

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTJAN 15 2008  
OCD-ARTESIAFORM APPROVED  
OMB No 1004-0135  
Expires January 31, 2004**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

Lease Serial No

NMLC028784A

6 If Indian, Allottee or Tribe Name

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

8 Well Name and No

Burch Keely Unit #406H

9 API Well No

30-015-35564

10 Field and Pool, or Exploratory Area

Grayburg Jackson

11 County or Parish, State

Eddy County, NM

**SUBMIT IN TRIPLICATE - Other instructions on reverse side**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Marbob Energy Corporation

3a Address

P.O. Box 227, Artesia, NM 88211-0227

3b. Phone No (include area code)

505-748-3303

4 Location of Well (Footage, Sec, T, R, M, or Survey Description)

Surf.: 2130' FSL &amp; 1345' FWL

BHL: 1300' FNL &amp; 1345' FWL

Section 24, T17S - R29E

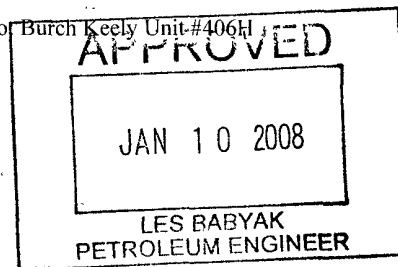
## 12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION                                   | TYPE OF ACTION                                |                                           |                                                    |                                                                   |
|------------------------------------------------------|-----------------------------------------------|-------------------------------------------|----------------------------------------------------|-------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> Acidize              | <input type="checkbox"/> Deepen           | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off                           |
| <input type="checkbox"/> Subsequent Report           | <input type="checkbox"/> Alter Casing         | <input type="checkbox"/> Fracture Treat   | <input type="checkbox"/> Reclamation               | <input type="checkbox"/> Well Integrity                           |
| <input type="checkbox"/> Final Abandonment Notice    | <input type="checkbox"/> Casing Repair        | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete                | <input checked="" type="checkbox"/> Other <u>Drill Horizontal</u> |
|                                                      | <input type="checkbox"/> Change Plans         | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon       |                                                                   |
|                                                      | <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back        | <input type="checkbox"/> Water Disposal            |                                                                   |

3 Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Marbob Energy Corporation respectfully requests approval to drill the above referenced well as a horizontal instead of a vertical, with a new bottom-hole location of 1300' FNL & 1345' FWL. Please see the attached planning report.

Marbob Energy Corporation also requests that the well name be changed from: Burch Keely Unit #406 to Burch Keely Unit #406H

**ALL ITEMS IN APPROVED APD AND CONDITIONS OF APPROVAL WILL APPLY**

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed)

Nancy Agnew

Title Land Department

Signature

Date 12/19/07

## THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by (Signature)

Name

(Printed/Typed)

Title

Conditions of approval, if any, are attached. Approval of this notice 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

Office

Date

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 next page)

DISTRICT I  
1625 N. FIDELITY DR., BOGERT, NM 87204

DISTRICT II  
1501 W. GRAND AVENUE, ALBUQUERQUE, NM 87102

DISTRICT III  
1000 Rio Grande Rd., Artes, NM 87410

DISTRICT IV  
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION  
1220 SOUTH ST. FRANCIS DR.  
Santa Fe, New Mexico 87505

Form C-102  
Revised October 12, 2006  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

MAR 08 2007

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

|                   |                                            |                                            |
|-------------------|--------------------------------------------|--------------------------------------------|
| API Number        | Pool Code<br>28509                         | Pool Name<br>GRAYBURG JACKSON SR Q GRBG SA |
| Property Code     | Property Name<br>BURCH KEELY UNIT          | Well Number<br>984                         |
| OGED No.<br>14049 | Operator Name<br>MARBOB ENERGY CORPORATION | Elevation<br>3593'                         |

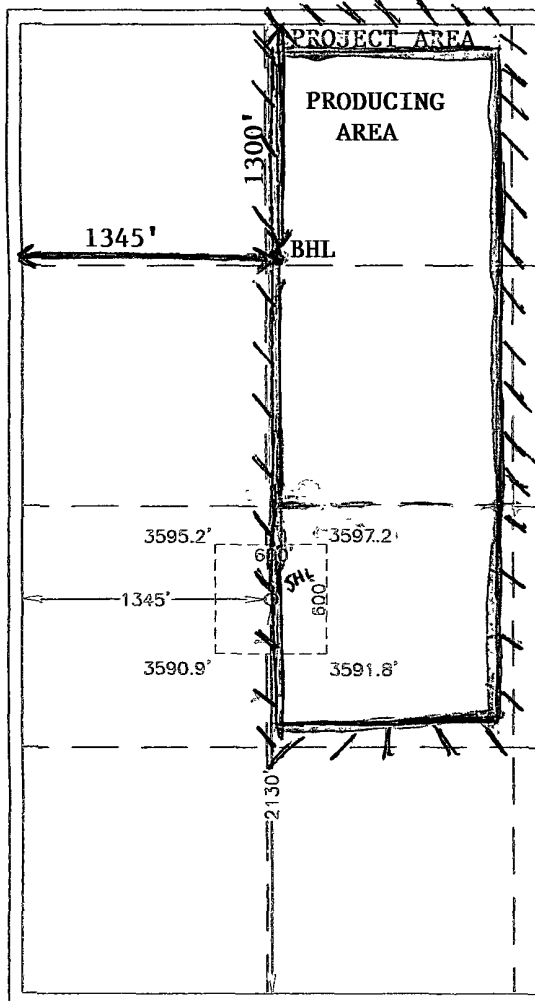
Surface Location

| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| K             | 24      | 17-S     | 29-E  |         | 2130          | SOUTH            | 1345          | WEST           | EDDY   |

Bottom Hole Location If Different From Surface

| UL or lot No.          | Section         | Township           | Range     | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|------------------------|-----------------|--------------------|-----------|---------|---------------|------------------|---------------|----------------|--------|
| C                      | 24              | 17-S               | 29-E      |         | 1300          | NORTH            | 1345          | WEST           | EDDY   |
| Dedicated Acres<br>120 | Joint or Infill | Consolidation Code | Order No. |         |               |                  |               |                |        |

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

|                                                                                   |                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p>GEODETIC COORDINATES<br/>NAD 27 NME</p> <p>Y=661622.0 N<br/>X=592580.1 E</p> <p>LAT.=32.818524° N<br/>LONG.=104.031976° W</p> | <p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Nancy T. Agnew</i> 12/20/07<br/>Signature Date</p> <p>NANCY T. AGNEW<br/>Printed Name</p> <p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual survey made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>JANUARY 09, 2007</p> <p>Date Surveyed AR</p> <p>Signature &amp; Seal of Professional Surveyor</p> <p><i>Bary E. Edmon</i> 11/7/07<br/>07.11.0035</p> <p>Certificate No. GARY EDMON 12041<br/>CEAD EACROW 17777</p> |
|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

# **Marbob**

**Eddy County**

**Burch Keely Unit #406**

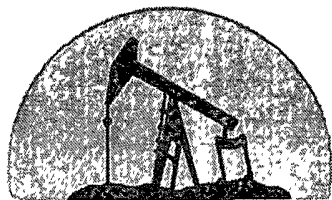
**Burch Keely Unit #406**

**OH**

**Plan: Plan #1**

## **Standard Planning Report**

**19 December, 2007**



Artesia, N.M.

Project: Eddy County  
Site: Burch Keely Unit #406  
Well: Burch Keely Unit #406  
Wellbore: OH  
Plan: Plan #1 (Burch Keely Unit #406/OH)

PROJECT DETAILS: Eddy County  
Geodetic System US State Plane 1927 (Exact solution)  
Datum: NAD 1927 (NADCON CONUS)  
Ellipsoid Clarke 1866  
Zone: New Mexico East 3001  
System Datum Mean Sea Level  
Local North Grid



#### WELL DETAILS: Burch Keely Unit #406

Ground Elevation:: 0.0  
RKB Elevation: EST RKB @ 0.0ft  
Rig Name:

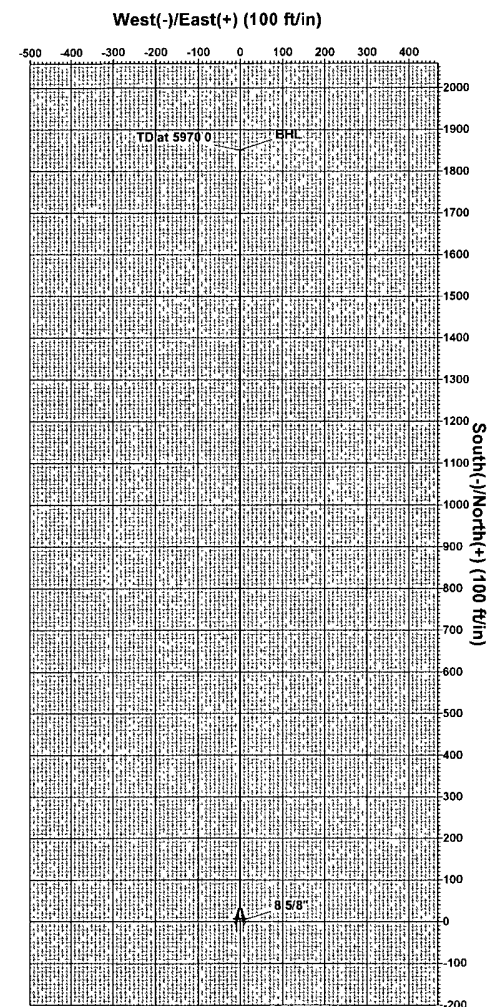
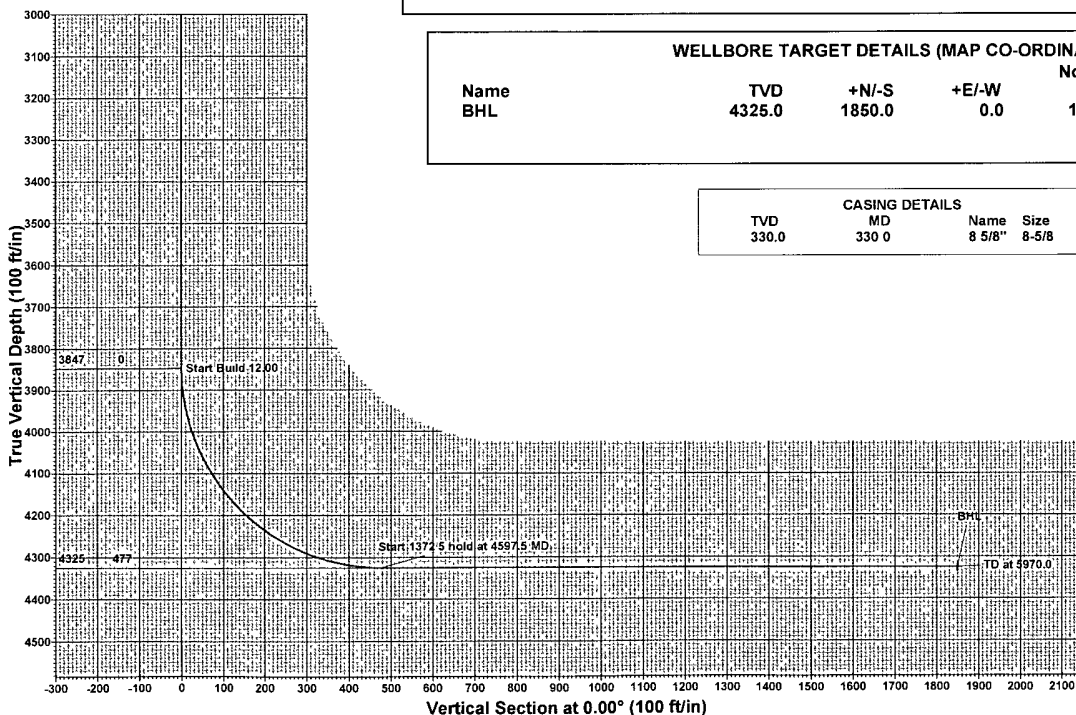
| +N/-S | +E/-W | Northing | Easting | Latitude         | Longitude         | Slot |
|-------|-------|----------|---------|------------------|-------------------|------|
| 0.0   | 0.0   | 0.00     | 0.00    | 30° 59' 24.512 N | 105° 55' 44.137 W |      |

#### SECTION DETAILS

| Sec | MD     | Inc   | Azi  | TVD    | +N/-S  | +E/-W | DLeg  | TFace | VSec   | Target |
|-----|--------|-------|------|--------|--------|-------|-------|-------|--------|--------|
| 1   | 0.0    | 0.00  | 0.00 | 0.0    | 0.0    | 0.0   | 0.00  | 0.00  | 0.0    |        |
| 2   | 3847.5 | 0.00  | 0.00 | 3847.5 | 0.0    | 0.0   | 0.00  | 0.00  | 0.0    |        |
| 3   | 4597.5 | 90.00 | 0.00 | 4325.0 | 477.5  | 0.0   | 12.00 | 0.00  | 477.5  |        |
| 4   | 5970.0 | 90.00 | 0.00 | 4325.0 | 1850.0 | 0.0   | 0.00  | 0.00  | 1850.0 | BHL    |

#### WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

| Name | TVD    | +N/-S  | +E/-W | Northing | Easting | Shape Point |
|------|--------|--------|-------|----------|---------|-------------|
| BHL  | 4325.0 | 1850.0 | 0.0   | 1850.00  | 0.00    |             |



Plan Plan #1 (Burch Keely Unit #406/OH)

Created By Matthew May Date 8 47, December 19 2007

Checked \_\_\_\_\_ Date \_\_\_\_\_

# WHS Planning Report

|                  |                            |                                     |                            |
|------------------|----------------------------|-------------------------------------|----------------------------|
| <b>Database:</b> | EDM 2003.16 Single User Db | <b>Local Co-ordinate Reference:</b> | Well Burch Keely Unit #406 |
| <b>Company:</b>  | Marbob                     | <b>TVD Reference:</b>               | EST RKB @ 0.0ft            |
| <b>Project:</b>  | Eddy County                | <b>MD Reference:</b>                | EST RKB @ 0.0ft            |
| <b>Site:</b>     | Burch Keely Unit #406      | <b>North Reference:</b>             | Grid                       |
| <b>Well:</b>     | Burch Keely Unit #406      | <b>Survey Calculation Method:</b>   | Minimum Curvature          |
| <b>Wellbore:</b> | OH                         |                                     |                            |
| <b>Design:</b>   | Plan #1                    |                                     |                            |

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

|                              |        |                       |   |                          |        |
|------------------------------|--------|-----------------------|---|--------------------------|--------|
| <b>Site</b>                  |        | Burch Keely Unit #406 |   |                          |        |
| <b>Site Position:</b>        |        | <b>Northing:</b>      |   | <b>Latitude:</b>         |        |
| <b>From:</b>                 | None   | <b>Easting:</b>       |   | <b>Longitude:</b>        |        |
| <b>Position Uncertainty:</b> |        | <b>Slot Radius:</b>   |   | <b>Grid Convergence:</b> |        |
|                              | 0.0 ft |                       | " |                          | 0.00 ° |

|                      |                       |        |                     |         |               |                   |
|----------------------|-----------------------|--------|---------------------|---------|---------------|-------------------|
| Well                 | Burch Keely Unit #406 |        |                     |         |               |                   |
| Well Position        | +N/-S                 | 0.0 ft | Northing:           | 0.00 ft | Latitude:     | 30° 59' 24.512 N  |
|                      | +E/-W                 | 0.0 ft | Easting:            | 0.00 ft | Longitude:    | 105° 55' 44.137 W |
| Position Uncertainty |                       | 0.0 ft | Wellhead Elevation: | ft      | Ground Level: | 0.0 ft            |

|                 |    |
|-----------------|----|
| <b>Wellbore</b> | OH |
|-----------------|----|

| Magnetics | Model Name   | Sample Date | Declination<br>(°) | Dip Angle<br>(°) | Field Strength<br>(nT) |
|-----------|--------------|-------------|--------------------|------------------|------------------------|
|           | User Defined | 12/18/2007  | 0.00               | 0.00             | 0                      |

|               |         |
|---------------|---------|
| <b>Design</b> | Plan #1 |
|---------------|---------|

|                     |                                             |
|---------------------|---------------------------------------------|
| <b>Audit Notes:</b> |                                             |
| <b>Version:</b>     | <b>Phase:</b> PLAN <b>Tie On Depth:</b> 0.0 |

| Vertical Section: | Depth-From (TVD)<br>(ft) | +N/-S<br>(ft) | +E/-W<br>(ft) | Direction<br>(°) |
|-------------------|--------------------------|---------------|---------------|------------------|
|                   | 0.0                      | 0.0           | 0.0           | 0.00             |

| Plan Sections             |                    |                |                           |               |               |                             |                            |                           |            |        |
|---------------------------|--------------------|----------------|---------------------------|---------------|---------------|-----------------------------|----------------------------|---------------------------|------------|--------|
| Measured<br>Depth<br>(ft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(ft) | +N/-S<br>(ft) | +E/-W<br>(ft) | Dogleg<br>Rate<br>(°/100ft) | Build<br>Rate<br>(°/100ft) | Turn<br>Rate<br>(°/100ft) | TFO<br>(°) | Target |
| 0.0                       | 0.00               | 0.00           | 0.0                       | 0.0           | 0.0           | 0.00                        | 0.00                       | 0.00                      | 0.00       |        |
| 3,847.5                   | 0.00               | 0.00           | 3,847.5                   | 0.0           | 0.0           | 0.00                        | 0.00                       | 0.00                      | 0.00       |        |
| 4,597.5                   | 90.00              | 0.00           | 4,325.0                   | 477.5         | 0.0           | 12.00                       | 12.00                      | 0.00                      | 0.00       |        |
| 5,970.0                   | 90.00              | 0.00           | 4,325.0                   | 1,850.0       | 0.0           | 0.00                        | 0.00                       | 0.00                      | 0.00       | BHL    |

# WHS Planning Report

|                  |                            |                                     |                            |
|------------------|----------------------------|-------------------------------------|----------------------------|
| <b>Database:</b> | EDM 2003 16 Single User Db | <b>Local Co-ordinate Reference:</b> | Well Burch Keely Unit #406 |
| <b>Company:</b>  | Marbob                     | <b>TVD Reference:</b>               | EST RKB @ 0.0ft            |
| <b>Project:</b>  | Eddy County                | <b>MD Reference:</b>                | EST RKB @ 0.0ft            |
| <b>Site:</b>     | Burch Keely Unit #406      | <b>North Reference:</b>             | Grid                       |
| <b>Well:</b>     | Burch Keely Unit #406      | <b>Survey Calculation Method:</b>   | Minimum Curvature          |
| <b>Wellbore:</b> | OH                         |                                     |                            |
| <b>Design:</b>   | Plan #1                    |                                     |                            |

| Planned Survey      |                 |             |                     |            |            |                       |                       |                      |                     |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 0.0                 | 0.00            | 0.00        | 0.0                 | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 100.0               | 0.00            | 0.00        | 100.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 200.0               | 0.00            | 0.00        | 200.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 300.0               | 0.00            | 0.00        | 300.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 400.0               | 0.00            | 0.00        | 400.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 500.0               | 0.00            | 0.00        | 500.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 600.0               | 0.00            | 0.00        | 600.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 700.0               | 0.00            | 0.00        | 700.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 800.0               | 0.00            | 0.00        | 800.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 900.0               | 0.00            | 0.00        | 900.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 1,000.0             | 0.00            | 0.00        | 1,000.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 1,100.0             | 0.00            | 0.00        | 1,100.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 1,200.0             | 0.00            | 0.00        | 1,200.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 1,300.0             | 0.00            | 0.00        | 1,300.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 1,400.0             | 0.00            | 0.00        | 1,400.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 1,500.0             | 0.00            | 0.00        | 1,500.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 1,600.0             | 0.00            | 0.00        | 1,600.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 1,700.0             | 0.00            | 0.00        | 1,700.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 1,800.0             | 0.00            | 0.00        | 1,800.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 1,900.0             | 0.00            | 0.00        | 1,900.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 2,000.0             | 0.00            | 0.00        | 2,000.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 2,100.0             | 0.00            | 0.00        | 2,100.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 2,200.0             | 0.00            | 0.00        | 2,200.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 2,300.0             | 0.00            | 0.00        | 2,300.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 2,400.0             | 0.00            | 0.00        | 2,400.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 2,500.0             | 0.00            | 0.00        | 2,500.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 2,600.0             | 0.00            | 0.00        | 2,600.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 2,700.0             | 0.00            | 0.00        | 2,700.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 2,800.0             | 0.00            | 0.00        | 2,800.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 2,900.0             | 0.00            | 0.00        | 2,900.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 3,000.0             | 0.00            | 0.00        | 3,000.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 3,100.0             | 0.00            | 0.00        | 3,100.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 3,200.0             | 0.00            | 0.00        | 3,200.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 3,300.0             | 0.00            | 0.00        | 3,300.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 3,400.0             | 0.00            | 0.00        | 3,400.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 3,500.0             | 0.00            | 0.00        | 3,500.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 3,600.0             | 0.00            | 0.00        | 3,600.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 3,700.0             | 0.00            | 0.00        | 3,700.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 3,800.0             | 0.00            | 0.00        | 3,800.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 3,847.5             | 0.00            | 0.00        | 3,847.5             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 3,850.0             | 0.30            | 0.00        | 3,850.0             | 0.0        | 0.0        | 0.0                   | 12.00                 | 12.00                | 0.00                |
| 3,875.0             | 3.30            | 0.00        | 3,875.0             | 0.8        | 0.0        | 0.8                   | 12.00                 | 12.00                | 0.00                |
| 3,900.0             | 6.30            | 0.00        | 3,899.9             | 2.9        | 0.0        | 2.9                   | 12.00                 | 12.00                | 0.00                |
| 3,925.0             | 9.30            | 0.00        | 3,924.7             | 6.3        | 0.0        | 6.3                   | 12.00                 | 12.00                | 0.00                |
| 3,950.0             | 12.30           | 0.00        | 3,949.2             | 11.0       | 0.0        | 11.0                  | 12.00                 | 12.00                | 0.00                |
| 3,975.0             | 15.30           | 0.00        | 3,973.5             | 16.9       | 0.0        | 16.9                  | 12.00                 | 12.00                | 0.00                |
| 4,000.0             | 18.30           | 0.00        | 3,997.4             | 24.1       | 0.0        | 24.1                  | 12.00                 | 12.00                | 0.00                |
| 4,025.0             | 21.30           | 0.00        | 4,020.9             | 32.6       | 0.0        | 32.6                  | 12.00                 | 12.00                | 0.00                |
| 4,050.0             | 24.30           | 0.00        | 4,044.0             | 42.3       | 0.0        | 42.3                  | 12.00                 | 12.00                | 0.00                |
| 4,075.0             | 27.30           | 0.00        | 4,066.5             | 53.2       | 0.0        | 53.2                  | 12.00                 | 12.00                | 0.00                |
| 4,100.0             | 30.30           | 0.00        | 4,088.4             | 65.2       | 0.0        | 65.2                  | 12.00                 | 12.00                | 0.00                |
| 4,125.0             | 33.30           | 0.00        | 4,109.6             | 78.4       | 0.0        | 78.4                  | 12.00                 | 12.00                | 0.00                |
| 4,150.0             | 36.30           | 0.00        | 4,130.2             | 92.7       | 0.0        | 92.7                  | 12.00                 | 12.00                | 0.00                |
| 4,175.0             | 39.30           | 0.00        | 4,149.9             | 108.0      | 0.0        | 108.0                 | 12.00                 | 12.00                | 0.00                |

# WHS Planning Report

**Database:** EDM 2003.16 Single User Db  
**Company:** Marbob  
**Project:** Eddy County  
**Site:** Burch Keely Unit #406  
**Well:** Burch Keely Unit #406  
**Wellbore:** OH  
**Design:** Plan #1

**Local Co-ordinate Reference:** Well Burch Keely Unit #406  
**TVD Reference:** EST RKB @ 0.0ft  
**MD Reference:** EST RKB @ 0.0ft  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

## Planned Survey

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 4,200.0             | 42.30           | 0.00        | 4,168.8             | 124.3      | 0.0        | 124.3                 | 12.00                 | 12.00                | 0.00                |
| 4,225.0             | 45.30           | 0.00        | 4,186.9             | 141.6      | 0.0        | 141.6                 | 12.00                 | 12.00                | 0.00                |
| 4,250.0             | 48.30           | 0.00        | 4,204.0             | 159.8      | 0.0        | 159.8                 | 12.00                 | 12.00                | 0.00                |
| 4,275.0             | 51.30           | 0.00        | 4,220.1             | 178.9      | 0.0        | 178.9                 | 12.00                 | 12.00                | 0.00                |
| 4,300.0             | 54.30           | 0.00        | 4,235.2             | 198.8      | 0.0        | 198.8                 | 12.00                 | 12.00                | 0.00                |
| 4,325.0             | 57.30           | 0.00        | 4,249.3             | 219.5      | 0.0        | 219.5                 | 12.00                 | 12.00                | 0.00                |
| 4,350.0             | 60.30           | 0.00        | 4,262.2             | 240.9      | 0.0        | 240.9                 | 12.00                 | 12.00                | 0.00                |
| 4,375.0             | 63.30           | 0.00        | 4,274.1             | 262.9      | 0.0        | 262.9                 | 12.00                 | 12.00                | 0.00                |
| 4,400.0             | 66.30           | 0.00        | 4,284.7             | 285.5      | 0.0        | 285.5                 | 12.00                 | 12.00                | 0.00                |
| 4,425.0             | 69.30           | 0.00        | 4,294.1             | 308.7      | 0.0        | 308.7                 | 12.00                 | 12.00                | 0.00                |
| 4,450.0             | 72.30           | 0.00        | 4,302.4             | 332.3      | 0.0        | 332.3                 | 12.00                 | 12.00                | 0.00                |
| 4,475.0             | 75.30           | 0.00        | 4,309.3             | 356.3      | 0.0        | 356.3                 | 12.00                 | 12.00                | 0.00                |
| 4,500.0             | 78.30           | 0.00        | 4,315.0             | 380.6      | 0.0        | 380.6                 | 12.00                 | 12.00                | 0.00                |
| 4,525.0             | 81.30           | 0.00        | 4,319.5             | 405.2      | 0.0        | 405.2                 | 12.00                 | 12.00                | 0.00                |
| 4,550.0             | 84.30           | 0.00        | 4,322.6             | 430.0      | 0.0        | 430.0                 | 12.00                 | 12.00                | 0.00                |
| 4,575.0             | 87.30           | 0.00        | 4,324.4             | 455.0      | 0.0        | 455.0                 | 12.00                 | 12.00                | 0.00                |
| 4,597.5             | 90.00           | 0.00        | 4,325.0             | 477.5      | 0.0        | 477.5                 | 12.00                 | 12.00                | 0.00                |
| 4,600.0             | 90.00           | 0.00        | 4,325.0             | 480.0      | 0.0        | 480.0                 | 0.00                  | 0.00                 | 0.00                |
| 4,700.0             | 90.00           | 0.00        | 4,325.0             | 580.0      | 0.0        | 580.0                 | 0.00                  | 0.00                 | 0.00                |
| 4,800.0             | 90.00           | 0.00        | 4,325.0             | 680.0      | 0.0        | 680.0                 | 0.00                  | 0.00                 | 0.00                |
| 4,900.0             | 90.00           | 0.00        | 4,325.0             | 780.0      | 0.0        | 780.0                 | 0.00                  | 0.00                 | 0.00                |
| 5,000.0             | 90.00           | 0.00        | 4,325.0             | 880.0      | 0.0        | 880.0                 | 0.00                  | 0.00                 | 0.00                |
| 5,100.0             | 90.00           | 0.00        | 4,325.0             | 980.0      | 0.0        | 980.0                 | 0.00                  | 0.00                 | 0.00                |
| 5,200.0             | 90.00           | 0.00        | 4,325.0             | 1,080.0    | 0.0        | 1,080.0               | 0.00                  | 0.00                 | 0.00                |
| 5,300.0             | 90.00           | 0.00        | 4,325.0             | 1,180.0    | 0.0        | 1,180.0               | 0.00                  | 0.00                 | 0.00                |
| 5,400.0             | 90.00           | 0.00        | 4,325.0             | 1,280.0    | 0.0        | 1,280.0               | 0.00                  | 0.00                 | 0.00                |
| 5,500.0             | 90.00           | 0.00        | 4,325.0             | 1,380.0    | 0.0        | 1,380.0               | 0.00                  | 0.00                 | 0.00                |
| 5,600.0             | 90.00           | 0.00        | 4,325.0             | 1,480.0    | 0.0        | 1,480.0               | 0.00                  | 0.00                 | 0.00                |
| 5,700.0             | 90.00           | 0.00        | 4,325.0             | 1,580.0    | 0.0        | 1,580.0               | 0.00                  | 0.00                 | 0.00                |
| 5,800.0             | 90.00           | 0.00        | 4,325.0             | 1,680.0    | 0.0        | 1,680.0               | 0.00                  | 0.00                 | 0.00                |
| 5,900.0             | 90.00           | 0.00        | 4,325.0             | 1,780.0    | 0.0        | 1,780.0               | 0.00                  | 0.00                 | 0.00                |
| 5,970.0             | 90.00           | 0.00        | 4,325.0             | 1,850.0    | 0.0        | 1,850.0               | 0.00                  | 0.00                 | 0.00                |

## Targets

| Target Name        | Dip Angle (°) | Dip Dir (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | Latitude         | Longitude         |
|--------------------|---------------|-------------|----------|------------|------------|---------------|--------------|------------------|-------------------|
| - hit/miss target  |               |             |          |            |            |               |              |                  |                   |
| - Shape            |               |             |          |            |            |               |              |                  |                   |
| BHL                | 0.00          | 360.00      | 4,325.0  | 1,850.0    | 0.0        | 1,850.00      | 0.00         | 30° 59' 42.816 N | 105° 55' 44.442 W |
| - plan hits target |               |             |          |            |            |               |              |                  |                   |
| - Point            |               |             |          |            |            |               |              |                  |                   |

## Casing Points

| Measured Depth (ft) | Vertical Depth (ft) | Name   | Casing Diameter (") | Hole Diameter (") |
|---------------------|---------------------|--------|---------------------|-------------------|
| 330.0               | 330.0               | 8 5/8" | 8-5/8               | 8-5/8             |