

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

SECRETARY'S POTASH
FORM APPROVED
OMB No. 1004-0136
Expires January 31, 2004

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: ☒ DRILL ☐ REENTER		5. Lease Serial No. <u>NM 27279 5112</u> NM40117, LC028978-A & NM19440	
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator Mewbourne Oil Company <u>14744</u>		7. If Unit or CA Agreement, Name and No.	
3a. Address PO Box 5270 Hobbs, NM 88241		8. Lease Name and Well No. Phoenix 21 Fed Com #1H <u>38767</u>	
3b. Phone No. (include area code) 575-393-5905		9. API Well No. <u>30-015-39350</u>	
4. Location of Well (Report location clearly and in accordance with any State requirements) At surface 200' FNL & 890' FWL Unit D At proposed prod. zone 330' FNL & 660' FWL Unit D Sec 21, T18S, R30E		10. Field and Pool, or Exploratory Santo Nino Bone Springs <u>54600</u>	
14. Distance in miles and direction from nearest town or post office* <u>30 miles NE of Carlsbad, NM</u>		11. Sec., T., R., M., or Blk. and Survey or Area Sec 28 - T18S - R30E	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 200'		12. County or Parish Eddy	
16. No. of Acres in lease 160		13. State NM	
17. Spacing Unit dedicated to this well 160			
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1400		20. BLM/BIA Bond No. on file NM1693, Nationwide	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3431' GL		22. Approximate date work will start* ASAP	
		23. Estimated duration 45	

24. Attachments

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 <u>Jackie Lathan</u>		Name (Printed/Typed) Jackie Lathan	Date 06/15/11
Title Hobbs Regulatory			
Approved by (Signature) <u>/s/ Jesse J. Juen</u>		Name (Printed/Typed) <u>/s/ Jesse J. Juen</u>	Date AUG 16 2011
Title <u>ACTING STATE DIRECTOR</u>		Office NM STATE 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.

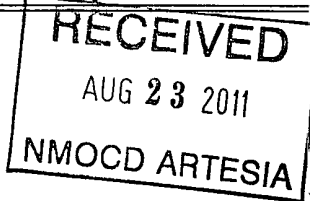
Conditions of approval, if any, are attached.

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.

*(Instructions on reverse)

CAPTAN CONTROLLED WATER BASIN



KZ 08/26/11

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

Drilling Program
Mewbourne Oil Company
 Phoenix "21" Federal Com #1H
 200' FNL & 890' FWL
 Sec 28-T18S-R30E
 Eddy County, New Mexico

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

Rustler	300'
Top Salt	420'
Base Salt	1240'
Yates	1410'
*Delaware	3940'
*Bone Springs	4880'

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

Water	Fresh water is anticipated @ 230' and will be protected by setting surface casing at 325' 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 5/8" 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. 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 1st test as per BLM Onshore Oil and Gas Order #2.

4. MOC proposes to drill a vertical wellbore to 7624' & kick off to horizontal @ 8197' TVD. The well will be drilled to 13103' MD (8142' 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 5/8" (new)	48#	H40	0'-325' 345	ST&C
12 1/4"	9 5/8" (new)	36#	J55	0'-1510' ✓	LT&C
8 3/4"	7" (new)	26#	P110	0'-7630' MD	LT&C
8 3/4"	7" (new)	26#	P110	7630'-8530' MD	BT&C
6 1/8"	4 1/2" (new)	11.6#	P110	8330'-13103' MD	LT&C

See COW 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. Surface Casing: 340 sks Light Class "C" w/2% CaCl₂. Yield at 1.34 cuft/sk. Cmt circulated to surface w/ 100% excess.
 - ii. Intermediate Casing: 150 sks Light Class "C" (35:65:4) w/salt, & LCM additives. Yield at 2.12 cuft/sk. 200 sks Light Class "C" w/2% CaCl₂. Yield at 1.34 cuft/sk. Cmt circulated to surface w/ 25% excess.
 - iii. Production Casing: 520 sks Light Class "H" (35:65:4) w/salt, FL, & LCM additives. Yield at 2.12 cuft/sk. 400 sks Light Class "H" w/salt, & FL Yield at 1.18 cuft/sk. Cmt circulated to surface w/25% excess. This casing string will provide lease line isolation.
 - 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:

<u>Interval</u>	<u>Type System</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0' - 325'	FW spud mud	8.6-9.0	32-34	NA
325' - 1510'	Brine water	10.0-10.2	28-30	NA
1510' - 7630'	FW (KOP)	8.4-8.6	28-30	NA
7630' - TD	FW w/Polymer	8.5-8.7	32-35	15

7. Evaluation Program:

See COA

Samples: 10' samples from surface casing to TD
 Logging: GR & Gyro from KOP -100' (7530') to surface. GR from 7630' to TD.

8. Downhole Conditions

Zones of abnormal pressure:	Possible water flow in intermediate hole
Zones of lost circulation:	Anticipated in surface and intermediate holes
Maximum bottom hole temperature:	120 degree F
Maximum bottom hole pressure:	8.34 lbs/gal gradient or less

9. Anticipated Starting Date:

Mewbourne Oil Company intends to spud this well 9/15/2011 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

Sec 21/28-18S-30E

Phoenix 21 Fed Com #1H

Wellbore #1

Plan: Design #1

DDC Well Planning Report

10 June, 2011



DDC Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Phoenix 21 Fed Com #1H
Company:	Mewbourne Oil Co	TVD Reference:	WELL @ 3452.0usft (Patterson UTI #46)
Project:	Eddy County, New Mexico	MD Reference:	WELL @ 3452.0usft (Patterson UTI #46)
Site:	Sec 21/28-18S-30E	North Reference:	Grid
Well:	Phoenix 21 Fed Com #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project:	Eddy County, New Mexico		
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 21/28-18S-30E		
Site Position:		Northing:	627,672.50 usft
From:	Map	Easting:	608,005.80 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 43' 30.273 N
		Longitude:	103° 58' 55.671 W
		Grid Convergence:	0.19 °

Well:	Phoenix 21 Fed Com #1H					
Well Position	+N-S	0.0 usft	Northing:	627,672.50 usft	Latitude:	32° 43' 30.273 N
	+E-W	0.0 usft	Easting:	608,005.80 usft	Longitude:	103° 58' 55.671 W
Position Uncertainty	0.0 usft	Wellhead Elevation:		Ground Level:	3,431.0 usft	

Wellbore:	Wellbore #1
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Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	6/10/2011	7.82	60.58	48,874

Design:	Design #1
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Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0 0
Vertical Section:	Depth From (TVD)	+N-S	+E-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	357.23

Measured	Inclination	Azimuth	Vertical	+N-S	+E-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(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	
7,624.1	0.00	0.00	7,624.1	0.0	0.0	0.00	0.00	0.00	0.00	
8,531.0	90.69	357.23	8,197.0	579.2	-28.0	10.00	10.00	-0.30	357.23	
13,102.8	90.69	357.23	8,142.0	5,145.3	-248.5	0.00	0.00	0.00	0.00	PBHL Phoenix 21 F

DDC Well Planning Report



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Company:	Mewbourne Oil Co	TVD Reference:	WELL @ 3452.0usft (Patterson UTI #46)
Project:	Eddy County, New Mexico	MD Reference:	WELL @ 3452.0usft (Patterson UTI #46)
Site:	Sec 21/28-18S-30E	North Reference:	Grid
Well:	Phoenix 21 Fed 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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00

DDC
Well Planning Report



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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)
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00
Build: 10°/100' @ 7624' MD									
7,624.1	0.00	0.00	7,624.1	0.0	0.0	0.0	0.00	0.00	0.00
7,700.0	7.59	357.23	7,699.8	5.0	-0.2	5.0	10.00	10.00	0.00
7,800.0	17.59	357.23	7,797.2	26.8	-1.3	26.8	10.00	10.00	0.00
7,900.0	27.59	357.23	7,889.5	65.1	-3.1	65.2	10.00	10.00	0.00
8,000.0	37.59	357.23	7,973.6	118.8	-5.7	118.9	10.00	10.00	0.00
8,100.0	47.59	357.23	8,047.1	186.3	-9.0	186.5	10.00	10.00	0.00
8,200.0	57.59	357.23	8,107.8	265.6	-12.8	265.9	10.00	10.00	0.00
8,300.0	67.59	357.23	8,153.8	354.1	-17.1	354.5	10.00	10.00	0.00
8,400.0	77.59	357.23	8,183.7	449.3	-21.7	449.8	10.00	10.00	0.00
8,500.0	87.59	357.23	8,196.6	548.2	-26.5	548.9	10.00	10.00	0.00
EOB @ 8531' MD / 90.69° Inc / 357.23° Azm / 8197' TVD									
8,531.0	90.69	357.23	8,197.0	579.2	-28.0	579.9	10.00	10.00	0.00
8,600.0	90.69	357.23	8,196.2	648.1	-31.3	648.9	0.00	0.00	0.00
8,700.0	90.69	357.23	8,195.0	748.0	-36.1	748.8	0.00	0.00	0.00
8,800.0	90.69	357.23	8,193.8	847.8	-40.9	848.8	0.00	0.00	0.00
8,900.0	90.69	357.23	8,192.6	947.7	-45.8	948.8	0.00	0.00	0.00
9,000.0	90.69	357.23	8,191.4	1,047.6	-50.6	1,048.8	0.00	0.00	0.00
9,100.0	90.69	357.23	8,190.2	1,147.5	-55.4	1,148.8	0.00	0.00	0.00
9,200.0	90.69	357.23	8,189.0	1,247.4	-60.2	1,248.8	0.00	0.00	0.00
9,300.0	90.69	357.23	8,187.8	1,347.2	-65.1	1,348.8	0.00	0.00	0.00
9,400.0	90.69	357.23	8,186.6	1,447.1	-69.9	1,448.8	0.00	0.00	0.00
9,500.0	90.69	357.23	8,185.4	1,547.0	-74.7	1,548.8	0.00	0.00	0.00
9,600.0	90.69	357.23	8,184.2	1,646.9	-79.5	1,648.8	0.00	0.00	0.00
9,700.0	90.69	357.23	8,182.9	1,746.7	-84.4	1,748.8	0.00	0.00	0.00
9,800.0	90.69	357.23	8,181.7	1,846.6	-89.2	1,848.8	0.00	0.00	0.00
9,900.0	90.69	357.23	8,180.5	1,946.5	-94.0	1,948.8	0.00	0.00	0.00
10,000.0	90.69	357.23	8,179.3	2,046.4	-98.8	2,048.8	0.00	0.00	0.00
10,100.0	90.69	357.23	8,178.1	2,146.2	-103.7	2,148.7	0.00	0.00	0.00
10,200.0	90.69	357.23	8,176.9	2,246.1	-108.5	2,248.7	0.00	0.00	0.00

DDC Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Phoenix 21 Fed Com #1H
Company:	Mewbourne Oil Co.	TVD Reference:	WELL @ 3452.0usft (Patterson UTI #46)
Project:	Eddy County, New Mexico	MD Reference:	WELL @ 3452.0usft (Patterson UTI #46)
Site:	Sec 21/28-18S-30E	North Reference:	Grid
Well:	Phoenix 21 Fed 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)	
10,300.0	90.69	357.23	8,175.7	2,346.0	-113.3	2,348.7	0.00	0.00	0.00	
10,400.0	90.69	357.23	8,174.5	2,445.9	-118.1	2,448.7	0.00	0.00	0.00	
10,500.0	90.69	357.23	8,173.3	2,545.7	-123.0	2,548.7	0.00	0.00	0.00	
10,600.0	90.69	357.23	8,172.1	2,645.6	-127.8	2,648.7	0.00	0.00	0.00	
10,700.0	90.69	357.23	8,170.9	2,745.5	-132.6	2,748.7	0.00	0.00	0.00	
10,800.0	90.69	357.23	8,169.7	2,845.4	-137.4	2,848.7	0.00	0.00	0.00	
10,900.0	90.69	357.23	8,168.5	2,945.3	-142.2	2,948.7	0.00	0.00	0.00	
11,000.0	90.69	357.23	8,167.3	3,045.1	-147.1	3,048.7	0.00	0.00	0.00	
11,100.0	90.69	357.23	8,166.1	3,145.0	-151.9	3,148.7	0.00	0.00	0.00	
11,200.0	90.69	357.23	8,164.9	3,244.9	-156.7	3,248.7	0.00	0.00	0.00	
11,300.0	90.69	357.23	8,163.7	3,344.8	-161.5	3,348.7	0.00	0.00	0.00	
11,400.0	90.69	357.23	8,162.5	3,444.6	-166.4	3,448.6	0.00	0.00	0.00	
11,500.0	90.69	357.23	8,161.3	3,544.5	-171.2	3,548.6	0.00	0.00	0.00	
11,600.0	90.69	357.23	8,160.1	3,644.4	-176.0	3,648.6	0.00	0.00	0.00	
11,700.0	90.69	357.23	8,158.9	3,744.3	-180.8	3,748.6	0.00	0.00	0.00	
11,800.0	90.69	357.23	8,157.7	3,844.1	-185.7	3,848.6	0.00	0.00	0.00	
11,900.0	90.69	357.23	8,156.5	3,944.0	-190.5	3,948.6	0.00	0.00	0.00	
12,000.0	90.69	357.23	8,155.3	4,043.9	-195.3	4,048.6	0.00	0.00	0.00	
12,100.0	90.69	357.23	8,154.1	4,143.8	-200.1	4,148.6	0.00	0.00	0.00	
12,200.0	90.69	357.23	8,152.9	4,243.6	-205.0	4,248.6	0.00	0.00	0.00	
12,300.0	90.69	357.23	8,151.7	4,343.5	-209.8	4,348.6	0.00	0.00	0.00	
12,400.0	90.69	357.23	8,150.5	4,443.4	-214.6	4,448.6	0.00	0.00	0.00	
12,500.0	90.69	357.23	8,149.3	4,543.3	-219.4	4,548.6	0.00	0.00	0.00	
12,600.0	90.69	357.23	8,148.1	4,643.2	-224.2	4,648.6	0.00	0.00	0.00	
12,700.0	90.69	357.23	8,146.8	4,743.0	-229.1	4,748.6	0.00	0.00	0.00	
12,800.0	90.69	357.23	8,145.6	4,842.9	-233.9	4,848.5	0.00	0.00	0.00	
12,900.0	90.69	357.23	8,144.4	4,942.8	-238.7	4,948.5	0.00	0.00	0.00	
13,000.0	90.69	357.23	8,143.2	5,042.7	-243.5	5,048.5	0.00	0.00	0.00	
13,100.0	90.69	357.23	8,142.0	5,142.5	-248.4	5,148.5	0.00	0.00	0.00	
TD @ 13103' MD / 8142' TVD										
13,102.8	90.69	357.23	8,142.0	5,145.3	-248.5	5,151.3	0.00	0.00	0.00	

Design Targets									
Target Name	- hit/miss target	Dip Angle	Dip Dir	TVD	+N/S	+E/W	Northing	Easting	
- Shape		(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	Latitude Longitude
PBHL Phoenix 21 Fec		0.00	0.00	8,142.0	5,145.3	-248.5	632,817.80	607,757.30	32° 44' 21.196 N 103° 58' 58.380 W
- plan hits target center									
- Point									

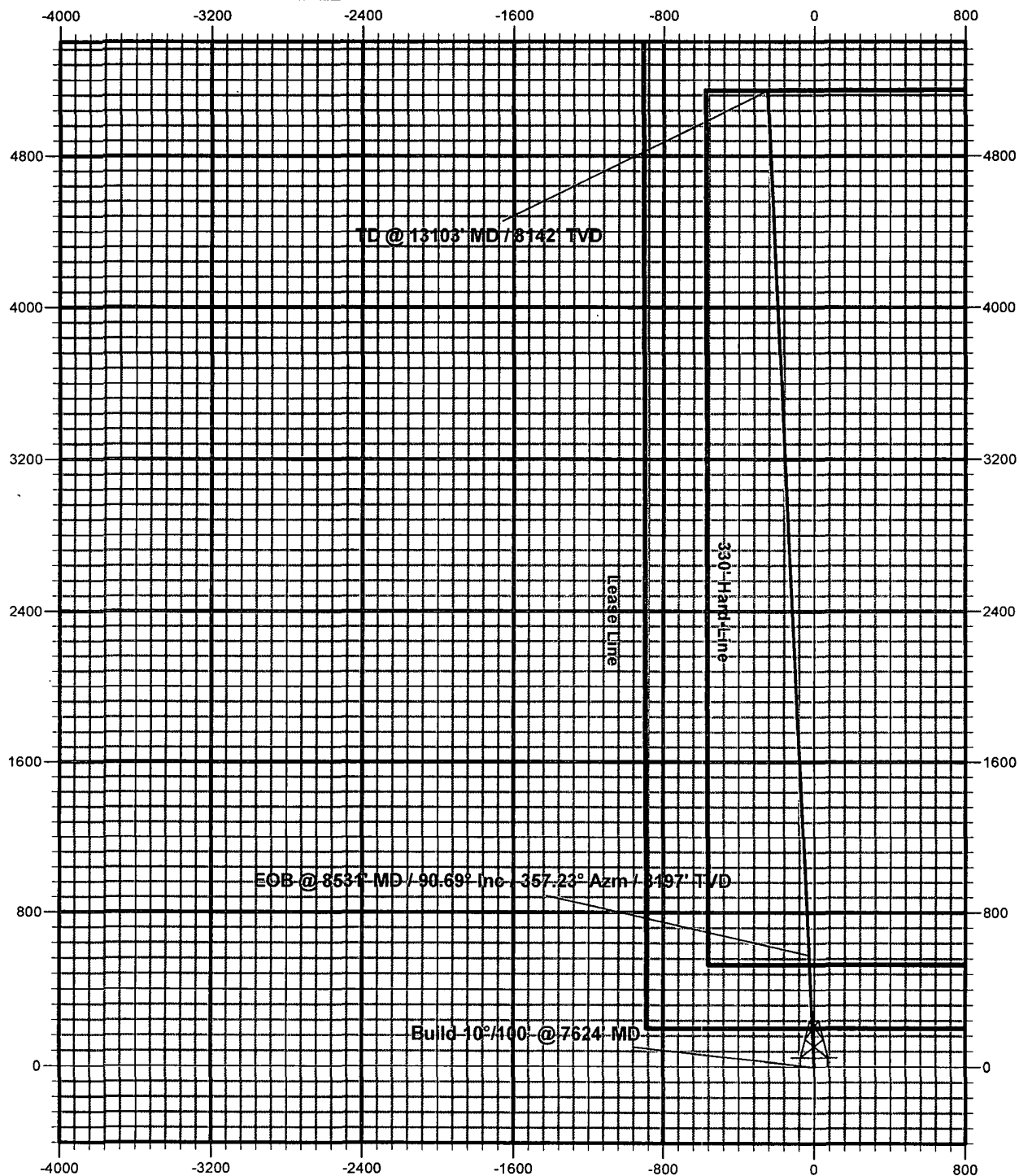
Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/S (usft)	+E/W (usft)	
7,624.1	7,624.1	0.0	0.0	Build 10°/100' @ 7624' MD
8,531.0	8,197.0	579.2	-28.0	EOB @ 8531' MD / 90.69° Inc / 357.23° Azm / 8197' TVD
13,102.8	8,142.0	5,145.3	-248.5	TD @ 13103' MD / 8142' TVD

Mewbourne Oil Company

Eddy County, New Mexico

Phoenix 21 Fed Com #1H

Quote 110428



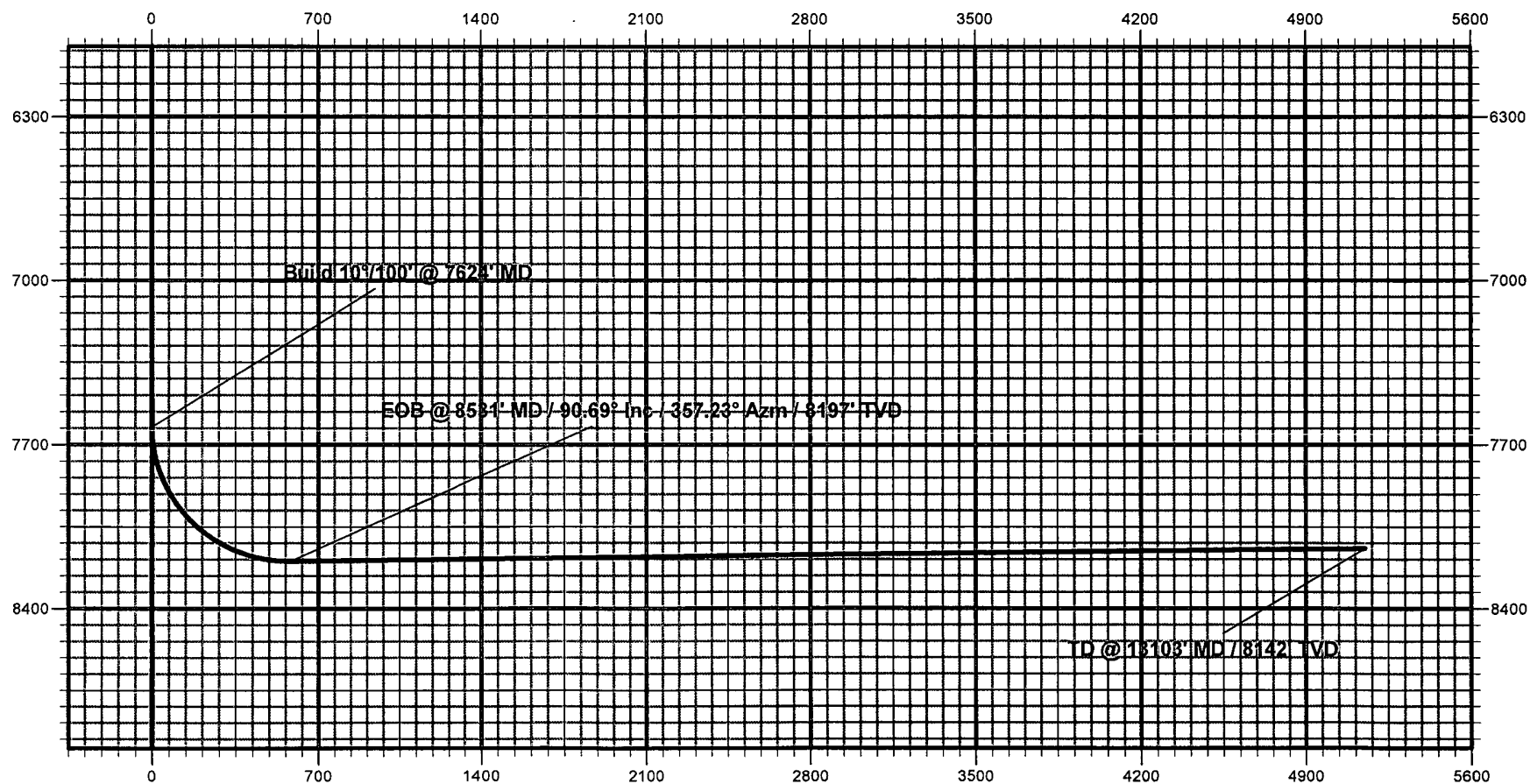
Mewbourne Oil Company



Eddy County, New Mexico

Phoenix 21 Fed Com #1H

Quote 110428



Vertical Section at 357.23° (700 usft/in)

Notes Regarding Blowout Preventer

Mewbourne Oil Company

Phoenix 21 Federal Com #1H

200' FNL & 890' FWL (SL)

Sec 28-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 an accumulator of at least 40 gallon capacity, two independent sources of pressure on closing unit, and meet all other API specifications.

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

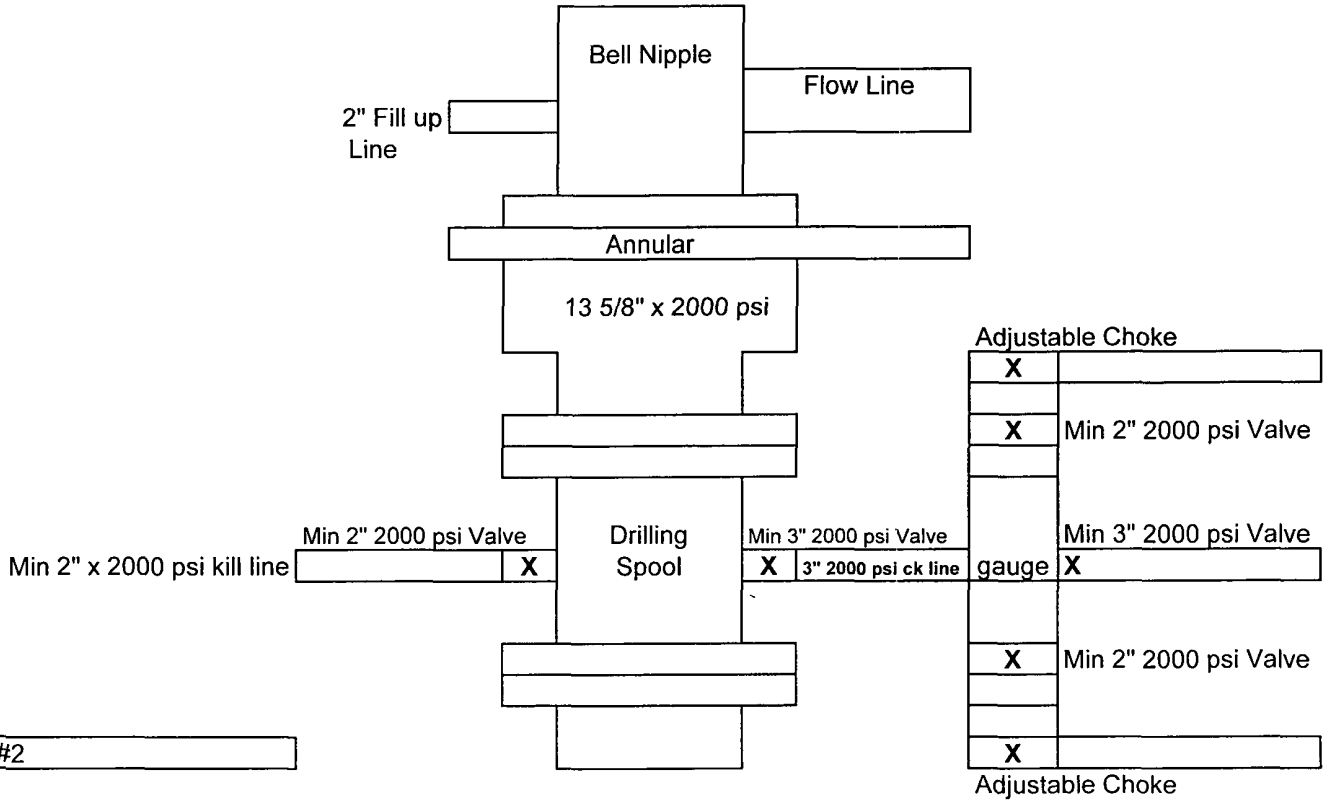


Exhibit #2

Phoenix "21" Fed Com #1H
Sec. 28-T18S-R30E
200' FNL & 890' FWL
Eddy County, NM

Mewbourne Oil Company
BOP Scematic for
8 3/4" or 7 7/8" Hole

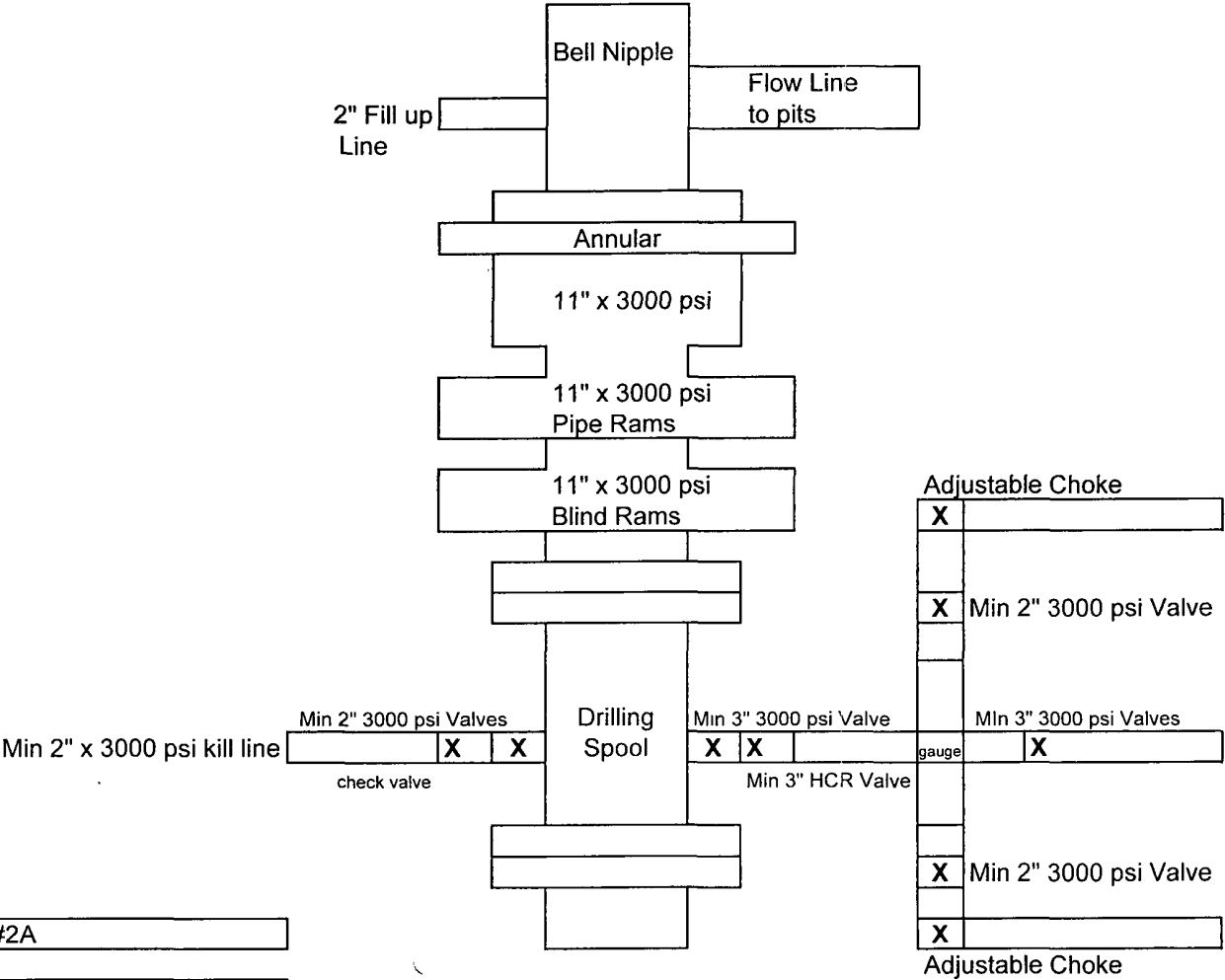


Exhibit #2A

Phoenix 21 Federal Com #1H
200' FNL & 890' FWL
Sec 28-T18S-R30E
Eddy, County
New Mexico

Mewbourne Oil Company
BOP Schematic for
6 1/8" Hole

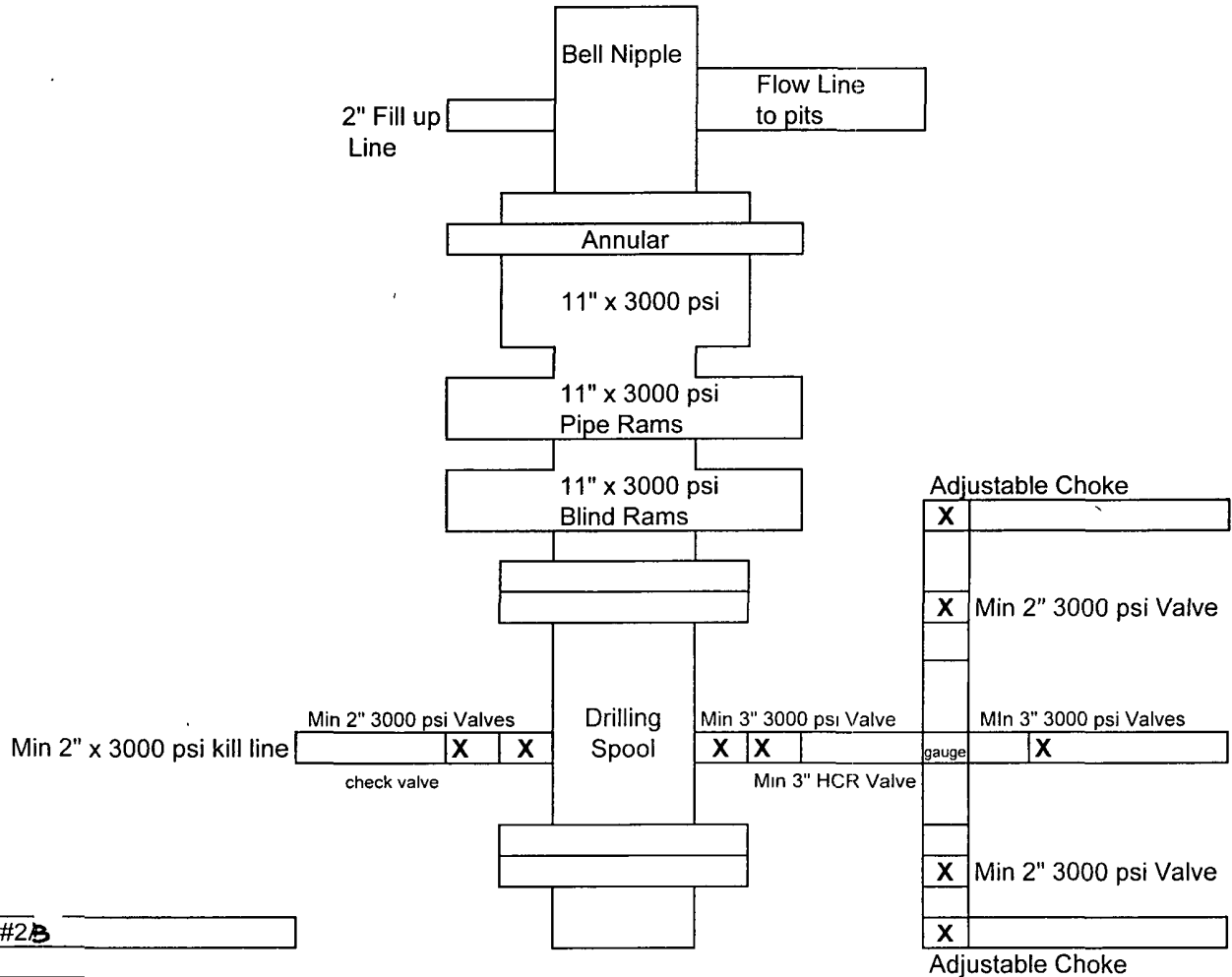
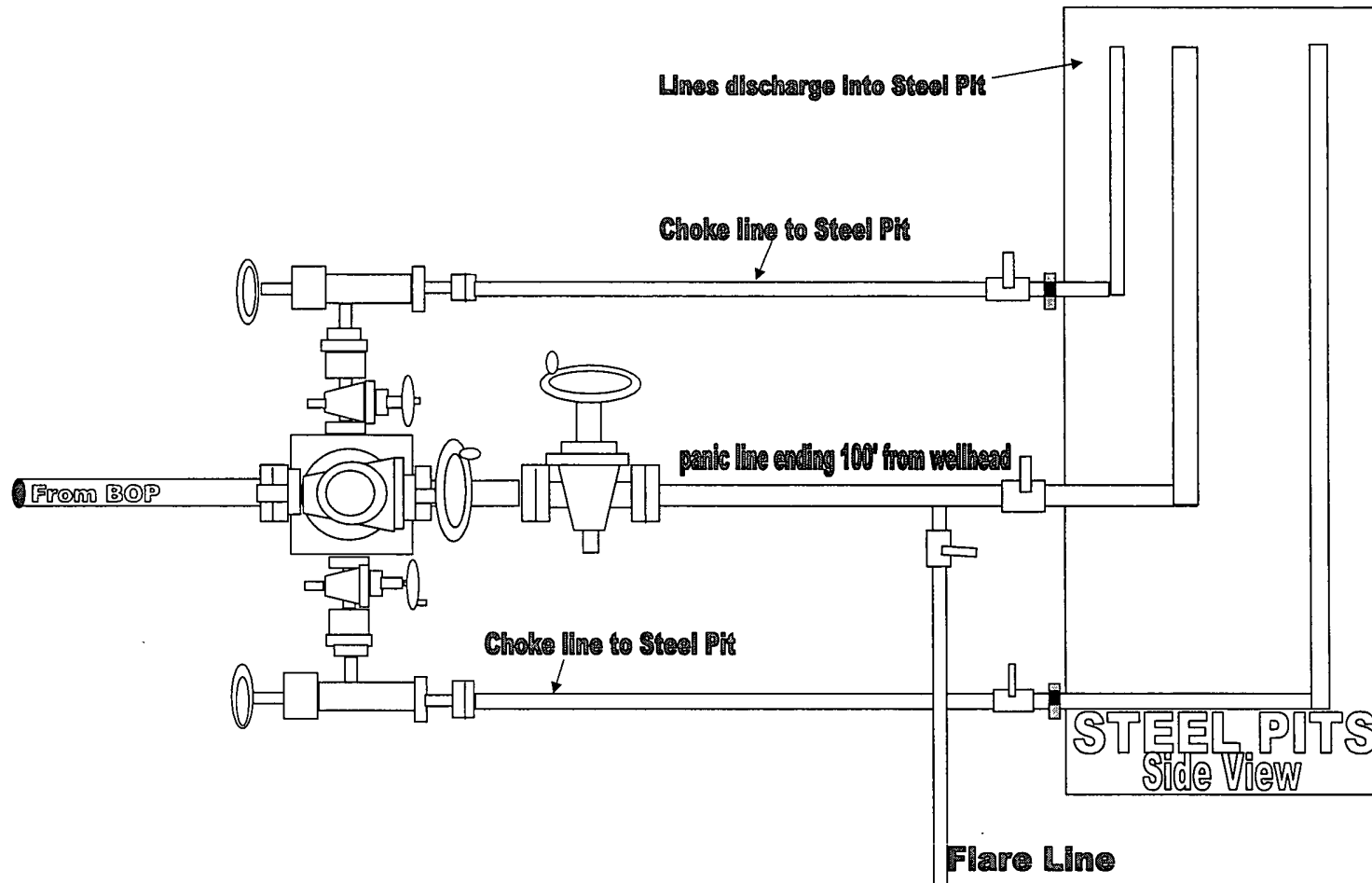
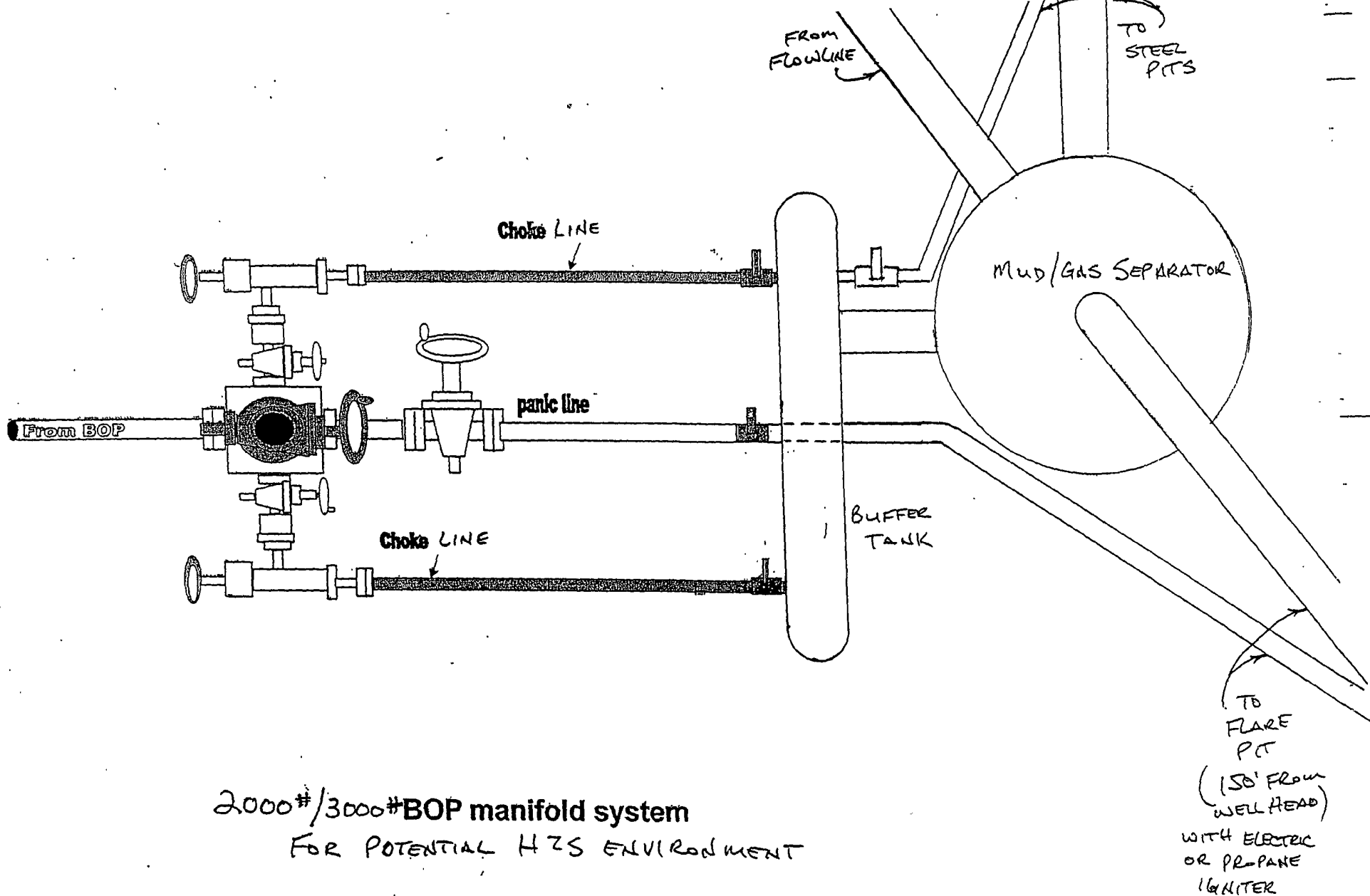


Exhibit #2

Phoenix 21 Federal Com #1H
200' FNL & 890' FWL
Sec 28-T18S-R30E
Eddy, County
New Mexico



2000# & 3000# BOP manifold system for Exhibit 2 & 2A



DISTRICT I --- CHECKLIST FOR INTENTS TO DRILL

Operator NEWBOURNE OIL CO OGRID # 14744
 Well Name & # PHOENIX 21 FEN COM # 1H Surface Type (F) (S) (P)
 Location: UL D Sect 28, Twnship 18 S, RNG 30 E,
D 21 18 30 Sub-surface Type (F) (S) (P)

A. Date C101 rec'd / / C101 reviewed / /

B. 1. Check mark, Information is OK on Forms:

OGRID X, BONDING FEN, PROP CODE , WELL # X, SIGNATURE X

2. Inactive Well list as of: 8/26/11 # wells 596, # Inactive wells 5

a. District Grant APD but see number of inactive wells:

No letter required X; Sent Letter to Operator , to Santa Fe

3. Additional Bonding as of: 8/26/11

a. District Denial because operator needs addition bonding:

No Letter required X; Sent Letter to Operator , To Santa Fe

b. District Denial because of Inactive well list and Financial Assurance:

No Letter required X; Sent Letter to Operator , To Santa Fe

C. C102 YES , NO , Signature

1. Pool SANTO NINO-B5, Code 54600

a. Dedicated acreage 160, What Units DELM rec 21

b. SUR. Location Standard X; Non-Standard Location PP standard

c. Well shares acres: Yes , No , # of wells plus this well #

2. 2nd. Operator in same acreage, Yes , No

Agreement Letter , Disagreement letter

3. Intent to Directional Drill Yes X, No

a. Dedicated acreage 160, What Units DELM rec 21

b. Bottomhole Location Standard , Non-Standard Bottomhole

4. Downhole Commingle: Yes , No X

a. Pool #2 , Code , Acres

Pool #3 , Code , Acres

Pool #4 , Code , Acres

5. POTASH Area Yes , No X

D. Blowout Preventer Yes X, No

E. H2S Yes X, No

F. C144 Pit Registration Yes X, No

G. Does APD require Santa Fe Approval:

1. Non-Standard Location: Yes , No X, NSL #

2. Non-Standard Proration: Yes , No X, NSP #

3. Simultaneous Dedication: Yes , No X, SD #

Number of wells Plus #

4. Injection order Yes , No X; PMX # or WFX #

5. SWD order Yes , NO X; SWD #

6. DHC from SF ; DHC-HOB ; Holding

7. OCD Approval Date / /

API #30-0 15-39350

8. Reviewers