

**STATE OF UTAH**  
 DEPARTMENT OF NATURAL RESOURCES  
 DIVISION OF OIL, GAS AND MINING

FORM 3  
 AMENDED REPORT

|   |                   |  |                |   |              |                 |
|---|-------------------|--|----------------|---|--------------|-----------------|
| <b>APPLICATION FOR PERMIT TO DRILL</b>  |                   |  |                | <b>1. WELL NAME and NUMBER</b><br>Sand Wash Federal S-31-8-17   |              |                 |
| <b>2. TYPE OF WORK</b><br>DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/> |                   |  |                | <b>3. FIELD OR WILDCAT</b><br>MONUMENT BUTTE  |              |                 |
| <b>4. TYPE OF WELL</b><br>Oil Well <input type="checkbox"/> Coalbed Methane Well: NO <input type="checkbox"/>   |                   |  |                | <b>5. UNIT or COMMUNITIZATION AGREEMENT NAME</b><br>GMBU (GRRV)   |              |                 |
| <b>6. NAME OF OPERATOR</b><br>NEWFIELD PRODUCTION COMPANY   |                   |  |                | <b>7. OPERATOR PHONE</b><br>435 646-4825  |              |                 |
| <b>8. ADDRESS OF OPERATOR</b><br>Rt 3 Box 3630 , Myton, UT, 84052   |                   |  |                | <b>9. OPERATOR E-MAIL</b><br>mcrozier@newfield.com  |              |                 |
| <b>10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)</b><br>UTU-74869  |                   | <b>11. MINERAL OWNERSHIP</b><br>FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>    |                | <b>12. SURFACE OWNERSHIP</b><br>FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/> |              |                 |
| <b>13. NAME OF SURFACE OWNER (if box 12 = 'fee')</b>  |                   |  |                | <b>14. SURFACE OWNER PHONE (if box 12 = 'fee')</b>  |              |                 |
| <b>15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')</b>   |                   |  |                | <b>16. SURFACE OWNER E-MAIL (if box 12 = 'fee')</b>   |              |                 |
| <b>17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')</b>   |                   | <b>18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS</b><br>YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/> |                | <b>19. SLANT</b><br>VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>                               |              |                 |
| <b>20. LOCATION OF WELL</b>   | <b>FOOTAGES</b>   | <b>QTR-QTR</b>   | <b>SECTION</b> | <b>TOWNSHIP</b>   | <b>RANGE</b> | <b>MERIDIAN</b> |
| <b>LOCATION AT SURFACE</b>  | 2108 FSL 724 FEL  | NESE   | 31             | 8.0 S   | 17.0 E       | S               |
| <b>Top of Uppermost Producing Zone</b>  | 1430 FSL 1265 FEL | NESE   | 31             | 8.0 S   | 17.0 E       | S               |
| <b>At Total Depth</b>   | 1430 FSL 1265 FEL | NESE   | 31             | 8.0 S   | 17.0 E       | S               |
| <b>21. COUNTY</b><br>DUCHESNE   |                   | <b>22. DISTANCE TO NEAREST LEASE LINE (Feet)</b><br>110  |                | <b>23. NUMBER OF ACRES IN DRILLING UNIT</b><br>20   |              |                 |
|   |                   | <b>25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)</b><br>1273   |                | <b>26. PROPOSED DEPTH</b><br>MD: 6333 TVD: 6333   |              |                 |
| <b>27. ELEVATION - GROUND LEVEL</b><br>5313   |                   | <b>28. BOND NUMBER</b><br>WYB000493  |                | <b>29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE</b><br>43-7478   |              |                 |

**ATTACHMENTS**

**VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES**

|  |  |
|--|--|
| <input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER         | <input checked="" type="checkbox"/> COMPLETE DRILLING PLAN                 |
| <input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)               | <input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER |
| <input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED) | <input checked="" type="checkbox"/> TOPOGRAPHICAL MAP                      |

|  |  |                                    |
|--|--|------------------------------------|
| <b>NAME</b> Mandie Crozier                   | <b>TITLE</b> Regulatory Tech   | <b>PHONE</b> 435 646-4825          |
| <b>SIGNATURE</b>                             | <b>DATE</b> 11/10/2009   | <b>EMAIL</b> mcrozier@newfield.com |
| <b>API NUMBER ASSIGNED</b><br>43013501830000 | <b>APPROVAL</b><br><br><br>Permit Manager |                                    |

**Proposed Hole, Casing, and Cement**

| <b>String</b> | <b>Hole Size</b> | <b>Casing Size</b> | <b>Top (MD)</b> | <b>Bottom (MD)</b> |  |  |
|---------------|------------------|--------------------|-----------------|--------------------|--|--|
| Prod          | 7.875            | 5.5                | 0               | 6333               |  |  |
| <b>Pipe</b>   | <b>Grade</b>     | <b>Length</b>      | <b>Weight</b>   |                    |  |  |
|               | Grade J-55 LT&C  | 6333               | 15.5            |                    |  |  |
|               |                  |                    |                 |                    |  |  |

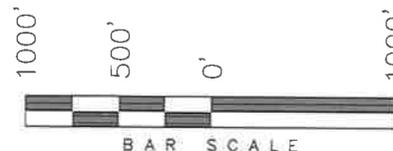
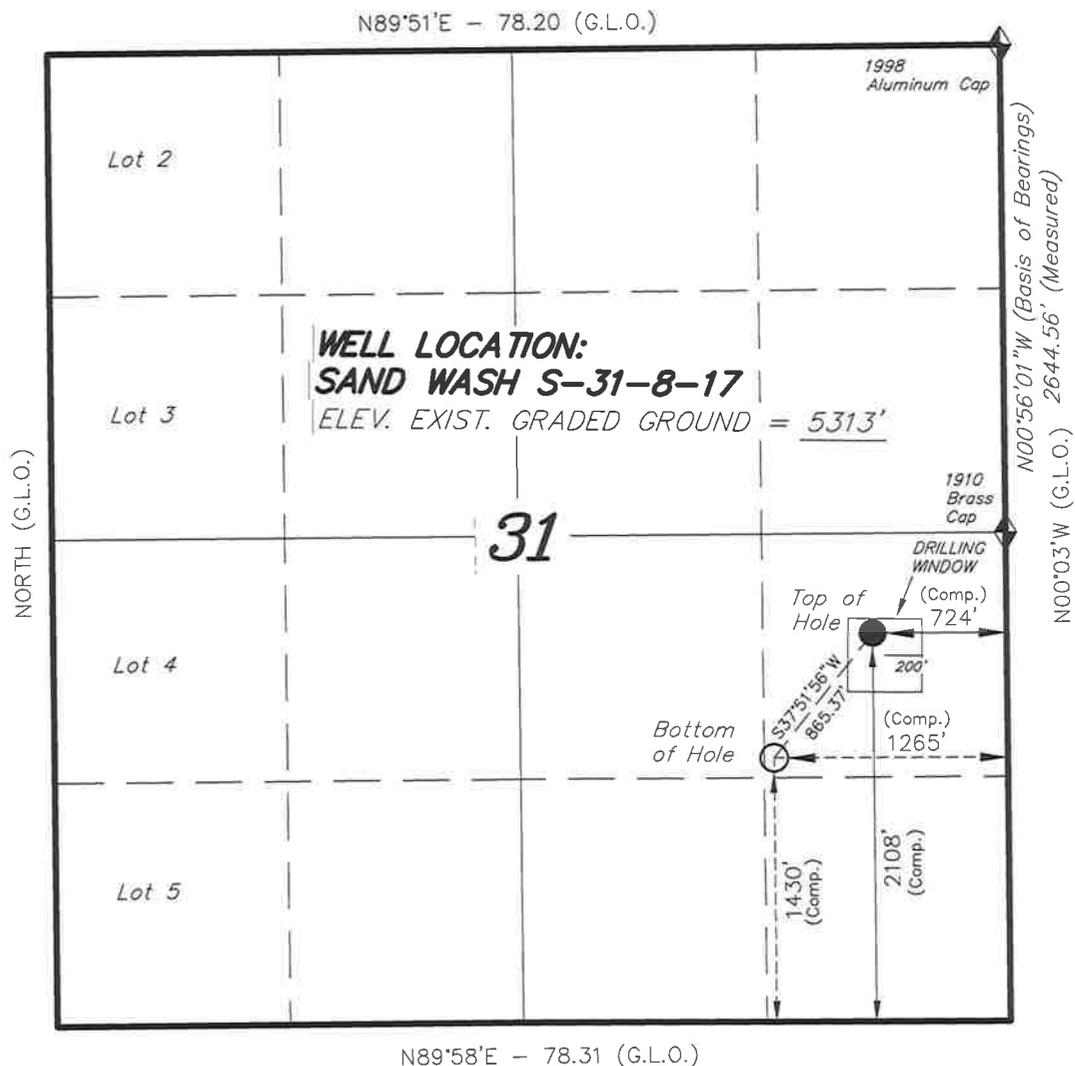
**Proposed Hole, Casing, and Cement**

| <b>String</b> | <b>Hole Size</b> | <b>Casing Size</b> | <b>Top (MD)</b> | <b>Bottom (MD)</b> |  |  |
|---------------|------------------|--------------------|-----------------|--------------------|--|--|
| Surf          | 12.25            | 8.625              | 0               | 300                |  |  |
| <b>Pipe</b>   | <b>Grade</b>     | <b>Length</b>      | <b>Weight</b>   |                    |  |  |
|               | Grade J-55 ST&C  | 300                | 24.0            |                    |  |  |
|               |                  |                    |                 |                    |  |  |

# T8S, R17E, S.L.B.&M.

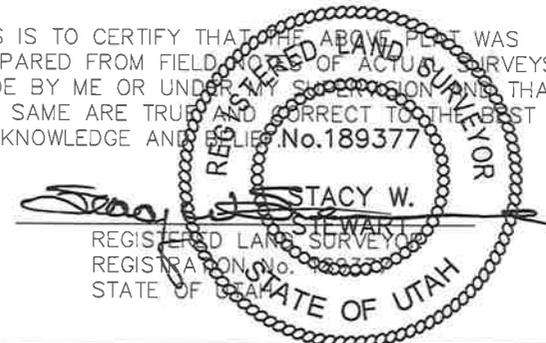
## NEWFIELD PRODUCTION COMPANY

WELL LOCATION, SAND WASH S-31-8-17,  
 LOCATED AS SHOWN IN THE NE 1/4 SE  
 1/4 OF SECTION 31, T8S, R17E, S.L.B.&M.  
 DUCHESNE COUNTY, UTAH.



**Note:**  
 The Proposed Well head bears  
 S52°23'57\"W 903.58' from the East  
 1/4 Corner of Section 31.

THIS IS TO CERTIFY THAT THE ABOVE PLAN WAS  
 PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS  
 MADE BY ME OR UNDER MY SUPERVISION AND THAT  
 THE SAME ARE TRUE AND CORRECT TO THE BEST OF  
 MY KNOWLEDGE AND BELIEF. No. 189377



**TRI STATE LAND SURVEYING & CONSULTING**  
 180 NORTH VERNAL AVE. - VERNAL, UTAH 84078  
 (435) 781-2501

|                           |                   |
|---------------------------|-------------------|
| DATE SURVEYED:<br>5-22-09 | SURVEYED BY: T.H. |
| DATE DRAWN:<br>06-18-09   | DRAWN BY: F.T.M.  |
| REVISED:                  | SCALE: 1" = 1000' |

◆ = SECTION CORNERS LOCATED

BASIS OF ELEV; Elevations are base on  
 LOCATION: an N.G.S. OPUS Correction.  
 LAT. 40°04'09.56" LONG. 110°00'43.28"  
 (Tristate Aluminum Cap) Elev. 5281.57'

**SAND WASH S-31-8-17**  
 (Surface Location) NAD 83  
 LATITUDE = 40° 04' 22.54"  
 LONGITUDE = 110° 02' 32.80"

APIWellNo:43013501830000'



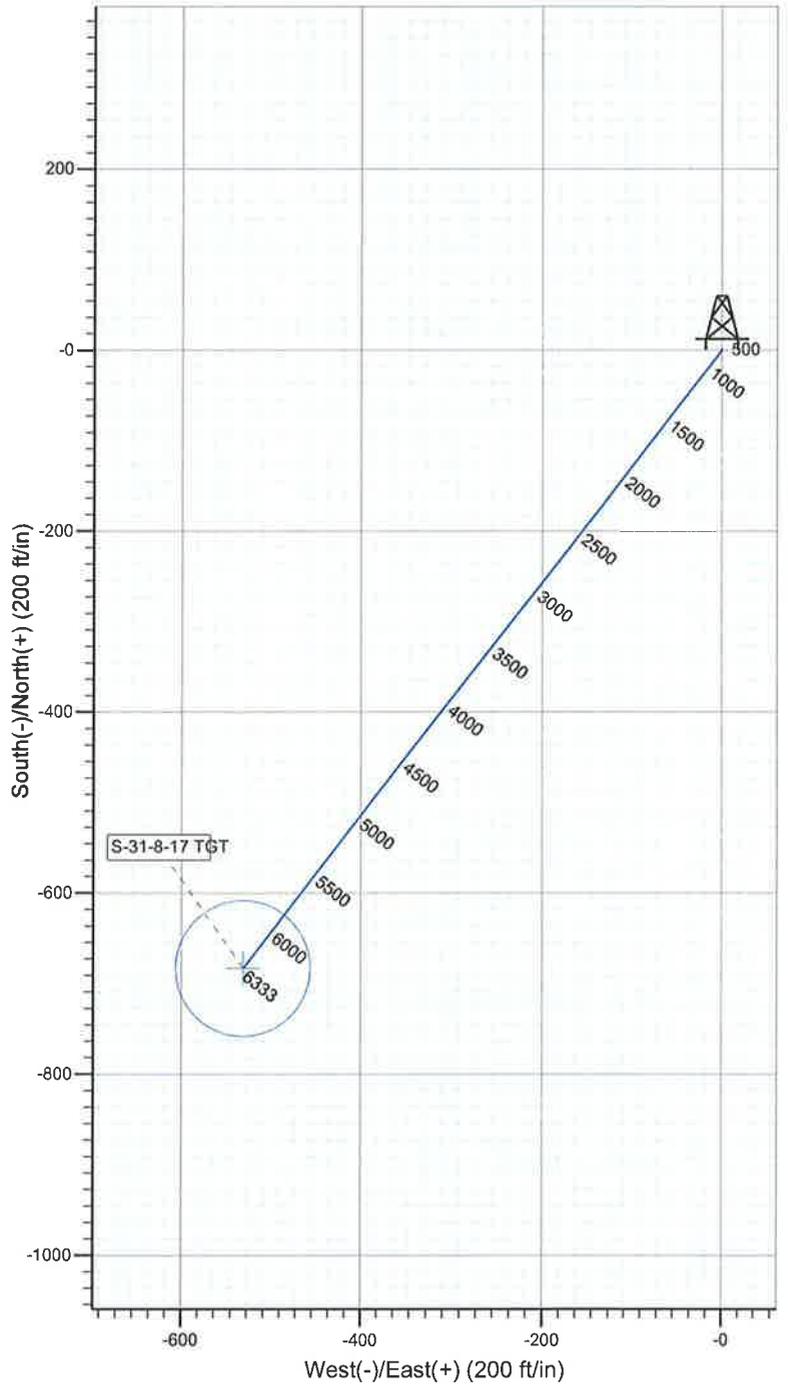
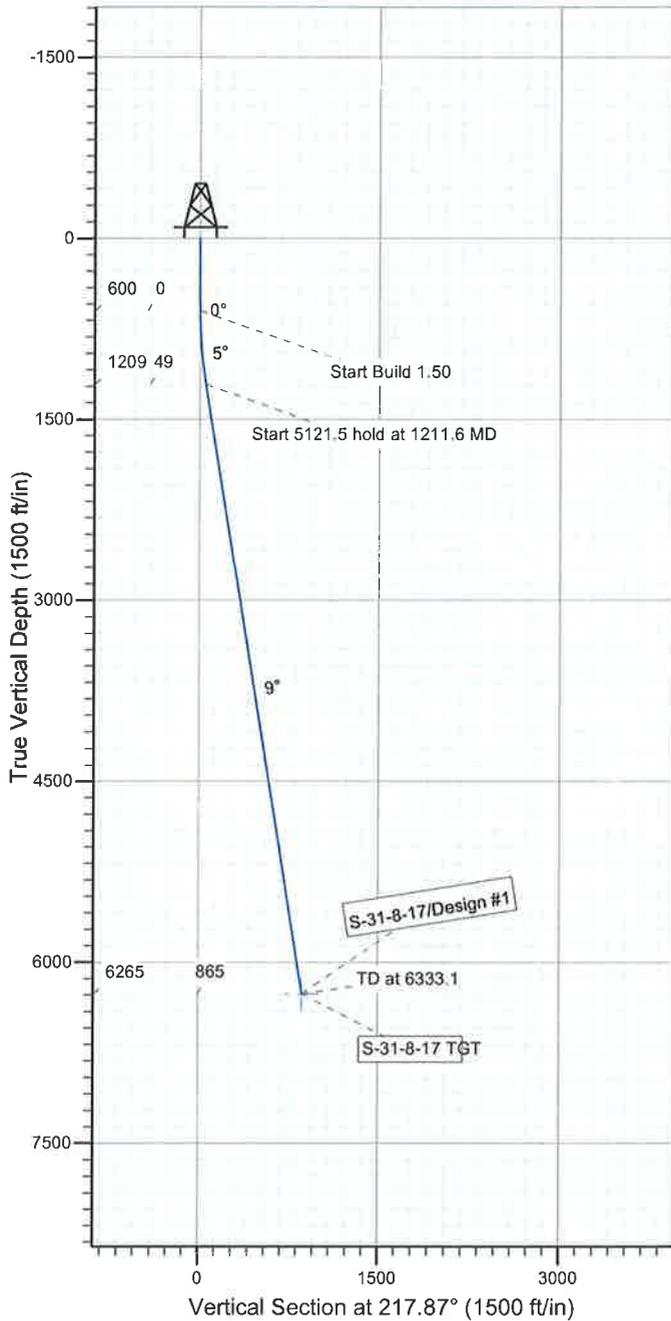
Project: USGS Myton SW (UT)  
 Site: SECTION 31 T8S R17E  
 Well: S-31-8-17  
 Wellbore: Wellbore #1  
 Design: Design #1



Azimuths to True North  
 Magnetic North: 11.50°

Magnetic Field  
 Strength: 52480.4snT  
 Dip Angle: 65.87°  
 Date: 2009/11/03  
 Model: IGRF200510

KOP @ 600'  
 DOGLEG RATE 1.5 DEG/100'  
 TARGET RADIUS IS 75'



WELLBORE TARGET DETAILS

| Name          | TVD    | +N/-S  | +E/-W  | Shape                 |
|---------------|--------|--------|--------|-----------------------|
| S-31-8-17 TGT | 6265.0 | -683.1 | -531.2 | Circle (Radius: 75.0) |

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   | 600.0  | 0.00 | 0.00   | 600.0  | 0.0    | 0.0    | 0.00 | 0.00   | 0.0   |               |
| 3   | 1211.6 | 9.17 | 217.87 | 1209.0 | -38.6  | -30.0  | 1.50 | 217.87 | 48.9  |               |
| 4   | 6333.1 | 9.17 | 217.87 | 6265.0 | -683.1 | -531.2 | 0.00 | 0.00   | 865.4 | S-31-8-17 TGT |



**NEWFIELD**



# **NEWFIELD EXPLORATION**

**USGS Myton SW (UT)  
SECTION 31 T8S R17E  
S-31-8-17**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**03 November, 2009**

**HATHAWAY HB BURNHAM**  
DIRECTIONAL & MWD SERVICES



## HATHAWAY BURNHAM

Planning Report



|                  |                            |                                     |   |
|------------------|----------------------------|-------------------------------------|---|
| <b>Database:</b> | EDM 2003.21 Single User Db | <b>Local Co-ordinate Reference:</b> | Well S-31-8-17                            |
| <b>Company:</b>  | NEWFIELD EXPLORATION       | <b>TVD Reference:</b>               | S-31-8-17 @ 5325.0ft (Original Well Elev) |
| <b>Project:</b>  | USGS Myton SW (UT)         | <b>MD Reference:</b>                | S-31-8-17 @ 5325.0ft (Original Well Elev) |
| <b>Site:</b>     | SECTION 31 T8S R17E        | <b>North Reference:</b>             | True                                      |
| <b>Well:</b>     | S-31-8-17                  | <b>Survey Calculation Method:</b>   | Minimum Curvature                         |
| <b>Wellbore:</b> | Wellbore #1                |                                     |   |
| <b>Design:</b>   | Design #1                  |                                     |   |

|   |                           |                      |                             |
|---|---------------------------|----------------------|-----------------------------|
| <b>Project</b> USGS Myton SW (UT), DUCHESNE COUNTY, UT, USA |                           |                      |                             |
| <b>Map System:</b>  | US State Plane 1983       | <b>System Datum:</b> | Mean Sea Level              |
| <b>Geo Datum:</b>   | North American Datum 1983 |                      |                             |
| <b>Map Zone:</b>  | Utah Central Zone         |                      | Using geodetic scale factor |

|  |          |                          |                  |
|--|----------|--------------------------|------------------|
| <b>Site</b> SECTION 31 T8S R17E, SEC 31 T8S R17E |          |                          |                  |
| <b>Site Position:</b>                            |          | <b>Northing:</b>         | 7,199,169.00ft   |
| <b>From:</b>                                     | Lat/Long | <b>Easting:</b>          | 2,048,214.00ft   |
| <b>Position Uncertainty:</b>                     | 0.0 ft   | <b>Slot Radius:</b>      | "                |
|  |          | <b>Latitude:</b>         | 40° 4' 28.063 N  |
|  |          | <b>Longitude:</b>        | 110° 2' 33.522 W |
|  |          | <b>Grid Convergence:</b> | 0.93 °           |

|  |       |           |                            |
|--|-------|-----------|----------------------------|
| <b>Well</b> S-31-8-17, SHL LAT: 40 04 22.54, LONG: -110 02 32.80 |       |           |                            |
| <b>Well Position</b>   | +N/-S | -558.9 ft | <b>Northing:</b>           |
|  | +E/-W | 56.2 ft   | 7,198,611.17 ft            |
|  |       |           | <b>Latitude:</b>           |
|  |       |           | 40° 4' 22.540 N            |
|  |       |           | <b>Longitude:</b>          |
|  |       |           | 110° 2' 32.800 W           |
| <b>Position Uncertainty</b>                                      |       | 0.0 ft    | <b>Wellhead Elevation:</b> |
|  |       |           | 5,325.0 ft                 |
|  |       |           | <b>Ground Level:</b>       |
|  |       |           | 5,313.0 ft                 |

|                             |                   |                    |                        |                      |                            |
|-----------------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b> Wellbore #1 |                   |                    |                        |                      |                            |
| <b>Magnetics</b>            | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                             | IGRF200510        | 2009/11/03         | 11.50                  | 65.87                | 52,480                     |

|                          |                              |                   |                      |                      |  |
|--------------------------|------------------------------|-------------------|----------------------|----------------------|--|
| <b>Design</b> Design #1  |                              |                   |                      |                      |  |
| <b>Audit Notes:</b>      |                              |                   |                      |                      |  |
| <b>Version:</b>          | <b>Phase:</b>                | PROTOTYPE         | <b>Tie On Depth:</b> | 0.0                  |  |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (ft)</b> | <b>+N/-S (ft)</b> | <b>+E/-W (ft)</b>    | <b>Direction (°)</b> |  |
|                          | 6,265.0                      | 0.0               | 0.0                  | 217.87               |  |

| <b>Plan Sections</b> |                 |             |                     |            |            |                       |                      |                     |         |               |
|----------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|----------------------|---------------------|---------|---------------|
| Measured Depth (ft)  | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target        |
| 0.0                  | 0.00            | 0.00        | 0.0                 | 0.0        | 0.0        | 0.00                  | 0.00                 | 0.00                | 0.00    |               |
| 600.0                | 0.00            | 0.00        | 600.0               | 0.0        | 0.0        | 0.00                  | 0.00                 | 0.00                | 0.00    |               |
| 1,211.6              | 9.17            | 217.87      | 1,209.0             | -38.6      | -30.0      | 1.50                  | 1.50                 | 0.00                | 217.87  |               |
| 6,333.1              | 9.17            | 217.87      | 6,265.0             | -683.1     | -531.2     | 0.00                  | 0.00                 | 0.00                | 0.00    | S-31-8-17 TGT |

**NEWFIELD**



**HATHAWAY BURNHAM**

Planning Report



**Database:** EDM 2003.21 Single User Db  
**Company:** NEWFIELD EXPLORATION  
**Project:** USGS Myton SW (UT)  
**Site:** SECTION 31 T8S R17E  
**Well:** S-31-8-17  
**Wellbore:** Wellbore #1  
**Design:** Design #1

**Local Co-ordinate Reference:** Well S-31-8-17  
**TVD Reference:** S-31-8-17 @ 5325.0ft (Original Well Elev)  
**MD Reference:** S-31-8-17 @ 5325.0ft (Original Well Elev)  
**North Reference:** True  
**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) |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 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               | 1.50            | 217.87      | 700.0               | -1.0       | -0.8       | 1.3                   | 1.50                  | 1.50                 | 0.00                |
| 800.0               | 3.00            | 217.87      | 799.9               | -4.1       | -3.2       | 5.2                   | 1.50                  | 1.50                 | 0.00                |
| 900.0               | 4.50            | 217.87      | 899.7               | -9.3       | -7.2       | 11.8                  | 1.50                  | 1.50                 | 0.00                |
| 1,000.0             | 6.00            | 217.87      | 999.3               | -16.5      | -12.8      | 20.9                  | 1.50                  | 1.50                 | 0.00                |
| 1,100.0             | 7.50            | 217.87      | 1,098.6             | -25.8      | -20.1      | 32.7                  | 1.50                  | 1.50                 | 0.00                |
| 1,200.0             | 9.00            | 217.87      | 1,197.5             | -37.1      | -28.9      | 47.0                  | 1.50                  | 1.50                 | 0.00                |
| 1,211.6             | 9.17            | 217.87      | 1,209.0             | -38.6      | -30.0      | 48.9                  | 1.50                  | 1.50                 | 0.00                |
| 1,300.0             | 9.17            | 217.87      | 1,296.3             | -49.7      | -38.6      | 63.0                  | 0.00                  | 0.00                 | 0.00                |
| 1,400.0             | 9.17            | 217.87      | 1,395.0             | -62.3      | -48.4      | 78.9                  | 0.00                  | 0.00                 | 0.00                |
| 1,500.0             | 9.17            | 217.87      | 1,493.7             | -74.9      | -58.2      | 94.8                  | 0.00                  | 0.00                 | 0.00                |
| 1,600.0             | 9.17            | 217.87      | 1,592.4             | -87.5      | -68.0      | 110.8                 | 0.00                  | 0.00                 | 0.00                |
| 1,700.0             | 9.17            | 217.87      | 1,691.1             | -100.0     | -77.8      | 126.7                 | 0.00                  | 0.00                 | 0.00                |
| 1,800.0             | 9.17            | 217.87      | 1,789.9             | -112.6     | -87.6      | 142.7                 | 0.00                  | 0.00                 | 0.00                |
| 1,900.0             | 9.17            | 217.87      | 1,888.6             | -125.2     | -97.4      | 158.6                 | 0.00                  | 0.00                 | 0.00                |
| 2,000.0             | 9.17            | 217.87      | 1,987.3             | -137.8     | -107.2     | 174.6                 | 0.00                  | 0.00                 | 0.00                |
| 2,100.0             | 9.17            | 217.87      | 2,086.0             | -150.4     | -116.9     | 190.5                 | 0.00                  | 0.00                 | 0.00                |
| 2,200.0             | 9.17            | 217.87      | 2,184.7             | -163.0     | -126.7     | 206.4                 | 0.00                  | 0.00                 | 0.00                |
| 2,300.0             | 9.17            | 217.87      | 2,283.5             | -175.5     | -136.5     | 222.4                 | 0.00                  | 0.00                 | 0.00                |
| 2,400.0             | 9.17            | 217.87      | 2,382.2             | -188.1     | -146.3     | 238.3                 | 0.00                  | 0.00                 | 0.00                |
| 2,500.0             | 9.17            | 217.87      | 2,480.9             | -200.7     | -156.1     | 254.3                 | 0.00                  | 0.00                 | 0.00                |
| 2,600.0             | 9.17            | 217.87      | 2,579.6             | -213.3     | -165.9     | 270.2                 | 0.00                  | 0.00                 | 0.00                |
| 2,700.0             | 9.17            | 217.87      | 2,678.4             | -225.9     | -175.7     | 286.2                 | 0.00                  | 0.00                 | 0.00                |
| 2,800.0             | 9.17            | 217.87      | 2,777.1             | -238.5     | -185.4     | 302.1                 | 0.00                  | 0.00                 | 0.00                |
| 2,900.0             | 9.17            | 217.87      | 2,875.8             | -251.1     | -195.2     | 318.0                 | 0.00                  | 0.00                 | 0.00                |
| 3,000.0             | 9.17            | 217.87      | 2,974.5             | -263.6     | -205.0     | 334.0                 | 0.00                  | 0.00                 | 0.00                |
| 3,100.0             | 9.17            | 217.87      | 3,073.2             | -276.2     | -214.8     | 349.9                 | 0.00                  | 0.00                 | 0.00                |
| 3,200.0             | 9.17            | 217.87      | 3,172.0             | -288.8     | -224.6     | 365.9                 | 0.00                  | 0.00                 | 0.00                |
| 3,300.0             | 9.17            | 217.87      | 3,270.7             | -301.4     | -234.4     | 381.8                 | 0.00                  | 0.00                 | 0.00                |
| 3,400.0             | 9.17            | 217.87      | 3,369.4             | -314.0     | -244.2     | 397.8                 | 0.00                  | 0.00                 | 0.00                |
| 3,500.0             | 9.17            | 217.87      | 3,468.1             | -326.6     | -254.0     | 413.7                 | 0.00                  | 0.00                 | 0.00                |
| 3,600.0             | 9.17            | 217.87      | 3,566.8             | -339.2     | -263.7     | 429.6                 | 0.00                  | 0.00                 | 0.00                |
| 3,700.0             | 9.17            | 217.87      | 3,665.6             | -351.7     | -273.5     | 445.6                 | 0.00                  | 0.00                 | 0.00                |
| 3,800.0             | 9.17            | 217.87      | 3,764.3             | -364.3     | -283.3     | 461.5                 | 0.00                  | 0.00                 | 0.00                |
| 3,900.0             | 9.17            | 217.87      | 3,863.0             | -376.9     | -293.1     | 477.5                 | 0.00                  | 0.00                 | 0.00                |
| 4,000.0             | 9.17            | 217.87      | 3,961.7             | -389.5     | -302.9     | 493.4                 | 0.00                  | 0.00                 | 0.00                |
| 4,100.0             | 9.17            | 217.87      | 4,060.4             | -402.1     | -312.7     | 509.3                 | 0.00                  | 0.00                 | 0.00                |
| 4,200.0             | 9.17            | 217.87      | 4,159.2             | -414.7     | -322.5     | 525.3                 | 0.00                  | 0.00                 | 0.00                |
| 4,300.0             | 9.17            | 217.87      | 4,257.9             | -427.3     | -332.2     | 541.2                 | 0.00                  | 0.00                 | 0.00                |
| 4,400.0             | 9.17            | 217.87      | 4,356.6             | -439.8     | -342.0     | 557.2                 | 0.00                  | 0.00                 | 0.00                |
| 4,500.0             | 9.17            | 217.87      | 4,455.3             | -452.4     | -351.8     | 573.1                 | 0.00                  | 0.00                 | 0.00                |
| 4,600.0             | 9.17            | 217.87      | 4,554.1             | -465.0     | -361.6     | 589.1                 | 0.00                  | 0.00                 | 0.00                |
| 4,700.0             | 9.17            | 217.87      | 4,652.8             | -477.6     | -371.4     | 605.0                 | 0.00                  | 0.00                 | 0.00                |
| 4,800.0             | 9.17            | 217.87      | 4,751.5             | -490.2     | -381.2     | 620.9                 | 0.00                  | 0.00                 | 0.00                |
| 4,900.0             | 9.17            | 217.87      | 4,850.2             | -502.8     | -391.0     | 636.9                 | 0.00                  | 0.00                 | 0.00                |
| 5,000.0             | 9.17            | 217.87      | 4,948.9             | -515.4     | -400.8     | 652.8                 | 0.00                  | 0.00                 | 0.00                |
| 5,100.0             | 9.17            | 217.87      | 5,047.7             | -527.9     | -410.5     | 668.8                 | 0.00                  | 0.00                 | 0.00                |
| 5,200.0             | 9.17            | 217.87      | 5,146.4             | -540.5     | -420.3     | 684.7                 | 0.00                  | 0.00                 | 0.00                |



**HATHAWAY BURNHAM**  
Planning Report



**Database:** EDM 2003.21 Single User Db  
**Company:** NEWFIELD EXPLORATION  
**Project:** USGS Myton SW (UT)  
**Site:** SECTION 31 T8S R17E  
**Well:** S-31-8-17  
**Wellbore:** Wellbore #1  
**Design:** Design #1

**Local Co-ordinate Reference:** Well S-31-8-17  
**TVD Reference:** S-31-8-17 @ 5325.0ft (Original Well Elev)  
**MD Reference:** S-31-8-17 @ 5325.0ft (Original Well Elev)  
**North Reference:** True  
**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) |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 5,300.0             | 9.17            | 217.87      | 5,245.1             | -553.1     | -430.1     | 700.7                 | 0.00                  | 0.00                 | 0.00                |
| 5,400.0             | 9.17            | 217.87      | 5,343.8             | -565.7     | -439.9     | 716.6                 | 0.00                  | 0.00                 | 0.00                |
| 5,500.0             | 9.17            | 217.87      | 5,442.5             | -578.3     | -449.7     | 732.5                 | 0.00                  | 0.00                 | 0.00                |
| 5,600.0             | 9.17            | 217.87      | 5,541.3             | -590.9     | -459.5     | 748.5                 | 0.00                  | 0.00                 | 0.00                |
| 5,700.0             | 9.17            | 217.87      | 5,640.0             | -603.4     | -469.3     | 764.4                 | 0.00                  | 0.00                 | 0.00                |
| 5,800.0             | 9.17            | 217.87      | 5,738.7             | -616.0     | -479.1     | 780.4                 | 0.00                  | 0.00                 | 0.00                |
| 5,900.0             | 9.17            | 217.87      | 5,837.4             | -628.6     | -488.8     | 796.3                 | 0.00                  | 0.00                 | 0.00                |
| 6,000.0             | 9.17            | 217.87      | 5,936.1             | -641.2     | -498.6     | 812.3                 | 0.00                  | 0.00                 | 0.00                |
| 6,100.0             | 9.17            | 217.87      | 6,034.9             | -653.8     | -508.4     | 828.2                 | 0.00                  | 0.00                 | 0.00                |
| 6,200.0             | 9.17            | 217.87      | 6,133.6             | -666.4     | -518.2     | 844.1                 | 0.00                  | 0.00                 | 0.00                |
| 6,300.0             | 9.17            | 217.87      | 6,232.3             | -679.0     | -528.0     | 860.1                 | 0.00                  | 0.00                 | 0.00                |
| 6,333.1             | 9.17            | 217.87      | 6,265.0             | -683.1     | -531.2     | 865.4                 | 0.00                  | 0.00                 | 0.00                |

NEWFIELD PRODUCTION COMPANY  
SAND WASH FEDERAL S-31-8-17  
AT SURFACE: NE/SE SECTION 31, T8S, R17E  
DUCHESNE COUNTY, UTAH

TEN POINT DRILLING PROGRAM

1. **GEOLOGIC SURFACE FORMATION:**

Uinta formation of Upper Eocene Age

2. **ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS:**

|             |           |
|-------------|-----------|
| Uinta       | 0 – 1605' |
| Green River | 1605'     |
| Wasatch     | 6333'     |

3. **ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERALS:**

Green River Formation 1605' – 6333' – Oil

Fresh water may be encountered in the Uinta Formation, but would not be expected below about 350'. All water shows and water bearing geologic units shall be reported to the geologic and engineering staff of the Vernal Office prior to running the next string of casing or before plugging orders are requested. All water shows must be reported within one (1) business day after being encountered.

All usable (<10,000 PPM TDS) water and prospectively valuable minerals (as described by BLM at onsite) encountered during drilling will be recorded by depth and adequately protected. This information shall be reported to the Vernal Office.

Detected water flows shall be sampled, analyzed, and reported to the geologic & engineering staff of the Vernal Office. The office may request additional water samples for further analysis. Usage of the State of Utah form *Report of Water Encountered* is acceptable, but not required.

The following information is requested for water shows and samples where applicable:

|  |   |
|--|---|
| Location & Sampled Interval                        | Date Sampled                                  |
| Flow Rate  | Temperature                                   |
| Hardness   | pH  |
| Water Classification (State of Utah)               | Dissolved Calcium (Ca) (mg/l)                 |
| Dissolved Iron (Fe) (ug/l)                         | Dissolved Sodium (Na) (mg/l)                  |
| Dissolved Magnesium (Mg) (mg/l)                    | Dissolved Carbonate (CO <sub>3</sub> ) (mg/l) |
| Dissolved Bicarbonate (NaHCO <sub>3</sub> ) (mg/l) | Dissolved Chloride (Cl) (mg/l)                |
| Dissolved Sulfate (SO <sub>4</sub> ) (mg/l)        | Dissolved Total Solids (TDS) (mg/l)           |

4. **PROPOSED CASING PROGRAM**

a. **Casing Design: Sand Wash Federal S-31-8-17**

| Size                     | Interval |        | Weight | Grade | Coupling | Design Factors |                |                  |
|--------------------------|----------|--------|--------|-------|----------|----------------|----------------|------------------|
|                          | Top      | Bottom |        |       |          | Burst          | Collapse       | Tension          |
| Surface casing<br>8-5/8" | 0'       | 300'   | 24.0   | J-55  | STC      | 2,950<br>17.53 | 1,370<br>14.35 | 244,000<br>33.89 |
| Prod casing<br>5-1/2"    | 0'       | 6,333' | 15.5   | J-55  | LTC      | 4,810<br>2.39  | 4,040<br>2.01  | 217,000<br>2.21  |

Assumptions:

- 1) Surface casing max anticipated surface press (MASP) = Frac gradient – gas gradient
- 2) Prod casing MASP (production mode) = Pore pressure – gas gradient
- 3) All collapse calculations assume fully evacuated casing w/ gas gradient
- 4) All tension calculations assume air weight

Frac gradient at surface casing shoe = 13.0 ppg  
 Pore pressure at surface casing shoe = 8.33 ppg  
 Pore pressure at prod casing shoe = 8.33 ppg  
 Gas gradient = 0.115 psi/ft

All casing shall be new or, if used, inspected and tested. Used casing shall meet or exceed API standards for new casing.

All casing strings shall have a minimum of 1 (one) centralizer on each of the bottom three (3) joints.

b. **Cementing Design: Sand Wash Federal S-31-8-17**

| Job                 | Fill   | Description                      | Sacks           | OH Excess* | Weight (ppg) | Yield (ft <sup>3</sup> /sk) |
|---------------------|--------|----------------------------------|-----------------|------------|--------------|-----------------------------|
|                     |        |                                  | ft <sup>3</sup> |            |              |                             |
| Surface casing      | 300'   | Class G w/ 2% CaCl               | 138             | 30%        | 15.8         | 1.17                        |
|                     |        |                                  | 161             |            |              |                             |
| Prod casing<br>Lead | 4,333' | Prem Lite II w/ 10% gel + 3% KCl | 299<br>976      | 30%        | 11.0         | 3.26                        |
| Prod casing<br>Tail | 2,000' | 50/50 Poz w/ 2% gel + 3% KCl     | 363<br>451      | 30%        | 14.3         | 1.24                        |

- \*Actual volume pumped will be 15% over the caliper log
- Compressive strength of lead cement: 1800 psi @ 24 hours, 2250 psi @ 72 hours
  - Compressive strength of tail cement: 2500 psi @ 24 hours

Hole Sizes: A 12-1/4" hole will be drilled for the 8-5/8" surface casing. A 7-7/8" hole will be drilled for the 5-1/2" production casing.

The 8-5/8" surface casing shall in all cases be cemented back to surface. In the event that during the primary surface cementing operation the cement does not circulate to surface, or if the cement level should fall back more than 8 feet from surface, then a remedial surface cementing operation shall be performed to insure adequate isolation and stabilization of the surface casing.

5. **MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:**

The operator's minimum specifications for pressure control equipment are as follows:

An 8" Double Ram Hydraulic unit with a closing unit will be utilized. Function test of BOP's will be check daily.

Refer to **Exhibit C** for a diagram of BOP equipment that will be used on this well.

6. **TYPE AND CHARACTERISTICS OF THE PROPOSED CIRCULATION MUDS:**

From surface to ±350 feet will be drilled with an air/mist system. The air rig is equipped with a 6 ½" blooie line that is straight run and securely anchored. The blooie line is used with a discharge less than 100 ft from the wellbore in order to minimize the well pad size. The blooie line is not equipped with an automatic igniter or continuous pilot light and the compressor is located less than 100 ft from the well bore due to the low possibility of combustion with the air dust mixture. The trailer mounted compressor (capacity of 2000 CFM) has a safety shut-off valve which is located 15 feet from the air rig. A truck with 70 bbls of water is on stand by to be used as kill fluid, if necessary. From about ±350 feet to TD, a fresh water system will be utilized. Clay inhibition and hole stability will be achieved with a KCl substitute additive. This additive will be identified in the APD and reviewed to determine if the reserve pit shall be lined. This fresh water system will typically contain Total Dissolved Solids (TDS) of less than 3000 PPM. Anticipated mud weight is 8.4 lbs/gal. If necessary to control formation fluids or pressure, the system will be weighted with the addition of bentonite gel, and if pressure conditions warrant, with barite

No chromate additives will be used in the mud system on Federal and/or Indian lands without prior BLM approval to ensure adequate protection of fresh aquifers.

No chemicals subject to reporting under SARA Title III in an amount equal to or greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completing of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completing of this well.

Hazardous substances specifically listed by the EPA as a hazardous waste or demonstrating a characteristic of a hazardous waste will not be used in drilling, testing, or completion operations.

Newfield Production will **visually** monitor pit levels and flow from the well during drilling operations.

7. **AUXILIARY SAFETY EQUIPMENT TO BE USED:**

Auxiliary safety equipment will be a Kelly Cock, bit float, and a TIW valve with drill pipe threads.

8. **TESTING, LOGGING AND CORING PROGRAMS:**

The logging program will consist of a Dual Induction, Gamma Ray and Caliper log from TD to base of surface casing @ 300' +/-, and a Compensated Neutron-Formation Density Log from TD to 3500' +/- . A cement bond log will be run from PBTD to cement top. No drill stem testing or coring is planned for this well.

9. **ANTICIPATED ABNORMAL PRESSURE OR TEMPERATURE:**

No abnormal temperatures or pressures are anticipated. No hydrogen sulfide has been encountered or is known to exist from previous drilling in the area at this depth. Maximum anticipated

bottomhole pressure will approximately equal total depth in feet multiplied by a 0.433 psi/foot gradient.

10. **ANTICIPATED STARTING DATE AND DURATION OF THE OPERATIONS:**

It is anticipated that the drilling operations will commence the second quarter of 2010, and take approximately seven (7) days from spud to rig release.

# 2-M SYSTEM

Blowout Prevention Equipment Systems

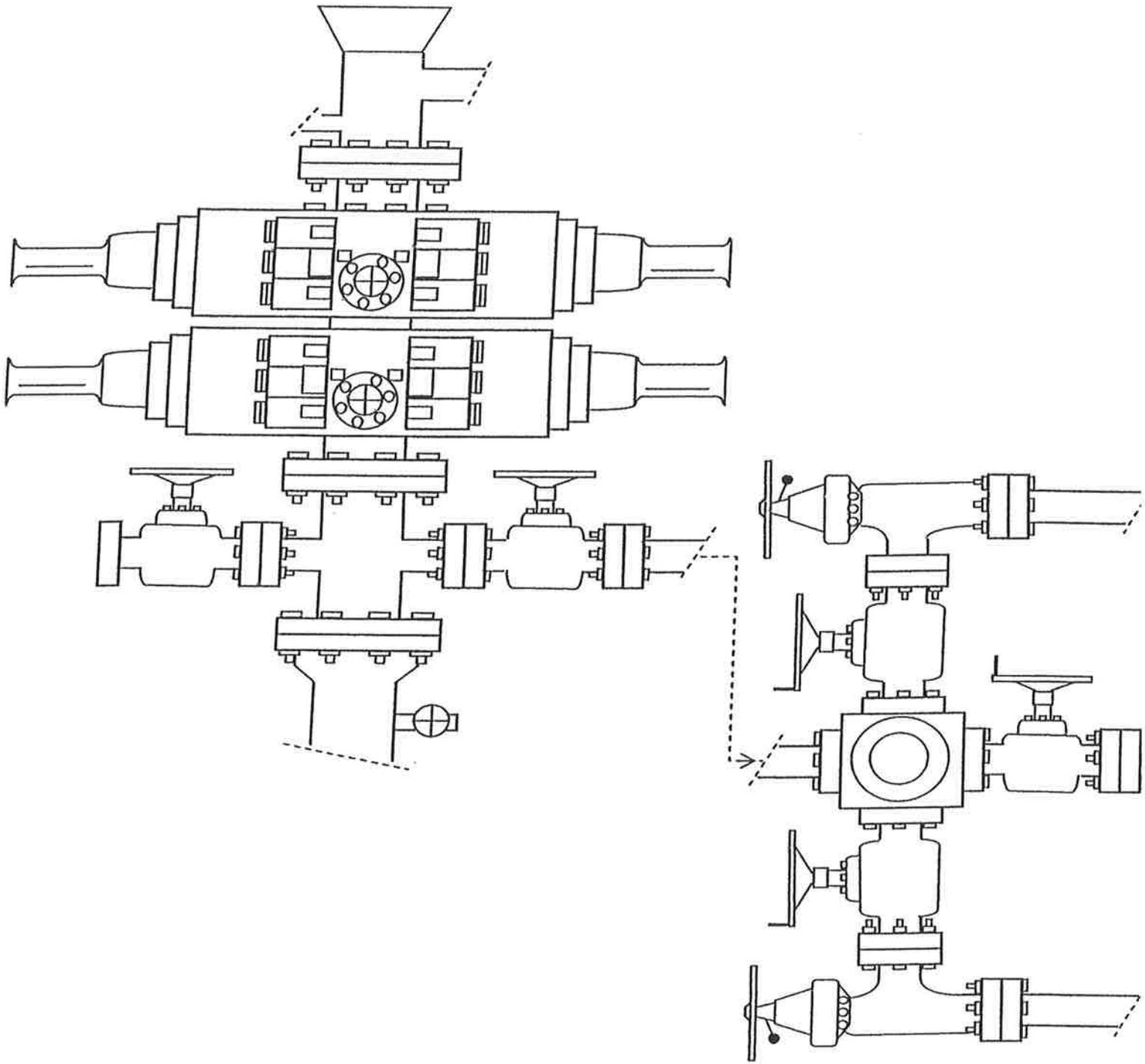
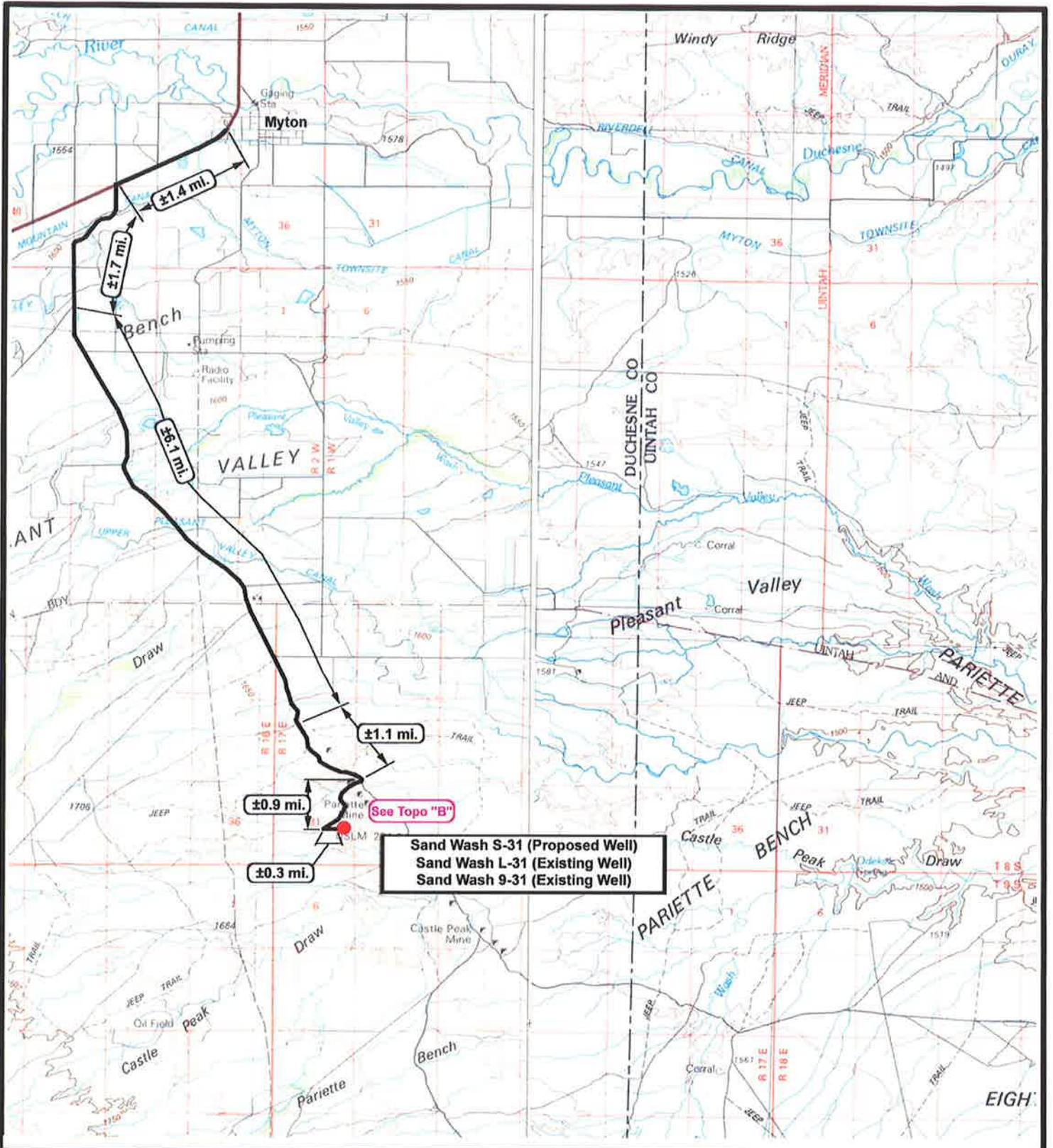


EXHIBIT C



**NEWFIELD**  
Exploration Company

**Sand Wash S-31-8-17 (Proposed Well)**  
**Sand Wash L-31-8-17 (Existing Well)**  
**Sand Wash 9-31-8-17 (Existing Well)**  
 Pad Location: NESE SEC. 31, T8S, R17E, S.L.B.&M.



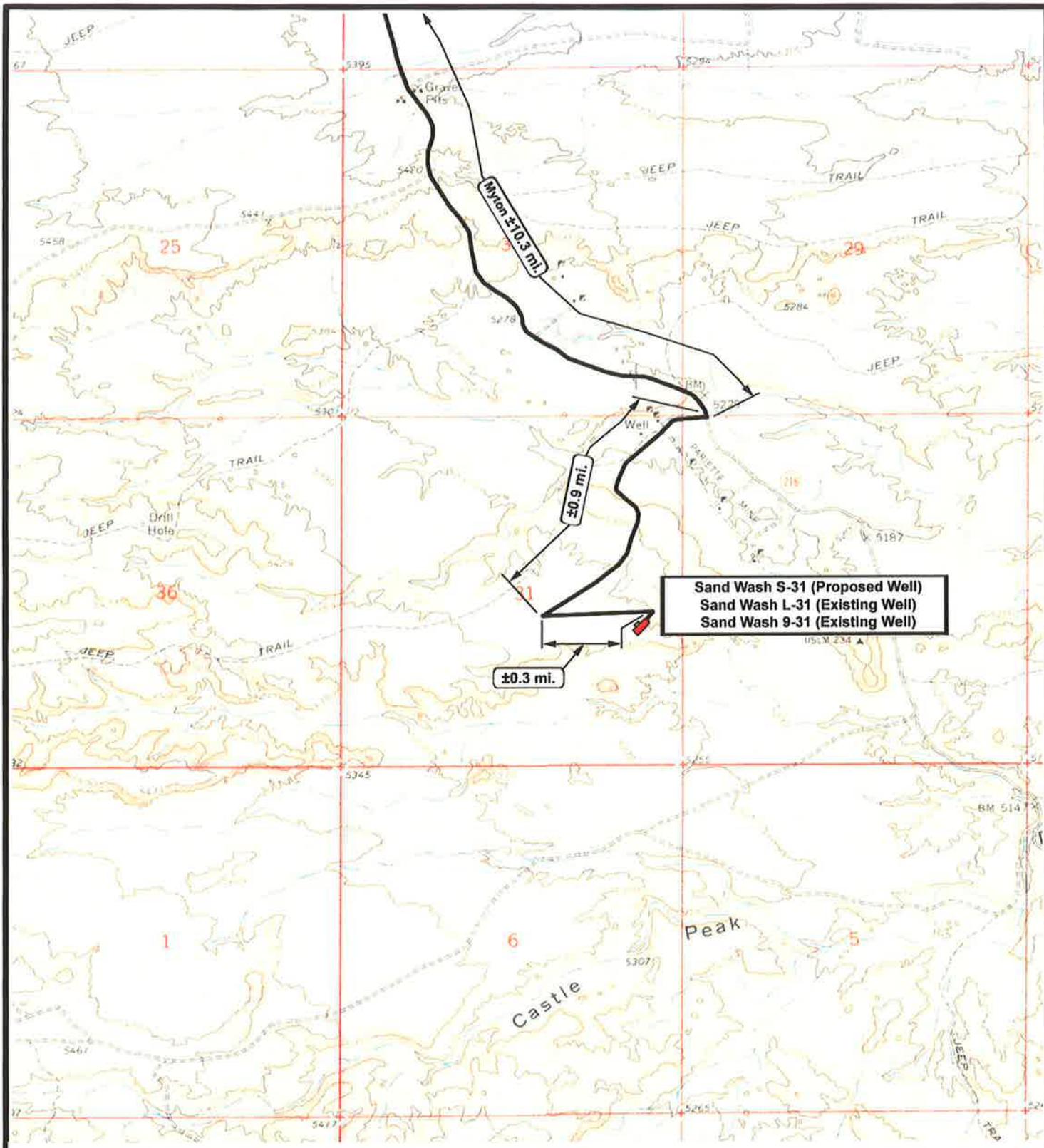
**Tri-State**  
Land Surveying Inc.  
(435) 781-2501  
180 North Vernal Ave. Vernal, Utah 84078

SCALE: 1 : 100,000  
 DRAWN BY: JAS  
 DATE: 06-19-2009

**Legend**

Existing Road

TOPOGRAPHIC MAP  
**"A"**



Sand Wash S-31 (Proposed Well)  
 Sand Wash L-31 (Existing Well)  
 Sand Wash 9-31 (Existing Well)



**NEWFIELD**  
Exploration Company

**Sand Wash S-31-8-17 (Proposed Well)**  
**Sand Wash L-31-8-17 (Existing Well)**  
**Sand Wash 9-31-8-17 (Existing Well)**  
 Pad Location: NESE SEC. 31, T8S, R17E, S.L.B.&M.



**Tri-State**  
Land Surveying Inc.  
 (435) 781-2501  
 180 North Vernal Ave. Vernal, Utah 84078

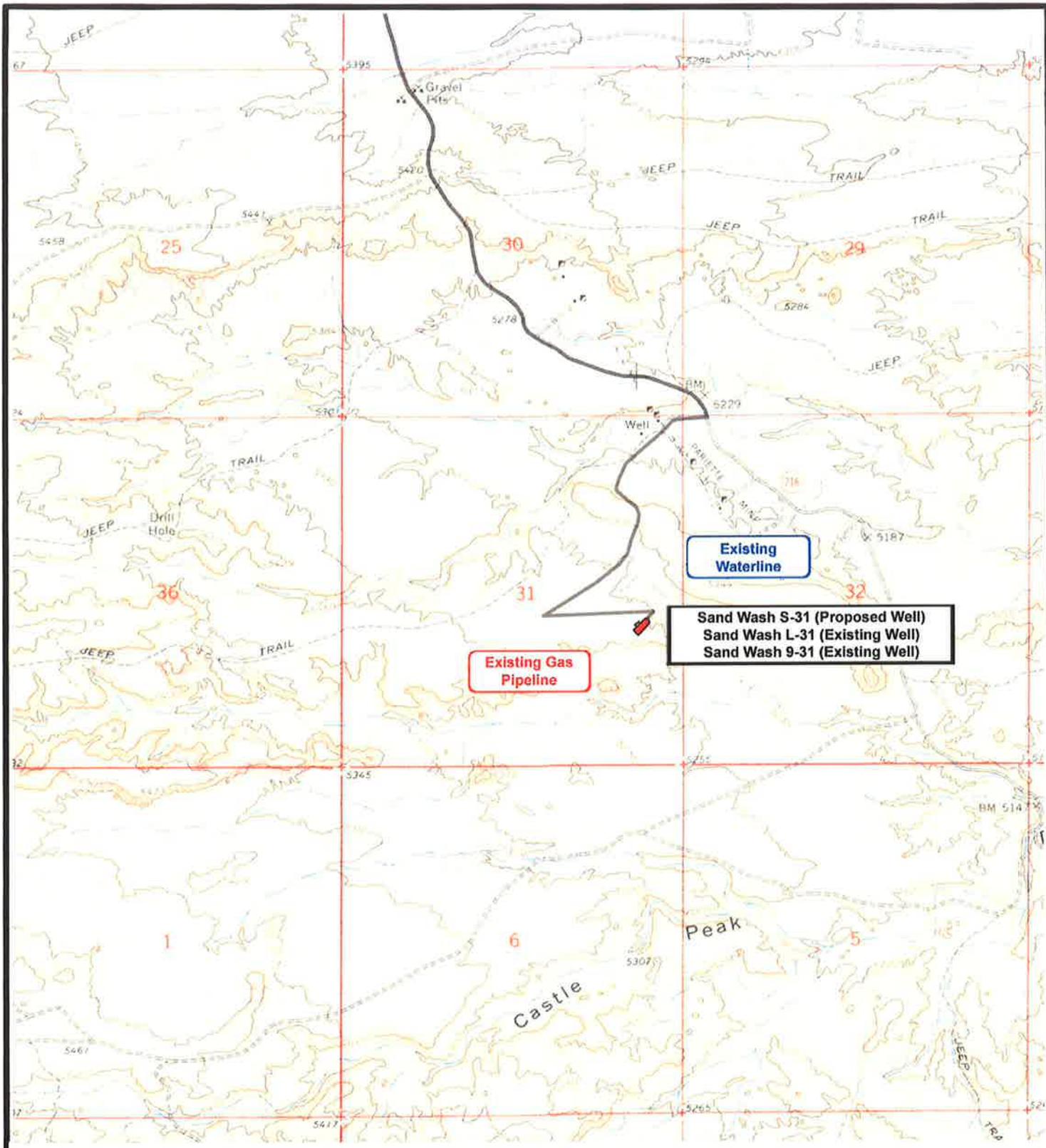
SCALE: 1" = 2000'  
 DRAWN BY: JAS  
 DATE: 06-19-2009

**Legend**

Existing Road

**TOPOGRAPHIC MAP**

**"B"**



**NEWFIELD**  
Exploration Company

**Sand Wash S-31-8-17 (Proposed Well)**  
**Sand Wash L-31-8-17 (Existing Well)**  
**Sand Wash 9-31-8-17 (Existing Well)**  
 Pad Location: NESE SEC. 31, T8S, R17E, S.L.B.&M.



*Tri-State*  
Land Surveying Inc.  
(435) 781-2501  
180 North Vernal Ave. Vernal, Utah 84078

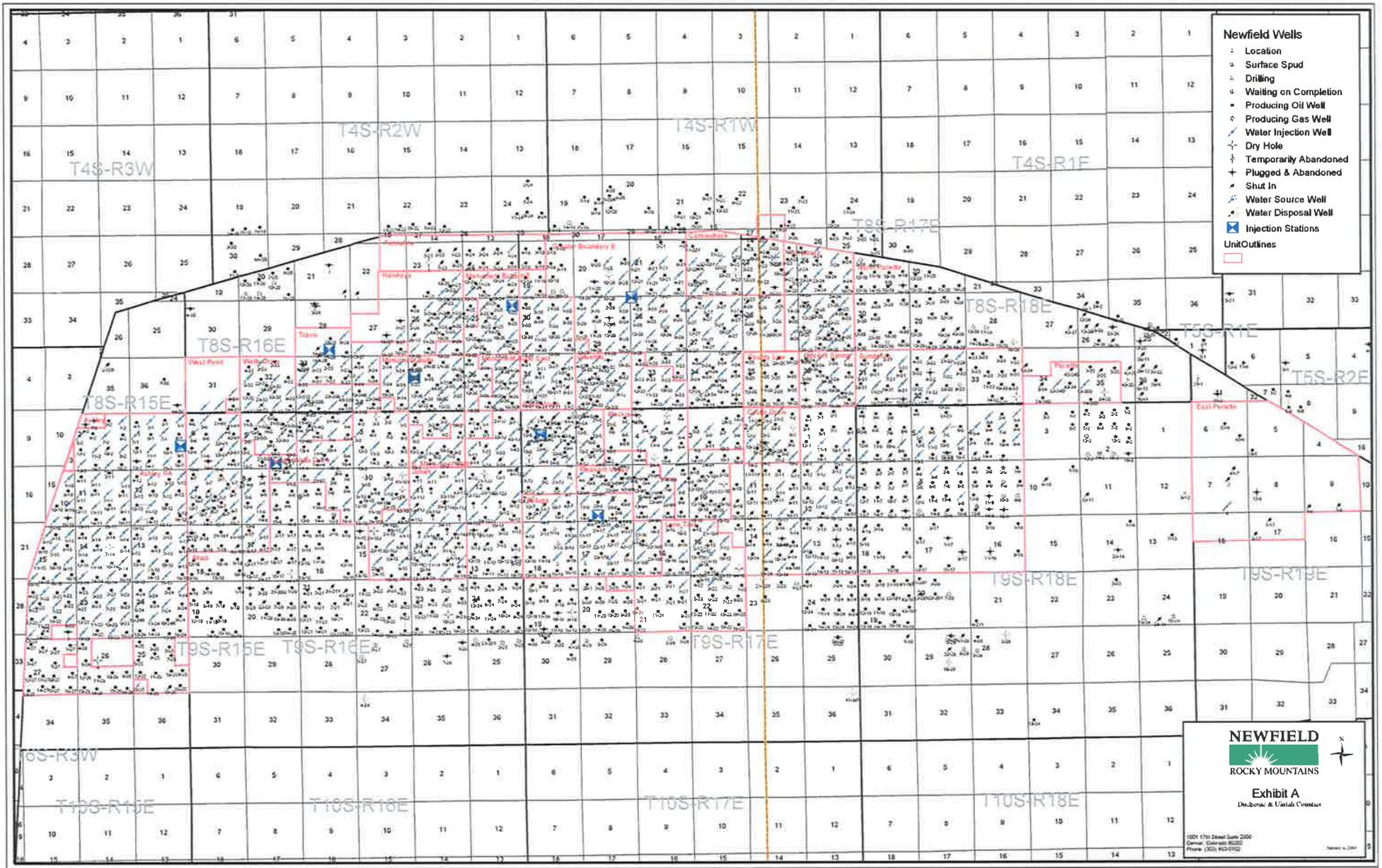
SCALE: 1" = 2000'  
 DRAWN BY: JAS  
 DATE: 06-19-2009

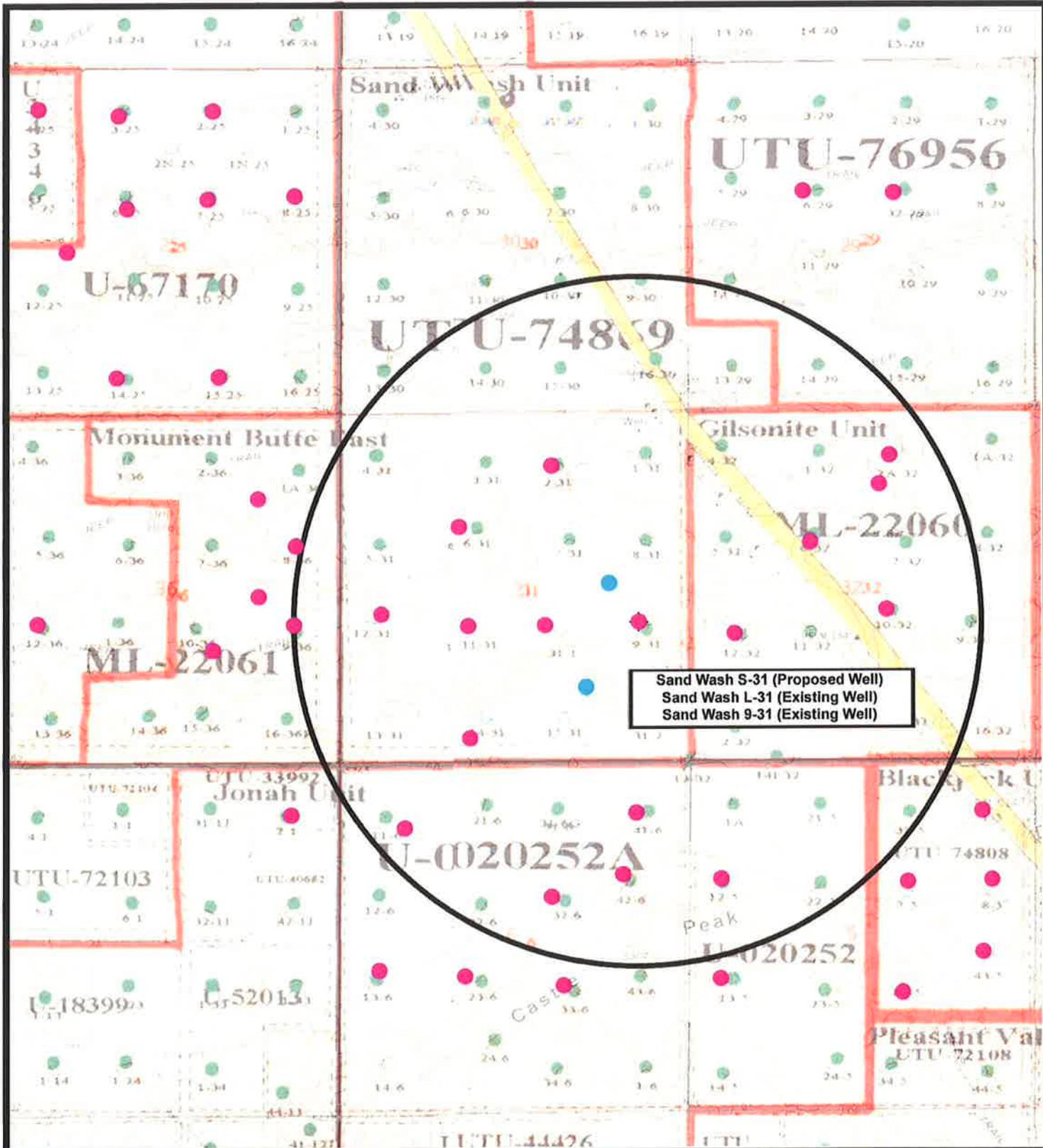
**Legend**

— Roads

**TOPOGRAPHIC MAP**

**"C"**





Sand Wash S-31 (Proposed Well)  
 Sand Wash L-31 (Existing Well)  
 Sand Wash 9-31 (Existing Well)



**NEWFIELD**  
 Exploration Company

**Sand Wash S-31-8-17 (Proposed Well)**  
**Sand Wash L-31-8-17 (Existing Well)**  
**Sand Wash 9-31-8-17 (Existing Well)**  
 Pad Location: NESE SEC. 31, T8S, R17E, S.L.B.&M.




**Tri-State**  
 Land Surveying Inc.  
 (435) 781-2501  
 180 North Vernal Ave. Vernal, Utah 84078

**SCALE: 1" = 2,000'**  
**DRAWN BY: JAS**  
**DATE: 06-19-2009**

**Legend**

- Pad Location
- Bottom Hole Location
- One-Mile Radius

**Exhibit "B"**

**NEWFIELD PRODUCTION COMPANY  
SAND WASH FEDERAL S-31-8-17  
AT SURFACE: NE/SE SECTION 31, T8S, R17E  
DUCHESNE COUNTY, UTAH**

**ONSHORE ORDER NO. 1**

**MULTI-POINT SURFACE USE & OPERATIONS PLAN**

**1. EXISTING ROADS**

See attached Topographic Map "A"

To reach Newfield Production Company well location site Sand Wash Federal S-31-8-17 located in the NE 1/4 SE 1/4 Section 31, T8S, R17E, Duchesne County, Utah:

Proceed in a southwesterly direction out of Myton, Utah along Highway 40 approximately 1.4 ± miles to the junction of this highway and Utah State Highway 53; proceed southeasterly approximately 8.9 miles ± to its junction with an existing road to the southwest; proceed southwesterly approximately 0.9 miles ± to its junction with an existing road to the east; proceed easterly approximately 0.3 miles ± to the existing 9-31-8-17 well location.

The aforementioned dirt oil field service roads and other roads in the vicinity are constructed out of existing native materials that are prevalent to the existing area they are located in and range from clays to a sandy-clay shale material.

The roads for access during the drilling, completion and production phase will be maintained at the standards required by the State of Utah, or other controlling agencies. This maintenance will consist of some minor grader work for smoothing road surfaces and for snow removal. Any necessary fill material for repair will be purchase and hauled from private sources.

**2. PLANNED ACCESS ROAD**

There is no proposed access road for this location. The proposed well will be drilled off of the existing 9-31-8-17 well pad. See attached **Topographic Map "B"**.

There will be **no** culverts required along this access road. There will be barrow ditches and turnouts as needed along this road.

There are no fences encountered along this proposed road. There will be no new gates or cattle guards required.

All construction material for this access road will be borrowed material accumulated during construction of the access road.

**3. LOCATION OF EXISTING WELLS**

Refer to Exhibit "B".

**4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES**

There are no existing facilities that will be used by this well.

It is anticipated that this well will be a producing oil well.

Upon construction of a tank battery, the well pad will be surrounded by a dike of sufficient capacity to contain at minimum 110% of the largest tank volume within the facility battery.

Tank batteries will be built to State specifications.

All permanent surface equipment will be painted Carlsbad Canyon. All facilities will be painted within six months of installation.

5. **LOCATION AND TYPE OF WATER SUPPLY**

Newfield Production will transport water by truck from nearest water source as determined by a Newfield representative for the purpose of drilling the above mentioned well. The available water sources are as follows:

Johnson Water District  
Water Right : 43-7478

Neil Moon Pond  
Water Right: 43-11787

Newfield Collector Well  
Water Right: 41-3530 (A30414DV, contracted with the Duchesne County Conservancy District).

Please refer to the Monument Butte Field SOP. See Exhibit "A".

6. **SOURCE OF CONSTRUCTION MATERIALS**

All construction material for this location shall be borrowed material accumulated during construction of the location site and access road.

A mineral material application is not required for this location.

7. **METHODS FOR HANDLING WASTE DISPOSAL**

A small reserve pit (90' x 40' x 8' deep, or less) will be constructed from native soil and clay materials. The reserve pit will receive the processed drill cutting (wet sand, shale & rock) removed from the wellbore. Any drilling fluids, which do accumulate in the pit as a result of shale-shaker carryover, cleaning of the sand trap, etc., will be promptly reclaimed. All drilling fluids will be fresh water based, typically containing Total Dissolved Solids of less than 3000 PPM. No potassium chloride, chromates, trash, debris, nor any other substance deemed hazardous will be placed in this pit. Therefore, it is proposed that no synthetic liner be required in the reserve pit. However, if upon constructing the pit there is insufficient fine clay and silt present, a liner will be used for the purpose of reducing water loss through percolation.

Newfield requests approval that a flare pit not be constructed or utilized on this location.

A portable toilet will be provided for human waste.

A trash basket will be provided for garbage (trash) and hauled away to an approved disposal site at the completion of the drilling activities.

Immediately upon first production, all produced water will be confined to a steel storage tank. If the production water meets quality guidelines, it is transported to the Ashley, Monument Butte, Jonah, and Beluga water injection facilities by company or contract trucks. Subsequently, the produced water is injected into approved Class II wells to enhance Newfield's secondary recovery project.

Water not meeting quality criteria, is disposed at Newfield's Pariette #4 disposal well (Sec. 7, T9S R19E), State of Utah approved surface disposal facilities, or Federally approved surface disposal facilities.

8. **ANCILLARY FACILITIES**

There are no ancillary facilities planned for at the present time and none foreseen in the near future.

9. **WELL SITE LAYOUT**

See attached Location Layout Sheet.

**Fencing Requirements**

All pits will be fenced according to the following minimum standards:

- a) A 39-inch net wire shall be used with at least one strand of barbed wire on top of the net.
- b) The net wire shall be no more than two (2) inches above the ground. The barbed wire shall be three (3) inches above the net wire. Total height of the fence shall be at least forty-two (42) inches.
- c) Corner posts shall be centered and/or braced in such a manner to keep tight at all times
- d) Standard steel, wood or pipe posts shall be used between the corner braces. Maximum distance between any two posts shall be no greater than sixteen (16) feet.
- e) All wire shall be stretched, by using a stretching device, before it is attached to the corner posts.

The reserve pit fencing will be on three (3) sides during drilling operations and on the fourth side when the rig moves off location. Pits will be fenced and maintained until cleanup.

Existing fences to be crossed by the access road will be braced and tied off before cutting so as to prevent slacking in the wire. The opening shall be closed temporarily as necessary during construction to prevent the escape of livestock, and upon completion of construction the fence shall be repaired to BLM specifications.

10. **PLANS FOR RESTORATION OF SURFACE:**

a) Producing Location

Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, equipment, debris, material, trash and junk not required for production.

The reserve pit and that portion of the location not needed for production facilities/operations will be recontoured to the approximated natural contours. Weather permitting, the reserve pit will be reclaimed within one hundred twenty (120) days from the date of well completion. Before any dirt work takes place, the reserve pit must have all fluids and hydrocarbons removed.

b) Dry Hole Abandoned Location

At such time as the well is plugged and abandoned, the operator shall submit a subsequent report of abandonment and the State of Utah will attach the appropriate surface rehabilitation conditions of approval.

11. **SURFACE OWNERSHIP** – Bureau of Land Management.

12. **OTHER ADDITIONAL INFORMATION**

Newfield Production Company is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, Newfield is to immediately stop work that might further disturb such materials and contact the Authorized Officer.

- a) Newfield Production will control noxious weeds along rights-of-way for roads, pipelines, well sites or other applicable facilities. On State administered land it is required that a Pesticide Use Proposal shall be submitted and given approval prior to the application of herbicides or other possible hazardous chemicals.
- b) Drilling rigs and/or equipment used during drilling operations on this well site will not be stacked or stored on State Lands after the conclusion of drilling operations or at any other time without State authorization. However, if State authorization is obtained, it is only a temporary measure to allow time to make arrangements for permanent storage on commercial facilities.

The Archaeological Resource Survey and Paleontological Resource Survey for this area are attached. MOAC Report #09-127, 8/18/09. Paleontological Resource Survey prepared by, Wade E. Miller, 7/20/09. See attached report cover page, Exhibit "D".

**Additional Surface Stipulations**

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws and regulations, Onshore Oil and Gas Orders, the approved plan of operations and any applicable Notice to Lessees. A copy of these conditions will be furnished to the field representative to ensure compliance.

**Hazardous Material Declaration**

Newfield Production Company guarantees that during the drilling and completion of the Sand Wash Federal S-31-8-17, Newfield will not use, produce, store, transport or dispose 10,000# annually of any of the hazardous chemicals contained in the Environmental Protection Agency's consolidated list of chemicals subject to reporting under Title III Superfund Amendments and Reauthorization Act (SARA) of 1986. Newfield also guarantees that during the drilling and completion of the Sand Wash Federal S-31-8-17, Newfield will use, produce, store, transport or dispose less than the threshold planning quantity (T.P.Q.) of any extremely hazardous substances as defined in 40 CFR 355.

A complete copy of the approved APD, if applicable, shall be on location during the construction of the location and drilling activities.

Newfield Production Company or a contractor employed by Newfield Production shall contact the State office at (801) 722-3417, 48 hours prior to construction activities.

The State office shall be notified upon site completion prior to moving on the drilling rig.

13. **LESSEE'S OR OPERATOR'S REPRESENTATIVE AND CERTIFICATION:**

Representative

Name: Tim Eaton  
Address: Newfield Production Company  
Route 3, Box 3630  
Myton, UT 84052

Telephone: (435) 646-3721

Certification

Please be advised that Newfield Production Company is considered to be the operator of well #S-31-8-17, NE/SE Section 31, T8S, R17E, Duchesne County, Utah and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond coverage is provided by, Federal Bond #WYB000493.

I hereby certify that the proposed drill site and access route have been inspected, and I am familiar with the conditions which currently exist; that the statements made in this plan are true and correct to the best of my knowledge; and that the work associated with the operations proposed here will be performed by Newfield Production Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of the 18 U.S.C. 1001 for the filing of a false statement.

10/30/09

Date



Mandie Crozier

Regulatory Specialist  
Newfield Production Company

# NEWFIELD PRODUCTION COMPANY

## WELL PAD INTERFERENCE PLAT

SAND WASH S-31-8-17 (Proposed Well)

SAND WASH L-31-8-17 (Existing Well)

SAND WASH 9-31-8-17 (Existing Well)

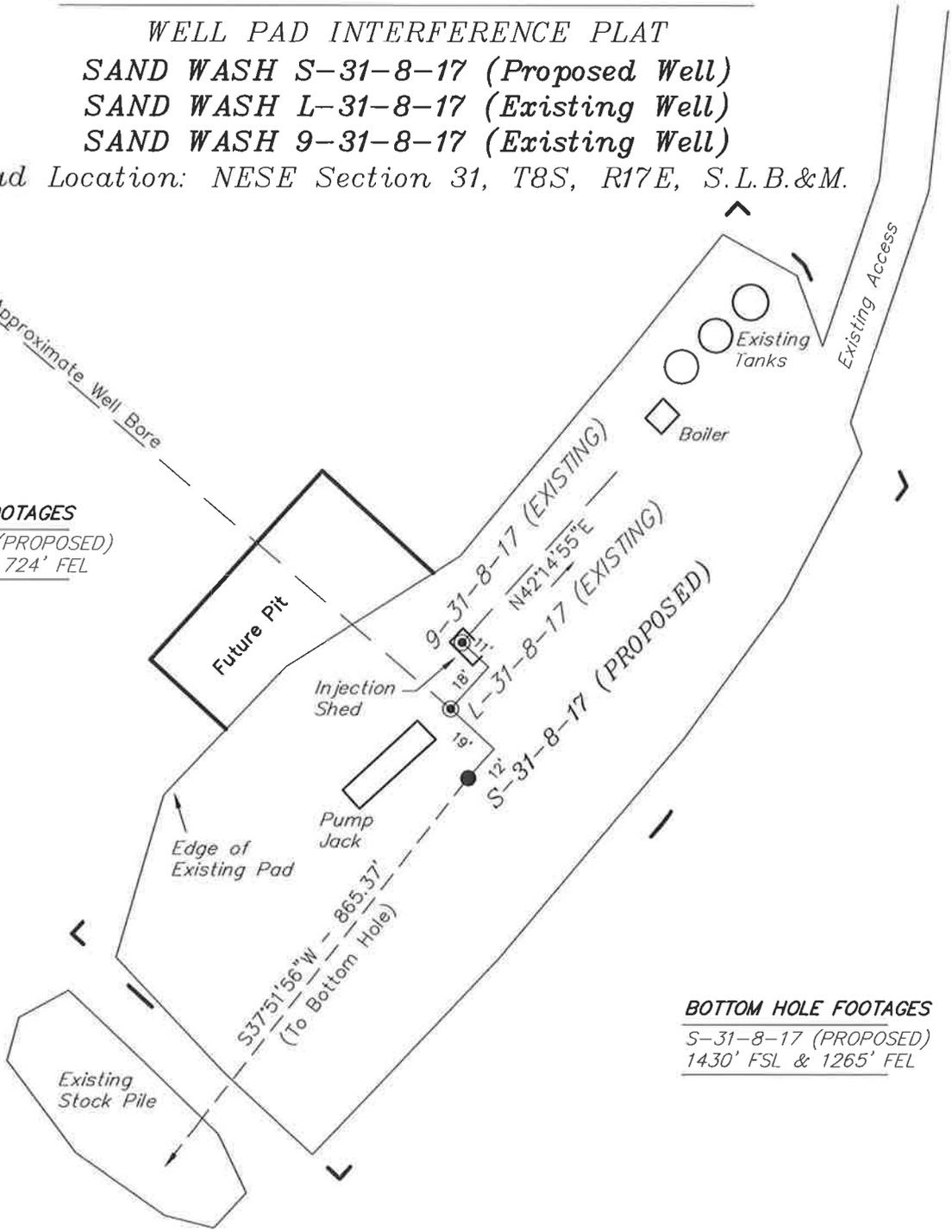
Pad Location: NESE Section 31, T8S, R17E, S.L.B.&M.



Approximate Well Bore

**TOP HOLE FOOTAGES**

S-31-8-17 (PROPOSED)  
2108' FSL & 724' FEL



**BOTTOM HOLE FOOTAGES**

S-31-8-17 (PROPOSED)  
1430' FSL & 1265' FEL

**Note:**

Bearings are based on GLO Information.

**RELATIVE COORDINATES**  
From top hole to bottom hole

| WELL      | NORTH | EAST  |
|-----------|-------|-------|
| S-31-8-17 | -683' | -531' |

**LATITUDE & LONGITUDE**  
Surface position of Wells (NAD 83)

| WELL      | LATITUDE       | LONGITUDE       |
|-----------|----------------|-----------------|
| S-31-8-17 | 40° 04' 22.54" | 110° 02' 32.80" |
| L-31-8-17 | 40° 04' 22.75" | 110° 02' 32.87" |
| 9-31-8-17 | 40° 04' 22.96" | 110° 02' 32.82" |

|                   |                         |
|-------------------|-------------------------|
| SURVEYED BY: T.H. | DATE SURVEYED: 06-10-09 |
| DRAWN BY: F.T.M.  | DATE DRAWN: 06-18-09    |
| SCALE: 1" = 50'   | REVISED:                |

**Tri State** (435) 781-2501  
Land Surveying, Inc.  
180 NORTH VERNAL AVE. VERNAL, UTAH 84078

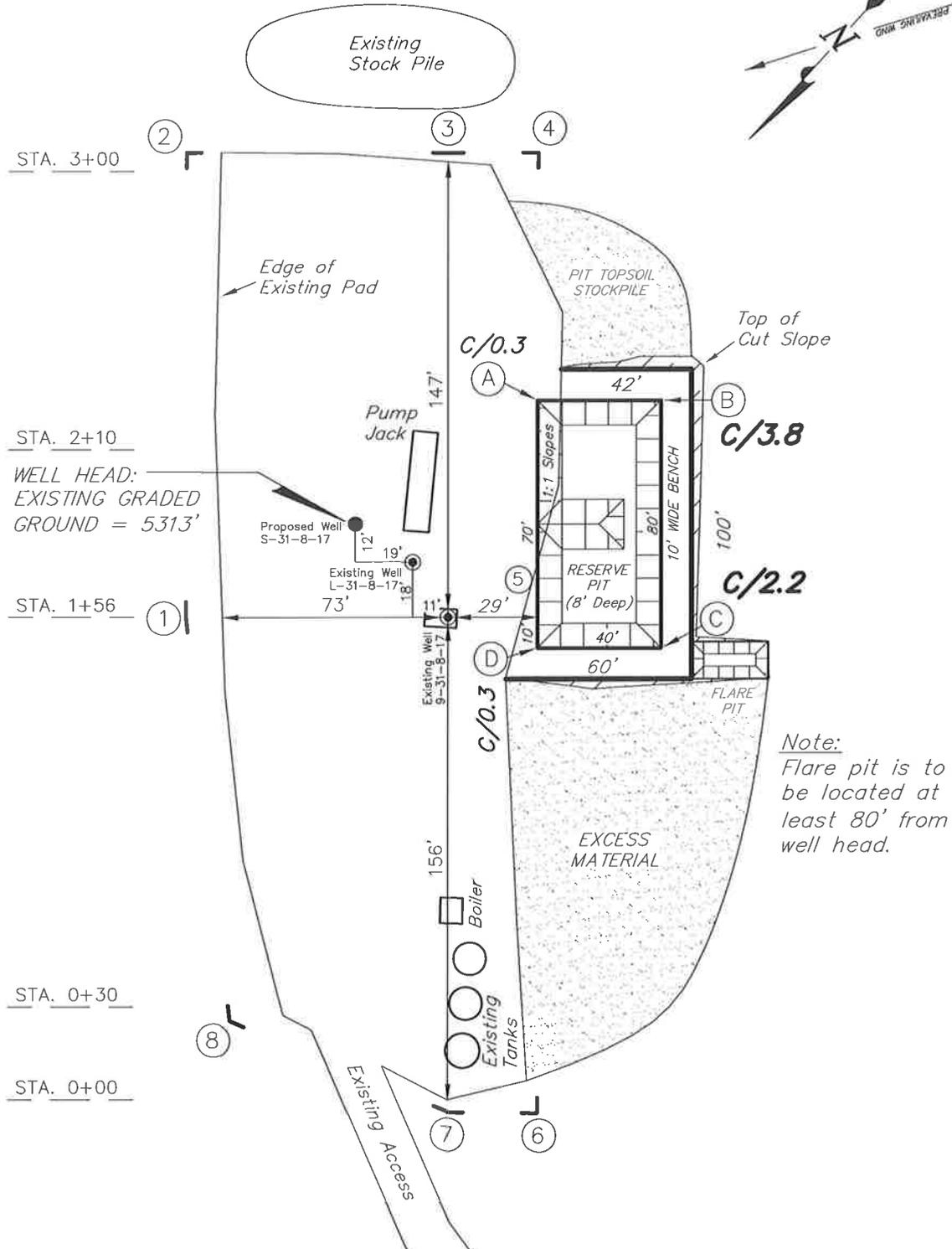
# NEWFIELD PRODUCTION COMPANY

SAND WASH S-31-8-17 (Proposed Well)

SAND WASH L-31-8-17 (Existing Well)

SAND WASH 9-31-8-17 (Existing Well)

Pad Location: NESE Section 31, T8S, R17E, S.L.B.&M.



*Note:*  
Flare pit is to be located at least 80' from well head.

|                   |                         |
|-------------------|-------------------------|
| SURVEYED BY: T.H. | DATE SURVEYED: 06-10-09 |
| DRAWN BY: F.T.M.  | DATE DRAWN: 06-18-09    |
| SCALE: 1" = 50'   | REVISED:                |

**Tri State** (435) 781-2501  
 Land Surveying, Inc.  
 180 NORTH VERNAL AVE. VERNAL, UTAH 84078

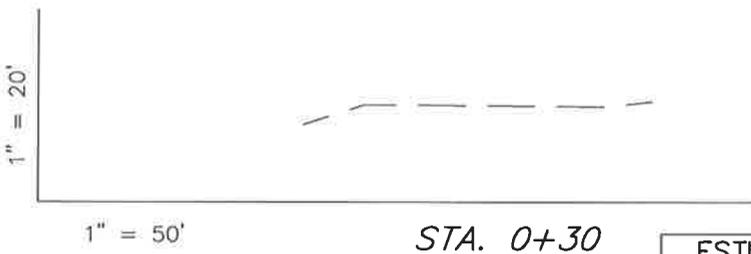
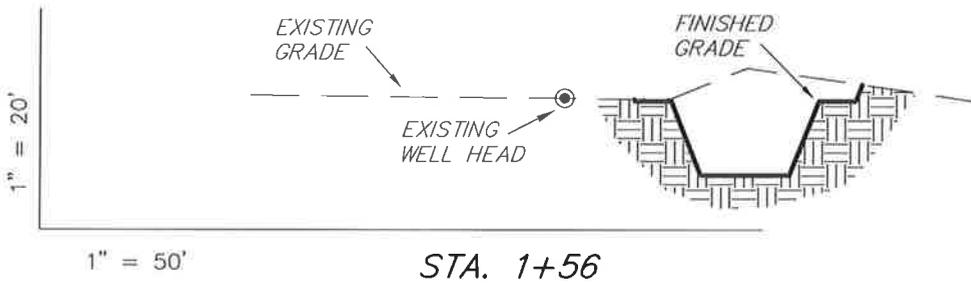
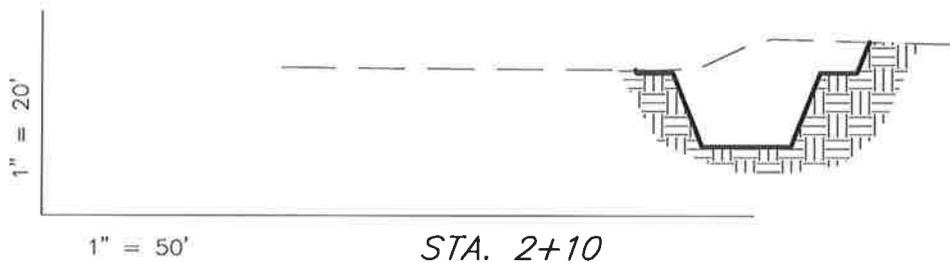
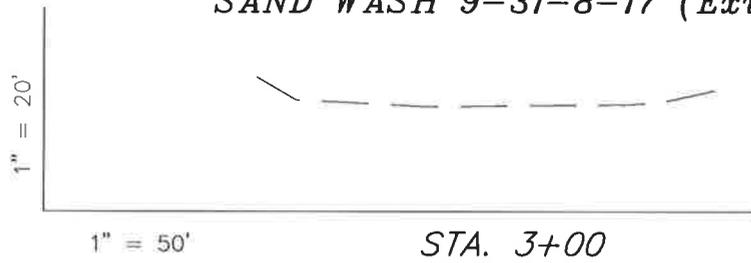
# NEWFIELD PRODUCTION COMPANY

## CROSS SECTIONS

SAND WASH S-31-8-17 (Proposed Well)

SAND WASH L-31-8-17 (Existing Well)

SAND WASH 9-31-8-17 (Existing Well)



NOTE:  
UNLESS OTHERWISE NOTED  
CUT SLOPES ARE AT 1:1  
FILL SLOPES ARE AT 1.5:1

| ESTIMATED EARTHWORK QUANTITIES<br>(No Shrink or swell adjustments have been used)<br>(Expressed in Cubic Yards) |     |      |                                    |        |
|---|-----|------|------------------------------------|--------|
| ITEM  | CUT | FILL | 6" TOPSOIL                         | EXCESS |
| PAD   | 280 | 0    | Topsoil is not included in Pad Cut | 280    |
| PIT   | 640 | 0    |                                    | 640    |
| TOTALS  | 920 | 0    | 130                                | 920    |

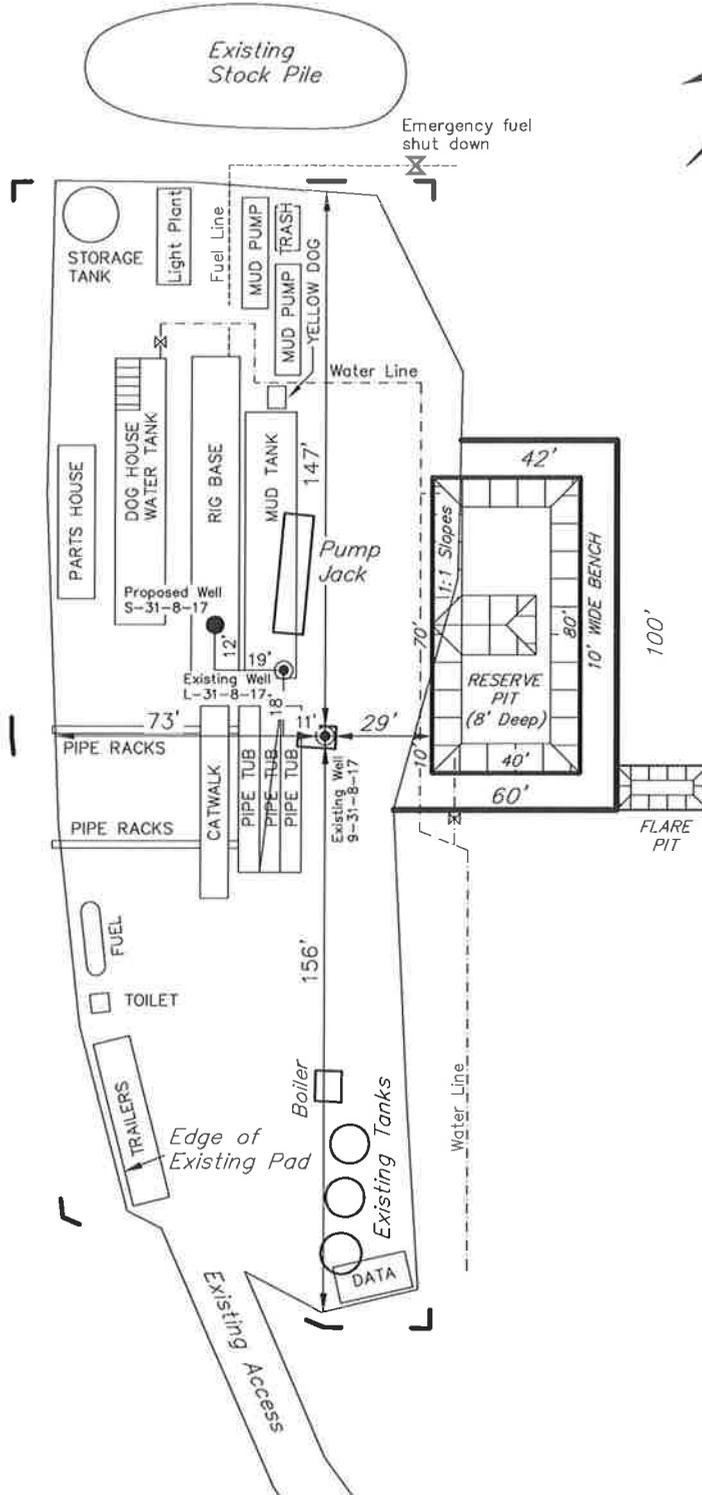
|                   |                         |
|-------------------|-------------------------|
| SURVEYED BY: T.H. | DATE SURVEYED: 06-10-09 |
| DRAWN BY: F.T.M.  | DATE DRAWN: 06-18-09    |
| SCALE: 1" = 50'   | REVISED:                |

**Tri State** (435) 781-2501  
Land Surveying, Inc.  
180 NORTH VERNAL AVE. VERNAL, UTAH 84078

# NEWFIELD PRODUCTION COMPANY

## TYPICAL RIG LAYOUT

SAND WASH S-31-8-17 (Proposed Well)  
 SAND WASH L-31-8-17 (Existing Well)  
 SAND WASH 9-31-8-17 (Existing Well)



Note:  
 Flare pit is to be located at least 80' from well head.

|                   |                         |
|-------------------|-------------------------|
| SURVEYED BY: T.H. | DATE SURVEYED: 06-10-09 |
| DRAWN BY: F.T.M.  | DATE DRAWN: 06-18-09    |
| SCALE: 1" = 50'   | REVISED:                |

**Tri State** (435) 781-2501  
 Land Surveying, Inc.  
 180 NORTH VERNAL AVE. VERNAL, UTAH 84078

# Newfield Production Company Proposed Site Facility Diagram

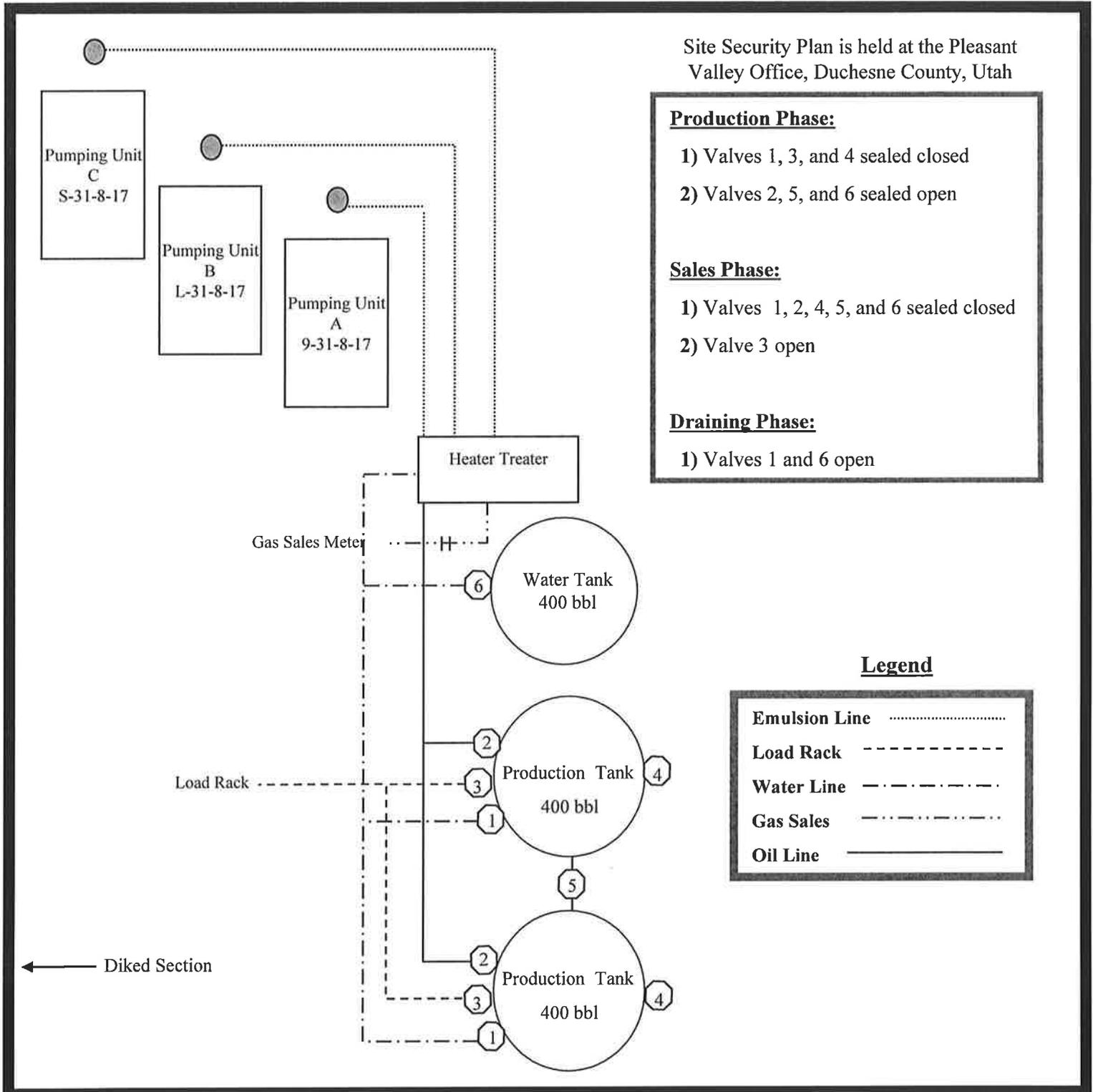
Sand Wash Federal S-31-8-17

From the 9-31-8-17 Location

NE/SE Sec. 31 T8S, R17E

Duchesne County, Utah

UTU-74869



Site Security Plan is held at the Pleasant Valley Office, Duchesne County, Utah

### Production Phase:

- 1) Valves 1, 3, and 4 sealed closed
- 2) Valves 2, 5, and 6 sealed open

### Sales Phase:

- 1) Valves 1, 2, 4, 5, and 6 sealed closed
- 2) Valve 3 open

### Draining Phase:

- 1) Valves 1 and 6 open

### Legend

|               |             |
|---------------|-------------|
| Emulsion Line | .....       |
| Load Rack     | -----       |
| Water Line    | - . - . - . |
| Gas Sales     | - . - . - . |
| Oil Line      | —————       |

S-31-8-17

Exhibit "D"

1 of 2

CULTURAL RESOURCE INVENTORY OF  
NEWFIELD EXPLORATION'S PROPOSED  
SAND WASH S-31-8-17 WELL LOCATION  
(T8S, R17E, SECTION 31)  
DUCHESNE COUNTY, UTAH

By:

Nicole Shelnut

Prepared For:

Bureau of Land Management  
Vernal Field Office

Prepared Under Contract With:

Newfield Exploration Company  
Rt. 3 Box 3630  
Myton, UT 84052

Prepared By:

Montgomery Archaeological Consultants, Inc.  
P.O. Box 219  
Moab, Utah 84532

MOAC Report No. 09-127

August 18, 2009

United States Department of Interior (FLPMA)  
Permit No. 09-UT-60122

State of Utah Antiquities Project (Survey)  
Permit No. U-09-MQ-0447b

S-31-8-17

20F2

**NEWFIELD EXPLORATION COMPANY**

**PALEONTOLOGICAL SURVEY OF PROPOSED  
PRODUCTION DEVELOPMENT AREAS,  
AND PROPOSED PIPELINE ROUTES  
DUCHESNE & UINTAH COUNTIES, UTAH**

**Site Surveys**

NE 1/4, SE 1/4, Section 31, T 8 S, R 17 E (9-31-8-17 & L-31-8-17) = Proposed Site S-31-8-17  
NW 1/4, SE 1/4, Section 24, T 8 S, R 17 E (10-24-8-17) = Proposed Site S-24-8-17

**Proposed Pipeline Surveys**

SE 1/4, SE 1/4, Section 3, T 9 S, R 17 E (16-3-9-17); SW 1/4, SE 1/4, Section 2,  
T 9 S, R 17 E (15-2-9-17 & R-2-9-17); NE 1/4, SE 1/4, Section 2, T 9 S, R 17 E  
(9-2-9-17); SW 1/4, NW 1/4, Section 17, T 9 S, R 17 E (12-17-9-17);  
SW 1/4, NE 1/4, Section 17, T 9 S, R 17 E (32-17-9-17);  
NE 1/4, SW 1/4, Section 16, T 9 S, R 17 E (23-16B-9-17 & Q-16-9-17)

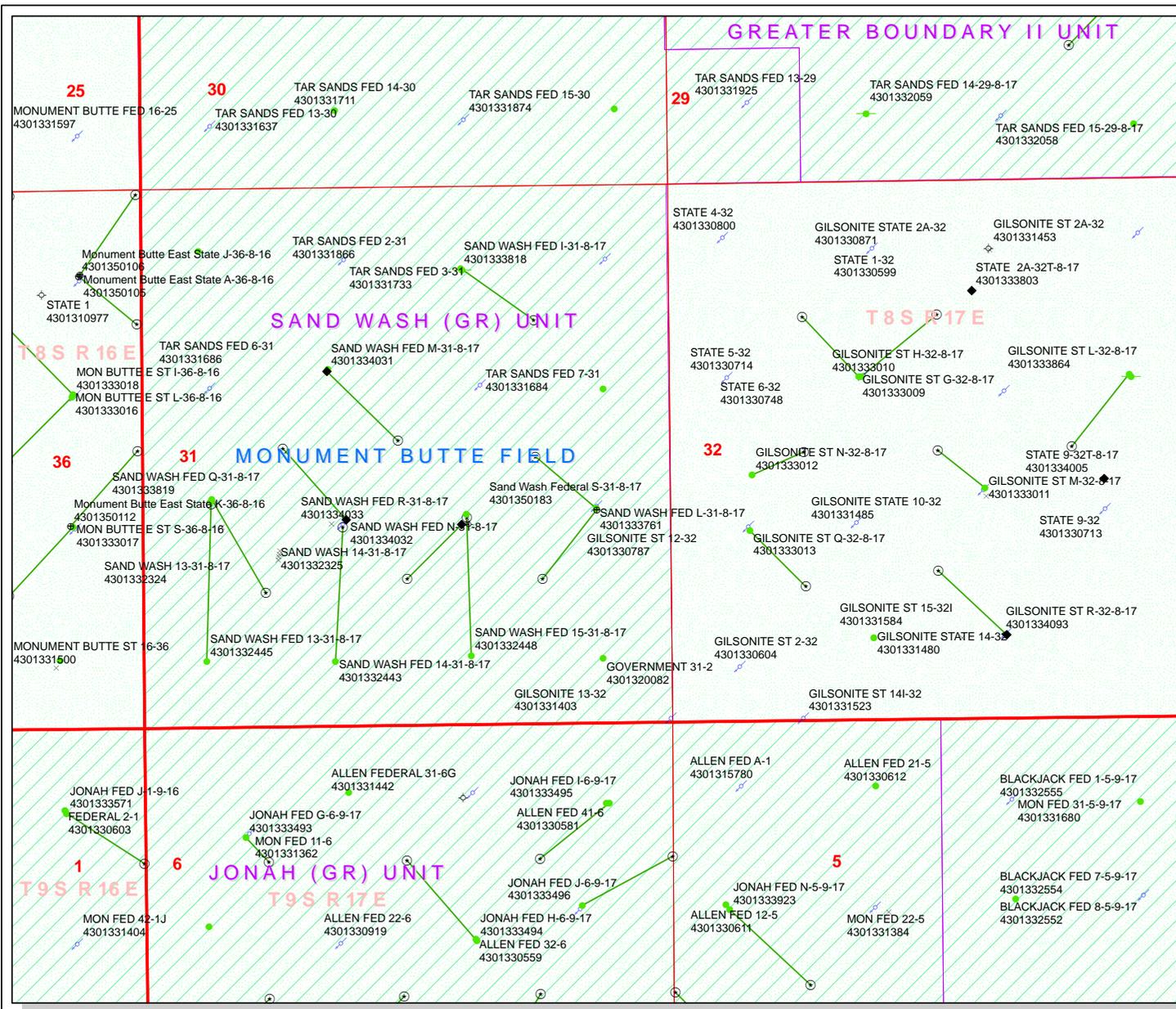
**REPORT OF SURVEY**

Prepared for:

**Newfield Exploration Company**

Prepared by:

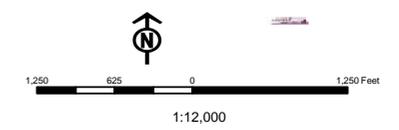
Wade E. Miller  
Consulting Paleontologist  
July 20, 2009



**API Number: 4301350183**  
**Well Name: Sand Wash Federal S-31-8-17**  
**Township 08.0 S Range 17.0 E Section 31**  
**Meridian: SLBM**  
**Operator: NEWFIELD PRODUCTION COMPANY**

Map Prepared:  
 Map Produced by Diana Mason

|               |                                    |
|---------------|------------------------------------|
| <b>Units</b>  | <b>Wells Query</b>                 |
| <b>STATUS</b> | <b>Status</b>                      |
| ACTIVE        | APD - Approved Permit              |
| EXPLORATORY   | DRL - Spudded (Drilling Commenced) |
| GAS STORAGE   | GIW - Gas Injection                |
| NF PP OIL     | GS - Gas Storage                   |
| NF SECONDARY  | LA - Location Abandoned            |
| PI OIL        | LOC - New Location                 |
| PP GAS        | OPS - Operation Suspended          |
| PP GEOTHERMAL | PA - Plugged Abandoned             |
| PP OIL        | PGW - Producing Gas Well           |
| SECONDARY     | POW - Producing Oil Well           |
| TERMINATED    | RET - Returned APD                 |
| <b>Fields</b> | SGW - Shut-in Gas Well             |
| Unknown       | SOW - Shut-in Oil Well             |
| ABANDONED     | TA - Temp. Abandoned               |
| ACTIVE        | TW - Test Well                     |
| COMBINED      | WDW - Water Disposal               |
| INACTIVE      | WIW - Water Injection Well         |
| STORAGE       | WSW - Water Supply Well            |
| TERMINATED    |                                    |
| Sections      |                                    |
| Township      |                                    |



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Utah State Office  
P.O. Box 45155  
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:  
3160  
(UT-922)

November 13, 2009

Memorandum

To: Assistant District Manager Minerals, Vernal District  
From: Michael Coulthard, Petroleum Engineer  
Subject: 2009 Plan of Development Sand Wash Unit,  
Duchesne County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following well is planned for calendar year 2009 within the Sand Wash Unit, Duchesne County, Utah.

| API#                      | WELL NAME         | LOCATION   |
|---------------------------|-------------------|--|
| (Proposed PZ GREEN RIVER) |                   |  |
| 43-013-50183              | Sand Wash Federal | S-31-8-17 Sec 31 T08S R17E 2108 FSL 0724 FEL<br>BHL Sec 31 T08S R17E 1430 FSL 1265 FEL |

We have no objections to permitting the well so long as the unit operator receives an exception to the locating and siting requirements of the State of Utah (R649-3-2).

/s/ Michael L. Coulthard

bcc: File - Sand Wash Unit  
Division of Oil Gas and Mining  
Central Files  
Agr. Sec. Chron  
Fluid Chron

MCoulthard:mc:11-13-09



November 23, 2009

State of Utah, Division of Oil, Gas and Mining  
ATTN: Diana Mason  
P.O. Box 145801  
Salt Lake City, UT 84114-5801

RE: Directional Drilling  
**Sand Wash Federal S-31-8-17**  
Greater Monument Butte (Green River) Unit  
UTU-74869  
Surface Hole: T8S-R17E Section 31: NESE  
2108' FSL 724' FEL  
  
At Target: T8S-R17E Section 31: NESE  
1430' FSL 1265' FEL

43-013-50183

Duchesne County, Utah

Dear Ms. Mason;

Pursuant to the filing by Newfield Production Company (NPC) of an Application for Permit to Drill the above referenced well dated 10/30/09, a copy of which is attached, and in accordance with Oil and Gas Conservation Rule R649-3-11, NPC hereby submits this letter as notice of our intention to directionally drill this well.

The surface hole and target locations of this well are both within the boundaries of the Greater Monument Butte Unit (UTU-87538X), of which Newfield certifies that it is the operator. Further, Newfield certifies that all lands within 460 feet of the entire directional well bore are within the Greater Monument Butte Unit.

NPC is permitting this well as a directional well in order to mitigate surface disturbance by utilizing pre-existing roads and pipelines.

NPC hereby requests our application for permit to drill be granted pursuant to R649-3-11. If you have any questions or require further information, please contact the undersigned at 303-383-4197 or by email at [sgillespie@newfield.com](mailto:sgillespie@newfield.com). Your consideration in this matter is greatly appreciated.

Sincerely,  
Newfield Production Company

A handwritten signature in blue ink, appearing to read "Shane Gillespie".

Shane Gillespie  
Land Associate

RECEIVED

NOV 30 2009

DIV. OF OIL, GAS & MINING

**WORKSHEET  
APPLICATION FOR PERMIT TO DRILL**

---

---

**APD RECEIVED:** 11/10/2009

**API NO. ASSIGNED:** 43013501830000

**WELL NAME:** Sand Wash Federal S-31-8-17

**OPERATOR:** NEWFIELD PRODUCTION COMPANY (N2695)

**PHONE NUMBER:** 435 646-4825

**CONTACT:** Mandie Crozier

**PROPOSED LOCATION:** NESE 31 080S 170E

**Permit Tech Review:**

**SURFACE:** 2108 FSL 0724 FEL

**Engineering Review:**

**BOTTOM:** 1430 FSL 1265 FEL

**Geology Review:**

**COUNTY:** DUCHESNE

**LATITUDE:** 40.07294

**LONGITUDE:** -110.04164

**UTM SURF EASTINGS:** 581721.00

**NORTHINGS:** 4436082.00

**FIELD NAME:** MONUMENT BUTTE

**LEASE TYPE:** 1 - Federal

**LEASE NUMBER:** UTU-74869

**PROPOSED PRODUCING FORMATION(S):** GREEN RIVER

**SURFACE OWNER:** 1 - Federal

**COALBED METHANE:** NO

---

**RECEIVED AND/OR REVIEWED:**

- PLAT**
- Bond:** FEDERAL - WYB000493
- Potash**
- Oil Shale 190-5**
- Oil Shale 190-3**
- Oil Shale 190-13**
- Water Permit:** 43-7478
- RDCC Review:**
- Fee Surface Agreement**
- Intent to Commingle**

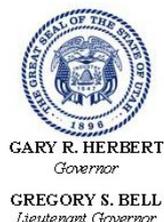
**Commingle Approved**

**LOCATION AND SITING:**

- R649-2-3.**  
**Unit:** GMBU (GRRV)
- R649-3-2. General**
- R649-3-3. Exception**
- Drilling Unit**  
**Board Cause No:** Cause 213-11
- Effective Date:** 11/30/2009
- Siting:** 460' fr unit boundary
- R649-3-11. Directional Drill**

**Comments:** Presite Completed

**Stipulations:**  
1 - Exception Location - dmason  
4 - Federal Approval - dmason  
15 - Directional - dmason  
27 - Other - bhill



# State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
*Executive Director*

Division of Oil, Gas and Mining

JOHN R. BAZA  
*Division Director*

## Permit To Drill

\*\*\*\*\*

**Well Name:** Sand Wash Federal S-31-8-17  
**API Well Number:** 43013501830000  
**Lease Number:** UTU-74869  
**Surface Owner:** FEDERAL  
**Approval Date:** 12/14/2009

**Issued to:**

NEWFIELD PRODUCTION COMPANY , Rt 3 Box 3630 , Myton, UT 84052

**Authority:**

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 213-11. The expected producing formation or pool is the GREEN RIVER Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

**Duration:**

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

**Exception Location:**

Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby granted.

**General:**

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

**Conditions of Approval:**

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

Production casing cement shall be brought up to or above the top of the unitized interval for the Greater Monument Butte Unit (Cause No. 213-11).

**Notification Requirements:**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well – contact Carol Daniels at 801-538-5284 (please leave a voicemail message if not available)
- OR
- submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at <https://oilgas.ogm.utah.gov>

**Reporting Requirements:**

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) – due within 5 days of spudding the well
- Monthly Status Report (Form 9) – due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) – due prior to implementation
- Written Notice of Emergency Changes (Form 9) – due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) – due prior to implementation
- Report of Water Encountered (Form 7) – due within 30 days after completion
- Well Completion Report (Form 8) – due within 30 days after completion or plugging

**Approved By:**



For Gil Hunt  
Associate Director, Oil & Gas

Spud

BLM - Vernal Field Office - Notification Form

Operator Newfield Exploration

Rig Name/# Ross #29

Submitted By Mitch Benson

Phone Number (435) 823-5885

Name/Number SAND WASH FEDERAL S-31-8-17

Qtr/Qrt NE/SE Section 31 Township 8S Range 17E

Lease Serial Number UTU-74869

API Number 43-0150183

Spud Notice – Spud is the initial spudding of the well, not drilling out below a casing string.

Date/Time 7/27/2010 8:00:00 AM

Casing – Please report time casing run starts, not cementing times.

- Surface Casing
- Intermediate
- Production Casing
- Liner
- Other

Date/Time 7/27/2010 4:00:00 PM

Remarks:

| ACTION CODE                         | CURRENT ENTITY NO. | NEW ENTITY NO. | API NUMBER          | WELL NAME                                | WELL LOCATION |    |    |     |          | SPUD DATE | EFFECTIVE DATE |
|-------------------------------------|--------------------|----------------|---------------------|--|---------------|----|----|-----|----------|-----------|----------------|
|                                     |                    |                |                     |  | QQ            | SC | TP | RG  | COUNTY   |           |                |
| B                                   | 99999              | 17400          | 4301350128          | GREATER BOUNDARY II<br>FEDERAL S-21-8-17 | SESE<br>NWSE  | 21 | 8S | 17E | DUCHESNE | 7/29/2010 | 8/19/10        |
| WELL 1 COMMENTS:<br>GRRV BHL = NWSE |                    |                |                     |  |               |    |    |     |          |           |                |
| B                                   | 99999              | 17400          | 50183<br>4301350815 | SANDWASH FEDERAL<br>S-31-8-17            | NESE          | 31 | 8S | 17E | DUCHESNE | 7/27/2010 | 8/19/10        |
| WELL 1 COMMENTS:<br>GRRV BHL = NESE |                    |                |                     |  |               |    |    |     |          |           |                |
| A                                   | 99999              | 17732          | 4301350315          | UTE TRIBAL 6-26-4-3                      | SENW          | 26 | 4S | 3W  | DUCHESNE | 7/24/2010 | 8/19/10        |
| WELL 1 COMMENTS:<br>GRRV            |                    |                |                     |  |               |    |    |     |          |           |                |
| B                                   | 99999              | 17400          | 4301333987          | ASHLEY FEDERAL H-15-9-15                 | SENW          | 15 | 9S | 15E | DUCHESNE | 7/28/2010 | 8/19/10        |
| WELL 1 COMMENTS:<br>GRRV BHL = SWNE |                    |                |                     |  |               |    |    |     |          |           |                |
| A                                   | 99999              | 17733          | 4301350314          | UTE TRIBAL 4-26-4-3                      | NWNW          | 26 | 4S | 3W  | DUCHESNE | 7/28/2010 | 8/19/10        |
| WELL 5 COMMENTS:<br>GRRV            |                    |                |                     |  |               |    |    |     |          |           |                |
| B                                   | 99999              | 17400          | 4301334198          | WEST POINT<br>FEDERAL 4-31-8-16          | NWNW          | 31 | 8S | 16E | DUCHESNE | 8/3/2010  | 8/19/10        |
| WELL 5 COMMENTS:<br>GRRV            |                    |                |                     |  |               |    |    |     |          |           |                |

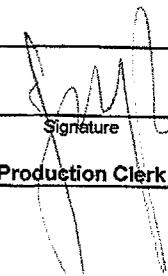
ACTION CODES (See instructions on back of form)

- A - 1 new entity for new well (single well only)
- B - well to existing entity (group or unit well)
- C - from one existing entity to another existing entity
- D - well from one existing entity to a new entity
- E - other (explain in comments section)

NOTE: Use COMMENT section to explain why each Action Code was selected.

RECEIVED  
 AUG 10 2010

DIV. OF OIL, GAS & MINING

  
 Signature \_\_\_\_\_ Jentri Park  
 Production Clerk  
 Date 08/10/10

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
**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.

FORM APPROVED  
OMB No. 1004-0137  
Expires: July 31, 2010

**SUBMIT IN TRIPLICATE - Other Instructions on page 2**

|  |  |  |
|--|--|--|
| 1. Type of Well<br><input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other |  | 5. Lease Serial No.<br>USA UTU-74869                       |
| 2. Name of Operator<br>NEWFIELD PRODUCTION COMPANY   |  | 6. If Indian, Allottee or Tribe Name.                      |
| 3a. Address Route 3 Box 3630<br>Myton, UT 84052  | 3b. Phone (include are code)<br>435.646.3721 | 7. If Unit or CA/Agreement, Name and/or<br>GMBU            |
| 4. Location of Well (Footage, Sec., T., R., M., or Survey Description)<br><br>Section 31 T8S R17E                                |  | 8. Well Name and No.<br>SAND WASH FEDERAL S-31-8-17        |
|  |  | 9. API Well No.<br>4301350183                              |
|  |  | 10. Field and Pool, or Exploratory Area<br>GREATER MB UNIT |
|  |  | 11. County or Parish, State<br>DUCHESNE, UT                |

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

| TYPE OF SUBMISSION                                    | TYPE OF ACTION                               |   |  |  |
|---|--|---|--|--|
| <input 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 checked="" 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            | <input type="checkbox"/> Casing Repair       | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete                | <input checked="" type="checkbox"/> Other _____<br>Spud Notice |
|   | <input type="checkbox"/> Change Plans        | <input type="checkbox"/> Plug & Abandon   | <input type="checkbox"/> Temporarily Abandon       |  |
|   | <input type="checkbox"/> Convert to Injector | <input type="checkbox"/> Plug Back        | <input type="checkbox"/> Water Disposal            |  |

13. 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 recomplete 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.)

On 7/27/10 MIRU Ross # 29. Spud well @ 8:00am. Drill 345' of 12 1/4" hole with air mist. TIH W/ 8 Jt's 8 5/8" J-55 24 # csgn. Set @ 348.40' On 7/30/10 cement with 170 sks of class "G" w/ 3% CaCL2 + 1/4# sk Cello- Flake Mixed @ 15.8 ppg > 1.17 cf/ sk yeild. Returned 4 bbls cement to pit. WOC.

|   |                           |
|---|---------------------------|
| I hereby certify that the foregoing is true and correct (Printed/ Typed)<br>Don Bastian | Title<br>Drilling Foreman |
| Signature<br><i>Tommy Webb for Don Bastian</i>  | Date<br>07/30/2010        |
| <b>THIS SPACE FOR FEDERAL OR STATE OFFICE USE</b>                                       |                           |

|   |              |            |
|---|--------------|------------|
| Approved by _____   | Title _____  | Date _____ |
| 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 _____ |            |

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 and fraudulent statements or representations as to any matter within its jurisdiction

(Instructions on page 2)

**RECEIVED**

**AUG 17 2010**





**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER:  
USA UTU-74869

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:  
GMBU

1. TYPE OF WELL: OIL WELL  GAS WELL  OTHER

8. WELL NAME and NUMBER:  
SAND WASH FEDERAL S-31-8-17

2. NAME OF OPERATOR:  
NEWFIELD PRODUCTION COMPANY

9. API NUMBER:  
4301350183

3. ADDRESS OF OPERATOR:  
Route 3 Box 3630 CITY Myton STATE UT ZIP 84052

PHONE NUMBER  
435.646.3721

10. FIELD AND POOL, OR WILDCAT:  
GREATER MB UNIT

4. LOCATION OF WELL:  
FOOTAGES AT SURFACE: 2108 FSL 0724 FEL

COUNTY: DUCHESNE

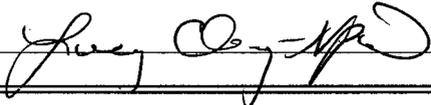
OTR/OTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: , 31, T8S, R17E

STATE: UT

**CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

| TYPE OF SUBMISSION   | TYPE OF ACTION  |   |   |
|--|---|---|---|
| <input type="checkbox"/> NOTICE OF INTENT<br>(Submit in Duplicate)<br><br>Approximate date work will<br><br><hr/>                  | <input type="checkbox"/> ACIDIZE                        | <input type="checkbox"/> DEEPEN                           | <input type="checkbox"/> REPERFORATE CURRENT FORMATION            |
|  | <input type="checkbox"/> ALTER CASING                   | <input type="checkbox"/> FRACTURE TREAT                   | <input type="checkbox"/> SIDETRACK TO REPAIR WELL                 |
| <input checked="" type="checkbox"/> SUBSEQUENT REPORT<br>(Submit Original Form Only)<br><br>Date of Work Completion:<br>09/10/2010 | <input type="checkbox"/> CASING REPAIR                  | <input type="checkbox"/> NEW CONSTRUCTION                 | <input type="checkbox"/> TEMPORARITLY ABANDON                     |
|  | <input type="checkbox"/> CHANGE TO PREVIOUS PLANS       | <input type="checkbox"/> OPERATOR CHANGE                  | <input type="checkbox"/> TUBING REPAIR                            |
|  | <input type="checkbox"/> CHANGE TUBING                  | <input type="checkbox"/> PLUG AND ABANDON                 | <input type="checkbox"/> VENT OR FLAIR                            |
|  | <input type="checkbox"/> CHANGE WELL NAME               | <input type="checkbox"/> PLUG BACK                        | <input type="checkbox"/> WATER DISPOSAL                           |
|  | <input type="checkbox"/> CHANGE WELL STATUS             | <input type="checkbox"/> PRODUCTION (START/STOP)          | <input type="checkbox"/> WATER SHUT-OFF                           |
|  | <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS | <input type="checkbox"/> RECLAMATION OF WELL SITE         | <input checked="" type="checkbox"/> OTHER: - Weekly Status Report |
|  | <input type="checkbox"/> CONVERT WELL TYPE              | <input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION |   |

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  
The above subject well was completed on 09-10-10, attached is a daily completion status report.

NAME (PLEASE PRINT) Lucy Chavez-Naupoto TITLE Administrative Assistant  
SIGNATURE  DATE 09/13/2010

(This space for State use only)

**RECEIVED**  
**SEP 20 2010**  
**DIV. OF OIL, GAS & MINING**

## Daily Activity Report

Format For Sundry

**SANDWASH S-31-8-17**

**7/1/2010 To 11/30/2010**

**8/27/2010 Day: 1**

**Completion**

Rigless on 8/27/2010 - Ran CBL & perforated 1st stage. SIWFN w/ 149 BWTR. - NU frac head & Cameron BOP's. RU Hot oiler & test casing, frac head, frac valves & BOP to 4500 psi. RU WLT w/ mast & pack off tool. Run CBL under pressure. WLTD was 6252' w/ TOC @ 50. RIH w/ 3 1/8" ported guns & perforate LODC sds @ 5628- 31', 5619- 21', 5564- 66', 5548- 52', 5529- 34', 5512- 15' & A3 sds @ 5479- 81', 5457- 60', 5435- 37' w/ (11 gram, .36"EH, 16.82¢ pen. 120°) 3 spf for total of 78 shots. RD WLT & Hot Oiler. SIWFN w/ 149 BWTR.

**Daily Cost:** \$0

**Cumulative Cost:** \$14,128

**8/31/2010 Day: 2**

**Completion**

Rigless on 8/31/2010 - Frac well. - RU PSI wireline. Set CBP & perf DS2/D1/D2 sds as shown in perforation report. SWIFN. - RU PSI wireline. Set CBP & perf B1 sds as shown in perforation report. RU BJ Services. Frac B1 sds as shown in stimulation report. 1680 BWTR. - RU BJ Services. Frac LODC/A3 sds as shown in stimulation report. 1397 BWTR.

**Daily Cost:** \$0

**Cumulative Cost:** \$17,333

**9/1/2010 Day: 3**

**Completion**

Rigless on 9/1/2010 - Frac well. Flow well. - RU BJ Services. Frac D2/D1/DS2 sds as shown in stimulation report. 2130 BWTR. - RU PSI wireline. Set CBP & perf GB6 sds as shown in perforation report. RU BJ Services. Frac GB6 sds as shown in stimulation report. RD BJ Services & PSI wireline. Open well to pit for immediate flowback @ approx. 3 bpm. Well flowed for

**Daily Cost:** \$0

**Cumulative Cost:** \$106,650

**9/3/2010 Day: 4**

**Completion**

WWS #3 on 9/3/2010 - ND Cameron BOP. NU Schaeffer BOP. DU CBPs. - MIRU Western #3. ND Cameron BOP & 5m frac head. NU 3m production head & Schaeffer BOP. RIH w/ 4 3/4" chomp bit, bit sub & new 2 7/8" tbg. from pipe racks (tallying & drifting). Tag fill @ 4375'. RU powerswivel & pump. C/O to CBP @ 4560'. DU CBP in 12 min. Cont. RIH w/ tbg. Tag fill @ 4913'. C/O to CBP @ 5070'. DU CBP in 15 min. Cont. RIH w/ tbg. Tag fill @ 5211'. C/O to CBP @ 5280'. DU CBP in 18 min. Cont. RIH w/ tbg. Cont. RIH w/ tbg. Tag fill @ 5953'. C/O to 6082'. Circulate well clean. Pull up to 6019'. SWIFN. 2000 BWTR.

**Daily Cost:** \$0

**Cumulative Cost:** \$151,933

**9/7/2010 Day: 5**

**Completion**

WWS #3 on 9/7/2010 - C/O to PBTB. Swab for cleanup. POOH w/ tbg. RIH w/ production string. ND BOP. Set TAC @ 5595' w/ 18,000# tension. NU wellhead. - 0 psi on well. Cont. RIH

w/ tbg. Tag fill @ 6082'. C/O to PBD @ 6274'. Circulate well. Pull up to 6179'. RU swab. SFL @ surface. Made 14 runs. Recovered 105 bbls. Trace of oil. No show of sand. EFL @ 1400'. RD swab. RIH w/ tbg. Tag fill @ 6260'. C/O to PBD @ 6274'. Circulate well clean. POOH w/ tbg. LD BHA. RIH w/ 2 7/8" notched collar, 2 jts 2 7/8" tbg., PSN, 1 jt 2 7/8" tbg., 5 1/2" TAC & 178 jts 2 7/8" tbg. ND BOP. Set TAC @ 5595' w/ 18,000# tension. NU wellhead. X-over for rods. Flush tbg. w/ 60 bbls water. SWIFN. 2060 BWTR.

**Daily Cost:** \$0

**Cumulative Cost:** \$162,543

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**9/8/2010 Day: 6**

**Completion**

WWS #3 on 9/8/2010 - PU rods. RU pumping unit. Stroke test to 800 psi. Good pump action. RD. Did not put well on production due to surface issues. SWIFN. - 350 psi on csg., 50 psi on tbg. Bleed off tbg. RIH w/ Central Hydraulic 2 1/2" x 1 3/4" x 24' RHAC rod pump, 4- 1 1/2" weight bars, 219- 7/8" giuded rods, 1- 8', 4', 2' x 7/8" pony subs, 1 1/2" x 30' polished rod. Seat pump. RU pumping unit. Hang off rods. Fill tbg. w/ 5 bbls water. Stroke test to 800 psi. Good pump action. RD. Did not put well on production due to surface issues. SWIFN.

**Daily Cost:** \$0

**Cumulative Cost:** \$195,332

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**9/10/2010 Day: 7**

**Completion**

Rigless on 9/10/2010 - Fix surface issues. Put well on production @ 11:30 a.m. 4.5 spm, 144" stroke length. Final Report. 2060 BWTR. - Fix surface issues. Put well on production @ 11:30 a.m. 4.5 spm, 144" stroke length. Final Report. 2060 BWTR. **Finalized**

**Daily Cost:** \$0

**Cumulative Cost:** \$197,608

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**Pertinent Files: Go to File List**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB NO. 1004-0137  
Expires: July 31, 2010

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG**

5. Lease Serial No.  
**UTU-74869**

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.  
**GMBU**

8. Lease Name and Well No.  
**SAND WASH FEDERAL S-31-8-17**

9. AFI Well No.  
**43-013-50183**

10. Field and Pool or Exploratory  
**GREATER MB UNIT**

11. Sec., T., R., M., on Block and Survey or Area  
**SEC. 31, T8S, R17E**

12. County or Parish  
**DUCHESNE**

13. State  
**UT**

1. Type of Well:  Oil Well  Gas Well  Dry  Other

b. Type of Completion:  New Well  Work Over  Deepen  Plug Back  Diff. Resrv.,  
Other: \_\_\_\_\_

2. Name of Operator  
**NEWFIELD EXPLORATION COMPANY**

3. Address: **1401 17TH ST. SUITE 1000 DENVER, CO 80202**

3a. Phone No. (include area code)  
**(435)646-3721**

4. Location of Well (Report location clearly and in accordance with Federal requirements)\*

At surface **2108' FSL & 724' FEL (NE/SE) SEC. 31, T8S, R17E (UTU-74869)**

At top prod. interval reported below **1544' FSL & 1161' FEL (NE/SE) SEC. 31, T8S, R17E (UTU-74869)**

At total depth **1266' FSL & 1384' FEL (SW/SE) SEC. 31, T8S, R17E (UTU-74869)**

14. Date Spudded  
**07/27/2010**

15. Date T.D. Reached  
**08/21/2010**

16. Date Completed **09/08/2010**  
 D & A  Ready to Prod.

17. Elevations (DF, RKB, RT, GL)\*  
**5313' GL 5325' KB**

*BHL reviewed  
by HSM*

18. Total Depth: MD **6330'**  
TV D **6228'6**

19. Plug Back T.D.: MD **6274'**  
TV D **6170**

20. Depth Bridge Plug Set: MD  
TV D

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)  
**DUAL IND GRD, SP, COMP. DENSITY, COMP. NEUTRON, GR, CALIPER, CMT BOND**

22. Was well cored?  No  Yes (Submit analysis)  
Was DST run?  No  Yes (Submit report)  
Directional Survey?  No  Yes (Submit copy)

23. Casing and Liner Record (Report all strings set in well)

| Hole Size | Size/Grade  | Wt. (#/ft.) | Top (MD) | Bottom (MD) | Stage Cementer Depth | No. of Sk. & Type of Cement | Slurry Vol. (BBL) | Cement Top* | Amount Pulled |
|-----------|-------------|-------------|----------|-------------|----------------------|-----------------------------|-------------------|-------------|---------------|
| 12-1/4"   | 8-5/8" J-55 | 24#         | 0        | 348'        |                      | 170 CLASS G                 |                   |             |               |
| 7-7/8"    | 5-1/2" J-55 | 15.5#       | 0        | 6318'       |                      | 270 PRIMLITE                |                   | 50'         |               |
|           |             |             |          |             |                      | 400 50/50 POZ               |                   |             |               |

24. Tubing Record

| Size   | Depth Set (MD) | Packer Depth (MD) | Size | Depth Set (MD) | Packer Depth (MD) | Size | Depth Set (MD) | Packer Depth (MD) |
|--------|----------------|-------------------|------|----------------|-------------------|------|----------------|-------------------|
| 2-7/8" | EOT @ 5695'    | TA @ 5596'        |      |                |                   |      |                |                   |

25. Producing Intervals

| Formation      | Top | Bottom | Perforated Interval | Size | No. Holes | Perf. Status |
|----------------|-----|--------|---------------------|------|-----------|--------------|
| A) Green River |     |        | 5619-5631' A3 LODC  | .36" | 3         | 78           |
| B) Green River |     |        | 5212-5216' B1       | .34" | 3         | 12           |
| C) Green River |     |        | 4855-5001' DS2 D1   | .34" | 3         | 33           |
| D) Green River |     |        | 4482-4503' GB6      | .34" | 3         | 30           |

27. Acid, Fracture, Treatment, Cement Squeeze, etc.

| Depth Interval | Amount and Type of Material                                     |
|----------------|---|
| 5619-5631'     | Frac w/ 150359#'s 20/40 sand in 697 bbls of Lightning 17 fluid. |
| 5212-5216'     | Frac w/ 14295#'s 20/40 sand in 88 bbls of Lightning 17 fluid.   |
| 4855-5001'     | Frac w/ 34987#'s 20/40 sand in 300 bbls of Lightning 17 fluid.  |
| 4482-4503'     | Frac w/ 29116#'s 20/40 sand in 210 bbls of Lightning 17 fluid.  |

28. Production - Interval A

| Date First Produced | Test Date            | Hours Tested | Test Production | Oil BBL | Gas MCF | Water BBL | Oil Gravity Corr. API | Gas Gravity | Production Method               |
|---------------------|----------------------|--------------|-----------------|---------|---------|-----------|-----------------------|-------------|---------------------------------|
| 9-3-10              | 9-15-10              | 24           | →               | 26      | 21      | 33        |                       |             | 2-1/2" x 1-3/4" x 24' RHAC Pump |
| Choke Size          | Tbg. Press. Flwg. SI | Csg. Press.  | 24 Hr. Rate     | Oil BBL | Gas MCF | Water BBL | Gas/Oil Ratio         | Well Status |                                 |
|                     |                      |              | →               |         |         |           |                       | PRODUCING   |                                 |

28a. Production - Interval B

| Date First Produced | Test Date            | Hours Tested | Test Production | Oil BBL | Gas MCF | Water BBL | Oil Gravity Corr. API | Gas Gravity | Production Method |
|---------------------|----------------------|--------------|-----------------|---------|---------|-----------|-----------------------|-------------|-------------------|
|                     |                      |              | →               |         |         |           |                       |             |                   |
| Choke Size          | Tbg. Press. Flwg. SI | Csg. Press.  | 24 Hr. Rate     | Oil BBL | Gas MCF | Water BBL | Gas/Oil Ratio         | Well Status |                   |
|                     |                      |              | →               |         |         |           |                       |             |                   |

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**SEP 30 2010**

\*(See instructions and spaces for additional data on page 2)

28b. Production - Interval C

|                     |                      |              |                      |         |         |           |                       |             |                   |
|---------------------|----------------------|--------------|----------------------|---------|---------|-----------|-----------------------|-------------|-------------------|
| Date First Produced | Test Date            | Hours Tested | Test Production<br>→ | Oil BBL | Gas MCF | Water BBL | Oil Gravity Corr. API | Gas Gravity | Production Method |
| Choke Size          | Tbg. Press. Flwg. SI | Csg. Press.  | 24 Hr. Rate<br>→     | Oil BBL | Gas MCF | Water BBL | Gas/Oil Ratio         | Well Status |                   |

28c. Production - Interval D

|                     |                      |              |                      |         |         |           |                       |             |                   |
|---------------------|----------------------|--------------|----------------------|---------|---------|-----------|-----------------------|-------------|-------------------|
| Date First Produced | Test Date            | Hours Tested | Test Production<br>→ | Oil BBL | Gas MCF | Water BBL | Oil Gravity Corr. API | Gas Gravity | Production Method |
| Choke Size          | Tbg. Press. Flwg. SI | Csg. Press.  | 24 Hr. Rate<br>→     | Oil BBL | Gas MCF | Water BBL | Gas/Oil Ratio         | Well Status |                   |

29. Disposition of Gas (Solid, used for fuel, vented, etc.)

SOLD & USED FOR FUEL

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

GEOLOGICAL MARKERS

| Formation | Top | Bottom | Descriptions, Contents, etc. | Name                                  | Top            |
|-----------|-----|--------|------------------------------|---------------------------------------|----------------|
|           |     |        |                              |                                       | Meas. Depth    |
|           |     |        |                              | GARDEN GULCH MRK<br>GARDEN GULCH 1    | 3913'<br>4112' |
|           |     |        |                              | GARDEN GULCH 2<br>POINT 3             | 4232'<br>4512' |
|           |     |        |                              | X MRKR<br>Y MRKR                      | 4744'<br>4778' |
|           |     |        |                              | DOUGALS CREEK MRK<br>BI CARBONATE MRK | 4905'<br>5147' |
|           |     |        |                              | B LIMESTON MRK<br>CASTLE PEAK         | 5270'<br>5780' |
|           |     |        |                              | BASAL CARBONATE                       | 6204'          |

32. Additional remarks (include plugging procedure):

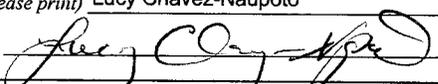
33. Indicate which items have been attached by placing a check in the appropriate boxes:

- Electrical/Mechanical Logs (1 full set req'd.)     
  Geologic Report     
  DST Report     
  Directional Survey  
 Sundry Notice for plugging and cement verification     
  Core Analysis     
  Other: Drilling Daily Activity

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)\*

Name (please print) Lucy Chavez-Naupoto

Title Administrative Assistant

Signature 

Date 09/27/2010

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.

**NEWFIELD**



# **NEWFIELD EXPLORATION**

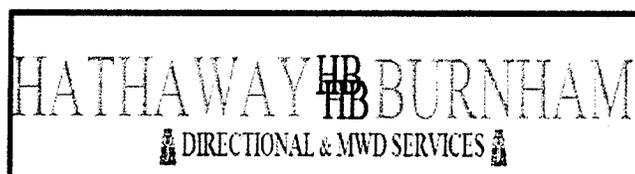
**USGS Myton SW (UT)  
SECTION 31T8S R17E  
S-31-8-17**

**Wellbore #1**

**Design: Actual**

## **Standard Survey Report**

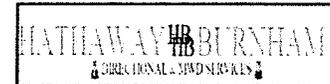
**15 September, 2010**





# HATHAWAY BURNHAM

## Survey Report



**Company:** NEWFIELD EXPLORATION  
**Project:** USGS Myton SW (UT)  
**Site:** SECTION 31 T8S R17E  
**Well:** S-31-8-17  
**Wellbore:** Wellbore #1  
**Design:** Actual

**Local Co-ordinate Reference:** Well S-31-8-17  
**TVD Reference:** S-31-8-17 @ 5325.0ft (Original Well Elev)  
**MD Reference:** S-31-8-17 @ 5325.0ft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 2003.21 Single User Db

|                    |  |                                     |
|--------------------|--|-------------------------------------|
| <b>Project</b>     | USGS Myton SW (UT), DUCHESNE COUNTY, UT, USA |                                     |
| <b>Map System:</b> | US State Plane 1983                          | <b>System Datum:</b> Mean Sea Level |
| <b>Geo Datum:</b>  | North American Datum 1983                    |                                     |
| <b>Map Zone:</b>   | Utah Central Zone                            |                                     |

|                                     |                                      |                |                                    |
|-------------------------------------|--------------------------------------|----------------|------------------------------------|
| <b>Site</b>                         | SECTION 31 T8S R17E, SEC 31 T8S R17E |                |                                    |
| <b>Site Position:</b>               | <b>Northing:</b>                     | 7,199,169.00ft | <b>Latitude:</b> 40° 4' 28.063 N   |
| <b>From:</b> Lat/Long               | <b>Easting:</b>                      | 2,048,214.00ft | <b>Longitude:</b> 110° 2' 33.522 W |
| <b>Position Uncertainty:</b> 0.0 ft | <b>Slot Radius:</b> "                |                | <b>Grid Convergence:</b> 0.93 °    |

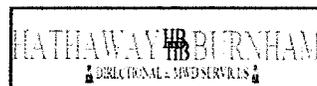
|                             |  |                                       |                                  |                                    |
|-----------------------------|--|---------------------------------------|----------------------------------|------------------------------------|
| <b>Well</b>                 | S-31-8-17, SHL LAT: 40 04 22.54, LONG: -110 02 32.80 |                                       |                                  |                                    |
| <b>Well Position</b>        | <b>+N/-S</b>   | 0.0 ft                                | <b>Northing:</b> 7,198,611.17 ft | <b>Latitude:</b> 40° 4' 22.540 N   |
|                             | <b>+E/-W</b>   | 0.0 ft                                | <b>Easting:</b> 2,048,279.26 ft  | <b>Longitude:</b> 110° 2' 32.800 W |
| <b>Position Uncertainty</b> | 0.0 ft   | <b>Wellhead Elevation:</b> 5,325.0 ft | <b>Ground Level:</b> 5,313.0 ft  |                                    |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | Wellbore #1       |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF200510        | 2009/11/03         | 11.50                  | 65.87                | 52,480                     |

|                          |                              |                   |                   |                          |
|--------------------------|------------------------------|-------------------|-------------------|--------------------------|
| <b>Design</b>            | Actual                       |                   |                   |                          |
| <b>Audit Notes:</b>      |                              |                   |                   |                          |
| <b>Version:</b>          | 1.0                          | <b>Phase:</b>     | ACTUAL            | <b>Tie On Depth:</b> 0.0 |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (ft)</b> | <b>+N/-S (ft)</b> | <b>+E/-W (ft)</b> | <b>Direction (°)</b>     |
|                          | 0.0                          | 0.0               | 0.0               | 217.87                   |

|                       |                |                          |                  |                    |
|-----------------------|----------------|--------------------------|------------------|--------------------|
| <b>Survey Program</b> | <b>Date</b>    | 2010/09/15               |                  |                    |
| <b>From (ft)</b>      | <b>To (ft)</b> | <b>Survey (Wellbore)</b> | <b>Tool Name</b> | <b>Description</b> |
| 382.0                 | 6,330.0        | Survey #1 (Wellbore #1)  | MWD              | MWD - Standard     |

| 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                |
| 382.0               | 0.63            | 3.45        | 382.0               | 2.1        | 0.1        | -1.7                  | 0.16                  | 0.16                 | 0.00                |
| 412.0               | 0.53            | 13.43       | 412.0               | 2.4        | 0.2        | -2.0                  | 0.47                  | -0.33                | 33.27               |
| 443.0               | 0.40            | 57.00       | 443.0               | 2.6        | 0.3        | -2.2                  | 1.18                  | -0.42                | 140.55              |
| 474.0               | 0.18            | 75.40       | 474.0               | 2.7        | 0.4        | -2.4                  | 0.76                  | -0.71                | 59.35               |
| 505.0               | 0.35            | 208.51      | 505.0               | 2.6        | 0.4        | -2.3                  | 1.58                  | 0.55                 | 429.39              |
| 535.0               | 0.80            | 226.70      | 535.0               | 2.4        | 0.2        | -2.0                  | 1.60                  | 1.50                 | 60.63               |
| 566.0               | 1.36            | 228.02      | 566.0               | 2.0        | -0.2       | -1.4                  | 1.81                  | 1.81                 | 4.26                |
| 597.0               | 1.76            | 233.69      | 597.0               | 1.4        | -0.9       | -0.6                  | 1.38                  | 1.29                 | 18.29               |
| 627.0               | 2.15            | 232.59      | 627.0               | 0.8        | -1.7       | 0.4                   | 1.31                  | 1.30                 | -3.67               |
| 657.0               | 2.64            | 229.47      | 656.9               | 0.0        | -2.6       | 1.6                   | 1.69                  | 1.63                 | -10.40              |
| 688.0               | 3.10            | 228.50      | 687.9               | -1.0       | -3.8       | 3.1                   | 1.49                  | 1.48                 | -3.13               |
| 719.0               | 3.60            | 226.96      | 718.8               | -2.2       | -5.2       | 4.9                   | 1.64                  | 1.61                 | -4.97               |



**Company:** NEWFIELD EXPLORATION  
**Project:** USGS Myton SW (UT)  
**Site:** SECTION 31 T8S R17E  
**Well:** S-31-8-17  
**Wellbore:** Wellbore #1  
**Design:** Actual

**Local Co-ordinate Reference:** Well S-31-8-17  
**TVD Reference:** S-31-8-17 @ 5325.0ft (Original Well Elev)  
**MD Reference:** S-31-8-17 @ 5325.0ft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 2003.21 Single User Db

## 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) |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 749.0               | 4.13            | 224.90      | 748.8               | -3.6       | -6.6       | 6.9                   | 1.83                  | 1.77                 | -6.87               |
| 795.0               | 4.92            | 222.00      | 794.6               | -6.2       | -9.1       | 10.5                  | 1.79                  | 1.72                 | -6.30               |
| 840.0               | 5.40            | 220.00      | 839.4               | -9.3       | -11.7      | 14.6                  | 1.14                  | 1.07                 | -4.44               |
| 885.0               | 5.90            | 224.00      | 884.2               | -12.6      | -14.7      | 19.0                  | 1.41                  | 1.11                 | 8.89                |
| 931.0               | 6.60            | 225.20      | 929.9               | -16.1      | -18.2      | 23.9                  | 1.55                  | 1.52                 | 2.61                |
| 976.0               | 7.30            | 225.40      | 974.6               | -20.0      | -22.1      | 29.3                  | 1.56                  | 1.56                 | 0.44                |
| 1,021.0             | 7.70            | 225.40      | 1,019.2             | -24.1      | -26.3      | 35.2                  | 0.89                  | 0.89                 | 0.00                |
| 1,067.0             | 8.30            | 224.70      | 1,064.8             | -28.6      | -30.8      | 41.5                  | 1.32                  | 1.30                 | -1.52               |
| 1,112.0             | 8.90            | 223.20      | 1,109.3             | -33.5      | -35.5      | 48.2                  | 1.42                  | 1.33                 | -3.33               |
| 1,157.0             | 9.60            | 221.20      | 1,153.7             | -38.8      | -40.3      | 55.4                  | 1.71                  | 1.56                 | -4.44               |
| 1,202.0             | 10.20           | 220.00      | 1,198.0             | -44.7      | -45.4      | 63.1                  | 1.41                  | 1.33                 | -2.67               |
| 1,247.0             | 10.90           | 220.20      | 1,242.3             | -51.0      | -50.7      | 71.4                  | 1.56                  | 1.56                 | 0.44                |
| 1,292.0             | 11.30           | 220.60      | 1,286.4             | -57.6      | -56.3      | 80.0                  | 0.91                  | 0.89                 | 0.89                |
| 1,338.0             | 11.70           | 220.60      | 1,331.5             | -64.6      | -62.3      | 89.2                  | 0.87                  | 0.87                 | 0.00                |
| 1,383.0             | 12.00           | 219.60      | 1,375.5             | -71.6      | -68.2      | 98.4                  | 0.81                  | 0.67                 | -2.22               |
| 1,428.0             | 12.22           | 219.52      | 1,419.5             | -78.9      | -74.2      | 107.9                 | 0.49                  | 0.49                 | -0.18               |
| 1,474.0             | 12.48           | 219.27      | 1,464.5             | -86.5      | -80.5      | 117.7                 | 0.58                  | 0.57                 | -0.54               |
| 1,519.0             | 12.61           | 218.80      | 1,508.4             | -94.1      | -86.6      | 127.5                 | 0.37                  | 0.29                 | -1.04               |
| 1,564.0             | 13.00           | 218.90      | 1,552.3             | -101.9     | -92.9      | 137.4                 | 0.87                  | 0.87                 | 0.22                |
| 1,609.0             | 13.00           | 219.00      | 1,596.1             | -109.8     | -99.2      | 147.6                 | 0.05                  | 0.00                 | 0.22                |
| 1,655.0             | 13.00           | 218.20      | 1,640.9             | -117.8     | -105.7     | 157.9                 | 0.39                  | 0.00                 | -1.74               |
| 1,700.0             | 13.27           | 216.33      | 1,684.8             | -126.0     | -111.9     | 168.1                 | 1.12                  | 0.60                 | -4.16               |
| 1,745.0             | 13.10           | 216.50      | 1,728.6             | -134.2     | -118.0     | 178.4                 | 0.39                  | -0.38                | 0.38                |
| 1,791.0             | 12.79           | 214.75      | 1,773.4             | -142.6     | -124.0     | 188.7                 | 1.09                  | -0.67                | -3.80               |
| 1,836.0             | 12.60           | 213.80      | 1,817.3             | -150.8     | -129.6     | 198.6                 | 0.63                  | -0.42                | -2.11               |
| 1,881.0             | 12.50           | 213.90      | 1,861.2             | -158.9     | -135.0     | 208.3                 | 0.23                  | -0.22                | 0.22                |
| 1,926.0             | 12.70           | 212.80      | 1,905.2             | -167.1     | -140.4     | 218.1                 | 0.69                  | 0.44                 | -2.44               |
| 1,972.0             | 12.70           | 213.80      | 1,950.0             | -175.6     | -145.9     | 228.2                 | 0.48                  | 0.00                 | 2.17                |
| 2,017.0             | 12.10           | 212.20      | 1,994.0             | -183.7     | -151.2     | 237.8                 | 1.54                  | -1.33                | -3.56               |
| 2,062.0             | 11.60           | 211.90      | 2,038.0             | -191.5     | -156.1     | 247.0                 | 1.12                  | -1.11                | -0.67               |
| 2,108.0             | 11.60           | 213.00      | 2,083.1             | -199.3     | -161.1     | 256.2                 | 0.48                  | 0.00                 | 2.39                |
| 2,153.0             | 11.78           | 213.90      | 2,127.1             | -206.9     | -166.1     | 265.3                 | 0.57                  | 0.40                 | 2.00                |
| 2,198.0             | 11.50           | 213.90      | 2,171.2             | -214.4     | -171.2     | 274.4                 | 0.62                  | -0.62                | 0.00                |
| 2,244.0             | 11.40           | 212.60      | 2,216.3             | -222.1     | -176.2     | 283.5                 | 0.60                  | -0.22                | -2.83               |
| 2,289.0             | 11.20           | 213.90      | 2,260.4             | -229.4     | -181.0     | 292.2                 | 0.72                  | -0.44                | 2.89                |
| 2,334.0             | 11.21           | 215.14      | 2,304.6             | -236.7     | -186.0     | 301.0                 | 0.54                  | 0.02                 | 2.76                |
| 2,379.0             | 11.00           | 215.20      | 2,348.7             | -243.7     | -191.0     | 309.6                 | 0.47                  | -0.47                | 0.13                |
| 2,425.0             | 10.60           | 212.60      | 2,393.9             | -250.9     | -195.8     | 318.2                 | 1.37                  | -0.87                | -5.65               |
| 2,470.0             | 11.10           | 217.60      | 2,438.1             | -257.8     | -200.6     | 326.7                 | 2.37                  | 1.11                 | 11.11               |
| 2,515.0             | 11.30           | 219.70      | 2,482.3             | -264.6     | -206.1     | 335.4                 | 1.01                  | 0.44                 | 4.67                |
| 2,560.0             | 11.30           | 219.10      | 2,526.4             | -271.4     | -211.7     | 344.2                 | 0.26                  | 0.00                 | -1.33               |
| 2,606.0             | 11.20           | 216.30      | 2,571.5             | -278.5     | -217.2     | 353.2                 | 1.21                  | -0.22                | -6.09               |
| 2,651.0             | 11.10           | 215.60      | 2,615.7             | -285.6     | -222.3     | 361.9                 | 0.37                  | -0.22                | -1.56               |
| 2,696.0             | 10.70           | 214.40      | 2,659.8             | -292.6     | -227.2     | 370.4                 | 1.02                  | -0.89                | -2.67               |
| 2,741.0             | 10.50           | 213.90      | 2,704.1             | -299.4     | -231.8     | 378.7                 | 0.49                  | -0.44                | -1.11               |
| 2,787.0             | 10.40           | 213.60      | 2,749.3             | -306.3     | -236.5     | 387.0                 | 0.25                  | -0.22                | -0.65               |
| 2,832.0             | 10.40           | 214.20      | 2,793.6             | -313.1     | -241.0     | 395.1                 | 0.24                  | 0.00                 | 1.33                |
| 2,877.0             | 10.81           | 212.46      | 2,837.8             | -320.0     | -245.5     | 403.3                 | 1.16                  | 0.91                 | -3.87               |
| 2,923.0             | 11.29           | 213.87      | 2,882.9             | -327.4     | -250.4     | 412.1                 | 1.20                  | 1.04                 | 3.07                |
| 2,968.0             | 11.69           | 214.40      | 2,927.0             | -334.8     | -255.4     | 421.1                 | 0.92                  | 0.89                 | 1.18                |
| 3,013.0             | 11.90           | 216.10      | 2,971.1             | -342.3     | -260.7     | 430.3                 | 0.90                  | 0.47                 | 3.78                |
| 3,059.0             | 12.20           | 216.70      | 3,016.1             | -350.0     | -266.4     | 439.9                 | 0.71                  | 0.65                 | 1.30                |
| 3,104.0             | 12.50           | 217.50      | 3,060.0             | -357.7     | -272.2     | 449.5                 | 0.77                  | 0.67                 | 1.78                |
| 3,149.0             | 12.20           | 218.00      | 3,104.0             | -365.3     | -278.1     | 459.1                 | 0.71                  | -0.67                | 1.11                |



# HATHAWAY BURNHAM

## Survey Report



**Company:** NEWFIELD EXPLORATION  
**Project:** USGS Myton SW (UT)  
**Site:** SECTION 31 T8S R17E  
**Well:** S-31-8-17  
**Wellbore:** Wellbore #1  
**Design:** Actual

**Local Co-ordinate Reference:** Well S-31-8-17  
**TVD Reference:** S-31-8-17 @ 5325.0ft (Original Well Elev)  
**MD Reference:** S-31-8-17 @ 5325.0ft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 2003.21 Single User Db

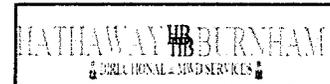
### Survey

| 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) |
|----------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 3,194.0              | 12.20           | 218.30      | 3,148.0             | -372.8     | -284.0     | 468.6                 | 0.14                  | 0.00                 | 0.67                |
| 3,240.0              | 12.30           | 220.30      | 3,192.9             | -380.4     | -290.2     | 478.4                 | 0.95                  | 0.22                 | 4.35                |
| 3,285.0              | 11.50           | 217.30      | 3,237.0             | -387.6     | -296.0     | 487.6                 | 2.25                  | -1.78                | -6.67               |
| 3,330.0              | 10.90           | 214.20      | 3,281.1             | -394.7     | -301.1     | 496.4                 | 1.89                  | -1.33                | -6.89               |
| 3,375.0              | 10.90           | 216.10      | 3,325.3             | -401.6     | -306.0     | 504.9                 | 0.80                  | 0.00                 | 4.22                |
| 3,421.0              | 11.30           | 216.20      | 3,370.4             | -408.8     | -311.2     | 513.7                 | 0.87                  | 0.87                 | 0.22                |
| 3,466.0              | 11.20           | 217.30      | 3,414.6             | -415.8     | -316.5     | 522.5                 | 0.53                  | -0.22                | 2.44                |
| 3,511.0              | 10.90           | 216.10      | 3,458.7             | -422.7     | -321.6     | 531.1                 | 0.84                  | -0.67                | -2.67               |
| 3,556.0              | 10.90           | 217.60      | 3,502.9             | -429.5     | -326.7     | 539.6                 | 0.63                  | 0.00                 | 3.33                |
| 3,602.0              | 11.10           | 217.80      | 3,548.1             | -436.5     | -332.1     | 548.4                 | 0.44                  | 0.43                 | 0.43                |
| 3,647.0              | 11.10           | 218.20      | 3,592.2             | -443.3     | -337.4     | 557.1                 | 0.17                  | 0.00                 | 0.89                |
| 3,692.0              | 11.00           | 216.70      | 3,636.4             | -450.2     | -342.7     | 565.7                 | 0.68                  | -0.22                | -3.33               |
| 3,738.0              | 10.90           | 218.80      | 3,681.6             | -457.1     | -348.0     | 574.4                 | 0.89                  | -0.22                | 4.57                |
| 3,783.0              | 10.70           | 219.30      | 3,725.8             | -463.6     | -353.3     | 582.9                 | 0.49                  | -0.44                | 1.11                |
| 3,828.0              | 10.30           | 219.80      | 3,770.0             | -469.9     | -358.5     | 591.1                 | 0.91                  | -0.89                | 1.11                |
| 3,874.0              | 10.30           | 220.90      | 3,815.3             | -476.2     | -363.9     | 599.3                 | 0.43                  | 0.00                 | 2.39                |
| 3,919.0              | 10.10           | 220.00      | 3,859.6             | -482.3     | -369.0     | 607.2                 | 0.57                  | -0.44                | -2.00               |
| 3,964.0              | 10.00           | 220.40      | 3,903.9             | -488.3     | -374.1     | 615.1                 | 0.27                  | -0.22                | 0.89                |
| 4,010.0              | 10.33           | 220.30      | 3,949.2             | -494.5     | -379.4     | 623.2                 | 0.72                  | 0.72                 | -0.22               |
| 4,055.0              | 10.60           | 222.80      | 3,993.4             | -500.6     | -384.8     | 631.4                 | 1.17                  | 0.60                 | 5.56                |
| 4,100.0              | 10.90           | 221.30      | 4,037.6             | -506.8     | -390.4     | 639.7                 | 0.91                  | 0.67                 | -3.33               |
| 4,146.0              | 11.00           | 220.40      | 4,082.8             | -513.4     | -396.1     | 648.5                 | 0.43                  | 0.22                 | -1.96               |
| 4,191.0              | 11.30           | 220.90      | 4,126.9             | -520.0     | -401.8     | 657.1                 | 0.70                  | 0.67                 | 1.11                |
| 4,236.0              | 11.70           | 221.40      | 4,171.0             | -526.8     | -407.7     | 666.1                 | 0.92                  | 0.89                 | 1.11                |
| 4,282.0              | 11.90           | 220.00      | 4,216.1             | -533.9     | -413.8     | 675.5                 | 0.76                  | 0.43                 | -3.04               |
| 4,327.0              | 11.90           | 217.10      | 4,260.1             | -541.2     | -419.6     | 684.8                 | 1.33                  | 0.00                 | -6.44               |
| 4,372.0              | 12.00           | 217.60      | 4,304.1             | -548.6     | -425.3     | 694.1                 | 0.32                  | 0.22                 | 1.11                |
| 4,418.0              | 12.20           | 216.50      | 4,349.1             | -556.3     | -431.1     | 703.7                 | 0.66                  | 0.43                 | -2.39               |
| 4,463.0              | 12.00           | 217.30      | 4,393.1             | -563.8     | -436.7     | 713.2                 | 0.58                  | -0.44                | 1.78                |
| 4,508.0              | 11.90           | 216.80      | 4,437.1             | -571.2     | -442.3     | 722.5                 | 0.32                  | -0.22                | -1.11               |
| 4,554.0              | 11.60           | 214.60      | 4,482.2             | -578.8     | -447.8     | 731.8                 | 1.17                  | -0.65                | -4.78               |
| 4,599.0              | 11.20           | 212.20      | 4,526.3             | -586.3     | -452.7     | 740.7                 | 1.38                  | -0.89                | -5.33               |
| 4,644.0              | 11.00           | 214.80      | 4,570.4             | -593.5     | -457.5     | 749.3                 | 1.20                  | -0.44                | 5.78                |
| 4,690.0              | 11.00           | 215.70      | 4,615.6             | -600.7     | -462.6     | 758.1                 | 0.37                  | 0.00                 | 1.96                |
| 4,735.0              | 10.80           | 215.40      | 4,659.8             | -607.6     | -467.5     | 766.6                 | 0.46                  | -0.44                | -0.67               |
| 4,780.0              | 10.90           | 214.20      | 4,704.0             | -614.5     | -472.3     | 775.1                 | 0.55                  | 0.22                 | -2.67               |
| 4,826.0              | 10.90           | 215.70      | 4,749.1             | -621.7     | -477.3     | 783.8                 | 0.62                  | 0.00                 | 3.26                |
| 4,871.0              | 11.20           | 217.30      | 4,793.3             | -628.6     | -482.4     | 792.4                 | 0.95                  | 0.67                 | 3.56                |
| 4,916.0              | 11.30           | 218.40      | 4,837.4             | -635.5     | -487.8     | 801.2                 | 0.53                  | 0.22                 | 2.44                |
| 4,962.0              | 11.50           | 220.40      | 4,882.5             | -642.5     | -493.6     | 810.2                 | 0.96                  | 0.43                 | 4.35                |
| 5,007.0              | 11.60           | 219.50      | 4,926.6             | -649.5     | -499.4     | 819.2                 | 0.46                  | 0.22                 | -2.00               |
| 5,052.0              | 11.40           | 217.30      | 4,970.7             | -656.5     | -505.0     | 828.2                 | 1.07                  | -0.44                | -4.89               |
| 5,098.0              | 11.40           | 217.90      | 5,015.8             | -663.7     | -510.5     | 837.3                 | 0.26                  | 0.00                 | 1.30                |
| 5,143.0              | 11.30           | 218.90      | 5,059.9             | -670.6     | -516.0     | 846.2                 | 0.49                  | -0.22                | 2.22                |
| 5,188.0              | 11.10           | 219.70      | 5,104.1             | -677.4     | -521.5     | 854.9                 | 0.56                  | -0.44                | 1.78                |
| 5,233.0              | 11.10           | 221.50      | 5,148.2             | -684.0     | -527.2     | 863.6                 | 0.77                  | 0.00                 | 4.00                |
| 5,279.0              | 11.10           | 221.00      | 5,193.4             | -690.6     | -533.0     | 872.4                 | 0.21                  | 0.00                 | -1.09               |
| 5,284.2              | 11.08           | 220.81      | 5,198.5             | -691.4     | -533.7     | 873.4                 | 0.85                  | -0.45                | -3.72               |
| <b>S-31-8-17 TGT</b> |                 |             |                     |            |            |                       |                       |                      |                     |
| 5,324.0              | 10.90           | 219.30      | 5,237.5             | -697.2     | -538.6     | 881.0                 | 0.85                  | -0.44                | -3.79               |
| 5,369.0              | 11.07           | 220.28      | 5,281.7             | -703.8     | -544.0     | 889.5                 | 0.56                  | 0.38                 | 2.18                |
| 5,415.0              | 11.38           | 221.78      | 5,326.8             | -710.5     | -549.9     | 898.5                 | 0.93                  | 0.67                 | 3.26                |
| 5,460.0              | 11.80           | 223.20      | 5,370.9             | -717.2     | -556.0     | 907.5                 | 1.13                  | 0.93                 | 3.16                |
| 5,506.0              | 12.40           | 225.00      | 5,415.9             | -724.1     | -562.7     | 917.1                 | 1.54                  | 1.30                 | 3.91                |



# HATHAWAY BURNHAM

## Survey Report



**Company:** NEWFIELD EXPLORATION  
**Project:** USGS Myton SW (UT)  
**Site:** SECTION 31 T8S R17E  
**Well:** S-31-8-17  
**Wellbore:** Wellbore #1  
**Design:** Actual

**Local Co-ordinate Reference:** Well S-31-8-17  
**TVD Reference:** S-31-8-17 @ 5325.0ft (Original Well Elev)  
**MD Reference:** S-31-8-17 @ 5325.0ft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 2003.21 Single User Db

### 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) |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 5,551.0             | 12.90           | 223.30      | 5,459.8             | -731.2     | -569.6     | 926.9                 | 1.39                  | 1.11                 | -3.78               |
| 5,596.0             | 12.50           | 222.00      | 5,503.7             | -738.5     | -576.3     | 936.7                 | 1.09                  | -0.89                | -2.89               |
| 5,641.0             | 12.20           | 223.80      | 5,547.7             | -745.5     | -582.9     | 946.3                 | 1.08                  | -0.67                | 4.00                |
| 5,687.0             | 11.40           | 220.80      | 5,592.7             | -752.5     | -589.2     | 955.7                 | 2.19                  | -1.74                | -6.52               |
| 5,732.0             | 10.70           | 219.45      | 5,636.9             | -759.1     | -594.8     | 964.3                 | 1.66                  | -1.56                | -3.00               |
| 5,777.0             | 10.10           | 217.34      | 5,681.1             | -765.4     | -599.8     | 972.4                 | 1.58                  | -1.33                | -4.69               |
| 5,822.0             | 10.30           | 217.30      | 5,725.4             | -771.8     | -604.6     | 980.4                 | 0.44                  | 0.44                 | -0.09               |
| 5,868.0             | 10.40           | 220.00      | 5,770.7             | -778.2     | -609.8     | 988.7                 | 1.08                  | 0.22                 | 5.87                |
| 5,913.0             | 10.20           | 218.90      | 5,814.9             | -784.4     | -614.9     | 996.7                 | 0.62                  | -0.44                | -2.44               |
| 5,958.0             | 10.40           | 218.20      | 5,859.2             | -790.7     | -619.9     | 1,004.7               | 0.52                  | 0.44                 | -1.56               |
| 6,004.0             | 10.80           | 217.80      | 5,904.4             | -797.4     | -625.1     | 1,013.2               | 0.88                  | 0.87                 | -0.87               |
| 6,049.0             | 10.80           | 219.89      | 5,948.6             | -803.9     | -630.4     | 1,021.6               | 0.87                  | 0.00                 | 4.64                |
| 6,094.0             | 10.60           | 219.71      | 5,992.8             | -810.4     | -635.8     | 1,030.0               | 0.45                  | -0.44                | -0.40               |
| 6,139.0             | 10.55           | 219.41      | 6,037.1             | -816.7     | -641.0     | 1,038.2               | 0.17                  | -0.11                | -0.67               |
| 6,185.0             | 10.10           | 217.75      | 6,082.3             | -823.2     | -646.2     | 1,046.5               | 1.17                  | -0.98                | -3.61               |
| 6,230.0             | 9.30            | 217.30      | 6,126.7             | -829.2     | -650.8     | 1,054.1               | 1.79                  | -1.78                | -1.00               |
| 6,270.0             | 8.79            | 216.07      | 6,166.2             | -834.2     | -654.5     | 1,060.4               | 1.36                  | -1.28                | -3.08               |
| 6,330.0             | 8.79            | 216.07      | 6,225.5             | -841.6     | -659.9     | 1,069.5               | 0.00                  | 0.00                 | 0.00                |

### Wellbore Targets

#### Target Name

| - hit/miss target   | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | Latitude        | Longitude        |
|---|---------------|--------------|----------|------------|------------|---------------|--------------|-----------------|------------------|
| - Shape   | 0.00          | 0.00         | 5,200.0  | -683.1     | -531.2     | 7,197,919.48  | 2,047,759.23 | 40° 4' 15.788 N | 110° 2' 39.634 W |
| S-31-8-17 TGT   |               |              |          |            |            |               |              |                 |                  |
| - actual wellpath misses by 8.7ft at 5284.2ft MD (5198.5 TVD, -691.4 N, -533.7 E) |               |              |          |            |            |               |              |                 |                  |
| - Circle (radius 75.0)  |               |              |          |            |            |               |              |                 |                  |

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

# NEWFIELD



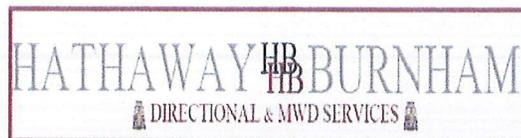
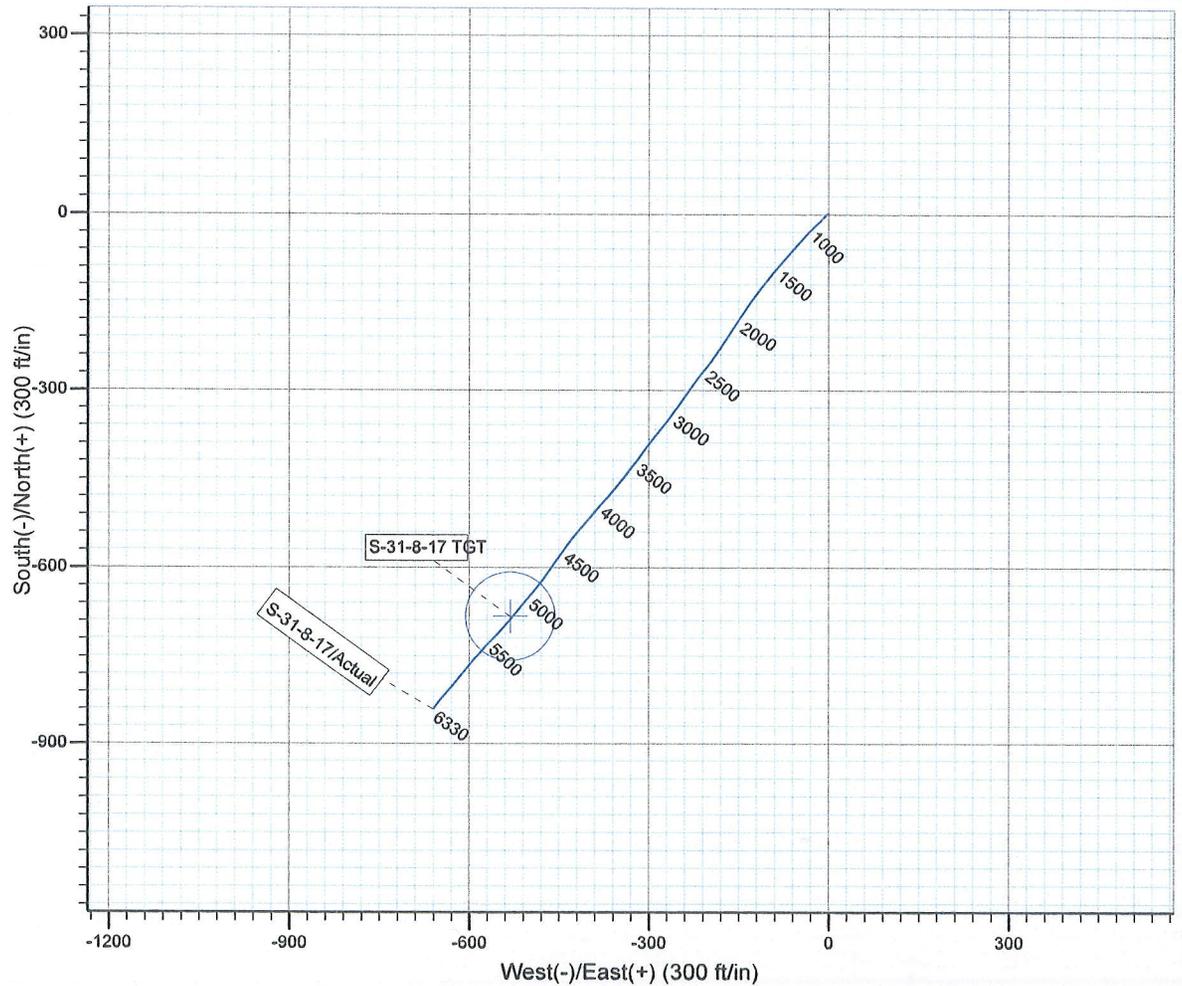
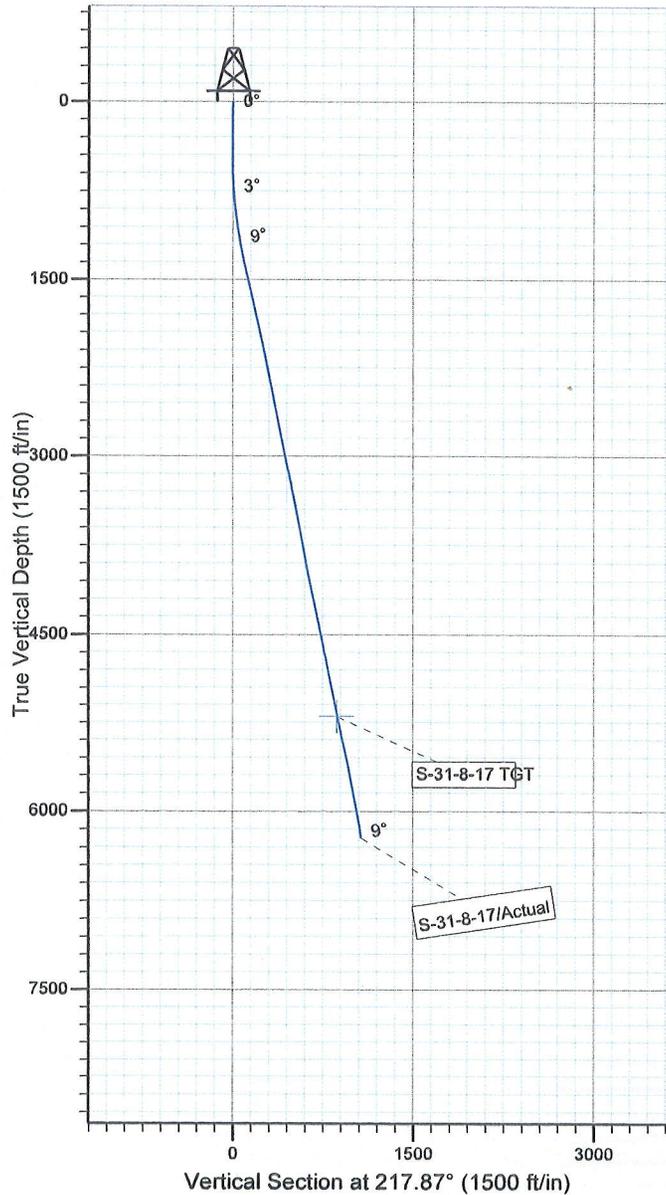
Project: USGS Myton SW (UT)  
 Site: SECTION 31 T8S R17E  
 Well: S-31-8-17  
 Wellbore: Wellbore #1  
 SURVEY: Actual

FINAL SURVEY REPORT



Azimuths to True North  
 Magnetic North: 11.50°

Magnetic Field  
 Strength: 52480.4snT  
 Dip Angle: 65.87°  
 Date: 2009/11/03  
 Model: IGRF200510



Design: Actual (S-31-8-17/Wellbore #1)

Created By: *Jim Hudson* Date: 16:43, September 15 2010  
 THIS SURVEY IS CORRECT TO THE BEST OF MY  
 KNOWLEDGE AND IS SUPPORTED BY ACTUAL FIELD DATA.

**Daily Activity Report**

Format For Sundry

**SANDWASH S-31-8-17****5/1/2010 To 9/30/2010****SANDWASH S-31-8-17****Waiting On Drilling Rig****Date:** 7/30/2010

Ross #29 at 345. Days Since Spud - BJ Services Cemented 8 5/8" Casing W/ 170 sks Class G +2% CaCl<sub>2</sub> + 0.25#/sk Cello Flake Mixed @ - Notified BLM & State Via Email With Spud On 7/27/10@ 8:00 AM & Casing Run On 7/27/10 @ 4:00 PM - And Ran 8 Jts Of 8 5/8" Casing ( Guide Shoe,Shoe Jt,Baffel Plate,7jts) Set @ 348.40'KB. On 7/30/10 - Ross Rig #29 Spud The Sandwash Federal S-31-8-17 On 7/27/10 @ 8:00 AM. Drilled 345' Of 12 1/4" Hole - 15.8 ppg W/1.17 Yield

**Daily Cost:** \$0**Cumulative Cost:** \$50,180**SANDWASH S-31-8-17****Drill 7 7/8" hole with fresh water****Date:** 8/18/2010

Capstar #328 at 623. 1 Days Since Spud - blind rams, and choke manifold to 2000 psi for 10 minutes. - Accept rig at 6 pm on 8/17/10 and rig up B&C Quick Test. Pressure test kelly, pipe rams, - Nipple up BOP. - Finish testing rams and pressure test surface casing to 1500 psi for 30 minutes. All tested good. - Repair flow line and finish rigging up. - TIH with BHA including Smith MI 616 bit and Hunting 0.33 rev/gal MM. - Drill 7 7/8" hole from 275' to 623' with 12 klbs WOB, 198 total RPM, and 87 ft/hr avg ROP. - Move rig 7.3 miles with Howcroft Trucking from the GB II S-21-8-17. - Change rams in BOP.

**Daily Cost:** \$0**Cumulative Cost:** \$105,250**SANDWASH S-31-8-17****Drill 7 7/8" hole with fresh water****Date:** 8/19/2010

Capstar #328 at 4565. 2 Days Since Spud - Lubricate rig. - Drill 7 7/8" hole from 2662' to 4565' with 20 klbs WOB, 197 total RPM, and 131 ft/hr avg ROP. - Drill 7 7/8" hole from 623' to 2662' with 16 klbs WOB, 200 total RPM, and 227 ft/hr avg ROP.

**Daily Cost:** \$0**Cumulative Cost:** \$131,472**SANDWASH S-31-8-17****Lay Down Drill Pipe/BHA****Date:** 8/20/2010

Capstar #328 at 6330. 3 Days Since Spud - Circulate and condition well. - Drill 7 7/8" hole from 5336' to TD (6330') with 20 klbs WOB, 195 total RPM, and 86 ft/hr avg ROP. - Serviced rig. - Drill 7 7/8" hole from 4565' to 5336' with 22 klbs WOB, 190 total RPM, and 81 ft/hr avg ROP. - Lay down drill pipe.

**Daily Cost:** \$0**Cumulative Cost:** \$149,981**SANDWASH S-31-8-17****Wait on Completion****Date:** 8/21/2010

Capstar #328 at 6294. 4 Days Since Spud - Clean mud Tanks - Nipple down BOP Set slips W/ 75,000 tension - Mixed @ 14.4PPG W/1.24 yield Returned 31bbbls to pit. - 400sks 50:50:2+3%KCL+0.5%EC-1+.25#CF+.05#SF+.3SMS+FP-6L - Mixed @ 11ppg W/3.53 yield - Release Rig @ 6:00 AM 8/21/10 - Circulate Casing - Rig Up and Run 149Jts 5 1/2" J-55 LTC

casing Set @ 6318.38 - R/U B&C Quick Test and Test 5 1/2" Rams to 2,000PSI F/ Ten Min.  
Tested Good - R/U PSI and Log well - Laydown Drill pipe and BHA - Rig Up BJ and Pump  
270sks PL11+3%KCL+5#CSE+0.5#CF+.5SMS+FP+SF **Finalized**

**Daily Cost:** \$0

**Cumulative Cost:** \$286,946

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**Pertinent Files: Go to File List**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

|   |   |
|---|---|
| 5. Lease Serial No.<br>UTU-74869  |   |
| 6. If Indian, Allottee or Tribe Name<br>NA  |   |
| 7. If Unit or CA Agreement, Name and No.<br>Sand Wash   |   |
| 8. Lease Name and Well No.<br>Sand Wash Federal S-31-8-17   |   |
| 9. API Well No.<br><b>43-013-50183</b>  |   |
| 10. Field and Pool, or Exploratory<br>Monument Butte  | 11. Sec., T. R. M. or Blk. and Survey or Area<br>Sec. 31, T8S R17E  |
| 12. County or Parish<br>Duchesne  | 13. State<br>UT   |
| 14. Distance in miles and direction from nearest town or post office*<br>Approximately 11.5 miles southeast of Myton, UT    | 15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)<br>Approx. 110' f/lse, 1430' f/unit |
| 16. No. of acres in lease<br>1,177.07   | 17. Spacing Unit dedicated to this well<br>20 Acres   |
| 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.<br>Approx. 1273' | 19. Proposed Depth<br>6,333'  |
| 20. BLM/BIA Bond No. on file<br>WYB000493   | 21. Elevations (Show whether DF, KDB, RT, GL, etc.)<br>5313' GL   |
| 22. Approximate date work will start*<br><b>2nd Qtr. 2010</b>   | 23. Estimated duration<br>(7) days from SPUD to rig release   |

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><i>Mandie Crozier</i>                               | Name (Printed/Typed)<br>Mandie Crozier   | Date<br>10/30/09    |
| Title<br>Regulatory Specialist                                       |  |                     |
| Approved by (Signature)<br><i>James H. Sparger</i>                   | Name (Printed/Typed)<br>James H. Sparger | Date<br>FEB 19 2010 |
| Title<br>ACTING Assistant Field Manager<br>Lands & Mineral Resources | Office<br>VERNAL 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.

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)

RECEIVED

MAR 16 2010

DIV. OF OIL, GAS & MINING

BUREAU OF LAND MGMT  
DEPT OF THE INTERIOR

2009 NOV 12 PM 1 56

VERNAL FIELD OFFICE  
RECEIVED

NOS 07/30/2009

AFMSS# 095X50879A

NOTICE OF APPROVAL

UDOGM  
CONDITIONS OF APPROVAL ATTACHED

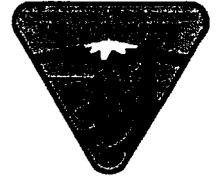


UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
VERNAL FIELD OFFICE

170 South 500 East

VERNAL, UT 84078

(435) 781-4400



**CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL**

|          |                             |            |                         |
|----------|-----------------------------|------------|-------------------------|
| Company: | Newfield Production Company | Location:  | NESE, Sec. 31, T8S R17E |
| Well No: | Sand Wash Federal S-31-8-17 | Lease No:  | UTU-74869               |
| API No:  | 43-047-50813                | Agreement: | Sand Wash               |

**OFFICE NUMBER: (435) 781-4400**

**OFFICE FAX NUMBER: (435) 781-3420**

**A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR  
FIELD REPRESENTATIVE TO INSURE COMPLIANCE**

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.**

**NOTIFICATION REQUIREMENTS**

|   |   |  |
|---|---|--|
| Location Construction<br>(Notify Environmental Scientist)       | - | Forty-Eight (48) hours prior to construction of location and access roads.   |
| Location Completion<br>(Notify Environmental Scientist)         | - | Prior to moving on the drilling rig.   |
| Spud Notice<br>(Notify Petroleum Engineer)                      | - | Twenty-Four (24) hours prior to spudding the well.   |
| Casing String & Cementing<br>(Notify Supv. Petroleum Tech.)     | - | Twenty-Four (24) hours prior to running casing and cementing all casing strings to: <a href="mailto:ut_vn_opreport@blm.gov">ut_vn_opreport@blm.gov</a> . |
| BOP & Related Equipment Tests<br>(Notify Supv. Petroleum Tech.) | - | Twenty-Four (24) hours prior to initiating pressure tests.   |
| First Production Notice<br>(Notify Petroleum Engineer)          | - | Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.             |

**SURFACE USE PROGRAM  
 CONDITIONS OF APPROVAL (COAs)**

- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 gms of NO<sub>x</sub> per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO<sub>x</sub> per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A determination will be made by the AO as to what mitigation may be necessary for the discovered paleontologic material before construction can continue.

**SITE SPECIFIC CONDITIONS OF APPROVAL**

- Reinitiation of section 7 consultation with the USFWS will be sought immediately if any loss of plants or occupied habitat for Pariette cactus is anticipated as a result of project activities.

**Reclamation**

- Reclamation will be completed in accordance with the Newfield Exploration Company Castle Peak and Eight Mile Flat Reclamation Plan on file with the Vernal Field Office of the BLM.

**Seed Mix (Interim and Final Reclamation)**

| Common name          | Latin name                     | lbs/acre | Recommended seed planting depth |
|----------------------|--------------------------------|----------|---------------------------------|
| Squirreltail grass   | <i>Elymus elymoides</i>        | 2.0      | ¼ - ½"                          |
| Bluebunch wheatgrass | <i>Pseudoroegneria spicata</i> | 1.0      | ½"                              |
| Shadscale saltbush   | <i>Atriplex confertifolia</i>  | 2.0      | ½"                              |
| Four-wing saltbush   | <i>Atriplex canescens</i>      | 3.0      | ½"                              |
| Gardner's saltbush   | <i>Atriplex gardneri</i>       | 1.0      | ½"                              |
| Scarlet globemallow  | <i>Sphaeralcea coccinea</i>    | 1.0      | ⅛ - ¼"                          |

- All pounds are pure live seed.
- All seed and mulch would be certified weed free.
- Rates are set for drill seeding; double rate if broadcasting.

**Monitoring and Reporting**

- The operator shall submit a Sundry Notice (Form 3160-5) to the BLM Authorized Officer (AO) that designates the proposed site-specific monitoring and reference sites chosen for the location. A description of the proposed sites shall be included, as well as a map showing the locations of the proposed sites.

- The operator shall submit a Sundry Notice (Form 3160-5) to the BLM Authorized Officer (AO) 3 growing seasons after reclamation efforts have occurred evaluating the status of the reclaimed areas in order to determine whether the BLM standards set forth in the Green River District Reclamation Guidelines have been met (30% or greater basal cover).

**DOWNHOLE PROGRAM  
CONDITIONS OF APPROVAL (COAs)**

**SITE SPECIFIC DOWNHOLE COAs:**

- Well location TD bottom footage hole location information on the completion form 3160-4 Well Completion or Recompletion Report and Log should match and be in agreement with the from the actual drilling directional survey well departure values for the TD bottom hole location.
- A copy of the as drilled directional survey shall be submitted to the BLM Vernal Field Office. Submit the MWD-GR survey from the directional/horizontal drilling operations, hard copy or electronically.
- Production casing cement shall be brought up and into the surface.
- Logging: A Gamma Ray well Log shall be run from the well Total Depth to the surface. A copy of the Gamma Ray well Log shall be submitted to the BLM Vernal Field Office.
- A copy of Newfield's Standard Operating Practices (SOP version: dated 4/18/08 and approved 5/12/08) shall be on location.

**All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to.** The following items are emphasized:

**DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS**

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.

- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- **Cement baskets shall not be run on surface casing.**
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- **Please submit an electronic copy of all other logs run on this well in LAS format to [UT\\_VN\\_Welllogs@BLM.gov](mailto:UT_VN_Welllogs@BLM.gov). This submission will supersede the requirement for submittal of paper logs to the BLM.**
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

#### OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.
- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
  - Operator name, address, and telephone number.
  - Well name and number.
  - Well location (¼¼, Sec., Twn, Rng, and P.M.).
  - Date well was placed in a producing status (date of first production for which royalty will be paid).
  - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
  - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
  - Unit agreement and/or participating area name and number, if applicable.
  - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4.

Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

|   |  |   |                                  |
|---|--|---|----------------------------------|
| 5a. Address<br>Route #3 Box 3630, Myton UT 84052  |  | 3b. Phone No. (include area code)<br>(435) 646-3721   | 5. Lease Serial No.<br>UTU-74869 |
| 10. Field and Pool, or Exploratory<br>Monument Butte  |  | 6. If Indian, Allottee or Tribe Name<br>NA  |                                  |
| 11. Sec., T. R. M. or Blk. and Survey or Area<br>Sec. 31, T8S R17E  |  | 7. If Unit or CA Agreement, Name and No.<br>Sand Wash   |                                  |
| 12. County or Parish<br>Duchesne  |  | 8. Lease Name and Well No.<br>Sand Wash Federal S-31-8-17   |                                  |
| 13. State<br>UT   |  | 9. API Well No.<br>43-013-50183   |                                  |
| 14. Distance in miles and direction from nearest town or post office*<br>Approximately 11.5 miles southeast of Myton, UT    |  | 15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)<br>Approx. 110' f/lse, 1430' f/unit |                                  |
| 16. No. of acres in lease<br>1,177.07   |  | 17. Spacing Unit dedicated to this well<br>20 Acres   |                                  |
| 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.<br>Approx. 1273' |  | 19. Proposed Depth<br>6,333'  |                                  |
| 20. BLM/BIA Bond No. on file<br>WYB000493   |  | 21. Elevations (Show whether DF, KDB, RT, GL, etc.)<br>5313' GL   |                                  |
| 22. Approximate date work will start*<br>2nd Qtr. 2010  |  | 23. Estimated duration<br>(7) days from SPUD to rig release   |                                  |

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><i>Mandie Crozier</i> | Name (Printed/Typed)<br>Mandie Crozier | Date<br>10/30/09 |
| Title<br>Regulatory Specialist         |  |                  |

|  |  |                     |
|--|--|---------------------|
| Approved by (Signature)<br><i>James H. Sparger</i>                   | Name (Printed/Typed)<br>James H. Sparger | Date<br>FEB 19 2010 |
| Title<br>ACTING Assistant Field Manager<br>Lands & Mineral Resources |  |                     |
| Office<br>VERNAL 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.

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)

RECEIVED

MAR 16 2010

DIV. OF OIL, GAS & MINING

BUREAU OF LAND MGMT  
DEPT OF THE INTERIOR

2009 NOV 12 PM 1 56

VERNAL FIELD OFFICE  
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NOS 07/30/2009

AFMSS# 095X50879A

NOTICE OF APPROVAL

UDOGM  
CONDITIONS OF APPROVAL ATTACHED



UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
VERNAL FIELD OFFICE

170 South 500 East

VERNAL, UT 84078

(435) 781-4400



**CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL**

|          |                             |            |                         |
|----------|-----------------------------|------------|-------------------------|
| Company: | Newfield Production Company | Location:  | NESE, Sec. 31, T8S R17E |
| Well No: | Sand Wash Federal S-31-8-17 | Lease No:  | UTU-74869               |
| API No:  | 43-047-50813                | Agreement: | Sand Wash               |

**OFFICE NUMBER: (435) 781-4400**

**OFFICE FAX NUMBER: (435) 781-3420**

**A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR  
FIELD REPRESENTATIVE TO INSURE COMPLIANCE**

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.**

**NOTIFICATION REQUIREMENTS**

|   |   |  |
|---|---|--|
| Location Construction<br>(Notify Environmental Scientist)       | - | Forty-Eight (48) hours prior to construction of location and access roads.   |
| Location Completion<br>(Notify Environmental Scientist)         | - | Prior to moving on the drilling rig.   |
| Spud Notice<br>(Notify Petroleum Engineer)                      | - | Twenty-Four (24) hours prior to spudding the well.   |
| Casing String & Cementing<br>(Notify Supv. Petroleum Tech.)     | - | Twenty-Four (24) hours prior to running casing and cementing all casing strings to: <a href="mailto:ut_vn_opreport@blm.gov">ut_vn_opreport@blm.gov</a> . |
| BOP & Related Equipment Tests<br>(Notify Supv. Petroleum Tech.) | - | Twenty-Four (24) hours prior to initiating pressure tests.   |
| First Production Notice<br>(Notify Petroleum Engineer)          | - | Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.             |

**SURFACE USE PROGRAM  
 CONDITIONS OF APPROVAL (COAs)**

- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 gms of NO<sub>x</sub> per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO<sub>x</sub> per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A determination will be made by the AO as to what mitigation may be necessary for the discovered paleontologic material before construction can continue.

**SITE SPECIFIC CONDITIONS OF APPROVAL**

- Reinitiation of section 7 consultation with the USFWS will be sought immediately if any loss of plants or occupied habitat for Pariette cactus is anticipated as a result of project activities.

**Reclamation**

- Reclamation will be completed in accordance with the Newfield Exploration Company Castle Peak and Eight Mile Flat Reclamation Plan on file with the Vernal Field Office of the BLM.

**Seed Mix (Interim and Final Reclamation)**

| Common name          | Latin name                     | lbs/acre | Recommended seed planting depth |
|----------------------|--------------------------------|----------|---------------------------------|
| Squirreltail grass   | <i>Elymus elymoides</i>        | 2.0      | ¼ - ½"                          |
| Bluebunch wheatgrass | <i>Pseudoroegneria spicata</i> | 1.0      | ½"                              |
| Shadscale saltbush   | <i>Atriplex confertifolia</i>  | 2.0      | ½"                              |
| Four-wing saltbush   | <i>Atriplex canescens</i>      | 3.0      | ½"                              |
| Gardner's saltbush   | <i>Atriplex gardneri</i>       | 1.0      | ½"                              |
| Scarlet globemallow  | <i>Sphaeralcea coccinea</i>    | 1.0      | ⅛ - ¼"                          |

- All pounds are pure live seed.
- All seed and mulch would be certified weed free.
- Rates are set for drill seeding; double rate if broadcasting.

**Monitoring and Reporting**

- The operator shall submit a Sundry Notice (Form 3160-5) to the BLM Authorized Officer (AO) that designates the proposed site-specific monitoring and reference sites chosen for the location. A description of the proposed sites shall be included, as well as a map showing the locations of the proposed sites.

- The operator shall submit a Sundry Notice (Form 3160-5) to the BLM Authorized Officer (AO) 3 growing seasons after reclamation efforts have occurred evaluating the status of the reclaimed areas in order to determine whether the BLM standards set forth in the Green River District Reclamation Guidelines have been met (30% or greater basal cover).

**DOWNHOLE PROGRAM  
CONDITIONS OF APPROVAL (COAs)**

**SITE SPECIFIC DOWNHOLE COAs:**

- Well location TD bottom footage hole location information on the completion form 3160-4 Well Completion or Recompletion Report and Log should match and be in agreement with the from the actual drilling directional survey well departure values for the TD bottom hole location.
- A copy of the as drilled directional survey shall be submitted to the BLM Vernal Field Office. Submit the MWD-GR survey from the directional/horizontal drilling operations, hard copy or electronically.
- Production casing cement shall be brought up and into the surface.
- Logging: A Gamma Ray well Log shall be run from the well Total Depth to the surface. A copy of the Gamma Ray well Log shall be submitted to the BLM Vernal Field Office.
- A copy of Newfield's Standard Operating Practices (SOP version: dated 4/18/08 and approved 5/12/08) shall be on location.

**All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to.** The following items are emphasized:

**DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS**

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.

- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- **Cement baskets shall not be run on surface casing.**
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- **Please submit an electronic copy of all other logs run on this well in LAS format to [UT\\_VN\\_Welllogs@BLM.gov](mailto:UT_VN_Welllogs@BLM.gov). This submission will supersede the requirement for submittal of paper logs to the BLM.**
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

#### OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.
- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
  - Operator name, address, and telephone number.
  - Well name and number.
  - Well location (¼¼, Sec., Twn, Rng, and P.M.).
  - Date well was placed in a producing status (date of first production for which royalty will be paid).
  - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
  - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
  - Unit agreement and/or participating area name and number, if applicable.
  - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4.

Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
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- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.