

15-667

OCB Hobbs

HOBBS OCB

OCT 30 2015

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Form 3160-3  
(March 2012)

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

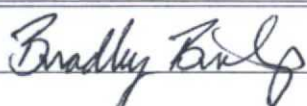
APPLICATION FOR PERMIT TO DRILL OR REENTER

|                                                                                                                                                                                                                            |                                                                                |                                                                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| 1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER                                                                                                                               |                                                                                | 5. Lease Serial No.<br>NMNM 10559 & NMNM 105561                                 |
| 1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone     |                                                                                | 6. If Indian, Allottee or Tribe Name<br>(H)                                     |
| 2. Name of Operator Mewbourne Oil Company (14744)                                                                                                                                                                          |                                                                                | 7. If Unit or CA Agreement, Name and No.<br>125368A - Red Hills West Unit       |
| 3a. Address PO Box 5270<br>Hobbs, NM 88241                                                                                                                                                                                 |                                                                                | 8. Lease Name and Well No.<br>Red Hills West Unit #016H (99542)                 |
| 3b. Phone No. (include area code)<br>575-393-5905                                                                                                                                                                          |                                                                                | 9. API Well No.<br>30-025-42909                                                 |
| 4. Location of Well (Report location clearly and in accordance with any State requirements.)*<br>At surface 550' FSL & 2310' FWL, Sec 3 T26S R32E (N)<br>At proposed prod. zone 330' FSL & 2310' FWL, Sec 10 T26S R32E (N) |                                                                                | 10. Field and Pool, or Exploratory<br>Jennings Upper Boner Spring Shale (97856) |
| 14. Distance in miles and direction from nearest town or post office*<br>28 miles W of Jal, NM                                                                                                                             |                                                                                | 11. Sec., T. R. M. or Blk. and Survey or Area<br>Sec 3 T26S R32E                |
| 15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)<br>330'                                                                                              | 16. No. of acres in lease<br>NMNM 10559 - 320 acres<br>NMNM 105561 - 360 acres | 17. Spacing Unit dedicated to this well<br>160                                  |
| 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.<br>330' - Red Hills West Unit #002H                                                                             | 19. Proposed Depth<br>9,115' - TVD<br>14,558' - MD                             | 20. BLM/BIA Bond No. on file<br>NM1693 nationwide, NMB-000919                   |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.)<br>3199' - GL                                                                                                                                                          | 22. Approximate date work will start*<br>07/28/2015                            | 23. Estimated duration<br>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:

- |                                                                                                                                                |                                                                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| 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<br> | Name (Printed/Typed)<br>Bradley Bishop | Date<br>05/28/2015 |
|------------------------------------------------------------------------------------------------------|----------------------------------------|--------------------|

|                                                |                                 |                     |
|------------------------------------------------|---------------------------------|---------------------|
| Approved by (Signature)<br><b>Steve Caffey</b> | Name (Printed/Typed)            | Date<br>OCT 27 2015 |
| Title<br>FIELD MANAGER                         | Office<br>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)

K2  
10/30/15

Carlsbad Controlled Water Basin

Approval Subject to General Requirements  
& Special Stipulations Attached

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

Mewbourne Oil Co, Red Hills West Unit #016H  
 Sec 3, T26S, R32E  
 SL: 550' FSL & 2310' FWL, Sec 3  
 BHL: 330' FSL & 2310' FWL, Sec 10

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1. Geologic Formations

|               |        |                               |      |
|---------------|--------|-------------------------------|------|
| TVD of target | 9115'  | Pilot hole depth              | NA   |
| MD at TD:     | 14558' | Deepest expected fresh water: | 275' |

Basin

| Formation                   | Depth (TVD)<br>from KB | Water/Mineral Bearing/<br>Target Zone? | Hazards* |
|-----------------------------|------------------------|----------------------------------------|----------|
| Quaternary Fill             | Surface                | Water                                  |          |
| Rustler                     | 1007                   | Water                                  |          |
| Top of Salt                 | 1115                   | Salt                                   |          |
| Base of Salt/Castile        | 4382                   | Barren                                 |          |
| Delaware (Lamar)            | 4559                   | Oil/Gas                                |          |
| Manzanita Marker            | 5795                   |                                        |          |
| Bone Spring                 | 8694                   | Target Zone                            |          |
| 2 <sup>nd</sup> Bone Spring |                        |                                        |          |
| Wolfcamp                    |                        | Will Not Penetrate                     |          |
| Canyon                      |                        |                                        |          |
| Strawn                      |                        |                                        |          |
| Atoka                       |                        |                                        |          |
| Morrow                      |                        |                                        |          |
| Barnett Shale               |                        |                                        |          |
| Woodford Shale              |                        |                                        |          |
| Devonian                    |                        |                                        |          |
| Fusselman                   |                        |                                        |          |
| Ellenburger                 |                        |                                        |          |
| Granite Wash                |                        |                                        |          |

\*H2S, water flows, loss of circulation, abnormal pressures, etc.



Mewbourne Oil Co, Red Hills West Unit #016H  
 Sec 3, T26S, R32E  
 SL: 550' FSL & 2310' FWL, Sec 3  
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## 2. Casing Program

| Hole Size                 | Casing Interval        |        | Csg. Size | Weight (lbs) | Grade  | Conn. | SF Collapse | SF Burst | SF Tension         |
|---------------------------|------------------------|--------|-----------|--------------|--------|-------|-------------|----------|--------------------|
|                           | From                   | To     |           |              |        |       |             |          |                    |
| 17.5"                     | 0'                     | 1032'  | 13.375"   | 48           | H40    | STC   | 1.38        | 3.22     | 6.50               |
| 12.25"                    | 0'                     | 3453'  | 9.625"    | 36           | J55    | LTC   | 1.13        | 1.96     | 2.74               |
| 12.25"                    | 3453'                  | 4393'  | 9.625"    | 40           | J55    | LTC   | 1.13        | 1.73     | 12.72              |
| 12.25"                    | 4393'                  | 4475'  | 9.625"    | 40           | N80    | LTC   | 1.34        | 2.47     | 225.14             |
| 8.75"                     | 0'                     | 8559'  | 7"        | 26           | HCP110 | LTC   | 1.75        | 2.24     | 2.82               |
| 8.75"                     | <del>8542'</del> 8559' | 9458'  | 7"        | 26           | HCP110 | BTC   | 1.64        | 2.10     | 35.51              |
| 6.125"                    | 8559'                  | 14454' | 4.5"      | 13.5         | P110   | LTC   | 2.25        | 2.61     | 4.23               |
| BLM Minimum Safety Factor |                        |        |           |              |        |       | 1.125       | 1        | 1.6 Dry<br>1.8 Wet |

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Must have table for contingency casing

|                                                                                                                                                  | Y or N |
|--------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Is casing new? If used, attach certification as required in Onshore Order #1                                                                     | Y      |
| Does casing meet API specifications? If no, attach casing specification sheet.                                                                   | Y      |
| Is premium or uncommon casing planned? If yes attach casing specification sheet.                                                                 | N      |
| Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria). | Y      |
| Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?                | Y      |
| Is well located within Capitan Reef?                                                                                                             | N      |
| If yes, does production casing cement tie back a minimum of 50' above the Reef?                                                                  |        |
| Is well within the designated 4 string boundary.                                                                                                 |        |
| Is well located in SOPA but not in R-111-P?                                                                                                      | N      |
| If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?                       |        |
| Is well located in R-111-P and SOPA?                                                                                                             | N      |
| If yes, are the first three strings cemented to surface?                                                                                         |        |
| Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?                                                                               |        |
| Is well located in high Cave/Karst?                                                                                                              | Y      |
| If yes, are there two strings cemented to surface?                                                                                               | Y      |
| (For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?                                                           |        |
| Is well located in critical Cave/Karst?                                                                                                          | N      |
| If yes, are there three strings cemented to surface?                                                                                             |        |

Mewbourne Oil Co, Red Hills West Unit #016H  
 Sec 3, T26S, R32E  
 SL: 550' FSL & 2310' FWL, Sec 3  
 BHL: 330' FSL & 2310' FWL, Sec 10

**3. Cementing Program**

| Casing | # Sks | Wt.<br>lb/<br>gal | Yld<br>ft <sup>3</sup> /<br>sack | H <sub>2</sub> O<br>gal/<br>sk | 500#<br>Comp.<br>Strength<br>(hours) | Slurry Description                                                                              |
|--------|-------|-------------------|----------------------------------|--------------------------------|--------------------------------------|-------------------------------------------------------------------------------------------------|
| Surf   | 550   | 12.5              | 2.12                             | 11                             | 10                                   | Lead: Class C + 4.0% Bentonite + 0.6% CD-32 + 5% Sodium Chloride + 0.25lb/sk Cello-Flake        |
|        | 200   | 14.8              | 1.34                             | 6.3                            | 8                                    | Class C + 0.005pps Static Free + 1% CaCl <sub>2</sub> + 0.25 pps CelloFlake + 0.005 gps FP-6L   |
| Inter. | 700   | 12.5              | 2.12                             | 11                             | 10                                   | Lead: Class C (35:65:4) + 5% Sodium Chloride + 5#/sk LCM + 0.25lb/sk Cello-Flake                |
|        | 200   | 14.8              | 1.34                             | 6.3                            | 8                                    | Tail: Class C + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free                                |
| Prod.  | 620   | 12                | 2.12                             | 11                             | 10                                   | Lead: Class C (60:40:0)+3% Sodium Chloride+5#/sk LCM+0.7% Sodium Metasilicate+0.3% FL52A+6%MPA5 |
|        | 400   | 15.6              | 1.18                             | 5.2                            | 12                                   | Tail: Class H+0.1%R3+0.3%FL52A                                                                  |
| Liner  | 240   | 11.2              | 2.97                             | 18                             | 16                                   | Class C (60:40:0)+4% MPA5+1.2% BA10A+10#/sk BA90+5%A10+0.65%ASA301+1.5%SMS+1.2%R21              |

See  
COA

See  
COA

DV tool depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

| Casing String | TOC                    | % Excess |
|---------------|------------------------|----------|
| Surface       | 0'                     | 100%     |
| Intermediate  | 0'                     | 25%      |
| Production    | 4275'                  | 25%      |
| Liner         | <del>8559'</del> 8459' | 25%      |



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 Sec 3, T26S, R32E  
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4. Pressure Control Equipment

|  |  |
|--|--|
|  |  |
|--|--|

| BOP installed and tested before drilling which hole? | Size?   | Min. Required WP | Type       | ✓ | Tested to:                    |
|------------------------------------------------------|---------|------------------|------------|---|-------------------------------|
| <i>See COA</i><br>12-1/4"                            | 13-5/8" | 2M               | Annular    | X | 1250#                         |
|                                                      |         |                  | Blind Ram  |   | <i>must test to 2,000 psi</i> |
|                                                      |         |                  | Pipe Ram   |   |                               |
|                                                      |         |                  | Double Ram |   |                               |
|                                                      |         |                  | Other*     |   |                               |
| 8-3/4"                                               | 11"     | 3M               | Annular    | X | 1500#                         |
|                                                      |         |                  | Blind Ram  | X | 3000#                         |
|                                                      |         |                  | Pipe Ram   | X |                               |
|                                                      |         |                  | Double Ram |   |                               |
|                                                      |         |                  | Other*     |   |                               |
| 6-1/8"                                               | 11"     | 3M               | Annular    | X | 1500#                         |
|                                                      |         |                  | Blind Ram  | X | 3000#                         |
|                                                      |         |                  | Pipe Ram   | X |                               |
|                                                      |         |                  | Double Ram |   |                               |
|                                                      |         |                  | Other*     |   |                               |

\*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

|   |                                                                                                                                                                                                                                                                                                               |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X | Formation integrity test will be performed per Onshore Order #2.<br>On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i. |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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 Sec 3, T26S, R32E  
 SL: 550' FSL & 2310' FWL, Sec 3  
 BHL: 330' FSL & 2310' FWL, Sec 10

See  
CCT

|              |                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              |                                                                                                                                                                                                                                                                                                                                                                                     |
| <del>N</del> | A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.                                                                                                                                                                                                                                     |
| <del>X</del> | Y /N Are anchors required by manufacturer?                                                                                                                                                                                                                                                                                                                                          |
| N            | <p>A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.</p> <ul style="list-style-type: none"> <li>Provide description here</li> </ul> <p>See attached schematic.</p> |

### 5. Mud Program

| Depth |       | Type            | Weight (ppg) | Viscosity | Water Loss |
|-------|-------|-----------------|--------------|-----------|------------|
| From  | To    |                 |              |           |            |
| 0     | 1032  | FW Gel          | 8.6-8.8      | 28-34     | N/C        |
| 1032  | 4475  | Saturated Brine | 10.0-10.2    | 28-34     | N/C        |
| 4475  | 8559  | Cut Brine       | 8.5-9.3      | 28-34     | N/C        |
| 8559  | 14454 | FW/Polymer      | 8.5-9.3      | 28-34     | N/C        |

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

|                                                         |                             |
|---------------------------------------------------------|-----------------------------|
| What will be used to monitor the loss or gain of fluid? | Visual Monitoring/PVT/Pason |
|---------------------------------------------------------|-----------------------------|

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**6. Logging and Testing Procedures**

| Logging, Coring and Testing. |                                                                                                                        |
|------------------------------|------------------------------------------------------------------------------------------------------------------------|
| X                            | Will run GR/CNL from KOP (8559) to surface. Stated logs run will be in the Completion Report and submitted to the BLM. |
|                              | No Logs are planned based on well control or offset log information.                                                   |
|                              | Drill stem test? If yes, explain                                                                                       |
|                              | Coring? If yes, explain                                                                                                |

| Additional logs planned | Interval             |
|-------------------------|----------------------|
| X Gamma                 | From KOP(8559) to TD |
| Density                 |                      |
| CBL                     |                      |
| Mud log                 |                      |
| PEX                     |                      |

**7. Drilling Conditions**

| Condition                  | Specify what type and where? |
|----------------------------|------------------------------|
| BH Pressure at deepest TVD | 4024 psi                     |
| Abnormal Temperature       | No                           |

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

|                                                                                                                                                                                                                                                                                                                                                              |                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Hydrogen Sulfide (H <sub>2</sub> S) monitors will be installed prior to drilling out the surface shoe. If H <sub>2</sub> S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM. |                                |
| ✓                                                                                                                                                                                                                                                                                                                                                            | H <sub>2</sub> S is present    |
|                                                                                                                                                                                                                                                                                                                                                              | H <sub>2</sub> S Plan attached |

See  
COA

**8. Other facets of operation**

Is this a walking operation? If yes, describe. **No**  
 Will be pre-setting casing? If yes, describe. **No**

Attachments

✓ Directional Plan  
 \_\_\_ Other, describe



# **Mewbourne Oil Company**

Lea County, New Mexico

Red Hills West Unit #016H

Sec 3, T26S, R32E

SL: 550' FSL & 2310' FWL, Sec 3

BHL: 330' FSL & 2310' FWL, Sec 10

Plan: Design #1

## **Standard Planning Report**

10 April, 2015



# Planning Report

|           |                                   |                              |                                        |
|-----------|-----------------------------------|------------------------------|----------------------------------------|
| Database: | Hobbs                             | Local Co-ordinate Reference: | Site Red Hills West Unit #016H         |
| Company:  | Mewbourne Oil Company             | TVD Reference:               | WELL @ 3302.0usft (Original Well Elev) |
| Project:  | Lea County, New Mexico            | MD Reference:                | WELL @ 3302.0usft (Original Well Elev) |
| Site:     | Red Hills West Unit #016H         | North Reference:             | Grid                                   |
| Well:     | Sec 3, T26S, R32E                 | Survey Calculation Method:   | Minimum Curvature                      |
| Wellbore: | BHL: 330' FSL & 2310' FWL, Sec 10 |                              |                                        |
| Design:   | Design #1                         |                              |                                        |

|             |                                      |               |                |
|-------------|--------------------------------------|---------------|----------------|
| Project     | Lea 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                  | Red Hills West Unit #016H |                   |                   |
| Site Position:        | Map                       | Northing:         | 388,515.90 usft   |
| From:                 | Map                       | Easting:          | 707,493.10 usft   |
| Position Uncertainty: | 0.0 usft                  | Slot Radius:      | 13-3/16 "         |
|                       |                           | Latitude:         | 32° 3' 58.952 N   |
|                       |                           | Longitude:        | 103° 39' 48.647 W |
|                       |                           | Grid Convergence: | 0.36 °            |

|                      |                   |                     |                   |
|----------------------|-------------------|---------------------|-------------------|
| Well                 | Sec 3, T26S, R32E |                     |                   |
| Well Position        | +N/-S             | 0.0 usft            | Northing:         |
|                      | +E/-W             | 0.0 usft            | Easting:          |
| Position Uncertainty | 0.0 usft          | Wellhead Elevation: | 3,302.0 usft      |
|                      |                   | Latitude:           | 32° 3' 58.952 N   |
|                      |                   | Longitude:          | 103° 39' 48.647 W |
|                      |                   | Ground Level:       | 3,282.0 usft      |

|           |                                   |             |                     |
|-----------|-----------------------------------|-------------|---------------------|
| Wellbore  | BHL: 330' FSL & 2310' FWL, Sec 10 |             |                     |
| Magnetics | Model Name                        | Sample Date | Declination (°)     |
|           | IGRF2010                          | 4/10/2015   | 7.15                |
|           |                                   |             | Dip Angle (°)       |
|           |                                   |             | 59.93               |
|           |                                   |             | Field Strength (nT) |
|           |                                   |             | 48,131              |

|                   |                  |           |               |
|-------------------|------------------|-----------|---------------|
| Design            | Design #1        |           |               |
| Audit Notes:      |                  |           |               |
| Version:          | Phase:           | PROTOTYPE | Tie On Depth: |
|                   |                  |           | 0.0           |
| Vertical Section: | Depth From (TVD) | +N/-S     | +E/-W         |
|                   | (usft)           | (usft)    | (usft)        |
|                   | 0.0              | 0.0       | 0.0           |
|                   |                  |           | Direction (°) |
|                   |                  |           | 179.35        |

|                       |                 |             |                       |              |              |                         |                        |                       |         |                     |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|------------------------|-----------------------|---------|---------------------|
| 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    |                     |
| 8,559.0               | 0.00            | 0.00        | 8,559.0               | 0.0          | 0.0          | 0.00                    | 0.00                   | 0.00                  | 0.00    |                     |
| 9,457.6               | 89.85           | 179.35      | 9,132.0               | -571.5       | 6.5          | 10.00                   | 10.00                  | 0.00                  | 179.35  |                     |
| 14,454.0              | 89.85           | 179.35      | 9,145.0               | -5,567.6     | 63.3         | 0.00                    | 0.00                   | 0.00                  | 0.00    | BHL: 330 FSL & 2310 |

# Planning Report

|           |                                   |                              |                                        |
|-----------|-----------------------------------|------------------------------|----------------------------------------|
| Database: | Hobbs                             | Local Co-ordinate Reference: | Site Red Hills West Unit #016H         |
| Company:  | Mewbourne Oil Company             | TVD Reference:               | WELL @ 3302.0usft (Original Well Elev) |
| Project:  | Lea County, New Mexico            | MD Reference:                | WELL @ 3302.0usft (Original Well Elev) |
| Site:     | Red Hills West Unit #016H         | North Reference:             | Grid                                   |
| Well:     | Sec 3, T26S, R32E                 | Survey Calculation Method:   | Minimum Curvature                      |
| Wellbore: | BHL: 330' FSL & 2310' FWL, Sec 10 |                              |                                        |
| 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                  |
| SL: 550 FSL & 2310 FWL, Sec 3 |                 |             |                       |              |              |                         |                         |                        |                       |
| 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                  |



# Planning Report

|           |                                   |                              |                                        |
|-----------|-----------------------------------|------------------------------|----------------------------------------|
| Database: | Hobbs                             | Local Co-ordinate Reference: | Site Red Hills West Unit #016H         |
| Company:  | Mewbourne Oil Company             | TVD Reference:               | WELL @ 3302.0usft (Original Well Elev) |
| Project:  | Lea County, New Mexico            | MD Reference:                | WELL @ 3302.0usft (Original Well Elev) |
| Site:     | Red Hills West Unit #016H         | North Reference:             | Grid                                   |
| Well:     | Sec 3, T26S, R32E                 | Survey Calculation Method:   | Minimum Curvature                      |
| Wellbore: | BHL: 330' FSL & 2310' FWL, Sec 10 |                              |                                        |
| 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) |
| 5,300.0                                  | 0.00            | 0.00        | 5,300.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 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                  |
| 7,700.0                                  | 0.00            | 0.00        | 7,700.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 7,800.0                                  | 0.00            | 0.00        | 7,800.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 7,900.0                                  | 0.00            | 0.00        | 7,900.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 8,000.0                                  | 0.00            | 0.00        | 8,000.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 8,100.0                                  | 0.00            | 0.00        | 8,100.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 8,200.0                                  | 0.00            | 0.00        | 8,200.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 8,300.0                                  | 0.00            | 0.00        | 8,300.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 8,400.0                                  | 0.00            | 0.00        | 8,400.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 8,500.0                                  | 0.00            | 0.00        | 8,500.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 8,559.0                                  | 0.00            | 0.00        | 8,559.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| <b>KOP @ 8559</b>                        |                 |             |                       |              |              |                         |                         |                        |                       |
| 8,600.0                                  | 4.10            | 179.35      | 8,600.0               | -1.5         | 0.0          | 1.5                     | 10.00                   | 10.00                  | 0.00                  |
| 8,700.0                                  | 14.10           | 179.35      | 8,698.6               | -17.3        | 0.2          | 17.3                    | 10.00                   | 10.00                  | 0.00                  |
| 8,800.0                                  | 24.10           | 179.35      | 8,793.0               | -49.9        | 0.6          | 49.9                    | 10.00                   | 10.00                  | 0.00                  |
| 8,900.0                                  | 34.10           | 179.35      | 8,880.2               | -98.5        | 1.1          | 98.5                    | 10.00                   | 10.00                  | 0.00                  |
| 9,000.0                                  | 44.10           | 179.35      | 8,957.7               | -161.5       | 1.8          | 161.5                   | 10.00                   | 10.00                  | 0.00                  |
| 9,100.0                                  | 54.10           | 179.35      | 9,023.1               | -237.0       | 2.7          | 237.0                   | 10.00                   | 10.00                  | 0.00                  |
| 9,200.0                                  | 64.10           | 179.35      | 9,074.4               | -322.6       | 3.7          | 322.7                   | 10.00                   | 10.00                  | 0.00                  |
| 9,300.0                                  | 74.09           | 179.35      | 9,110.1               | -415.9       | 4.7          | 416.0                   | 10.00                   | 10.00                  | 0.00                  |
| 9,400.0                                  | 84.09           | 179.35      | 9,129.0               | -514.0       | 5.8          | 514.0                   | 10.00                   | 10.00                  | 0.00                  |
| 9,457.6                                  | 89.85           | 179.35      | 9,132.0               | -571.5       | 6.5          | 571.5                   | 9.99                    | 9.99                   | 0.00                  |
| <b>LP: 21 FNL &amp; 2310 FWL, Sec 10</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 9,500.0                                  | 89.85           | 179.35      | 9,132.1               | -613.9       | 7.0          | 613.9                   | 0.00                    | 0.00                   | 0.00                  |
| 9,600.0                                  | 89.85           | 179.35      | 9,132.4               | -713.9       | 8.1          | 713.9                   | 0.00                    | 0.00                   | 0.00                  |
| 9,700.0                                  | 89.85           | 179.35      | 9,132.6               | -813.9       | 9.2          | 813.9                   | 0.00                    | 0.00                   | 0.00                  |
| 9,800.0                                  | 89.85           | 179.35      | 9,132.9               | -913.9       | 10.4         | 913.9                   | 0.00                    | 0.00                   | 0.00                  |
| 9,900.0                                  | 89.85           | 179.35      | 9,133.2               | -1,013.9     | 11.5         | 1,013.9                 | 0.00                    | 0.00                   | 0.00                  |
| 10,000.0                                 | 89.85           | 179.35      | 9,133.4               | -1,113.9     | 12.7         | 1,113.9                 | 0.00                    | 0.00                   | 0.00                  |
| 10,100.0                                 | 89.85           | 179.35      | 9,133.7               | -1,213.9     | 13.8         | 1,213.9                 | 0.00                    | 0.00                   | 0.00                  |
| 10,200.0                                 | 89.85           | 179.35      | 9,133.9               | -1,313.8     | 14.9         | 1,313.9                 | 0.00                    | 0.00                   | 0.00                  |

# Planning Report

|           |                                   |                              |                                        |
|-----------|-----------------------------------|------------------------------|----------------------------------------|
| Database: | Hobbs                             | Local Co-ordinate Reference: | Site Red Hills West Unit #016H         |
| Company:  | Mewbourne Oil Company             | TVD Reference:               | WELL @ 3302.0usft (Original Well Elev) |
| Project:  | Lea County, New Mexico            | MD Reference:                | WELL @ 3302.0usft (Original Well Elev) |
| Site:     | Red Hills West Unit #016H         | North Reference:             | Grid                                   |
| Well:     | Sec 3, T26S, R32E                 | Survey Calculation Method:   | Minimum Curvature                      |
| Wellbore: | BHL: 330' FSL & 2310' FWL, Sec 10 |                              |                                        |
| 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              | 89.85           | 179.35      | 9,134.2               | -1,413.8     | 16.1         | 1,413.9                 | 0.00                    | 0.00                   | 0.00                  |
| 10,400.0              | 89.85           | 179.35      | 9,134.5               | -1,513.8     | 17.2         | 1,513.9                 | 0.00                    | 0.00                   | 0.00                  |
| 10,500.0              | 89.85           | 179.35      | 9,134.7               | -1,613.8     | 18.3         | 1,613.9                 | 0.00                    | 0.00                   | 0.00                  |
| 10,600.0              | 89.85           | 179.35      | 9,135.0               | -1,713.8     | 19.5         | 1,713.9                 | 0.00                    | 0.00                   | 0.00                  |
| 10,700.0              | 89.85           | 179.35      | 9,135.2               | -1,813.8     | 20.6         | 1,813.9                 | 0.00                    | 0.00                   | 0.00                  |
| 10,800.0              | 89.85           | 179.35      | 9,135.5               | -1,913.8     | 21.7         | 1,913.9                 | 0.00                    | 0.00                   | 0.00                  |
| 10,900.0              | 89.85           | 179.35      | 9,135.8               | -2,013.8     | 22.9         | 2,013.9                 | 0.00                    | 0.00                   | 0.00                  |
| 11,000.0              | 89.85           | 179.35      | 9,136.0               | -2,113.8     | 24.0         | 2,113.9                 | 0.00                    | 0.00                   | 0.00                  |
| 11,100.0              | 89.85           | 179.35      | 9,136.3               | -2,213.8     | 25.2         | 2,213.9                 | 0.00                    | 0.00                   | 0.00                  |
| 11,200.0              | 89.85           | 179.35      | 9,136.5               | -2,313.8     | 26.3         | 2,313.9                 | 0.00                    | 0.00                   | 0.00                  |
| 11,300.0              | 89.85           | 179.35      | 9,136.8               | -2,413.8     | 27.4         | 2,413.9                 | 0.00                    | 0.00                   | 0.00                  |
| 11,400.0              | 89.85           | 179.35      | 9,137.1               | -2,513.8     | 28.6         | 2,513.9                 | 0.00                    | 0.00                   | 0.00                  |
| 11,500.0              | 89.85           | 179.35      | 9,137.3               | -2,613.8     | 29.7         | 2,613.9                 | 0.00                    | 0.00                   | 0.00                  |
| 11,600.0              | 89.85           | 179.35      | 9,137.6               | -2,713.8     | 30.8         | 2,713.9                 | 0.00                    | 0.00                   | 0.00                  |
| 11,700.0              | 89.85           | 179.35      | 9,137.8               | -2,813.7     | 32.0         | 2,813.9                 | 0.00                    | 0.00                   | 0.00                  |
| 11,800.0              | 89.85           | 179.35      | 9,138.1               | -2,913.7     | 33.1         | 2,913.9                 | 0.00                    | 0.00                   | 0.00                  |
| 11,900.0              | 89.85           | 179.35      | 9,138.4               | -3,013.7     | 34.2         | 3,013.9                 | 0.00                    | 0.00                   | 0.00                  |
| 12,000.0              | 89.85           | 179.35      | 9,138.6               | -3,113.7     | 35.4         | 3,113.9                 | 0.00                    | 0.00                   | 0.00                  |
| 12,100.0              | 89.85           | 179.35      | 9,138.9               | -3,213.7     | 36.5         | 3,213.9                 | 0.00                    | 0.00                   | 0.00                  |
| 12,200.0              | 89.85           | 179.35      | 9,139.1               | -3,313.7     | 37.7         | 3,313.9                 | 0.00                    | 0.00                   | 0.00                  |
| 12,300.0              | 89.85           | 179.35      | 9,139.4               | -3,413.7     | 38.8         | 3,413.9                 | 0.00                    | 0.00                   | 0.00                  |
| 12,400.0              | 89.85           | 179.35      | 9,139.7               | -3,513.7     | 39.9         | 3,513.9                 | 0.00                    | 0.00                   | 0.00                  |
| 12,500.0              | 89.85           | 179.35      | 9,139.9               | -3,613.7     | 41.1         | 3,613.9                 | 0.00                    | 0.00                   | 0.00                  |
| 12,600.0              | 89.85           | 179.35      | 9,140.2               | -3,713.7     | 42.2         | 3,713.9                 | 0.00                    | 0.00                   | 0.00                  |
| 12,700.0              | 89.85           | 179.35      | 9,140.4               | -3,813.7     | 43.3         | 3,813.9                 | 0.00                    | 0.00                   | 0.00                  |
| 12,800.0              | 89.85           | 179.35      | 9,140.7               | -3,913.7     | 44.5         | 3,913.9                 | 0.00                    | 0.00                   | 0.00                  |
| 12,900.0              | 89.85           | 179.35      | 9,141.0               | -4,013.7     | 45.6         | 4,013.9                 | 0.00                    | 0.00                   | 0.00                  |
| 13,000.0              | 89.85           | 179.35      | 9,141.2               | -4,113.7     | 46.7         | 4,113.9                 | 0.00                    | 0.00                   | 0.00                  |
| 13,100.0              | 89.85           | 179.35      | 9,141.5               | -4,213.6     | 47.9         | 4,213.9                 | 0.00                    | 0.00                   | 0.00                  |
| 13,200.0              | 89.85           | 179.35      | 9,141.7               | -4,313.6     | 49.0         | 4,313.9                 | 0.00                    | 0.00                   | 0.00                  |
| 13,300.0              | 89.85           | 179.35      | 9,142.0               | -4,413.6     | 50.2         | 4,413.9                 | 0.00                    | 0.00                   | 0.00                  |
| 13,400.0              | 89.85           | 179.35      | 9,142.3               | -4,513.6     | 51.3         | 4,513.9                 | 0.00                    | 0.00                   | 0.00                  |
| 13,500.0              | 89.85           | 179.35      | 9,142.5               | -4,613.6     | 52.4         | 4,613.9                 | 0.00                    | 0.00                   | 0.00                  |
| 13,600.0              | 89.85           | 179.35      | 9,142.8               | -4,713.6     | 53.6         | 4,713.9                 | 0.00                    | 0.00                   | 0.00                  |
| 13,700.0              | 89.85           | 179.35      | 9,143.0               | -4,813.6     | 54.7         | 4,813.9                 | 0.00                    | 0.00                   | 0.00                  |
| 13,800.0              | 89.85           | 179.35      | 9,143.3               | -4,913.6     | 55.8         | 4,913.9                 | 0.00                    | 0.00                   | 0.00                  |
| 13,900.0              | 89.85           | 179.35      | 9,143.6               | -5,013.6     | 57.0         | 5,013.9                 | 0.00                    | 0.00                   | 0.00                  |
| 14,000.0              | 89.85           | 179.35      | 9,143.8               | -5,113.6     | 58.1         | 5,113.9                 | 0.00                    | 0.00                   | 0.00                  |
| 14,100.0              | 89.85           | 179.35      | 9,144.1               | -5,213.6     | 59.2         | 5,213.9                 | 0.00                    | 0.00                   | 0.00                  |
| 14,200.0              | 89.85           | 179.35      | 9,144.3               | -5,313.6     | 60.4         | 5,313.9                 | 0.00                    | 0.00                   | 0.00                  |
| 14,300.0              | 89.85           | 179.35      | 9,144.6               | -5,413.6     | 61.5         | 5,413.9                 | 0.00                    | 0.00                   | 0.00                  |
| 14,400.0              | 89.85           | 179.35      | 9,144.9               | -5,513.6     | 62.7         | 5,513.9                 | 0.00                    | 0.00                   | 0.00                  |
| 14,454.0              | 89.85           | 179.35      | 9,145.0               | -5,567.6     | 63.3         | 5,567.9                 | 0.00                    | 0.00                   | 0.00                  |

BHL: 330 FSL & 2310 FWL, Sec 10

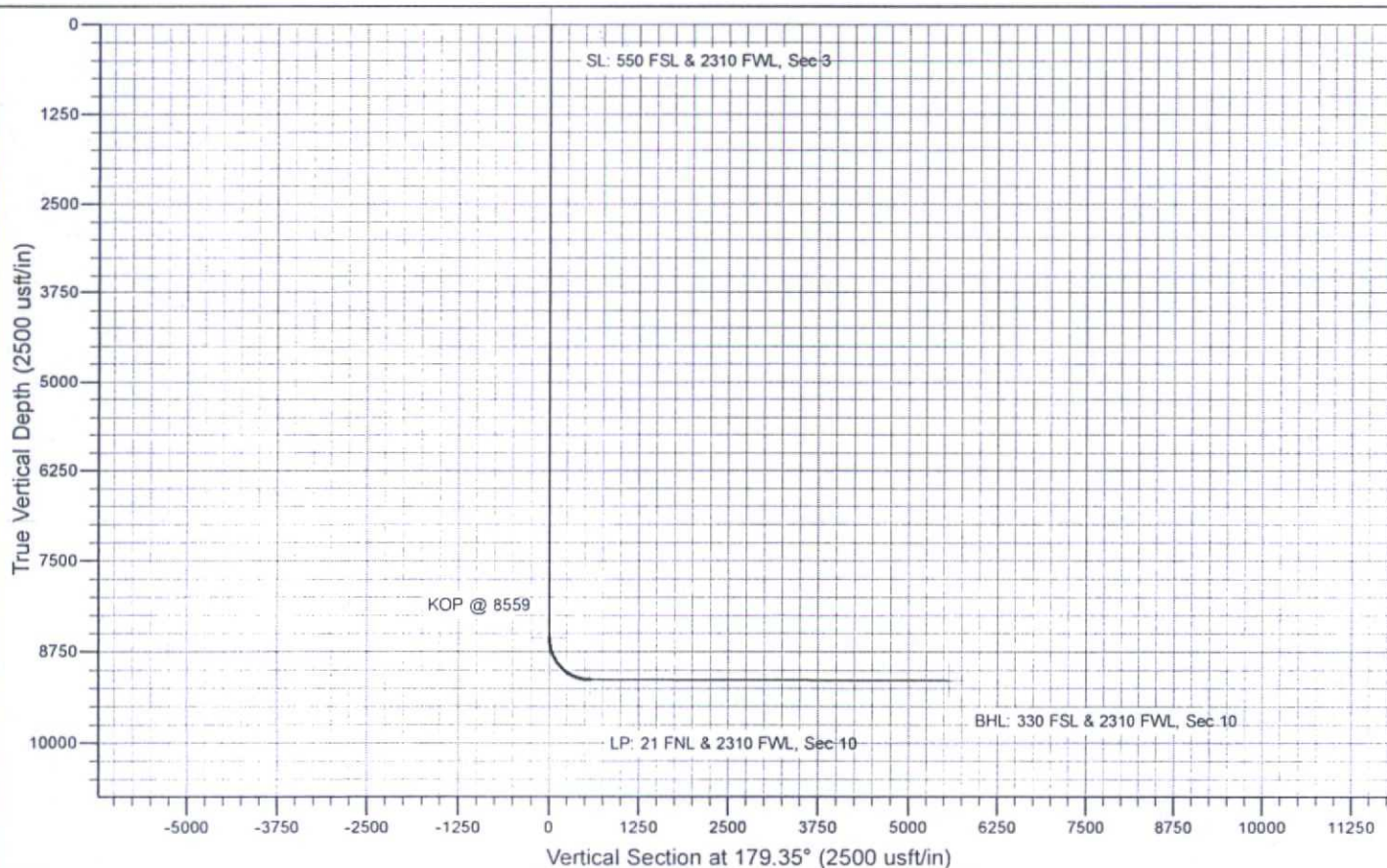
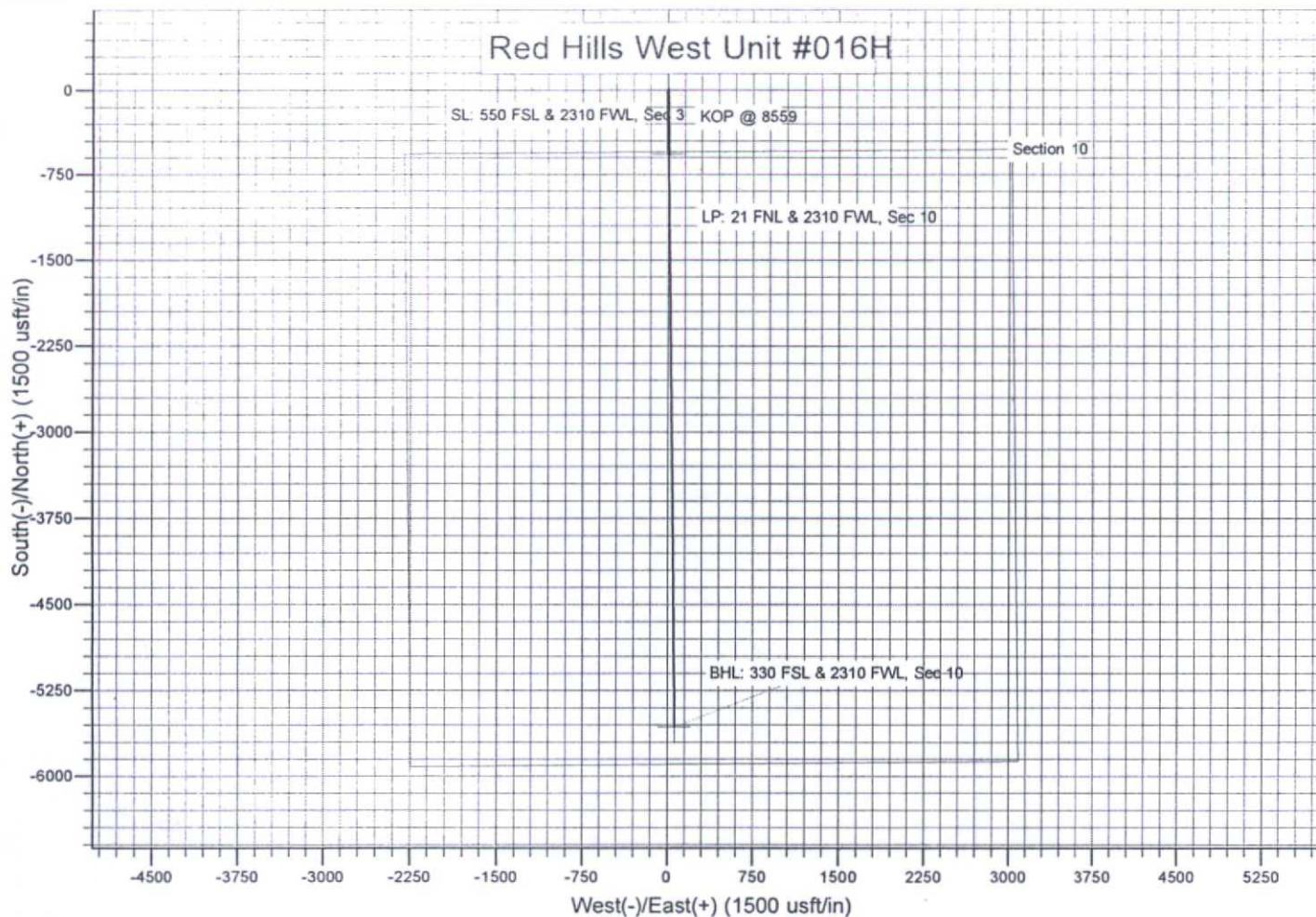


# Planning Report

|           |                                   |                              |                                        |
|-----------|-----------------------------------|------------------------------|----------------------------------------|
| Database: | Hobbs                             | Local Co-ordinate Reference: | Site Red Hills West Unit #016H         |
| Company:  | Mewbourne Oil Company             | TVD Reference:               | WELL @ 3302.0usft (Original Well Elev) |
| Project:  | Lea County, New Mexico            | MD Reference:                | WELL @ 3302.0usft (Original Well Elev) |
| Site:     | Red Hills West Unit #016H         | North Reference:             | Grid                                   |
| Well:     | Sec 3, T26S, R32E                 | Survey Calculation Method:   | Minimum Curvature                      |
| Wellbore: | BHL: 330' FSL & 2310' FWL, Sec 10 |                              |                                        |
| Design:   | Design #1                         |                              |                                        |

| Design Targets                                                |                  |                 |               |                 |                 |                    |                   |                 |                   |
|---------------------------------------------------------------|------------------|-----------------|---------------|-----------------|-----------------|--------------------|-------------------|-----------------|-------------------|
| Target Name<br>- hit/miss target<br>- Shape                   | Dip Angle<br>(°) | Dip Dir.<br>(°) | TVD<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Northing<br>(usft) | Easting<br>(usft) | Latitude        | Longitude         |
| SL: 550 FSL & 2310 FW<br>- plan hits target center<br>- Point | 0.00             | 0.00            | 0.0           | 0.0             | 0.0             | 388,515.90         | 707,493.10        | 32° 3' 58.952 N | 103° 39' 48.647 W |
| KOP @ 8559<br>- plan hits target center<br>- Point            | 0.00             | 0.00            | 8,559.0       | 0.0             | 0.0             | 388,515.90         | 707,493.10        | 32° 3' 58.952 N | 103° 39' 48.647 W |
| LP: 21 FNL & 2310 FWL<br>- plan hits target center<br>- Point | 0.00             | 0.00            | 9,132.0       | -571.5          | 6.5             | 387,944.40         | 707,499.60        | 32° 3' 53.296 N | 103° 39' 48.613 W |
| BHL: 330 FSL & 2310 F<br>- plan hits target center<br>- Point | 0.00             | 0.00            | 9,145.0       | -5,567.6        | 63.3            | 382,948.34         | 707,556.37        | 32° 3' 3.851 N  | 103° 39' 48.313 W |

# Red Hills West Unit #016H





**Notes Regarding Blowout Preventer**

**Mewbourne Oil Company**

Red Hills West Unit #016H  
550' FSL & 2310' FWL (SHL)  
Sec 3-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

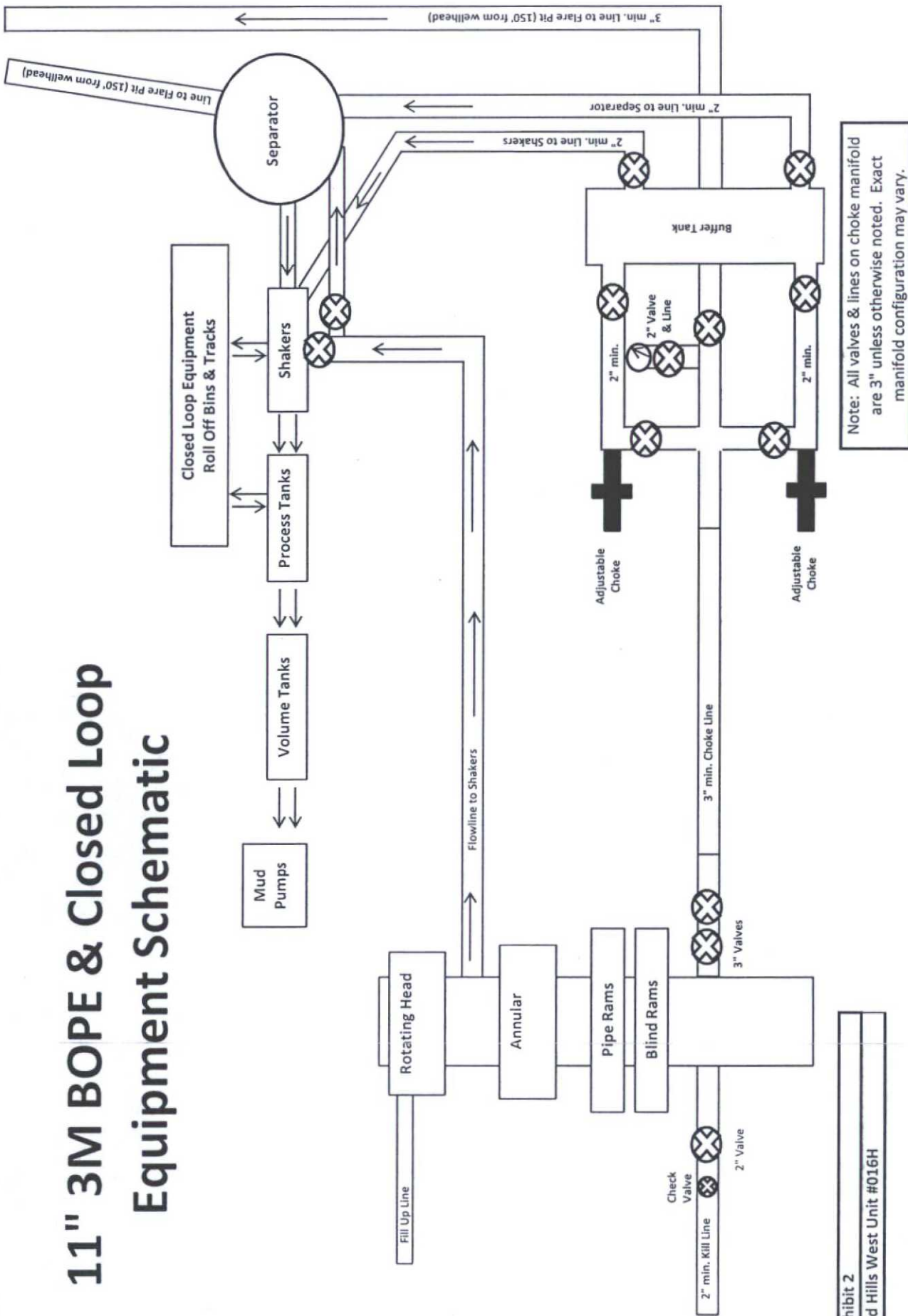


Exhibit 2

Red Hills West Unit #016H



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

