

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Ave., Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources  
Oil Conservation Division  
1220 S. St Francis Dr.  
Santa Fe, NM 87505

Form C-101

**APPLICATION FOR PERMIT TO DRILL**

|                                                                                                         |                                   |                                  |
|---------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------|
| Operator Name and Address<br><b>Marbob Energy Corporation<br/>PO Box 227<br/>Artesia, NM 88211-0227</b> |                                   | OGRID Number<br><b>14049</b>     |
|                                                                                                         |                                   | API Number<br><b>30-15-33024</b> |
| Property Code<br><b>32982</b>                                                                           | Property Name<br><b>SWH STATE</b> | Well No.<br><b>004</b>           |

**Surface Location**

| UL or Lot | Section  | Township   | Range      | Lot Idn | Feet From   | N/S Line | Feet From   | E/W Line | County      |
|-----------|----------|------------|------------|---------|-------------|----------|-------------|----------|-------------|
| <b>G</b>  | <b>3</b> | <b>25S</b> | <b>28E</b> |         | <b>1980</b> | <b>N</b> | <b>2310</b> | <b>E</b> | <b>Eddy</b> |

**Bottom Holes**

| <b>Pool: WILLOW LAKE; DELAWARE, SW 96855</b> |          |            |            |         |             |          |            |          |             |
|----------------------------------------------|----------|------------|------------|---------|-------------|----------|------------|----------|-------------|
| UL or Lot                                    | Section  | Township   | Range      | Lot Idn | Feet From   | N/S Line | Feet From  | E/W Line | County      |
| <b>H</b>                                     | <b>3</b> | <b>25S</b> | <b>28E</b> |         | <b>1980</b> | <b>N</b> | <b>330</b> | <b>E</b> | <b>Eddy</b> |

|                              |                               |                              |                            |                                       |
|------------------------------|-------------------------------|------------------------------|----------------------------|---------------------------------------|
| Work Type<br><b>New Well</b> | Well Type<br><b>Oil</b>       | Cable/Rotary                 | Lease Type<br><b>State</b> | Ground Level Elevation<br><b>2990</b> |
| Multiple<br><b>N</b>         | Proposed Depth<br><b>6825</b> | Formation<br><b>Delaware</b> | Contractor                 | Spud Date<br><b>9/25/2003</b>         |

**Proposed Casing and Cement Program**

| Type        | Hole Size    | Casing Size  | Casing Weight/ft | Setting Depth | Sacks of Cement | Estimated TOC |
|-------------|--------------|--------------|------------------|---------------|-----------------|---------------|
| <b>Surf</b> | <b>12.25</b> | <b>9.625</b> | <b>36</b>        | <b>550</b>    | <b>350</b>      | <b>0</b>      |
| <b>Prod</b> | <b>8.75</b>  | <b>5.5</b>   | <b>17</b>        | <b>6825</b>   | <b>900</b>      | <b>0</b>      |

**Proposed Blowout Prevention Program**

| Type              | Working Pressure | Test Pressure | Manufacturer   |
|-------------------|------------------|---------------|----------------|
| <b>Double Ram</b> | <b>3000</b>      | <b>3000</b>   | <b>Cameron</b> |

I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Electronically Signed By: Diana Cannon

Title: Production Analyst

Date: 9/22/2003

Phone: 505-748-3303

## OIL CONSERVATION DIVISION

Electronically Approved By: Bryan Arrant

Title: Geologist

Approval Date: 10/2/2003

Expiration Date: 10/2/2004

Conditions of Approval:

There are conditions. See Attached.



**Marbob Energy Corporation**  
**New Mexico**  
**Eddy County**  
**SWH State # 5 - Plan 09/17/03**  
**#4**

**Sperry-Sun**

## **Proposal Report**

**17 September, 2003**

Data Source: Information from Brian Collins

Proposal Ref: pro6916

**HALLIBURTON**

#4

**Proposal Report for SWH State # 5 - Plan 09/17/03**  
**Data Source: Information from Brian Collins**

| Measured Depth (ft) | Incl. (Deg)    | Azim. (Deg)   | Station Coordinates |        |           | Vertical Section (ft) | Dogleg Rate (°/100ft) | Comment                                                                                        |
|---------------------|----------------|---------------|---------------------|--------|-----------|-----------------------|-----------------------|------------------------------------------------------------------------------------------------|
| TVD (ft)            | Northings (ft) | Eastings (ft) |                     |        |           |                       |                       |                                                                                                |
| 0.00                | 0.000          | 0.000         | 0.00                | 0.00 N | 0.00 E    | 0.00                  |                       |                                                                                                |
| 400.00              | 0.000          | 0.000         | 400.00              | 0.00 N | 0.00 E    | 0.00                  | 0.00                  | 9 5/8" Casing                                                                                  |
| 4572.52             | 0.000          | 0.000         | 4572.52             | 0.00 N | 0.00 E    | 0.00                  | 0.00                  | Kick-Off at 4572.52ft                                                                          |
| 4600.00             | 3.297          | 90.000        | 4599.98             | 0.00 N | 0.79 E    | 0.79                  | 12.00                 |                                                                                                |
| 4700.00             | 15.297         | 90.000        | 4698.49             | 0.00 N | 16.92 E   | 16.92                 | 12.00                 |                                                                                                |
| 4800.00             | 27.297         | 90.000        | 4791.49             | 0.00 N | 53.17 E   | 53.17                 | 12.00                 |                                                                                                |
| 4900.00             | 39.296         | 90.000        | 4874.92             | 0.00 N | 107.97 E  | 107.97                | 12.00                 |                                                                                                |
| 4947.53             | 45.000         | 90.000        | 4910.15             | 0.00 N | 139.85 E  | 139.85                | 12.00                 | Build Rate = 12.00°/100ft                                                                      |
| 5000.00             | 51.296         | 90.000        | 4945.14             | 0.00 N | 178.91 E  | 178.91                | 12.00                 |                                                                                                |
| 5100.00             | 63.296         | 90.000        | 4999.07             | 0.00 N | 262.91 E  | 262.91                | 12.00                 |                                                                                                |
| 5200.00             | 75.295         | 90.000        | 5034.36             | 0.00 N | 356.28 E  | 356.28                | 12.00                 |                                                                                                |
| 5300.00             | 87.295         | 90.000        | 5049.47             | 0.00 N | 454.94 E  | 454.94                | 12.00                 |                                                                                                |
| 5322.54             | 90.000         | 90.000        | 5050.00             | 0.00 N | 477.48 E  | 477.48                | 12.00                 | End of Build at 5322.54ft                                                                      |
| 5400.00             | 90.000         | 90.000        | 5050.00             | 0.00 N | 554.94 E  | 554.94                | 0.00                  |                                                                                                |
| 5500.00             | 90.000         | 90.000        | 5050.00             | 0.00 N | 654.94 E  | 654.94                | 0.00                  |                                                                                                |
| 5600.00             | 90.000         | 90.000        | 5050.00             | 0.00 N | 754.94 E  | 754.94                | 0.00                  |                                                                                                |
| 5700.00             | 90.000         | 90.000        | 5050.00             | 0.00 N | 854.94 E  | 854.94                | 0.00                  |                                                                                                |
| 5800.00             | 90.000         | 90.000        | 5050.00             | 0.00 N | 954.94 E  | 954.94                | 0.00                  |                                                                                                |
| 5900.00             | 90.000         | 90.000        | 5050.00             | 0.00 N | 1054.94 E | 1054.94               | 0.00                  |                                                                                                |
| 6000.00             | 90.000         | 90.000        | 5050.00             | 0.00 N | 1154.94 E | 1154.94               | 0.00                  |                                                                                                |
| 6073.80             | 90.000         | 90.000        | 5050.00             | 0.00 N | 1228.74 E | 1228.74               | 0.00                  | Hold Angle at 90.000°                                                                          |
| 6100.00             | 90.000         | 90.000        | 5050.00             | 0.00 N | 1254.94 E | 1254.94               | 0.00                  |                                                                                                |
| 6200.00             | 90.000         | 90.000        | 5050.00             | 0.00 N | 1354.94 E | 1354.94               | 0.00                  |                                                                                                |
| 6300.00             | 90.000         | 90.000        | 5050.00             | 0.00 N | 1454.94 E | 1454.94               | 0.00                  |                                                                                                |
| 6400.00             | 90.000         | 90.000        | 5050.00             | 0.00 N | 1554.94 E | 1554.94               | 0.00                  |                                                                                                |
| 6500.00             | 90.000         | 90.000        | 5050.00             | 0.00 N | 1654.94 E | 1654.94               | 0.00                  |                                                                                                |
| 6600.00             | 90.000         | 90.000        | 5050.00             | 0.00 N | 1754.94 E | 1754.94               | 0.00                  |                                                                                                |
| 6700.00             | 90.000         | 90.000        | 5050.00             | 0.00 N | 1854.94 E | 1854.94               | 0.00                  |                                                                                                |
| 6800.00             | 90.000         | 90.000        | 5050.00             | 0.00 N | 1954.94 E | 1954.94               | 0.00                  |                                                                                                |
| 6825.06             | 90.000         | 90.000        | 5050.00             | 0.00 N | 1980.00 E | 1980.00               | 0.00                  | Total Depth at 6825.06ft<br>8 3/4" Open Hole<br>Target - SWH State # 5<br>PBHL, Current Target |

All data is in Feet (US) unless otherwise stated. Directions and coordinates are relative to True North. Vertical depths are relative to RKB. Northings and Eastings are relative to Wellhead.

The Dogleg Severity is in Degrees per 100 feet.  
Vertical Section is from Wellhead and calculated along an Azimuth of 90.000° (True).

Magnetic Declination at Surface is 8.865° (17-Sep-03)

Based upon Minimum Curvature type calculations, at a Measured Depth of 6825.06ft.,  
The Bottom Hole Displacement is 1980.00ft., in the Direction of 90.000° (True).

---

#4

Proposal Report for SWH State # 5 - Plan 09/17/03  
Data Source: Information from Brian Collins

---

Comments

| Measured<br>Depth<br>(ft) | Station Coordinates |                   |                  | Comment                   |
|---------------------------|---------------------|-------------------|------------------|---------------------------|
|                           | TVD<br>(ft)         | Northings<br>(ft) | Eastings<br>(ft) |                           |
| 4572.52                   | 4572.52             | 0.00 N            | 0.00 E           | Kick-Off at 4572.52ft     |
| 4947.53                   | 4910.15             | 0.00 N            | 139.85 E         | Build Rate = 12.00"/100ft |
| 5322.54                   | 5050.00             | 0.00 N            | 477.48 E         | End of Build at 5322.54ft |
| 6073.80                   | 5050.00             | 0.00 N            | 1228.74 E        | Hold Angle at 90.000°     |
| 6825.06                   | 5050.00             | 0.00 N            | 1980.00 E        | Total Depth at 6825.06ft  |

Casing details

| From                      |                           | To                        |                           | Casing Detail    |
|---------------------------|---------------------------|---------------------------|---------------------------|------------------|
| Measured<br>Depth<br>(ft) | Vertical<br>Depth<br>(ft) | Measured<br>Depth<br>(ft) | Vertical<br>Depth<br>(ft) |                  |
| <Surface>                 | <Surface>                 | 400.00                    | 400.00                    | 9 5/8" Casing    |
| <Surface>                 | <Surface>                 | 6825.06                   | 5050.00                   | 8 3/4" Open Hole |

Targets associated with this wellpath

| Target Name              | Target Entry Coordinates |                   |                  | Target<br>Shape | Target<br>Type |
|--------------------------|--------------------------|-------------------|------------------|-----------------|----------------|
|                          | TVD<br>(ft)              | Northings<br>(ft) | Eastings<br>(ft) |                 |                |
| SWH State # 5 PBHL<br>#4 | 5050.00                  | 0.00 N            | 1980.00 E        | Point           | Current Target |

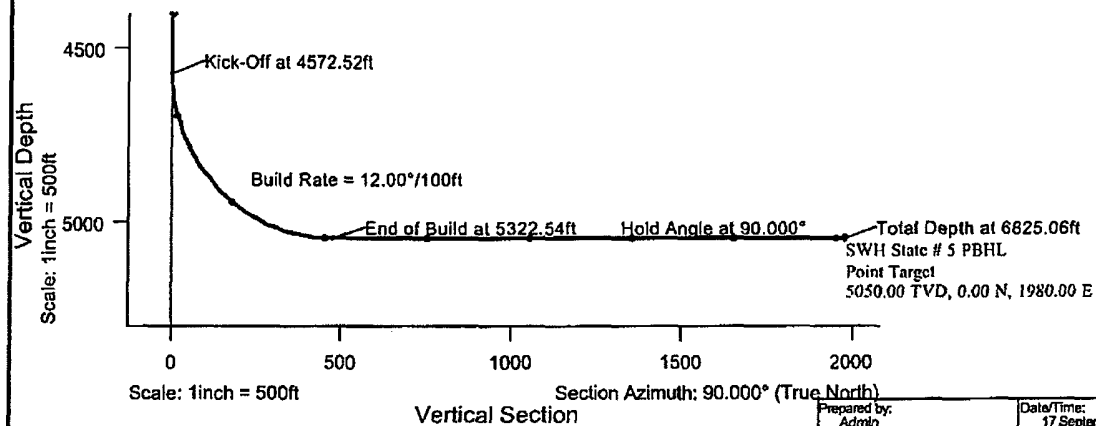
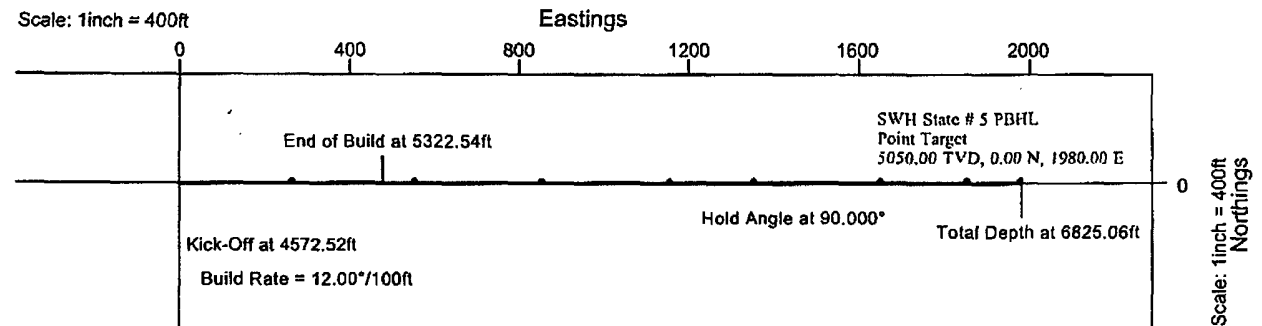
HALLIBURTON

## Marbob Energy Corporation

DrillQuest

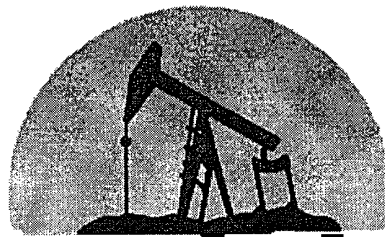
Sperry-Sun

New Mexico  
Eddy County  
Sec. 03-T25S-R28E  
SWH State # 5 # 4  
Plan 09/17/03

Prepared by:  
AdminDate/Time:  
17 September, 2003 - 16:53

Checked:

Approved:



---

**marbob**  
**ENERGY CORPORATION**  
ARTESIA, NEW MEXICO

---

October 2, 2003

Oil Conservation Division  
1301 W. Grand Ave.  
Artesia, NM 88210

Attention: Bryan Arrant

Re: SWH State #1, #2, #3, #4, #5, and #6  
Section 3, T25S, R28E  
Eddy County, New Mexico

Dear Bryan:

Southwestern Energy Production Company has recently drilled four wells in the area of our proposed SWH State Nos. 1-6. According to their letter of July 29, 2003, no levels of H<sub>2</sub>S that would require a contingency plan were detected. We do not anticipate cutting any formations that contain H<sub>2</sub>S, therefore, we do not believe that an H<sub>2</sub>S contingency plan is necessary.

If you have questions or need further information, please call.

Sincerely,

Melanie J. Parker  
Land Department

/mp

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Ave., Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-102

## Oil Conservation Division

1220 S. St Francis Dr.  
Santa Fe, NM 87505

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

|                           |                                            |                    |
|---------------------------|--------------------------------------------|--------------------|
| API Number<br>30-15-33024 | Pool Name<br>WILLOW LAKE; DELAWARE, SW     | Pool Code<br>96855 |
| Property Code<br>32982    | Property Name<br>SWH STATE                 | Well No.<br>004    |
| OGRID No.<br>14049        | Operator Name<br>Marbob Energy Corporation | Elevation<br>2990  |

**Surface Location**

|                |              |                 |              |              |                   |               |                   |               |                |
|----------------|--------------|-----------------|--------------|--------------|-------------------|---------------|-------------------|---------------|----------------|
| UL or Lot<br>G | Section<br>3 | Township<br>25S | Range<br>28E | Lot Idn<br>. | Feet From<br>1980 | N/S Line<br>N | Feet From<br>2310 | E/W Line<br>E | County<br>Eddy |
|----------------|--------------|-----------------|--------------|--------------|-------------------|---------------|-------------------|---------------|----------------|

**Bottom Hole Location If Different From Surface**

|                       |              |                 |              |                    |                   |               |                  |               |                |
|-----------------------|--------------|-----------------|--------------|--------------------|-------------------|---------------|------------------|---------------|----------------|
| UL or Lot<br>H        | Section<br>3 | Township<br>25S | Range<br>28E | Lot Idn            | Feet From<br>1980 | N/S Line<br>N | Feet From<br>330 | E/W Line<br>E | County<br>Eddy |
| Dedicated Acres<br>80 |              | Joint or Infill |              | Consolidation Code |                   | Order No.     |                  |               |                |

|  |  |   |   |
|--|--|---|---|
|  |  |   |   |
|  |  | ● | ■ |
|  |  |   |   |
|  |  |   |   |

**OPERATOR CERTIFICATION**

*I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.*

Electronically Signed By: Diana Cannon

Title: Production Analyst

Date: 9/22/2003

**SURVEYOR CERTIFICATION**

*I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.*

Electronically Signed By: Gary Eidson

Date of Survey: 8/28/2003

Certificate Number: 12641

## APD Conditions Of Approval

**Operator:** 14049 Marbob Energy Corporation

**Well:** SWH STATE 004

| OCD Reviewer | Condition                                             |
|--------------|-------------------------------------------------------|
| BARRANT      | Cement to cover ALL oil, gas and water bearing zones. |