

Form 3160-3  
(August 2007)

## OCD-ARTESIA

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR REENTER

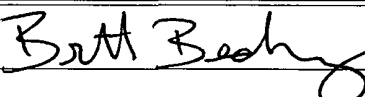
FORM APPROVED  
OMB No. 1004-0137  
Expires July 31, 2010

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. LC 068402 & NM 27279 5H
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name 8/3/2012 tes
2. Name of Operator Mewbourne Oil Company		7. If Unit or CA Agreement, Name and No.
3a. Address PO Box 5270 Hobbs, NM 88240		8. Lease Name and Well No. Bradley "31" DA Fed Com #1H <39384>
3b. Phone No. (include area code) (575) 393-5905		9. API Well No. 30-015-40562
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 720' FNL & 10' FWL (Lot 1) At proposed prod zone 720' FNL & 330' FEL (Unit A)		10. Field and Pool, or Exploratory Santo Nino Bone Spring, 54600 >
14. Distance in miles and direction from nearest town or post office* 23.3 miles NE of Carlsbad, NM		11. Sec., T. R. M. or Blk. and Survey or Area Sec 31, T18S, R30E
15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig. unit line, if any) 10'	16. No. of acres in lease 200 & 1760	17. Spacing Unit dedicated to this well 180' 158' 07'
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft 270' North of the E.M. Elliot #1	19. Proposed Depth 12871' MD 8243' TVD	20. BLM/BIA Bond No. on file NM 1693, Nationwide
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3453' GL	22. Approximate date work will start* 08/01/2012	23. Estimated duration 40 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 	Name (Printed/Typed) Brett Bednarz	Date 03/01/2012
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Title  
Petroleum Engineer

Approved by (Signature) /s/ Don Peterson	Name (Printed/Typed) /s/ Don Peterson	Date JUL 31 2012
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Title /s/ FIELD MANAGER	Office CARLSBAD FIELD OFFICE
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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)

Capitan Controlled Water Basin

Approval Subject to General Requirements  
& Special Stipulations AttachedSEE ATTACHED FOR  
CONDITIONS OF APPROVAL

## Mewbourne Oil Company

PO Box 5270  
Hobbs, NM 88241  
(575) 393-5905

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 this 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 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 false statements.

Executed this 1<sup>st</sup> day of March, 2012.

Name: NM Young

Signature: Beth Beatty for NM Young

Position Title: Hobbs District Manager

Address: PO Box 5270, Hobbs NM 88241

Telephone: 575-393-5905

E-mail: myoung@mewbourne.com

DISTRICT I  
1625 N. French Dr., Hobbs, NM 88240  
Phone (575) 393-6161 Fax: (575) 393-9720

DISTRICT II  
811 S. First St., Artesia, NM 88210  
Phone (575) 748-1283 Fax: (575) 748-9720

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone (505) 476-3480 Fax: (505) 476-3482

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised August 1, 2011

Submit one copy to appropriate  
District Office

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number <b>30-015-40562</b>	Pool Code <b>54600</b>	Pool Name <b>Santo Nino Bone Spring</b>
Property Code <b>39384</b>	Property Name <b>BRADLEY 31 DA FEDERAL COM</b>	Well Number <b>1H</b>
OGRID No. <b>14744</b>	Operator Name <b>MEWBOURNE OIL COMPANY</b>	Elevation <b>3453'</b>

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
LOT 1	31	18 S	30 E		720	NORTH	10	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	31	18 S	30 E		720	North	330	East	Eddy
Dedicated Acres <b>158.37</b>	Joint or Infill	Consolidation Code	Order No. <b>10871 7/31</b>						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>LOT 1</p> <p>2585.8'</p> <p>2638.6'</p> <p>720'</p> <p>330'</p> <p>2644.0'</p> <p>2641.0'</p> <p>LOT 2</p> <p>LOT 3</p> <p>LOT 4</p> <p>Project Area</p> <p>Producing Area</p> <p>Well Path</p> <p>SURFACE LOCATION Lot - N 32°42'33.01" Long - W 104°01'09.00" NMSPC- N 621850.467 E 596632.820 (NAD-27)</p>		<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><b>Brett Bednarz</b> 3-1-12 Signature Date <b>Brett Bednarz</b> Printed Name Email Address</p> <p><b>SURVEYOR CERTIFICATION</b></p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.</p> <p><b>GARY L. JONES</b> 2 Date Surveyed Signature &amp; Seal of Professional Surveyor Certificate No. Gary L. Jones 7977 BASIN SURVEYS 26140</p>
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**Drilling Program**  
**Mewbourne Oil Company**  
Bradley "31" DA Fed Com #1H  
720' FNL & 10' FWL (SHL)  
Sec 31-T18S-R30E  
Eddy County, New Mexico

**1. The estimated tops of geological markers are as follows:**

Rustler	180'
Top Salt	305'
Base Salt	1150'
*Yates	1350'
Seven Rivers	1800'
*Queen	2380'
*Grayburg	2760'
*Delaware	3800'
*Bone Springs	4200'

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

Water	Fresh water is anticipated @ 90' and will be protected by setting surface casing at 205' 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 7" & 9 5/8" 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. BOPE 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 7" & 9 5/8" BOPE to 3000# and the 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 1<sup>st</sup> test as per BLM Onshore Oil and Gas Order #2.

4. MOC proposes to drill a vertical wellbore to 7706' & kick off to horizontal @ 8183' TVD. The well will be drilled to 12871' MD (8243' TVD). See attached directional plan.

**5. Proposed casing and cementing program:**

**A. Casing Program:**

See COA

<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'-205' 250	ST&C
12 1/4"	9 5/8" (new)	36#	J55	0'-1450'	LT&C
8 3/4"	7" (new)	26#	P110	0'-7706' MD	LT&C
8 3/4"	7" (new)	26#	P110	7706'-8449' MD	BT&C
6 1/8"	4 1/2" (new)	11.6#	P110	8249'-12871' MD	LT&C

Minimum casing design factors: Collapse 1.125, Burst 1.0, Tensile strength 1.8.

\*Subject to availability of casing.

## B. Cementing Program:

- i. Surface Casing: 220 sks Class "C" cement w/2% CaCl. Yield @ 1.34 cuft/sk. Cmt circulated to surface w/100% excess.
- ii. Intermediate Casing: 140 sks Class "C" (35:65:4) light cement w/ salt & LCM additives. Yield @ 2.16 cuft/sk. 200 sacks Class "C" cement w/2% CaCl<sub>2</sub>. Yield at 1.34 cuft/sk. Cmt circulated to surface w/25% excess.
- iii. Production Casing: 515 sacks Class "H" (35:65:4) light cement w/ salt & LCM additives. Yield @ 2.12 cuft/sk. 400 sacks Class "H" cement w/ FL additives. Yield @ 1.18 cuft/sk. Cmt circulated to surface w/25% excess.
- iv. 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 light 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.

## 6. Mud Program:

Interval	Type System	Weight	Viscosity	Fluid Loss
0' - 205'	FW spud mud	8.6-9.0	32-34	NA
205' - 1450'	Brine water	10.0-10.2	28-30	NA
1450' - 7706' (KOP)	Cut Brine	8.5-8.7	28-30	NA
7706' - TD	Cut Brine w/polymer	8.5-8.7	32-35	15

## 7. Evaluation Program: See COA

Samples: 10' samples from surface casing to TD  
Logging: CN, GR & Gyro from KOP -100' (7506') to surface. GR from 7506' 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

## 9. Anticipated Starting Date:

Mewbourne Oil Company intends to drill this well as soon as possible after receiving approval with approximately 40 days involved in drilling operations and an additional 10 days involved in completion operations on the project.

# **Mewbourne Oil Co**

**Eddy County, New Mexico**

**Section 31 - 18S-30E**

**Bradley 31 DA Federal Com #1H**

**Wellbore #1**

**Plan: Design #1**

## **DDC Well Planning Report**

**23 February, 2012**



# DDC Well Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Bradley 31 DA Federal Com #1H
<b>Company:</b>	Mewbourne Oil Co	<b>TVD Reference:</b>	3453'GL +20' KB @ 3473.0usft (Patterson UTI)
<b>Project:</b>	Eddy County, New Mexico	<b>MD Reference:</b>	3453'GL +20' KB @ 3473.0usft (Patterson UTI)
<b>Site:</b>	Section 31 - 18S-30E	<b>North Reference:</b>	Grid
<b>Well:</b>	Bradley 31 DA Federal Com #1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

<b>Project:</b>	Eddy County, New Mexico		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	New Mexico East 3001		

Site		Section 31 - 18S-30E			
Site Position:		Northing:	621,850.47 usft	Latitude:	32° 42' 33.015 N
From:	Map	Easting:	596,632.92 usft	Longitude:	104° 1' 9.003 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.17 °

<b>Well:</b>	Bradley 31 DA Federal Com #1H
<b>Well Position</b>	<b>+N/-S</b> 0.0 usft <b>Northing:</b> 621,850.47 usft <b>Latitude:</b> 32° 42' 33.015 N
	<b>+E/-W</b> 0.0 usft <b>Easting:</b> 596,632.92 usft <b>Longitude:</b> 104° 1' 9.003 W
<b>Position Uncertainty</b>	0.0 usft <b>Wellhead Elevation:</b> <b>Ground Level:</b> 3,453.0 usft

<b>Wellbore:</b>	Wellbore #1
<b>Magnetics</b>	<b>Model Name</b> <b>Sample Date</b> <b>Declination</b> <b>Dip Angle</b> <b>Field Strength</b>
	IGRF2010 2/23/2012 7.74 60.54 48,789

<b>Design:</b>	Design #1
<b>Audit Notes:</b>	
<b>Version:</b>	<b>Phase:</b> PROTOTYPE <b>Tie On Depth:</b> 0.0
<b>Vertical Section:</b>	<b>Depth From (TVD)</b> <b>+N/-S</b> <b>+E/-W</b> <b>Direction</b>
	(usft) (usft) (usft) (%)
	0.0 0.0 0.0 89.92

<b>Plan Sections</b>	
<b>Measured Depth</b> <b>Inclination</b> <b>Azimuth</b> <b>Vertical Depth</b> <b>+N/-S</b> <b>+E/-W</b> <b>Dogleg Rate</b> <b>Build Rate</b> <b>Turn Rate</b> <b>TFO</b> <b>Target</b>	
(usft) (%) (%) (usft) (usft) (usft) (%/100usft) (%/100usft) (%/100usft) (%)	
0.0 0.00 0.00 0.0 0.0 0.0 0.00 0.00 0.00 0.00	
7,705.5 0.00 0.00 7,705.5 0.0 0.0 0.00 0.00 0.00 0.00	
8,449.1 89.22 89.92 8,183.0 0.7 471.0 12.00 12.00 0.00 89.92	
12,870.5 89.22 89.92 8,243.0 6.8 4,892.0 0.00 0.00 0.00 0.00	Bradley 31 DA Federal

# DDC Well Planning Report



Database: EDM 5000.1 Single User Db  
Company: Mewbourne Oil Co  
Project: Eddy County, New Mexico  
Site: Section 31 - 18S-30E  
Well: Bradley 31 DA Federal Com #1H  
Wellbore: Wellbore #1  
Design: Design #1

Local Co-ordinate Reference: Well Bradley 31 DA Federal Com #1H  
TVD Reference: 3453'GL +20' KB @ 3473.0usft (Patterson UTI)  
MD Reference: 3453'GL +20' KB @ 3473.0usft (Patterson UTI)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature

## 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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>7705.5'MD: KOP - Build @ 12° DLS</b>									
7,705.5	0.00	0.00	7,705.5	0.0	0.0	0.0	0.00	0.00	0.00
7,800.0	11.33	89.92	7,799.4	0.0	9.3	9.3	12.00	12.00	0.00
7,900.0	23.33	89.92	7,894.7	0.1	39.1	39.1	12.00	12.00	0.00
8,000.0	35.33	89.92	7,981.7	0.1	88.0	88.0	12.00	12.00	0.00
8,100.0	47.33	89.92	8,056.6	0.2	153.9	153.9	12.00	12.00	0.00
8,200.0	59.33	89.92	8,116.2	0.3	233.9	233.9	12.00	12.00	0.00
8,300.0	71.33	89.92	8,157.9	0.5	324.7	324.7	12.00	12.00	0.00
8,400.0	83.33	89.92	8,179.8	0.6	422.0	422.0	12.00	12.00	0.00
<b>8449'MD: End of Curve w/89.22° Incl. - Azm. 89.92°</b>									
8,449.1	89.22	89.92	8,183.0	0.7	471.0	471.0	12.00	12.00	0.00
8,500.0	89.22	89.92	8,183.7	0.7	521.9	521.9	0.00	0.00	0.00
8,600.0	89.22	89.92	8,185.0	0.9	621.9	621.9	0.00	0.00	0.00
8,700.0	89.22	89.92	8,186.4	1.0	721.9	721.9	0.00	0.00	0.00
8,800.0	89.22	89.92	8,187.7	1.1	821.9	821.9	0.00	0.00	0.00
8,900.0	89.22	89.92	8,189.1	1.3	921.9	921.9	0.00	0.00	0.00
9,000.0	89.22	89.92	8,190.4	1.4	1,021.9	1,021.9	0.00	0.00	0.00
9,100.0	89.22	89.92	8,191.8	1.6	1,121.9	1,121.9	0.00	0.00	0.00
9,200.0	89.22	89.92	8,193.2	1.7	1,221.9	1,221.9	0.00	0.00	0.00
9,300.0	89.22	89.92	8,194.5	1.8	1,321.8	1,321.8	0.00	0.00	0.00
9,400.0	89.22	89.92	8,195.9	2.0	1,421.8	1,421.8	0.00	0.00	0.00
9,500.0	89.22	89.92	8,197.2	2.1	1,521.8	1,521.8	0.00	0.00	0.00
9,600.0	89.22	89.92	8,198.6	2.3	1,621.8	1,621.8	0.00	0.00	0.00
9,700.0	89.22	89.92	8,200.0	2.4	1,721.8	1,721.8	0.00	0.00	0.00
9,800.0	89.22	89.92	8,201.3	2.5	1,821.8	1,821.8	0.00	0.00	0.00
9,900.0	89.22	89.92	8,202.7	2.7	1,921.8	1,921.8	0.00	0.00	0.00
10,000.0	89.22	89.92	8,204.0	2.8	2,021.8	2,021.8	0.00	0.00	0.00
10,100.0	89.22	89.92	8,205.4	2.9	2,121.8	2,121.8	0.00	0.00	0.00
10,200.0	89.22	89.92	8,206.7	3.1	2,221.8	2,221.8	0.00	0.00	0.00
10,300.0	89.22	89.92	8,208.1	3.2	2,321.7	2,321.8	0.00	0.00	0.00
10,400.0	89.22	89.92	8,209.5	3.4	2,421.7	2,421.7	0.00	0.00	0.00
10,500.0	89.22	89.92	8,210.8	3.5	2,521.7	2,521.7	0.00	0.00	0.00
10,600.0	89.22	89.92	8,212.2	3.6	2,621.7	2,621.7	0.00	0.00	0.00
10,700.0	89.22	89.92	8,213.5	3.8	2,721.7	2,721.7	0.00	0.00	0.00
10,800.0	89.22	89.92	8,214.9	3.9	2,821.7	2,821.7	0.00	0.00	0.00
10,900.0	89.22	89.92	8,216.2	4.1	2,921.7	2,921.7	0.00	0.00	0.00
11,000.0	89.22	89.92	8,217.6	4.2	3,021.7	3,021.7	0.00	0.00	0.00
11,100.0	89.22	89.92	8,219.0	4.3	3,121.7	3,121.7	0.00	0.00	0.00
11,200.0	89.22	89.92	8,220.3	4.5	3,221.7	3,221.7	0.00	0.00	0.00
11,300.0	89.22	89.92	8,221.7	4.6	3,321.7	3,321.7	0.00	0.00	0.00
11,400.0	89.22	89.92	8,223.0	4.8	3,421.6	3,421.6	0.00	0.00	0.00
11,500.0	89.22	89.92	8,224.4	4.9	3,521.6	3,521.6	0.00	0.00	0.00
11,600.0	89.22	89.92	8,225.7	5.0	3,621.6	3,621.6	0.00	0.00	0.00
11,700.0	89.22	89.92	8,227.1	5.2	3,721.6	3,721.6	0.00	0.00	0.00
11,800.0	89.22	89.92	8,228.5	5.3	3,821.6	3,821.6	0.00	0.00	0.00
11,900.0	89.22	89.92	8,229.8	5.5	3,921.6	3,921.6	0.00	0.00	0.00
12,000.0	89.22	89.92	8,231.2	5.6	4,021.6	4,021.6	0.00	0.00	0.00
12,100.0	89.22	89.92	8,232.5	5.7	4,121.6	4,121.6	0.00	0.00	0.00
12,200.0	89.22	89.92	8,233.9	5.9	4,221.6	4,221.6	0.00	0.00	0.00
12,300.0	89.22	89.92	8,235.3	6.0	4,321.6	4,321.6	0.00	0.00	0.00
12,400.0	89.22	89.92	8,236.6	6.1	4,421.6	4,421.6	0.00	0.00	0.00



# DDC Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Bradley 31 DA Federal Com #1H
Company:	Mewbourne Oil Co	TVD Reference:	3453'GL +20' KB @ 3473.0usft (Patterson UTI)
Project:	Eddy County, New Mexico	MD Reference:	3453'GL +20' KB @ 3473.0usft (Patterson UTI)
Site:	Section 31 - 18S-30E	North Reference:	Grid
Well:	Bradley 31 DA Federal Com #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

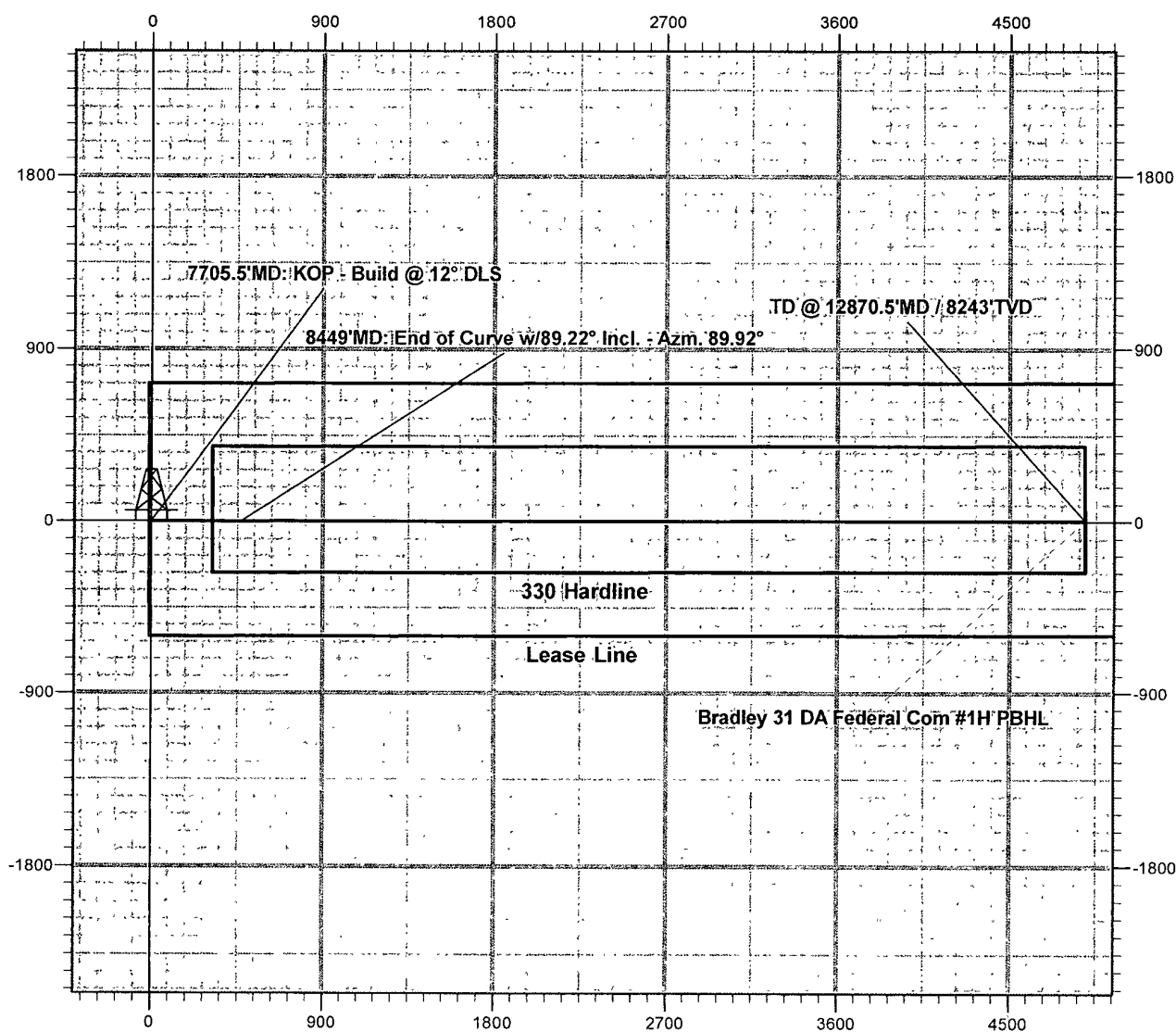
Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
12,500.0	89.22	89.92	8,238.0	6.3	4,521.5	4,521.5	0.00	0.00	0.00	
12,600.0	89.22	89.92	8,239.3	6.4	4,621.5	4,621.5	0.00	0.00	0.00	
12,700.0	89.22	89.92	8,240.7	6.6	4,721.5	4,721.5	0.00	0.00	0.00	
12,800.0	89.22	89.92	8,242.0	6.7	4,821.5	4,821.5	0.00	0.00	0.00	
TD @ 12870.5' MD / 8243' TVD - Bradley 31 DA Federal Com #1H PBHL										
12,870.5	89.22	89.92	8,243.0	6.8	4,892.0	4,892.0	0.00	0.00	0.00	

Design Targets										
Target Name	hit/miss target	Dip Angle (°)	Dip Dir (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Bradley 31 DA Federal C	- plan hits target center	0.00	0.00	8,243.0	6.8	4,892.0	621,857.27	601,524.92	32° 42' 32.935 N	104° 0' 11.747 W
	- Point									

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment	
7,705.5	7,705.5	0.0	0.0	7705.5' MD. KOP - Build @ 12° DLS	
8,449.1	8,183.0	0.7	471.0	8449' MD: End of Curve w/89.22° Incl. - Azm. 89.92°	
12,870.5	8,243.0	6.8	4,892.0	TD @ 12870.5' MD / 8243' TVD	

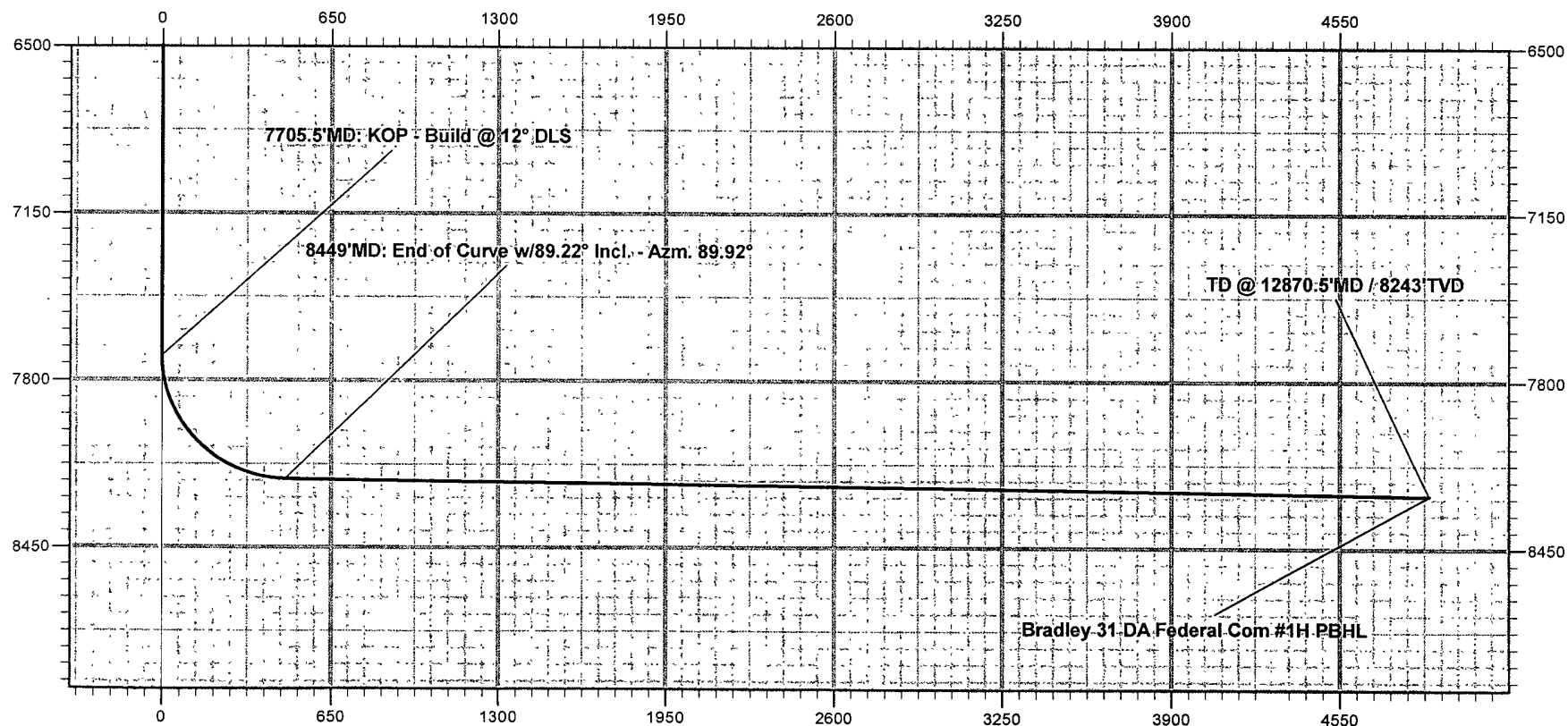
# Mewbourne Oil Co

Bradley 31 DA Federal Com #1H  
Section 31 - 18S-30E  
Eddy County, New Mexico  
Design #1  
Q120150



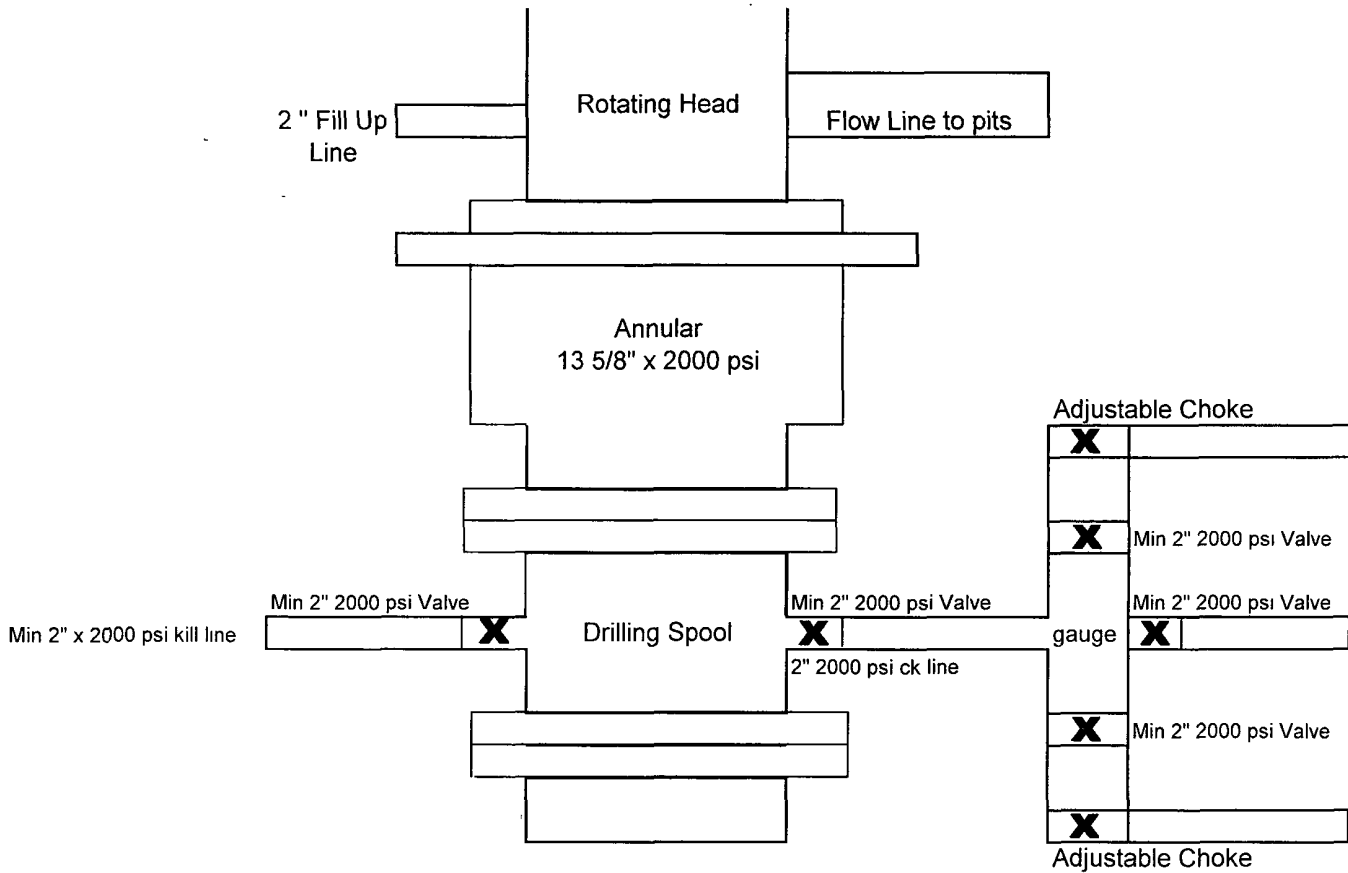
# Mewbourne Oil Co

Bradley 31 DA Federal Com #1H  
Section 31 - 18S-30E  
Eddy County, New Mexico  
Design #1  
Q120150



Vertical Section at 89.92° (650 usft/in)

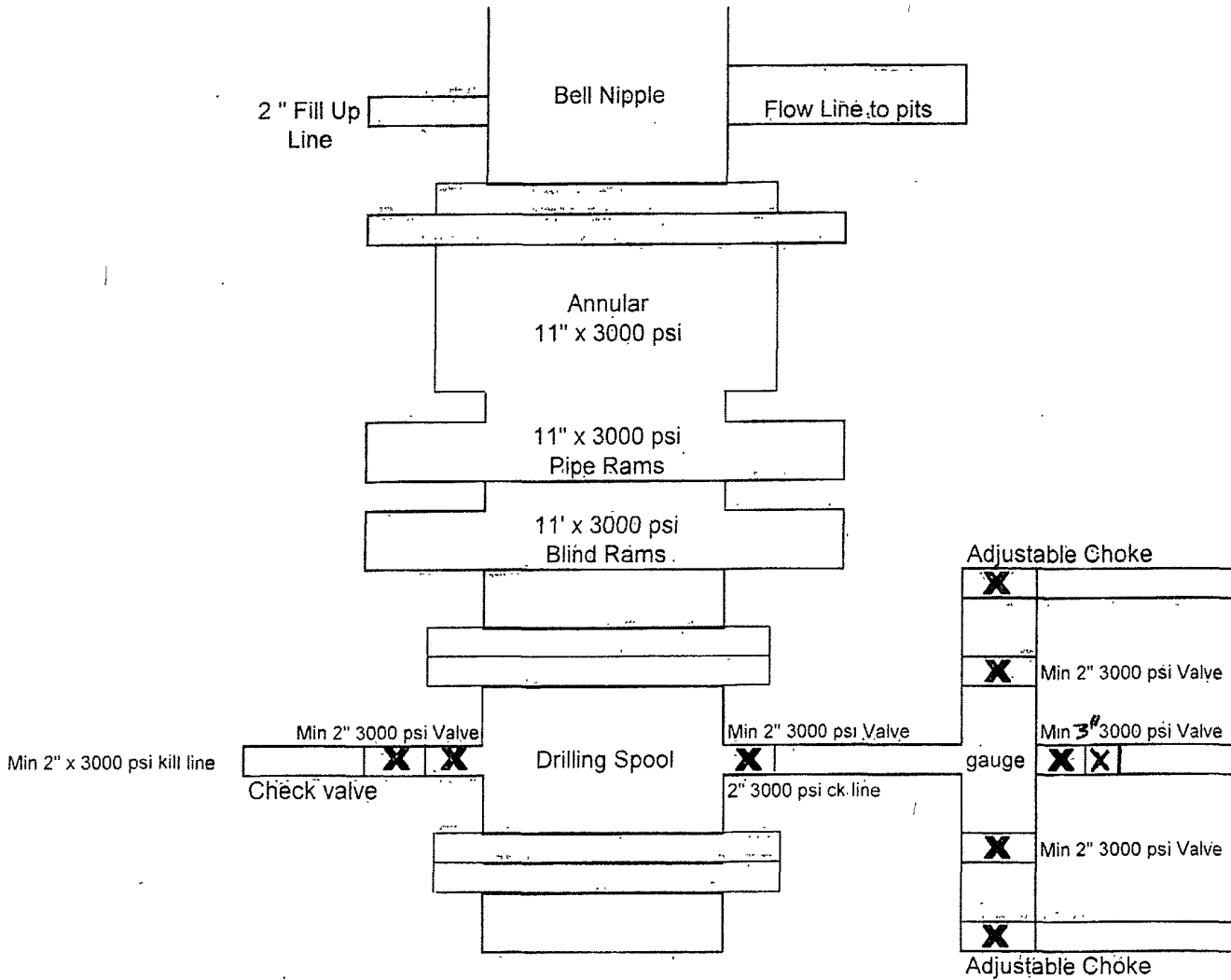
**Mewbourne Oil Company**  
 BOP Schematic for  
 12 1/4" Hole



**Exhibit #2**

Bradley "31" DA Fed Com #1H  
 720' FNL & 10' FWL  
 Sec 31-T18S-R30E  
 Eddy, County  
 New Mexico

**Mewbourne Oil Company**  
**BOP Schematic for**  
**8 3/4" & 6 1/8" Hole**



**Exhibit #2 A**

Bradley "31" DA Fed Com #1H  
 720' FNL & 10' FWL  
 Sec 31-T18S-R30E  
 Eddy, County  
 New Mexico

*[Handwritten signature]*  
 SITS 10/10/00 10:00 AM  
 10/10/00

**Notes Regarding Blowout Preventer**

**Mewbourne Oil Company**

Bradley "31" DA Fed Com #1H

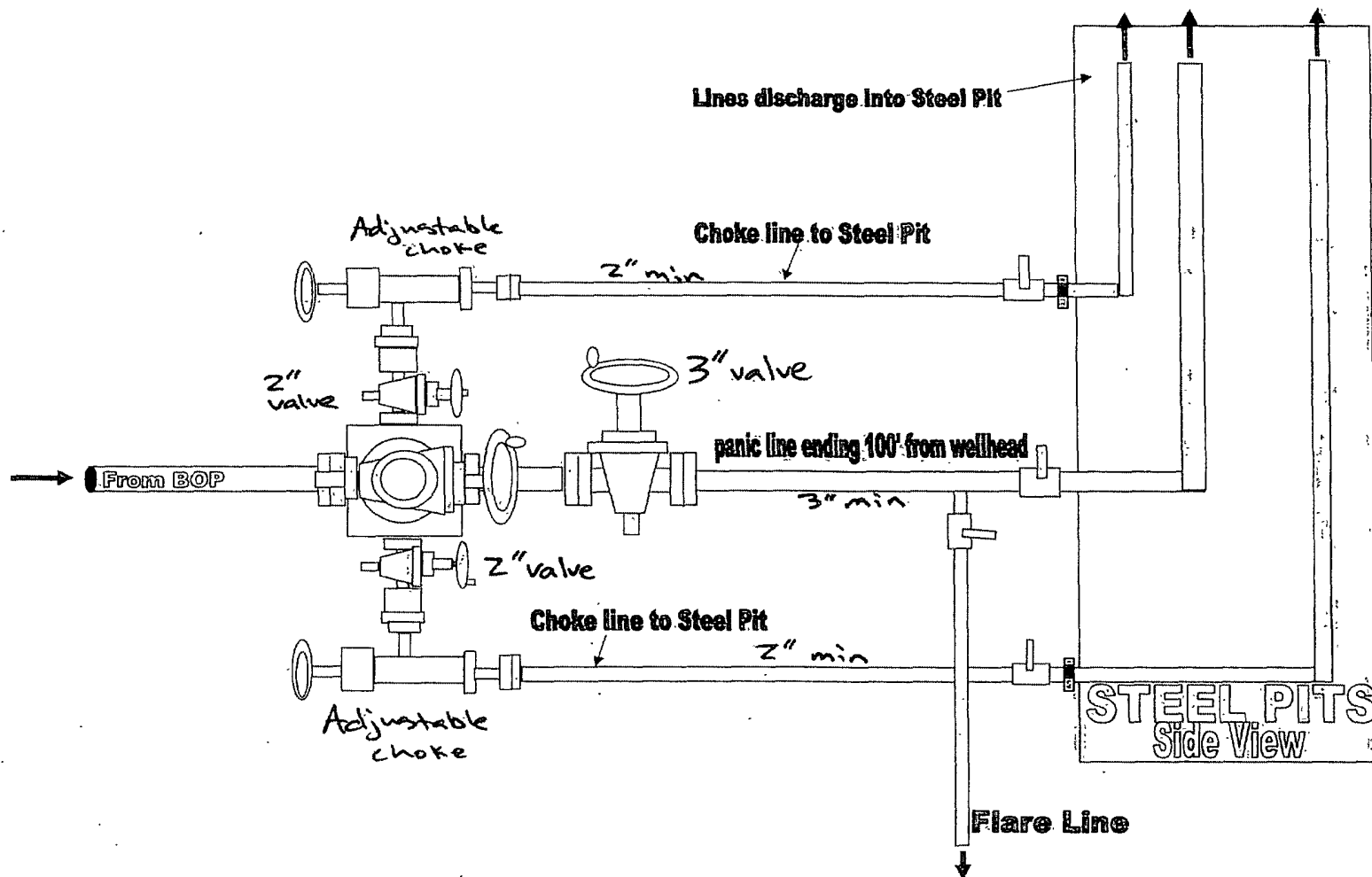
720' FNL & 10' FWL (SHL)

Sec 31-T18S-R30E

Eddy County, New Mexico

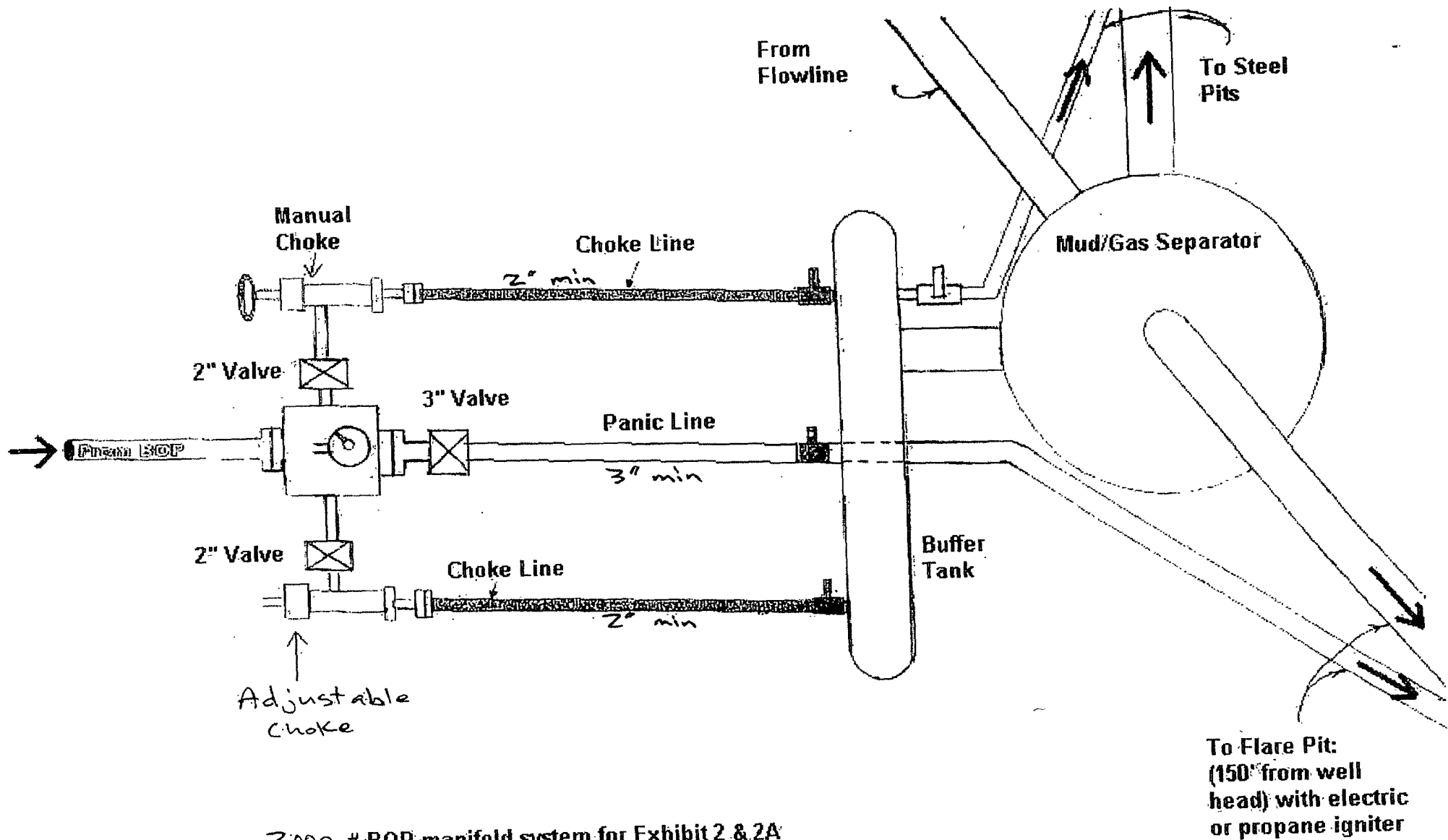
- I. Drilling nipple (bell nipple) to be constructed so that it can be removed without the use of a welder through the opening of the rotary table, with minimum internal diameter equal to blowout preventer bore.
- II. Blowout preventer and all fittings must be in good condition with a minimum 2000 psi working pressure on 13 3/8" casing and 3000 psi working pressure on 9 5/8" & 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.



3000# BOP manifold system for Exhibit 2 & 2A

Bradley "31" DA Fed Com #1H

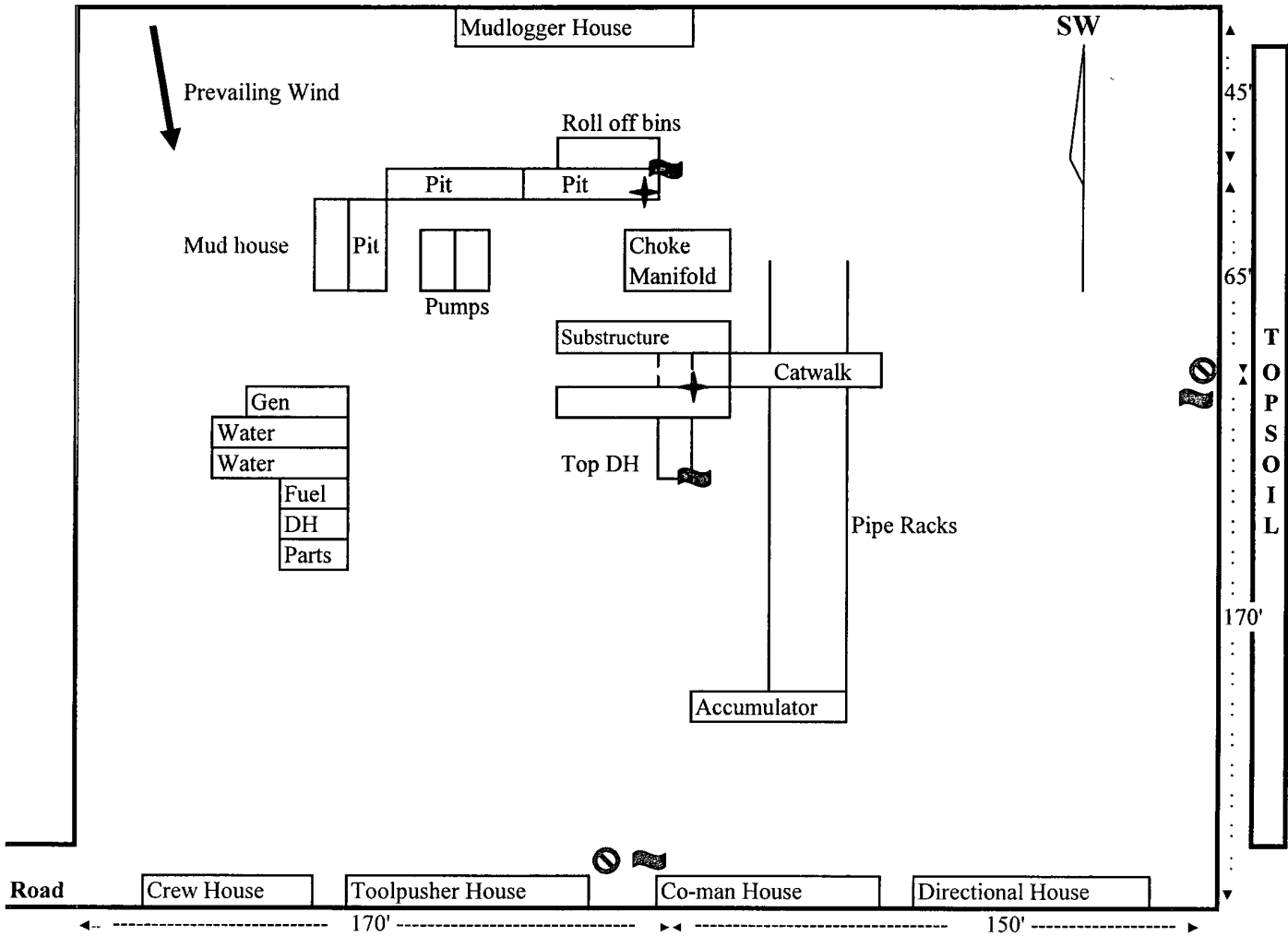


3000 # BOP manifold system for Exhibit 2 & 2A  
(only if Mud/Gas Separator is needed)

Bradley "31" DA Fed Com #14



Closed Loop Pad Dimensions 280' x 320'  
and H2S Plan



**Legend**

- Wellbore Location
- Briefing Area w/ SCBA
- H2S Sensors
- Windsocks

**Mewbourne Oil Company**  
Bradley "31" DA Fed Com #1H  
720' FNL & 10' FWL  
Sec 31-T18S-R30E  
Eddy County, NM

## Hydrogen Sulfide Drilling Operations Plan

### **Mewbourne Oil Company**

Bradley "31" DA Fed Com #1H

720' FNL & 10' FWL

Sec 31-T18S-R30E

Eddy County, New Mexico

### **1. General Requirements**

Rule 118 does not apply to this well because MOC has researched this area and no high concentrations of H<sub>2</sub>S were found. MOC will have on location and working all H<sub>2</sub>S safety equipment before the Yates formation for purposes of safety and insurance requirements.

### **2. Hydrogen Sulfide Training**

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will have received training from a qualified instructor in the following areas prior to entering the drilling pad area of the well:

1. The hazards and characteristics of hydrogen sulfide gas.
2. The proper use of personal protective equipment and life support systems.
3. The proper use of hydrogen sulfide detectors, alarms, warning systems, briefing areas, evacuation procedures.
4. The proper techniques for first aid and rescue operations.

Additionally, supervisory personnel will be trained in the following areas:

- 1 The effects of hydrogen sulfide on metal components. If high tensile tubular systems are utilized, supervisory personnel will be trained in their special maintenance requirements.
- 2 Corrective action and shut in procedures, blowout prevention, and well control procedures while drilling a well.
- 3 The contents of the Hydrogen Sulfide Drilling Operations Plan.

There will be an initial training session prior to encountering a known hydrogen sulfide source. The initial training session shall include a review of the site specific Hydrogen Sulfide Drilling Operations Plan.

### **3. Hydrogen Sulfide Safety Equipment and Systems**

All hydrogen sulfide safety equipment and systems will be installed, tested, and operational prior to drilling below the intermediate casing.

1. Well Control Equipment
  - A. Choke manifold with minimum of one adjustable choke.
  - B. Blowout preventers equipped with blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
  - C. Auxiliary equipment including annular type blowout preventer.
2. Protective Equipment for Essential Personnel

Thirty minute self contained work unit located in the dog house and at briefing areas.

Additionally: If H<sub>2</sub>S is encountered in concentrations less than 10 ppm, fans will be placed in work areas to prevent the accumulation of hazardous amounts of poisonous gas. If higher concentrations of H<sub>2</sub>S are detected the well will be shut in and a rotating head, mud/gas separator, and flare line with igniter will be installed.

3. Hydrogen Sulfide Protection and Monitoring Equipment

Two portable hydrogen sulfide monitors positioned on location for optimum coverage and detection. The units shall have audible sirens to notify personnel when hydrogen sulfide levels exceed 20 PPM.

4. Visual Warning Systems

A. Wind direction indicators as indicated on the wellsite diagram.

B. Caution signs shall be posted on roads providing access to location. Signs shall be painted a high visibility color with lettering of sufficient size to be readable at reasonable distances from potentially contaminated areas.

4. **Mud Program**

The mud program has been designed to minimize the amount of hydrogen sulfide entrained in the mud system. Proper mud weight, safe drilling practices, and the use of hydrogen sulfide scavengers will minimize hazards while drilling the well.

5. **Metallurgy**

All tubular systems, wellheads, blowout preventers, drilling spools, kill lines, choke manifolds, and valves shall be suitable for service in a hydrogen sulfide environment when chemically treated.

6. **Communications**

State & County Officials phone numbers are posted on rig floor and supervisors trailer. Communications in company vehicles and toolpushers are either two way radios or cellular phones.

7. **Well Testing**

Drill stem testing is not an anticipated requirement for evaluation of this well. A drill stem test is required, it will be conducted with a minimum number of personnel in the immediate vicinity. The test will be conducted during daylight hours only.

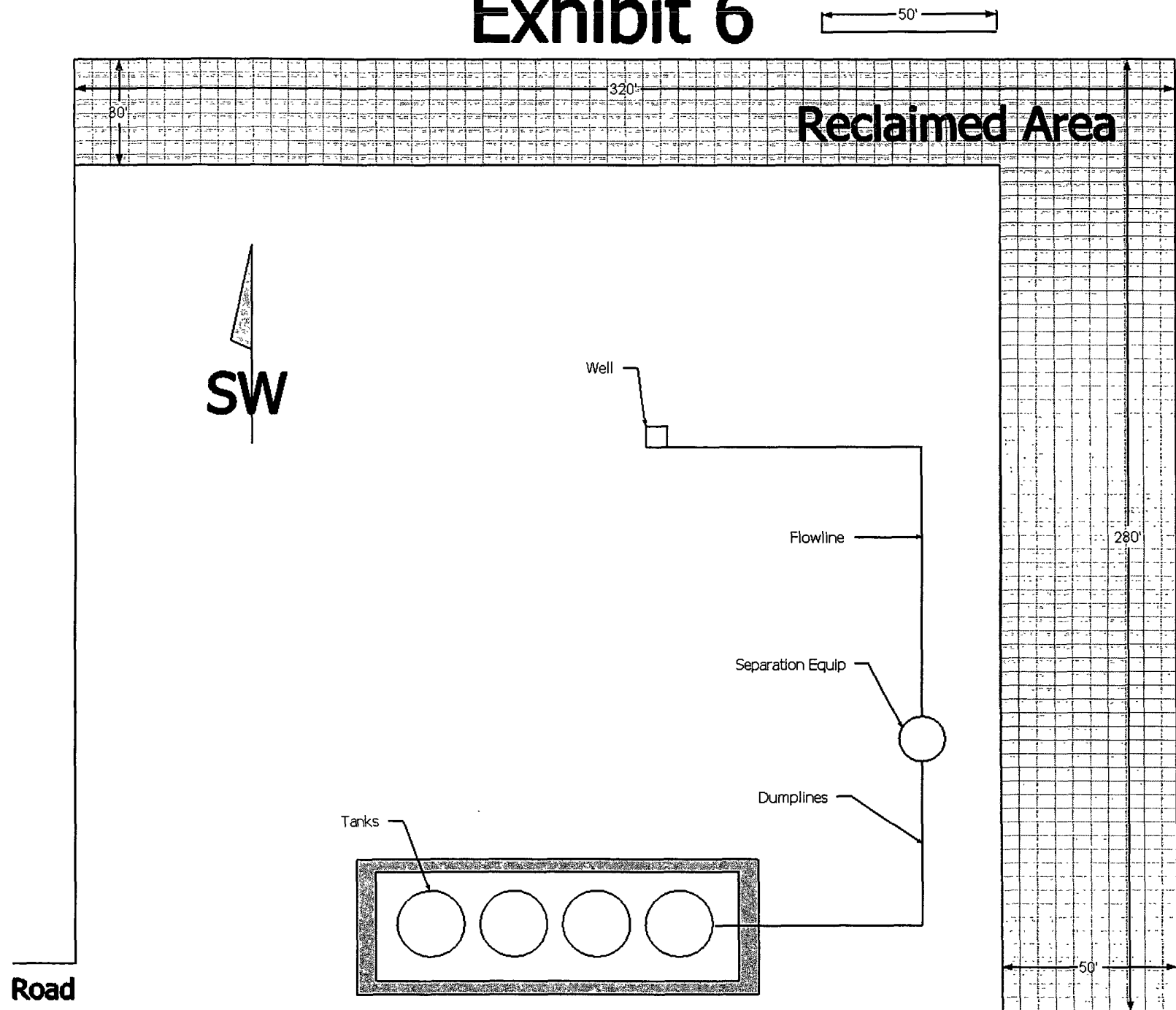
8. **Emergency Phone Numbers**

Eddy County Sheriff's Office	911 or 575-887-7551
Ambulance Service	911 or 575-885-2111
Artesia Fire Dept	911 or 575-616-7155
Loco Hills Volunteer Fire Dept.	911 or 575-677-3266
Closest Medical Facility – Artesia General Hospital	575-748-3333

Mewbourne Oil Company	Hobbs District Office	575-393-5905
	Fax	575-397-6252
	2 <sup>nd</sup> Fax	575-393-7259

District Manager	Micky Young	575-390-0999
Drilling Superintendent	Frosty Lathan	575-390-4103
Drilling Engineer	Jake Nave	575-602-1296
Engineer	Brett Bednarz	575-390-6838

# Exhibit 6



Bradley "31" DA Fed Com #1H

## PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	MEWBOURNE OIL COMPANY
LEASE NO.:	NMLC068402
WELL NAME & NO.:	1H BRADLEY 31 DA FED COM
SURFACE HOLE FOOTAGE:	720' FNL & 10' FWL
BOTTOM HOLE FOOTAGE:	720' FNL & 33' FEL
LOCATION:	Section 31, T.18 S., R.30 E., NMPM
COUNTY:	Eddy County, New Mexico

### TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
  - Road Width
  - Lesser Prairie-Chicken Timing Stipulations
  - Ground-level Abandoned Well Marker
  - Communitization Agreement
- ☒ **Construction**
  - Notification
  - Topsoil
  - Closed Loop System
  - Federal Mineral Material Pits
  - Well Pads
  - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
  - H<sub>2</sub>S – Onshore Order #6
  - Waste Material and Fluids
  - Logging Requirements
- ☒ **Production (Post Drilling)**
  - Well Structures & Facilities
- ☐ **Interim Reclamation**
- ☒ **Final Abandonment & Reclamation**