14.2	2,123.9	0.00	0.00	0.00
11,400.0	89.80	179.62	9,427.7	-2,223.9	14.9	2,223.9	0.00	0.00	0.00
11,500.0	89.80	179.62	9,428.1	-2,323.9	15.6	2,323.9	0.00	0.00	0.00
11,600.0	89.80	179.62	9,428.4	-2,423.9	16.2	2,423.9	0.00	0.00	0.00
11,700.0	89.80	179.62	9,428.8	-2,523.9	16.9	2,523.9	0.00	0.00	0.00
11,800.0	89.80	179.62	9,429.1	-2,623.9	17.6	2,623.9	0.00	0.00	0.00
11,900.0	89.80	179.62	9,429.5	-2,723.9	18.2	2,723.9	0.00	0.00	0.00
12,000.0	89.80	179.62	9,429.8	-2,823.9	18.9	2,823.9	0.00	0.00	0.00
12,100.0	89.80	179.62	9,430.2	-2,923.9	19.6	2,923.9	0.00	0.00	0.00
12,200.0	89.80	179.62	9,430.5	-3,023.9	20.2	3,023.9	0.00	0.00	0.00
12,300.0	89.80	179.62	9,430.9	-3,123.9	20.9	3,123.9	0.00	0.00	0.00
12,400.0	89.80	179.62	9,431.2	-3,223.9	21.6	3,223.9	0.00	0.00	0.00
12,500.0	89.80	179.62	9,431.6	-3,323.9	22.3	3,323.9	0.00	0.00	0.00
12,600.0	89.80	179.62	9,431.9	-3,423.9	22.9	3,423.9	0.00	0.00	0.00
12,700.0	89.80	179.62	9,432.3	-3,523.9	23.6	3,523.9	0.00	0.00	0.00
12,800.0	89.80	179.62	9,432.6	-3,623.9	24.3	3,623.9	0.00	0.00	0.00

DDC
Well Planning Report



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Well:	Red Hills West 22 BO Federal Com 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

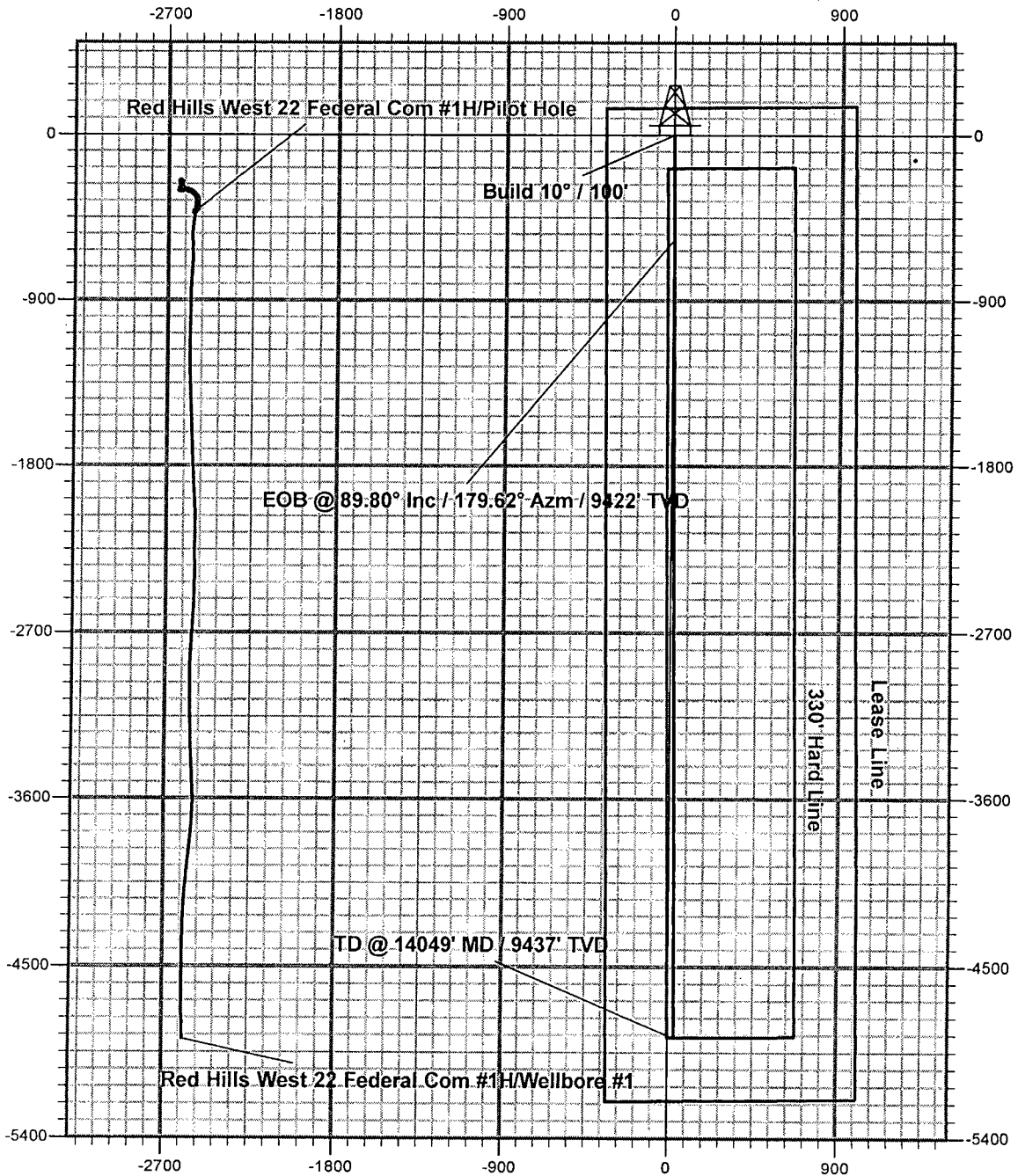
Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,900.0	89.80	179.62	9,433.0	-3,723.9	24.9	3,723.9	0.00	0.00	0.00
13,000.0	89.80	179.62	9,433.3	-3,823.9	25.6	3,823.9	0.00	0.00	0.00
13,100.0	89.80	179.62	9,433.7	-3,923.8	26.3	3,923.9	0.00	0.00	0.00
13,200.0	89.80	179.62	9,434.0	-4,023.8	26.9	4,023.9	0.00	0.00	0.00
13,300.0	89.80	179.62	9,434.4	-4,123.8	27.6	4,123.9	0.00	0.00	0.00
13,400.0	89.80	179.62	9,434.7	-4,223.8	28.3	4,223.9	0.00	0.00	0.00
13,500.0	89.80	179.62	9,435.1	-4,323.8	29.0	4,323.9	0.00	0.00	0.00
13,600.0	89.80	179.62	9,435.4	-4,423.8	29.6	4,423.9	0.00	0.00	0.00
13,700.0	89.80	179.62	9,435.8	-4,523.8	30.3	4,523.9	0.00	0.00	0.00
13,800.0	89.80	179.62	9,436.1	-4,623.8	31.0	4,623.9	0.00	0.00	0.00
13,900.0	89.80	179.62	9,436.5	-4,723.8	31.6	4,723.9	0.00	0.00	0.00
14,000.0	89.80	179.62	9,436.8	-4,823.8	32.3	4,823.9	0.00	0.00	0.00
TD @ 14049' MD / 9437' TVD									
14,049.1	89.80	179.62	9,437.0	-4,872.9	32.6	4,873.0	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL Red Hills West	0.00	0.00	9,437.0	-4,872.9	32.6	372,255.36	708,319.29	32° 1' 17.987 N	103° 39' 40.222 W
- hit/miss target									
- plan hits target center									
- Point									

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
8,849.0	8,849.0	0.0	0.0	Build 10° / 100'
9,747.0	9,422.0	-570.9	3.8	EOB @ 89.80° Inc / 179.62° Azm / 9422' TVD
14,049.1	9,437.0	-4,872.9	32.6	TD @ 14049' MD / 9437' TVD

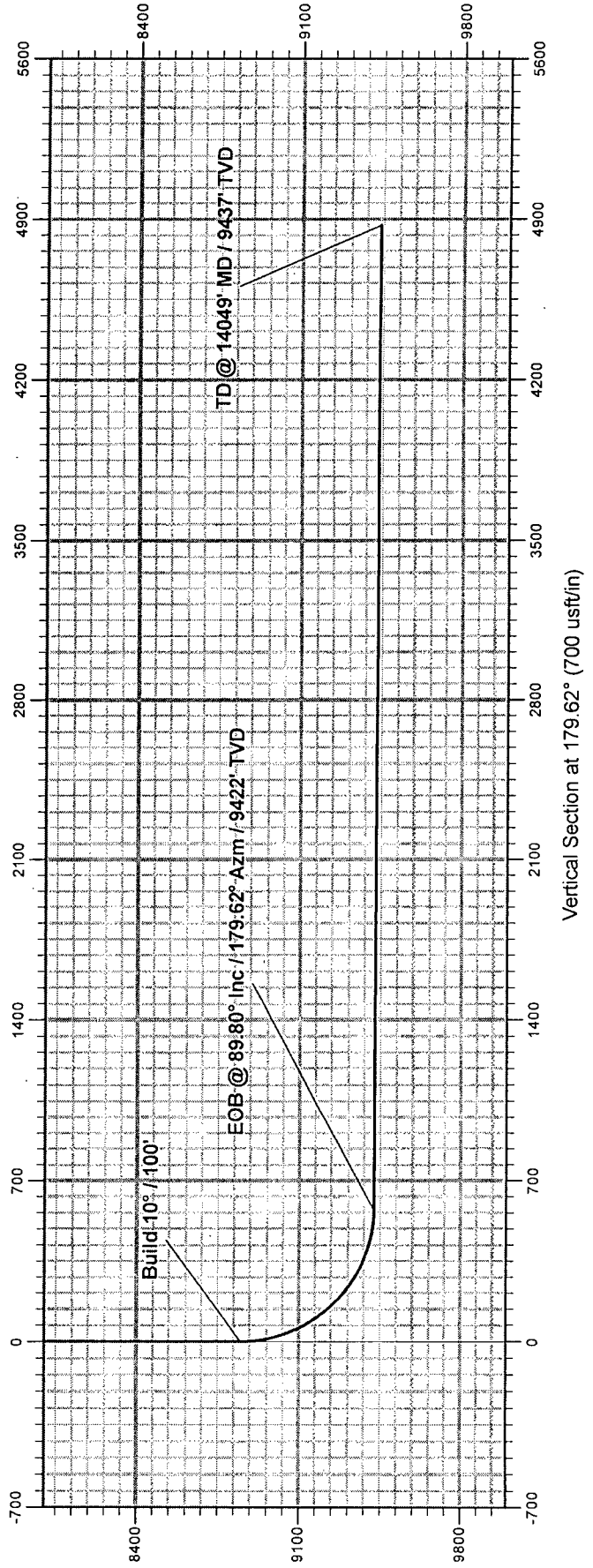
Mewbourne Oil Company

Lea County, NM
Red Hills West 22 BO Federal Com 1H
Quote 130096
Design #1



Mewbourne Oil Company

Lea County, NM
Red Hills West 22 BO Federal Com 1H
Quote 130096
Design #1



Notes Regarding Blowout Preventer

Mewbourne Oil Company

Red Hills West 22 BO Fed Com #1H

150' FNL & 2310' FEL

Sec. 22 T26S R32E

Lea County, New Mexico

- I. Drilling nipple (bell nipple) to be constructed so that it can be removed without the use of a welder through the opening of the rotary table, with minimum internal diameter equal to blowout preventer bore.
- II. Blowout preventer and all fittings must be in good condition with a minimum 3000 psi working pressure on 9 5/8" and 7" casing.
- III. Safety valve must be available on the rig floor at all times with proper connections to install in the drill string. Valve must be full bore with minimum 3000 psi working pressure.
- IV. Equipment through which bit must pass shall be at least as large as internal diameter of the casing.
- V. A kelly cock shall be installed on the kelly at all times.

Blowout preventer closing equipment to include and accumulator of at least 40 gallon capacity, two independent sources of pressure on closing unit, and meet all other API specifications.

11" 3M BOPE & Closed Loop Equipment Schematic

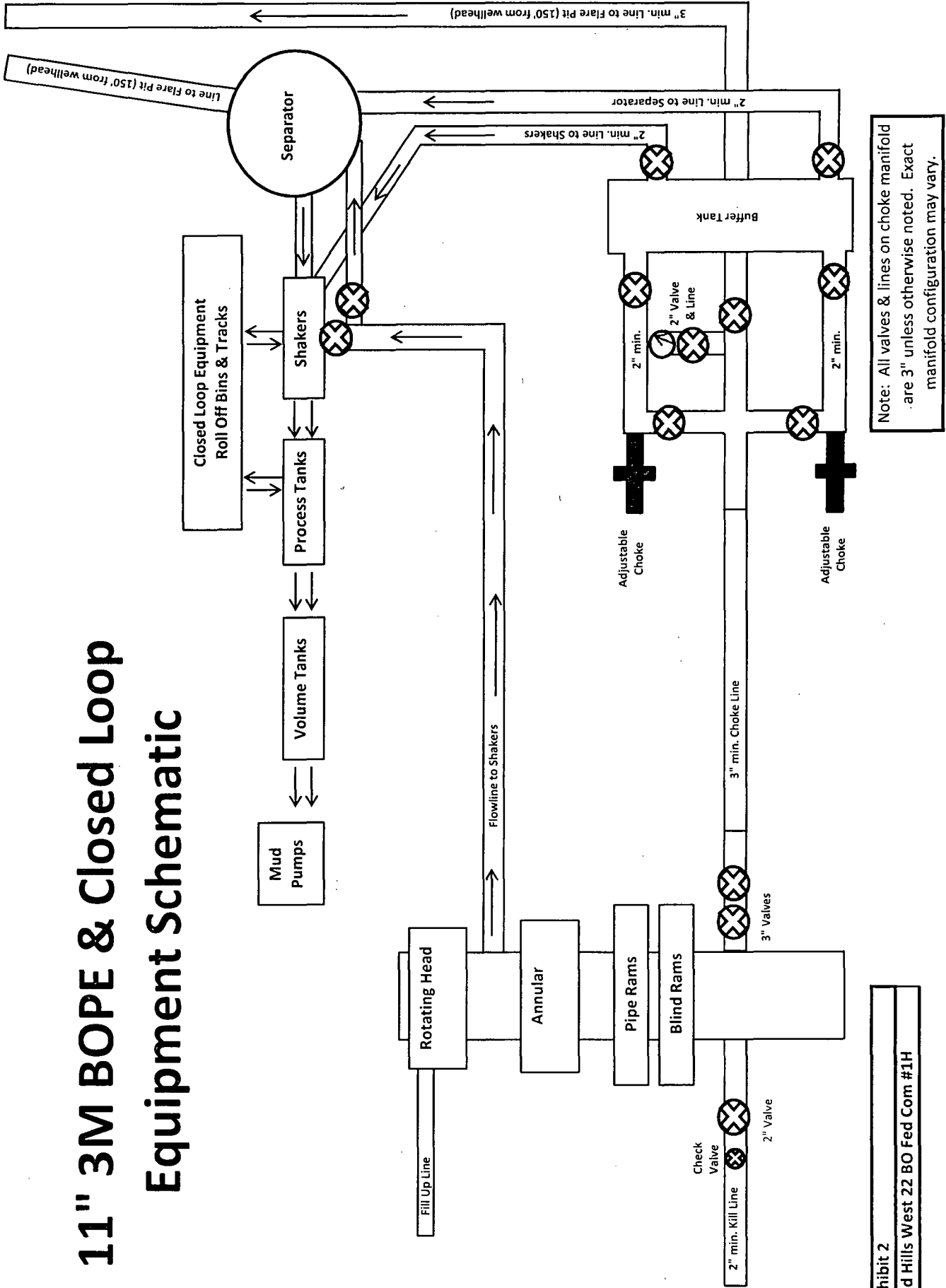


Exhibit 2
Red Hills West 22 BO Fed Com #1H

13 5/8" 2M BOPE & Closed Loop Equipment Schematic

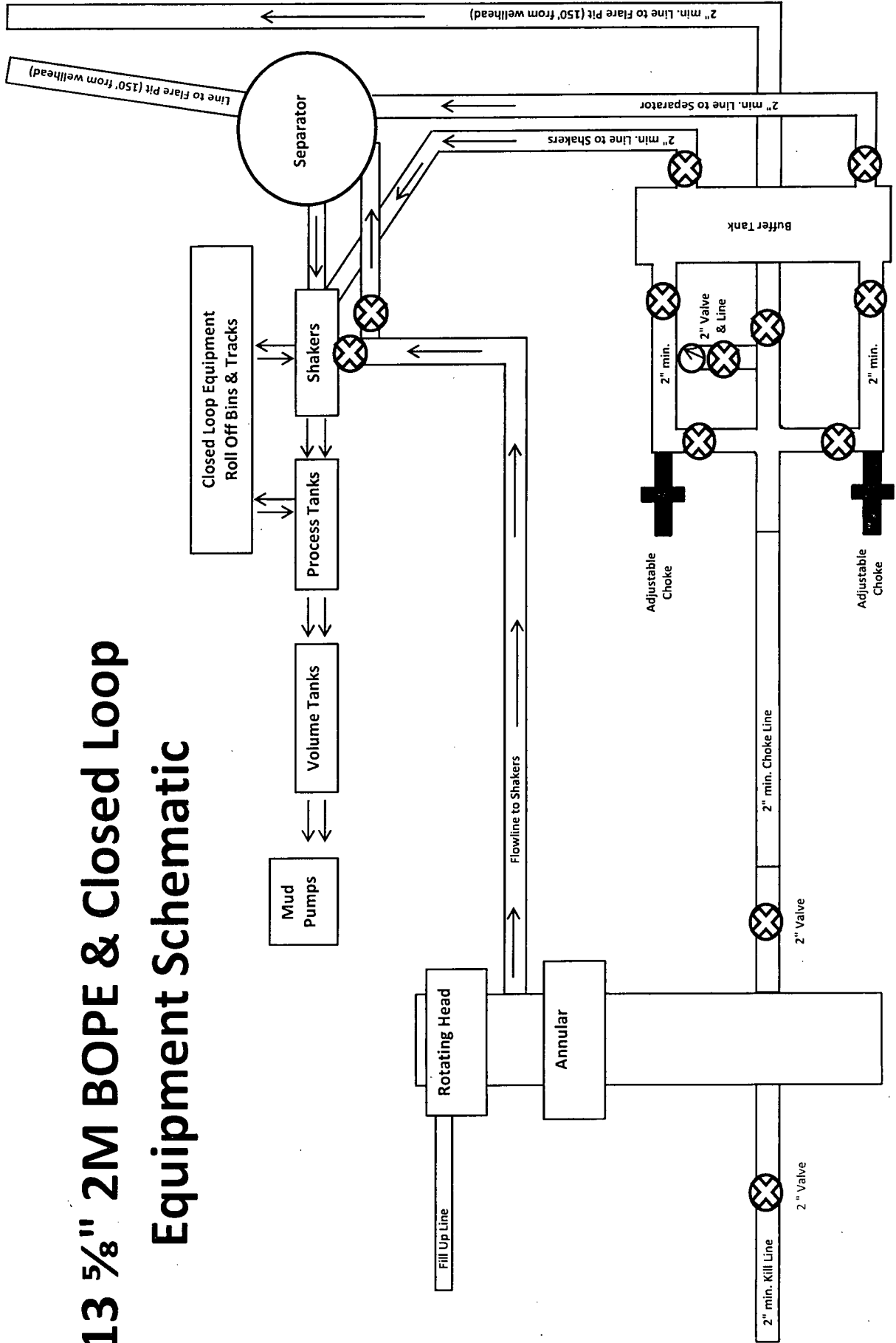


Exhibit 2A
Red Hills West 22 BO Fed Com #1H

H2S Diagram

Closed Loop Pad Dimensions 280' x 320'

Topsoil stockpile

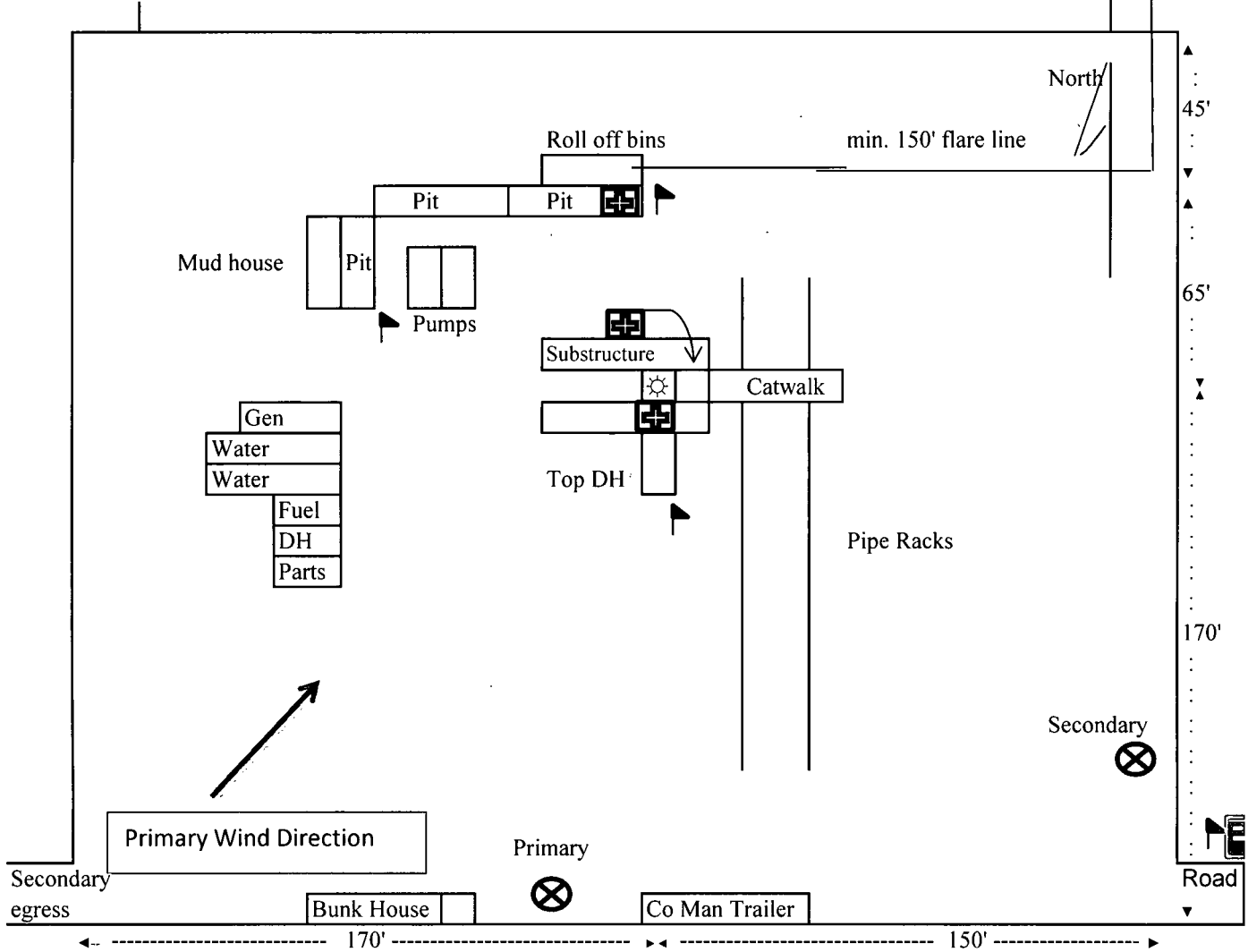


Exhibit 6



= Safety Stations



= Wind Markers



= H2S Monitors



= Warning Signs

Mewbourne Oil Company
 Red Hills West 22 BO Fed Com #1H
 150' FNL & 2310' FEL
 Sec. 22 T26S R32E
 Lea County, NM