

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

OCD

Operator Copy

FORM APPROVED
OMB No. 1004-0136
Expires January 31, 2004

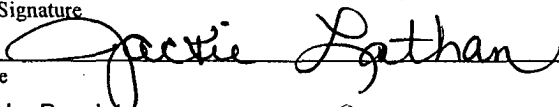
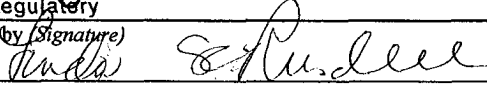
1a. Type of Work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NM-27279 & NM-19440
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Mewbourne Oil Company - 14744		7. If Unit or CA Agreement, Name and No.
3a. Address PO Box 5270 Hobbs, NM 88241		8. Lease Name and Well No. Aries 20 Federal Com #2H 38153
3b. Phone No. (include area code) 575-393-5905		9. API Well No. 30-015-38392
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 2054' FNL & 201' FWL (SL) Unit E At proposed prod. zone 1980' FNL & 330' FEL (BHL) Unit H		10. Field and Pool, or Exploratory Sand Tank Bone Spring 96832
14. Distance in miles and direction from nearest town or post office* 9 miles S of Loco Hills, NM		11. Sec., T., R., M., or Blk. and Survey or Area Sec 20 - T18S - R30E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 201'	16. No. of Acres in lease 120	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	19. Proposed Depth 12671' AD 8219' VD	20. BLM/BIA Bond No. on file NM1693, Nationwide
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3474' GL	22. Approximate date work will start* ASAP	23. Estimated duration 45

UNORTHODOX
LOCATION

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 	Name (Printed/Typed) Jackie Lathan	Date 10/25/10
Title Hobbs Regulatory		
Approved by (Signature) 	Name (Printed/Typed) Linda S.C. Rundell	Date 12/28/10
Title STATE DIRECTOR	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)

Capitan Controlled Water Basin

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements
& Special Stipulations Attached

Drilling Program
Mewbourne Oil Company
 Aries "20" Federal Com #2H
 2054' FNL & 201' FWL (SHL)
 Sec 20-T18S-R30E
 Eddy County, New Mexico

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

Top Salt	500'
Base Salt	1250'
Yates	1400'
*Queen	2450'
Grayburg	2870'
San Andres	3350'
*Bone Springs	4460'

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

Water	Fresh water will be protected by setting surface casing at 300' 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. BOP's 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 7594' & kick off to horizontal @ 8167' TVD. The well will be drilled to ~~12660'~~ MD (8217' TVD). See attached directional plan.

12671

5. Proposed casing and cementing program:

A. Casing Program:

Hole Size	Casing	Wt/Ft.	Grade	Depth	Jt Type
17 1/2"	13 3/8" (new)	48#	H40	0'-300'	ST&C
12 1/4"	9 5/8" (new)	36#	J55	0'-1500'	LT&C
8 3/4"	7" (new)	26#	P110	0'-7600' MD	LT&C
8 3/4"	7" (new)	26#	P110	7600'-8500' MD	BT&C
6 1/8"	4 1/2" (new)	11.6#	P110	8300'- 12660' MD	LT&C

12671

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

*Subject to availability of casing.

*See COA **

Mewbourne Oil Company

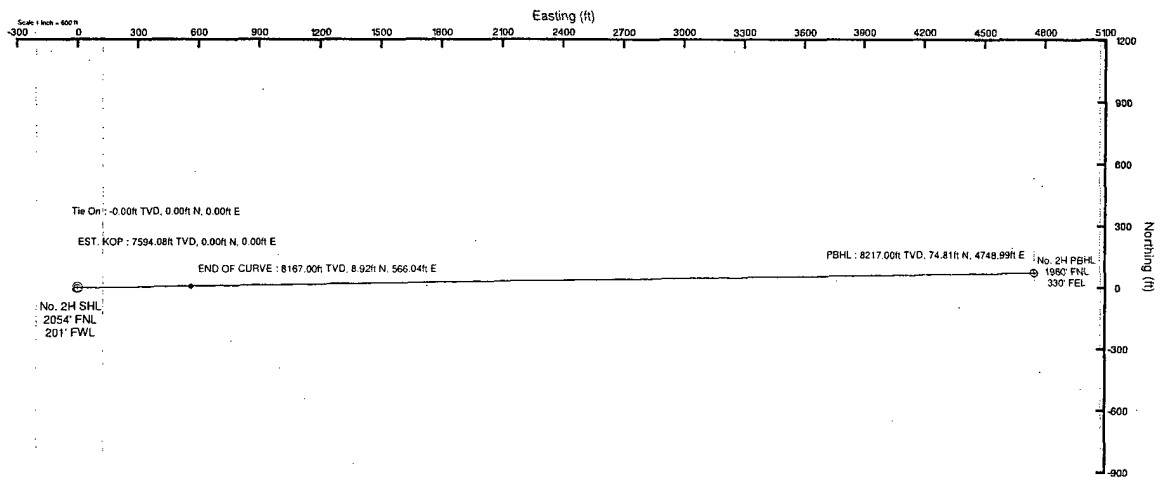
Location: Eddy County, NM
Field: (Aries) Sec 20, T18S, R30E
Facility: Aries 20 Fed Com No. 2H

Slot: No. 2H SHL
Well: No. 2H
Wellbore: No. 2H PWB

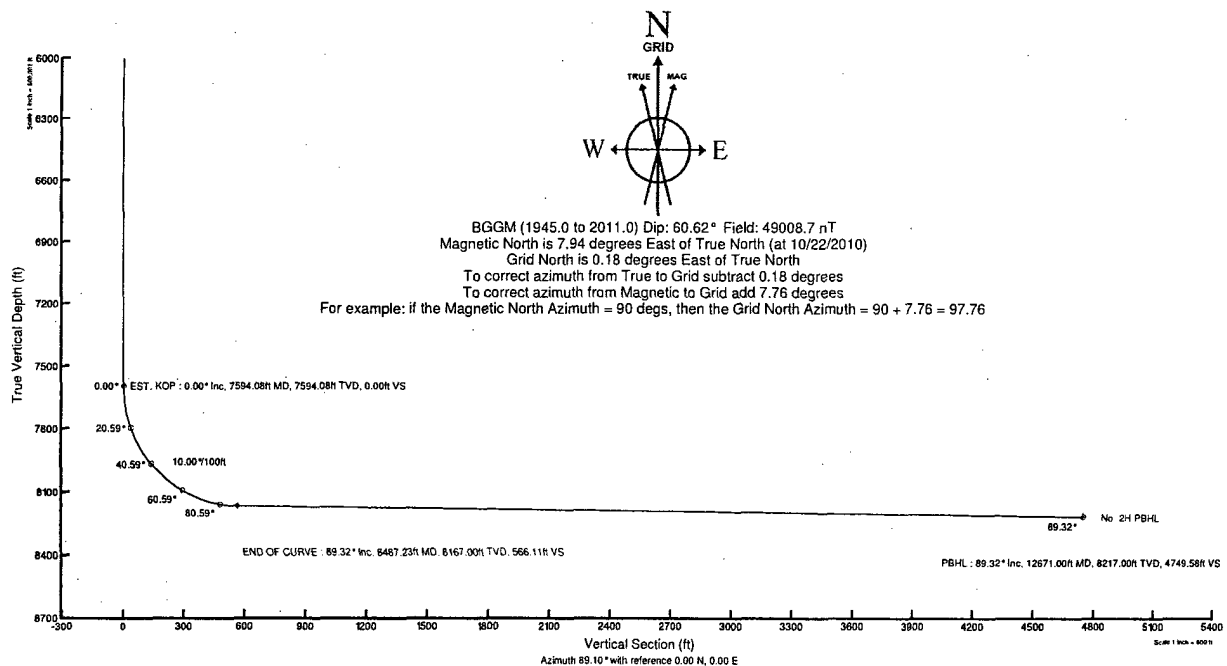


Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	0.00	0.000	89.097	0.00	0.00	0.00	0.00	0.00
EST. KOP	7594.08	0.000	89.097	7594.08	0.00	0.00	0.00	0.00
END OF CURVE	8487.23	89.315	89.097	8167.00	8.92	566.04	10.00	566.11
PBHL	12671.00	89.315	89.097	8217.00	74.81	4746.99	0.00	4749.58



Plot reference wellpath is Prelim_1	
True vertical depths are referenced to Rig on No. 2H SHL (KB)	Grid System: NAD27 / TM New Mexico State Planes, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No. 2H SHL (KB)	North Reference: Grid north
Rig on No. 2H SHL (KB) to Mean Sea Level: 3492 feet	Scale: True distance
Mean Sea Level to Mud line (Facility: Aries 20 Fed Com No. 2H): -3474 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: Victor Hernandez on 10/22/2010



Planned Wellpath Report

Prelim_1
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REFERENCE WELLPATH IDENTIFICATION

Operator	Mewbourne Oil Company	Slot	No. 2H SHL
Area	Eddy County, NM	Well	No. 2H
Field	(Aries) Sec 20, T18S, R30E	Wellbore	No. 2H PWB
Facility	Aries 20 Fed Com No. 2H		

REPORT SETUP INFORMATION

Projection System	NAD27 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect® 2.0
North Reference	Grid	User	Victor Hernandez
Scale	0.999921	Report Generated	10/22/2010 at 3:41:07 PM
Convergence at slot	0.18° East	Database/Source file	WA_Midland/No. 2H_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	0.00	0.00	602014.20	631082.30	32°44'04.205"N	104°00'05.683"W
Facility Reference Pt			602014.20	631082.30	32°44'04.205"N	104°00'05.683"W
Field Reference Pt			602138.38	632535.63	32°44'18.583"N	104°00'04.176"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 2H SHL (KB) to Facility Vertical Datum	18.00ft
Horizontal Reference Pt	Slot	Rig on No. 2H SHL (KB) to Mean Sea Level	3492.00ft
Vertical Reference Pt	Rig on No. 2H SHL (KB)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 2H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	89.10°

Planned Wellpath Report

Prelim_1

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Facility	Aries 20 Fed Com No. 2H		

WELLPATH DATA (54 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	89.097	0.00	0.00	0.00	0.00	602014.20	631082.30	32°44'04.205"N	104°00'05.683"W	0.00	Tie On
7594.08	0.000	89.097	7594.08	0.00	0.00	0.00	602014.20	631082.30	32°44'04.205"N	104°00'05.683"W	0.00	EST. KOP
7694.08†	10.000	89.097	7693.57	8.70	0.14	8.70	602022.90	631082.43	32°44'04.206"N	104°00'05.581"W	10.00	
7794.08†	20.000	89.097	7790.04	34.55	0.54	34.55	602048.74	631082.84	32°44'04.210"N	104°00'05.279"W	10.00	
7894.08†	30.000	89.097	7880.56	76.76	1.21	76.75	602090.94	631083.50	32°44'04.215"N	104°00'04.785"W	10.00	
7994.08†	40.000	89.097	7962.37	134.05	2.11	134.03	602148.22	631084.41	32°44'04.222"N	104°00'04.114"W	10.00	
8094.08†	50.000	89.097	8032.99	204.67	3.22	204.64	602218.82	631085.52	32°44'04.231"N	104°00'03.287"W	10.00	
8194.08†	60.000	89.097	8090.28	286.48	4.51	286.44	602300.62	631086.81	32°44'04.241"N	104°00'02.330"W	10.00	
8294.08†	70.000	89.097	8132.48	376.99	5.94	376.95	602391.11	631088.23	32°44'04.252"N	104°00'01.270"W	10.00	
8394.08†	80.000	89.097	8158.35	473.46	7.46	473.41	602487.56	631089.75	32°44'04.264"N	104°00'00.141"W	10.00	
8487.23	89.315	89.097	8167.00	566.11	8.92	566.04	602580.19	631091.21	32°44'04.276"N	103°59'59.057"W	10.00	END OF CURVE
8494.08†	89.315	89.097	8167.08	572.96	9.02	572.89	602587.04	631091.32	32°44'04.277"N	103°59'58.976"W	0.00	
8594.08†	89.315	89.097	8168.27	672.95	10.60	672.87	602687.01	631092.89	32°44'04.289"N	103°59'57.806"W	0.00	
8694.08†	89.315	89.097	8169.47	772.94	12.17	772.85	602786.98	631094.47	32°44'04.302"N	103°59'56.635"W	0.00	
8794.08†	89.315	89.097	8170.66	872.94	13.75	872.83	602886.95	631096.04	32°44'04.314"N	103°59'55.465"W	0.00	
8894.08†	89.315	89.097	8171.86	972.93	15.32	972.81	602986.93	631097.62	32°44'04.327"N	103°59'54.295"W	0.00	
8994.08†	89.315	89.097	8173.05	1072.92	16.90	1072.79	603086.90	631099.19	32°44'04.339"N	103°59'53.124"W	0.00	
9094.08†	89.315	89.097	8174.25	1172.91	18.47	1172.77	603186.87	631100.77	32°44'04.352"N	103°59'51.954"W	0.00	
9194.08†	89.315	89.097	8175.44	1272.91	20.05	1272.75	603286.84	631102.34	32°44'04.364"N	103°59'50.783"W	0.00	
9294.08†	89.315	89.097	8176.64	1372.90	21.62	1372.73	603386.82	631103.92	32°44'04.377"N	103°59'49.613"W	0.00	
9394.08†	89.315	89.097	8177.84	1472.89	23.20	1472.71	603486.79	631105.49	32°44'04.389"N	103°59'48.442"W	0.00	
9494.08†	89.315	89.097	8179.03	1572.89	24.77	1572.69	603586.76	631107.07	32°44'04.401"N	103°59'47.272"W	0.00	
9594.08†	89.315	89.097	8180.23	1672.88	26.35	1672.67	603686.73	631108.64	32°44'04.414"N	103°59'46.101"W	0.00	
9694.08†	89.315	89.097	8181.42	1772.87	27.92	1772.65	603786.71	631110.22	32°44'04.426"N	103°59'44.931"W	0.00	
9794.08†	89.315	89.097	8182.62	1872.86	29.50	1872.63	603886.68	631111.79	32°44'04.439"N	103°59'43.760"W	0.00	
9894.08†	89.315	89.097	8183.81	1972.86	31.07	1972.61	603986.65	631113.37	32°44'04.451"N	103°59'42.590"W	0.00	
9994.08†	89.315	89.097	8185.01	2072.85	32.65	2072.59	604086.62	631114.94	32°44'04.464"N	103°59'41.420"W	0.00	
10094.08†	89.315	89.097	8186.20	2172.84	34.22	2172.57	604186.59	631116.52	32°44'04.476"N	103°59'40.249"W	0.00	
10194.08†	89.315	89.097	8187.40	2272.84	35.80	2272.55	604286.57	631118.09	32°44'04.488"N	103°59'39.079"W	0.00	
10294.08†	89.315	89.097	8188.59	2372.83	37.37	2372.53	604386.54	631119.67	32°44'04.501"N	103°59'37.908"W	0.00	

Planned Wellpath Report

Prelim_1
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Operator	Mewbourne Oil Company	Slot	No. 2H SHL
Area	Eddy County, NM	Well	No. 2H
Field	(Aries) Sec 20, T18S, R30E	Wellbore	No. 2H PWB
Facility	Aries 20 Fed Com No. 2H		

WELLPATH DATA (54 stations) † = interpolated/extrapolated station												Comments
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	
10394.08†	89.315	89.097	8189.79	2472.82	38.95	2472.51	604486.51	631121.24	32°44'04.513"N	103°59'36.738"W	0.00	
10494.08†	89.315	89.097	8190.98	2572.81	40.52	2572.50	604586.48	631122.82	32°44'04.526"N	103°59'35.567"W	0.00	
10594.08†	89.315	89.097	8192.18	2672.81	42.10	2672.48	604686.46	631124.39	32°44'04.538"N	103°59'34.397"W	0.00	
10694.08†	89.315	89.097	8193.37	2772.80	43.67	2772.46	604786.43	631125.97	32°44'04.550"N	103°59'33.226"W	0.00	
10794.08†	89.315	89.097	8194.57	2872.79	45.25	2872.44	604886.40	631127.54	32°44'04.563"N	103°59'32.056"W	0.00	
10894.08†	89.315	89.097	8195.76	2972.79	46.82	2972.42	604986.37	631129.12	32°44'04.575"N	103°59'30.885"W	0.00	
10994.08†	89.315	89.097	8196.96	3072.78	48.40	3072.40	605086.35	631130.69	32°44'04.588"N	103°59'29.715"W	0.00	
11094.08†	89.315	89.097	8198.15	3172.77	49.97	3172.38	605186.32	631132.27	32°44'04.600"N	103°59'28.545"W	0.00	
11194.08†	89.315	89.097	8199.35	3272.76	51.55	3272.36	605286.29	631133.84	32°44'04.612"N	103°59'27.374"W	0.00	
11294.08†	89.315	89.097	8200.54	3372.76	53.12	3372.34	605386.26	631135.42	32°44'04.625"N	103°59'26.204"W	0.00	
11394.08†	89.315	89.097	8201.74	3472.75	54.70	3472.32	605486.24	631136.99	32°44'04.637"N	103°59'25.033"W	0.00	
11494.08†	89.315	89.097	8202.93	3572.74	56.27	3572.30	605586.21	631138.57	32°44'04.650"N	103°59'23.863"W	0.00	
11594.08†	89.315	89.097	8204.13	3672.74	57.85	3672.28	605686.18	631140.14	32°44'04.662"N	103°59'22.692"W	0.00	
11694.08†	89.315	89.097	8205.32	3772.73	59.42	3772.26	605786.15	631141.71	32°44'04.674"N	103°59'21.522"W	0.00	
11794.08†	89.315	89.097	8206.52	3872.72	61.00	3872.24	605886.12	631143.29	32°44'04.687"N	103°59'20.351"W	0.00	
11894.08†	89.315	89.097	8207.71	3972.71	62.57	3972.22	605986.10	631144.86	32°44'04.699"N	103°59'19.181"W	0.00	
11994.08†	89.315	89.097	8208.91	4072.71	64.15	4072.20	606086.07	631146.44	32°44'04.711"N	103°59'18.010"W	0.00	
12094.08†	89.315	89.097	8210.10	4172.70	65.72	4172.18	606186.04	631148.01	32°44'04.724"N	103°59'16.840"W	0.00	
12194.08†	89.315	89.097	8211.30	4272.69	67.30	4272.16	606286.01	631149.59	32°44'04.736"N	103°59'15.670"W	0.00	
12294.08†	89.315	89.097	8212.50	4372.69	68.87	4372.14	606385.99	631151.16	32°44'04.749"N	103°59'14.499"W	0.00	
12394.08†	89.315	89.097	8213.69	4472.68	70.45	4472.12	606485.96	631152.74	32°44'04.761"N	103°59'13.329"W	0.00	
12494.08†	89.315	89.097	8214.89	4572.67	72.02	4572.10	606585.93	631154.31	32°44'04.773"N	103°59'12.158"W	0.00	
12594.08†	89.315	89.097	8216.08	4672.66	73.60	4672.08	606685.90	631155.89	32°44'04.786"N	103°59'10.988"W	0.00	
12671.00	89.315	89.097	8217.00	4749.58	74.81	4748.99	606762.80	631157.10	32°44'04.795"N	103°59'10.087"W	0.00	PBHL

Planned Wellpath Report

Prelim_1
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REFERENCE WELLPATH IDENTIFICATION

Operator	Mewbourne Oil Company	Slot	No. 2H SHL
Area	Eddy County, NM	Well	No. 2H
Field	(Aries) Sec 20, T18S, R30E	Wellbore	No. 2H PWB
Facility	Aries 20 Fed Com No. 2H		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) No. 2H PBHL	12671.00	8217.00	74.81	4748.99	606762.80	631157.10	32°44'04.795" N	103°59'10.087" W	point

SURVEY PROGRAM Ref Wellbore: No. 2H PWB Ref Wellpath: Prelim_1

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
18.00	12671.00	NaviTrak (Standard)		No. 2H PWB

Notes Regarding Blowout Preventer

Mewbourne Oil Company

Aries "20" Federal Com #2H
2054' FNL & 201' FWL (SHL)

Sec 20-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 9 5/8" casing and 3000 psi working pressure on 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.

Mewbourne Oil Company
BOP Schematic for
8 3/4" Hole

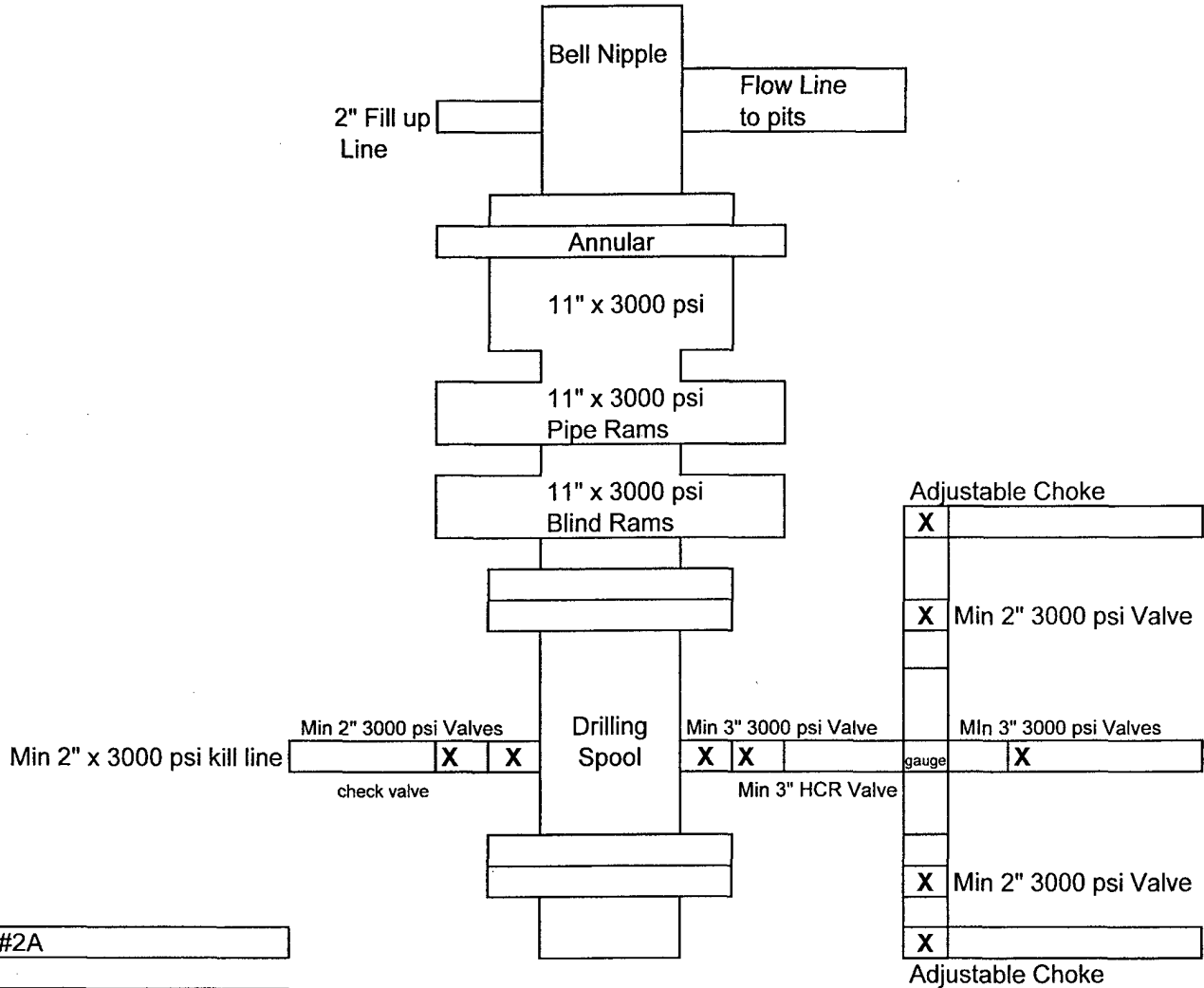
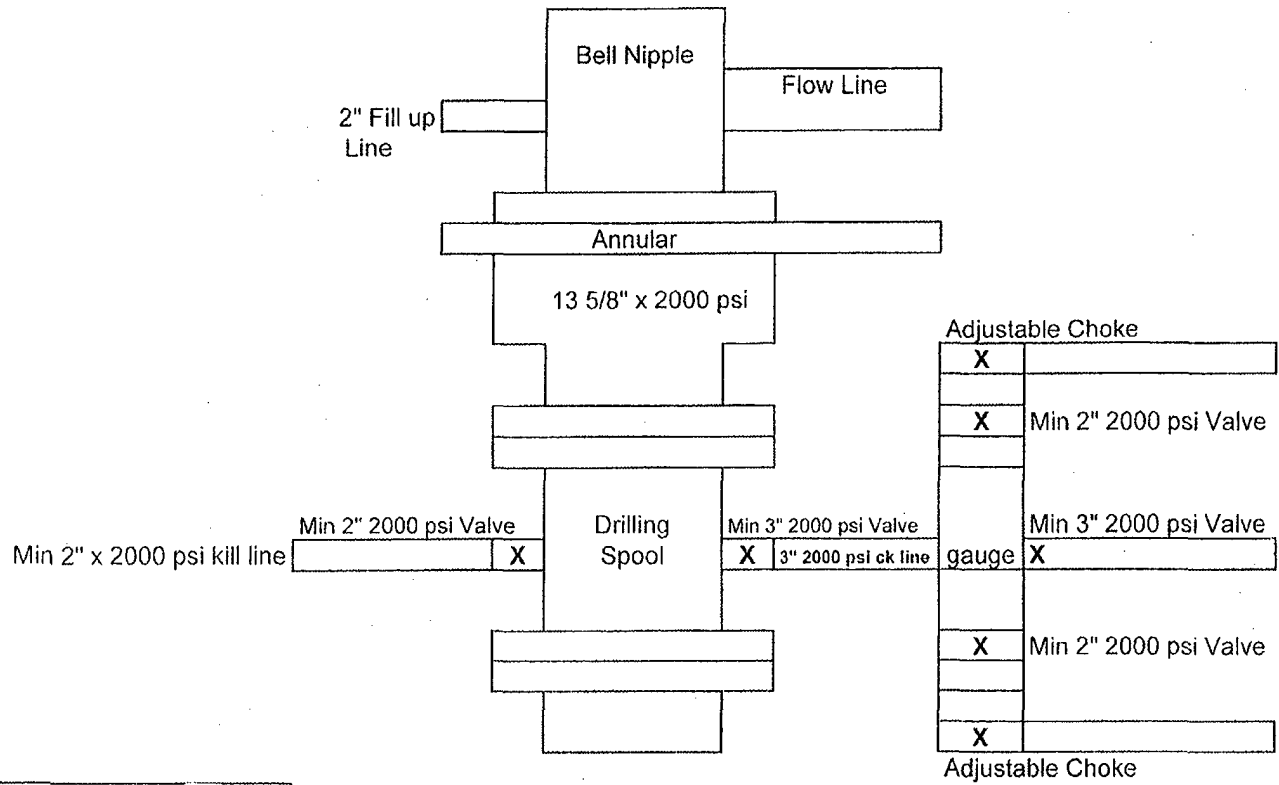


Exhibit #2A

Aries 20 Federal Com #2H
2054' FNL & 201' FWL
Sec 20-T18S-R30E
Eddy, County
New Mexico

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



Aries 20 Federal Com #2H

Sec 20-T18S-R30E
Eddy, County
New Mexico

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

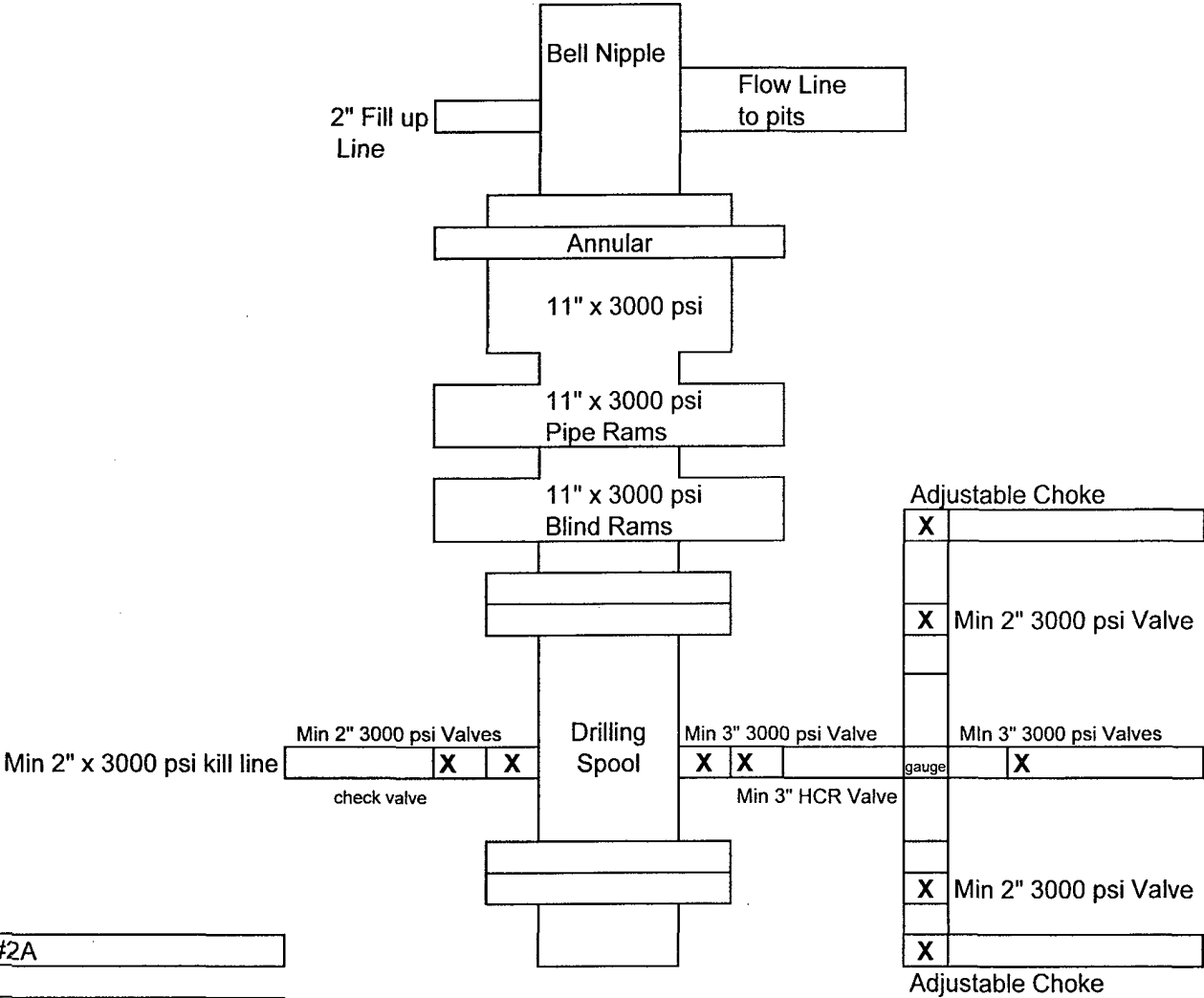
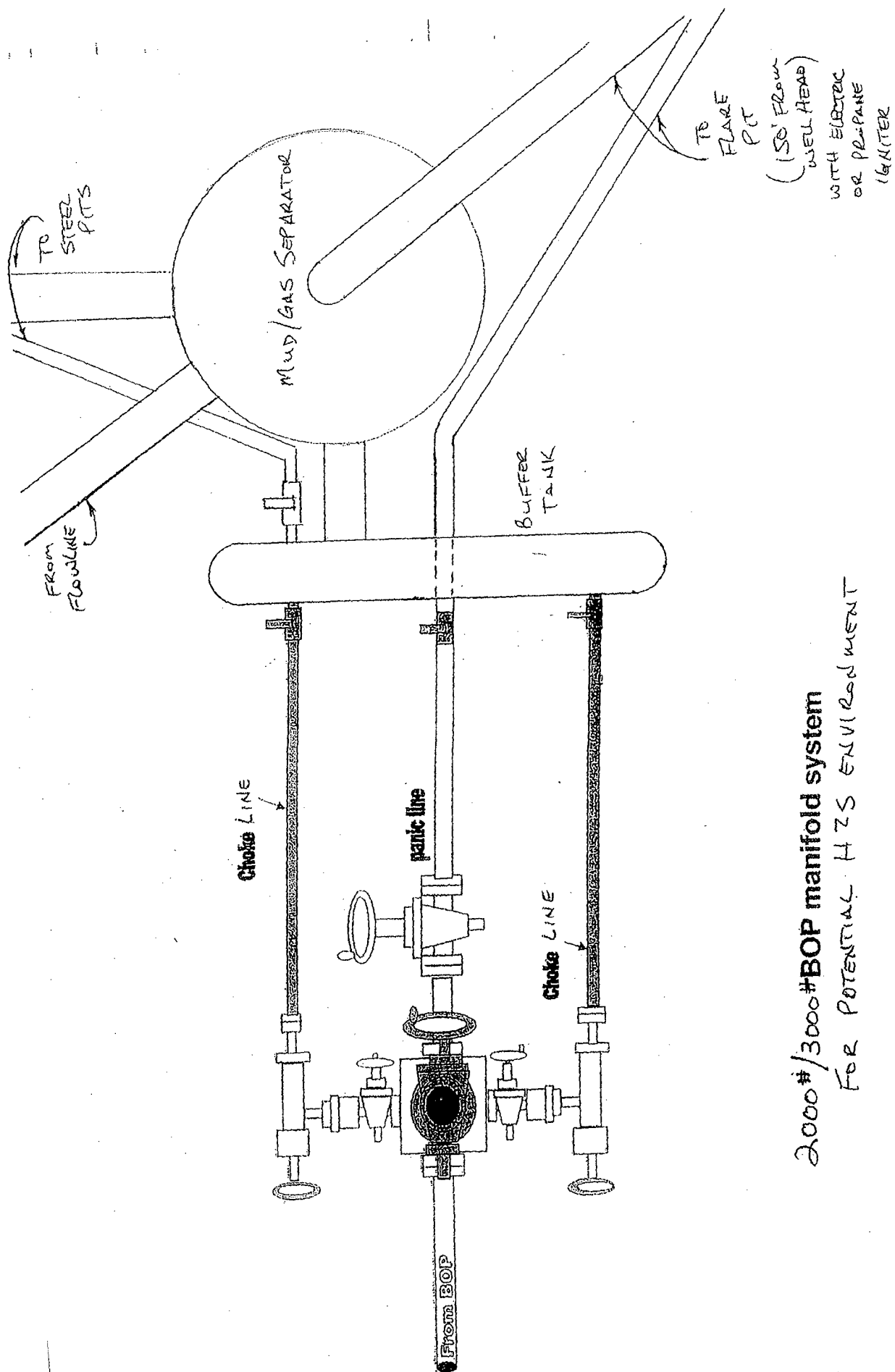


Exhibit #2A

Aries 20 Federal Com #2H
2054' FNL & 201' FWL
Sec 20-T18S-R30E
Eddy, County
New Mexico



2000#/3000# BOP manifold system
 For potential H₂S environment