

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

N.M. Oil Corp. Division  
SUBMITTED TO: P.O. Box 1980  
Hobbs, NM 88241

FORM APPROVED  
OMB NO. 1004-0137  
Expires: February 28, 1995

WELL COMPLETION OR RECOMPLETION REPORT AND LOG\*

|                                                                                                                                                                                                                                                        |  |                                                                         |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------|--|
| 1a. TYPE OF WELL:<br>OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input type="checkbox"/> Other _____                                                                                                           |  | 7. UNIT AGREEMENT NAME                                                  |  |
| b. TYPE OF COMPLETION:<br>NEW WELL <input type="checkbox"/> WORK OVER <input type="checkbox"/> DEEP-EN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> Other <u>RE-ENTRY</u>                         |  | 8. FARM OR LEASE NAME, WELL NO.<br>FEDERAL "AW" #1                      |  |
| 2. NAME OF OPERATOR<br>BURLINGTON RESOURCES OIL & GAS COMPANY                                                                                                                                                                                          |  | 9. API WELL NO.<br>30-025-27017                                         |  |
| 3. ADDRESS AND TELEPHONE NO.<br>P.O. Box 51810 Midland, TX 79710-1810 915-688-6906                                                                                                                                                                     |  | 10. FIELD AND POOL, OR WILDCAT<br>GEM WOLFCAMP                          |  |
| 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*<br>At surface<br>E, 1980' FNL & 660' FWL<br>At top prod. interval reported below<br>E, 1980' FNL & 660' FWL<br>At total depth<br>F, 1973' FNL & 2275' FWL |  | 11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA<br>SEC. 26, T19S, R32E |  |
| 14. PERMIT NO.                                                                                                                                                                                                                                         |  | DATE ISSUED                                                             |  |
| 15. DATE SPUNDED<br>10-6-80                                                                                                                                                                                                                            |  | 16. DATE T.D. REACHED<br>1-3-98                                         |  |
| 17. DATE COMPL. (Ready to prod.)<br>1-3-98                                                                                                                                                                                                             |  | 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*<br>3581.8' GR                   |  |
| 19. ELEV. CASINGHEAD                                                                                                                                                                                                                                   |  | 20. TOTAL DEPTH, MD & TVD<br>12,531' MD<br>11,012' TVD                  |  |
| 21. PLUG, BACK T.D., MD & TVD<br>12,531' MD<br>11,012' TVD                                                                                                                                                                                             |  | 22. IF MULTIPLE COMPL., HOW MANY*                                       |  |
| 23. INTERVALS DRILLED BY<br>→                                                                                                                                                                                                                          |  | ROTARY TOOLS<br>X                                                       |  |
| 24. PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)*<br>(10,735' MD, 10,732' TVD) TO (12,531' MD, 11,012' TVD) WOLFCAMP OPEN HOLE                                                                                           |  | 25. WAS DIRECTIONAL SURVEY MADE<br>YES                                  |  |
| 26. TYPE ELECTRIC AND OTHER LOGS RUN<br>GR-CCL 10,900' - 10,600'                                                                                                                                                                                       |  | 27. WAS WELL CORED<br>NO                                                |  |

| 28. CASING RECORD (Report all strings set in well) |                 |                |           |                                       |               |
|----------------------------------------------------|-----------------|----------------|-----------|---------------------------------------|---------------|
| CASING SIZE/GRADE                                  | WEIGHT, LB./FT. | DEPTH SET (MD) | HOLE SIZE | TOP OF CEMENT, CEMENTING RECORD       | AMOUNT PULLED |
| 13-3/8"                                            | 48#             | 512'           | 17-1/2"   | 475 SXS C                             | EXISTING      |
| 9-5/8"                                             | 40#             | 5745'          | 12-1/4"   | 1425 SXS LITE, 510 SXS H              | EXISTING      |
| 5-1/2"                                             | 17, 20 & 23#    | 13,520'        | 8-3/4"    | 1850 SXS LITE, 700 SXS H. & 150 SXS C | EXISTING      |

| 29. LINER RECORD |          |             |               | 30. TUBING RECORD |                |                 |
|------------------|----------|-------------|---------------|-------------------|----------------|-----------------|
| SIZE             | TOP (MD) | BOTTOM (MD) | SACKS CEMENT* | SIZE              | DEPTH SET (MD) | PACKER SET (MD) |
| NONE             |          |             |               | 2-7/8"            | 10,650'        | NONE            |

|                                                                                                                                                                                                               |  |                                                                                                                                                                                                 |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 31. PERFORATION RECORD (Interval, size and number)<br>10,735' - 12,531' MD, WOLFCAMP OPEN HOLE<br>REMARKS: RE-ENTRY OF A P&A'D WELL & SIDETRACKED A HORIZONTAL DRAINHOLE FROM THE EXISTING VERTICAL WELLBORE. |  | 32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.<br>DEPTH INTERVAL (MD)<br>10,735' - 12,531'<br>AMOUNT AND KIND OF MATERIAL USED<br>ACDZ'D W/30,000 GLS 15% FERCHECK & 25,000 GLS 40# LINEAR GEL. |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

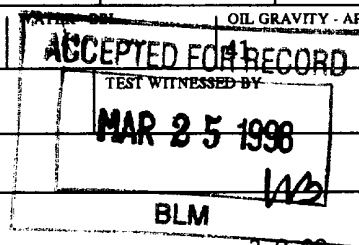
| 33.* PRODUCTION                 |                      |                                                                                   |                              |                  |                           |                                                 |                          |
|---------------------------------|----------------------|-----------------------------------------------------------------------------------|------------------------------|------------------|---------------------------|-------------------------------------------------|--------------------------|
| DATE FIRST PRODUCTION<br>1-6-98 |                      | PRODUCTION METHOD (Flowing, gas lift, pumping - size and type of pump)<br>1" PUMP |                              |                  |                           | WELL STATUS (Producing or shut-in)<br>PRODUCING |                          |
| DATE OF TEST<br>2-26-98         | HOURS TESTED<br>24   | CHOKE SIZE                                                                        | PROD'N. FOR TEST PERIOD<br>→ | OIL - BBL.<br>21 | GAS - MCF.<br>10          | WATER - BBL.<br>72                              | GAS - OIL RATIO<br>476/1 |
| FLOW. TUBING PRESS.<br>200      | CASING PRESSURE<br>0 | CALCULATED 24-HOUR RATE<br>→                                                      | OIL - BBL.                   | GAS - MCF.       | OIL GRAVITY - API (CORR.) |                                                 |                          |

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)  
VENTING UNTIL FLOWLINE IS SURVEYED, ARCH'D AND LAYED TO BATTERY

35. LIST OF ATTACHMENTS  
C-102, C-129, C-104, GYRO SURVEY, DIRECTIONAL SURVEY

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Maria L. Perez TITLE MARIA L. PEREZ DATE 3-9-98



\*(See Instructions and Spaces for Additional Data on Reverse Side)

37. SUMMARY OF POROUS ZONES: (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):

38. GEOLOGIC MARKERS

| FORMATION | TOP | BOTTOM | DESCRIPTION, CONTENTS, ETC. | NAME        | TOP         |                  |
|-----------|-----|--------|-----------------------------|-------------|-------------|------------------|
|           |     |        |                             |             | MEAS. DEPTH | TRUE VERT. DEPTH |
|           |     |        |                             | DELAWARE    | 5,910'      |                  |
|           |     |        |                             | BONE SPRING | 7,566'      |                  |
|           |     |        |                             | WOLFCAMP    | 10,796'     |                  |
|           |     |        |                             | STRAWN      | 11,956'     |                  |
|           |     |        |                             | ATOKA       | 12,305'     |                  |
|           |     |        |                             | MORROW      | 12,572'     |                  |

District I  
PO Box 1980, Hobbs, NM 88241-1980  
District II  
811 S. 1st Street, Artesia, NM 88210-2834  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Form C-102  
Revised October 18, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

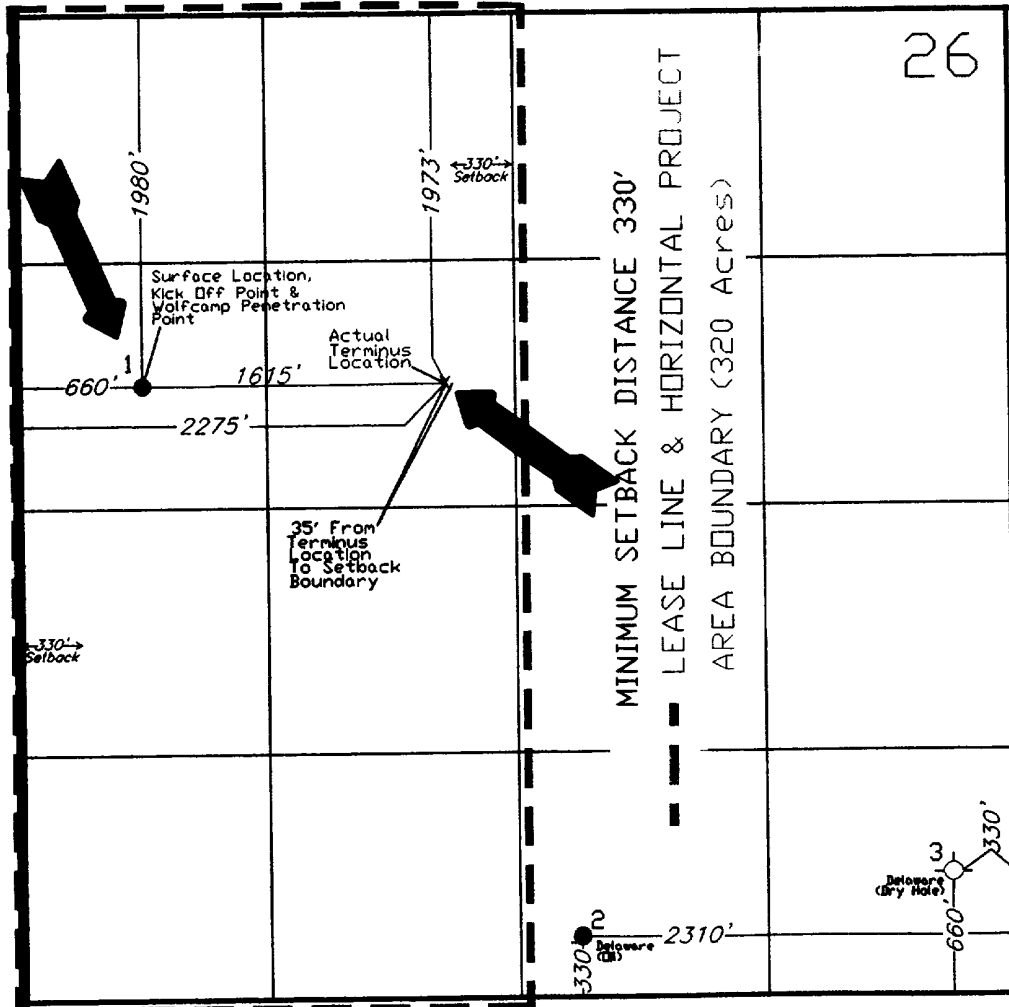
|                                         |                                                                      |                                        |
|-----------------------------------------|----------------------------------------------------------------------|----------------------------------------|
| <sup>1</sup> API Number<br>30-025-27017 | <sup>2</sup> Pool Code<br>27200                                      | <sup>3</sup> Pool Name<br>GEM WOLFCAMP |
| <sup>4</sup> Property Code<br>014367    | <sup>5</sup> Property Name<br>FEDERAL "AW"                           | <sup>6</sup> Well Number<br>1          |
| <sup>7</sup> OGRID No.<br>26485         | <sup>8</sup> Operator Name<br>BURLINGTON RESOURCES OIL & GAS COMPANY | <sup>9</sup> Elevation<br>3581.8       |

| <sup>10</sup> Surface Location |         |          |       |          |               |                  |               |                |        |
|--------------------------------|---------|----------|-------|----------|---------------|------------------|---------------|----------------|--------|
| UL or lot no.                  | Section | Township | Range | Lot. Idn | Feet from the | North/South Line | Feet from the | East/West line | County |
| E                              | 26      | 19S      | 32E   |          | 1980          | NORTH            | 660           | WEST           | LEA    |

<sup>11</sup> Bottom Hole Location If Different From Surface

| UL or lot no.                        | Section | Township                      | Range | Lot. Idn                         | Feet from the | North/South Line        | Feet from the | East/West line | County |
|--------------------------------------|---------|-------------------------------|-------|----------------------------------|---------------|-------------------------|---------------|----------------|--------|
| F                                    | 26      | 19S                           | 32E   |                                  | 1973          | NORTH                   | 2275          | WEST           | LEA    |
| <sup>12</sup> Dedicated Acres<br>320 |         | <sup>13</sup> Joint or Infill |       | <sup>14</sup> Consolidation Code |               | <sup>15</sup> Order No. |               |                |        |

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



|                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <sup>17</sup> OPERATOR CERTIFICATION<br>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.<br><br><i>Maria L. Perez</i><br>Signature<br>MARIA L. PEREZ<br>Printed Name<br>REGULATORY REPRESENTATIVE<br>Title<br>3-9-98<br>Date                                                                                  |
| <sup>18</sup> SURVEYOR CERTIFICATION<br>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.<br><br>_____<br>Date of Survey<br>_____<br>Signature and Seal of Professional Surveyer:<br><br>_____<br>Certificate Number |

A G Y r o d a t a D i r e c t i o n a l S u r v e y

for

BURLINGTON RESOURCES INC.

WELL: FEDERAL "AW" WELL NO. 1

Location: YALE E. KEY #117, LEA COUNTY, NEW MEXICO

Job Number: H1297GMW823

Run Date: 15-Dec-97 12:53:03

Surveyor: LYNN DUNCAN

Calculation Method: MINIMUM CURVATURE

Survey Latitude: 32.800000 deg. N

Magnetic Correction:

Notes: Bearings are Relative to True North

Vertical Section Calculated from Well Head Location

Surface Calculated from Well Head Location

Horizontal Coordinates Calculated from Local Horizontal Reference

A G Y r o d a t a D i r e c t i o n a l S u r v e y

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JRLINGTON RESOURCES INC.

ELL: FEDERAL "AW" WELL NO. 1

ocation: YALE E. KEY #117, LEA COUNTY, NEW MEXICO

Number: H1297GMW823

| MEASURED<br>DEPTH<br>feet                                            | I N C L<br>deg. | A Z I M U T H<br>deg. | B O R E H O L E<br>BEARING<br>deg. min. | D O G L E G<br>SEVERITY<br>deg./<br>100 ft. | V E R T I C A L<br>DEPTH<br>feet | C L O S U R E<br>D I S T .<br>feet | A Z I M U T H<br>deg. | H O R I Z O N T A L<br>C O O R D I N A T E S<br>feet |
|----------------------------------------------------------------------|-----------------|-----------------------|-----------------------------------------|---------------------------------------------|----------------------------------|------------------------------------|-----------------------|------------------------------------------------------|
| 0.0                                                                  | 0.00            | 0.00                  | N 0 0 E                                 | 0.00                                        | 0.0                              | 0.0                                | 0.0                   | 0.00 N 0.00 E                                        |
| -----                                                                |                 |                       |                                         |                                             |                                  |                                    |                       |                                                      |
| ROSCOPIC MULTISHOT SURVEY RUN THRU CASING 0 TO 10,800 FT.            |                 |                       |                                         |                                             |                                  |                                    |                       |                                                      |
| L MEASUREMENTS AND COORDINATES REFERENCED TO YALE E. KEY #117 R.K.B. |                 |                       |                                         |                                             |                                  |                                    |                       |                                                      |
| -----                                                                |                 |                       |                                         |                                             |                                  |                                    |                       |                                                      |
| 200.0                                                                | .17             | 35.33                 | N 35 20 E                               | .08                                         | 200.0                            | .3                                 | 35.3                  | .24 N .17 E                                          |
| 400.0                                                                | .10             | 95.95                 | S 84 3 E                                | .07                                         | 400.0                            | .7                                 | 48.0                  | .46 N .51 E                                          |
| 600.0                                                                | .08             | 261.33                | S 81 20 W                               | .09                                         | 600.0                            | .7                                 | 52.0                  | .42 N .54 E                                          |
| 800.0                                                                | .24             | 253.27                | S 73 16 W                               | .08                                         | 800.0                            | .3                                 | 359.0                 | .28 N .01 W                                          |
| 000.0                                                                | .19             | 260.01                | S 80 1 W                                | .03                                         | 1000.0                           | .7                                 | 278.1                 | .10 N .72 W                                          |
| 200.0                                                                | .14             | 1.19                  | N 1 11 E                                | .13                                         | 1200.0                           | 1.1                                | 285.8                 | .29 N 1.04 W                                         |
| 400.0                                                                | .17             | 21.60                 | N 21 36 E                               | .03                                         | 1400.0                           | 1.2                                | 311.7                 | .82 N .92 W                                          |
| 600.0                                                                | .30             | 7.48                  | N 7 29 E                                | .07                                         | 1600.0                           | 1.8                                | 335.4                 | 1.62 N .74 W                                         |
| 800.0                                                                | .39             | 5.82                  | N 5 49 E                                | .04                                         | 1800.0                           | 2.9                                | 347.8                 | 2.81 N .61 W                                         |
| 000.0                                                                | .68             | 25.15                 | N 25 9 E                                | .17                                         | 2000.0                           | 4.6                                | 359.6                 | 4.57 N .03 W                                         |
| 200.0                                                                | 1.14            | 43.25                 | N 43 15 E                               | .27                                         | 2200.0                           | 7.3                                | 14.6                  | 7.10 N 1.84 E                                        |
| 400.0                                                                | 1.44            | 56.53                 | N 56 32 E                               | .21                                         | 2399.9                           | 11.3                               | 28.1                  | 9.93 N 5.30 E                                        |
| 500.0                                                                | 1.52            | 72.75                 | N 72 45 E                               | .21                                         | 2599.8                           | 15.7                               | 39.4                  | 12.11 N 9.93 E                                       |
| 900.0                                                                | 1.53            | 76.21                 | N 76 13 E                               | .05                                         | 2799.8                           | 20.2                               | 48.1                  | 13.53 N 15.06 E                                      |
| 000.0                                                                | 1.29            | 82.36                 | N 82 22 E                               | .14                                         | 2999.7                           | 24.6                               | 54.0                  | 14.47 N 19.88 E                                      |
| 200.0                                                                | 1.11            | 83.21                 | N 83 12 E                               | .09                                         | 3199.7                           | 28.3                               | 58.0                  | 14.99 N 24.04 E                                      |
| 400.0                                                                | 1.32            | 86.04                 | N 86 2 E                                | .11                                         | 3399.6                           | 32.2                               | 61.4                  | 15.38 N 28.27 E                                      |
| 500.0                                                                | 1.63            | 83.75                 | N 83 45 E                               | .16                                         | 3599.6                           | 37.0                               | 64.6                  | 15.85 N 33.39 E                                      |
| 900.0                                                                | 1.78            | 94.52                 | S 85 29 E                               | .18                                         | 3799.5                           | 42.4                               | 68.0                  | 15.92 N 39.32 E                                      |
| 000.0                                                                | 1.96            | 101.63                | S 78 22 E                               | .15                                         | 3999.4                           | 48.2                               | 71.9                  | 14.98 N 45.76 E                                      |

## A G Y r o d a t a D i r e c t i o n a l S u r v e y

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RLINGTON RESOURCES INC.

LL: FEDERAL "AW" WELL NO. 1

cation: YALE E. KEY #117, LEA COUNTY, NEW MEXICO

b Number: H1297GMW823

| ASURED<br>EPH<br>feet | I N C L |        | AZIMUTH |      | BORE HOLE     |               | DOGLEG<br>SEVERITY<br>deg./<br>100 ft. | VERTICAL        |                               | CLOSURE |  | H O R I Z O N T A L |  |
|-----------------------|---------|--------|---------|------|---------------|---------------|----------------------------------------|-----------------|-------------------------------|---------|--|---------------------|--|
|                       | deg.    | deg.   | deg.    | min. | DEPTH<br>feet | DIST.<br>feet |                                        | AZIMUTH<br>deg. | C O O R D I N A T E S<br>feet |         |  |                     |  |
| 200.0                 | 1.92    | 101.66 | S 78    | 20 E | .02           | 4199.2        | 54.1                                   | 75.4            | 13.62 N                       | 52.39 E |  |                     |  |
| 400.0                 | 2.10    | 101.06 | S 78    | 56 E | .09           | 4399.1        | 60.5                                   | 78.3            | 12.24 N                       | 59.26 E |  |                     |  |
| 500.0                 | 2.40    | 95.79  | S 84    | 12 E | .18           | 4599.0        | 67.9                                   | 80.6            | 11.11 N                       | 67.02 E |  |                     |  |
| 300.0                 | 2.00    | 94.04  | S 85    | 57 E | .20           | 4798.8        | 75.4                                   | 82.0            | 10.45 N                       | 74.67 E |  |                     |  |
| 200.0                 | .90     | 86.41  | N 86    | 25 E | .56           | 4998.8        | 80.4                                   | 82.6            | 10.30 N                       | 79.73 E |  |                     |  |
| 200.0                 | .47     | 82.92  | N 82    | 55 E | .22           | 5198.7        | 82.8                                   | 82.7            | 10.50 N                       | 82.12 E |  |                     |  |
| 400.0                 | .43     | 93.34  | S 86    | 39 E | .05           | 5398.7        | 84.4                                   | 82.8            | 10.56 N                       | 83.70 E |  |                     |  |
| 500.0                 | .29     | 86.17  | N 86    | 10 E | .07           | 5598.7        | 85.6                                   | 82.9            | 10.55 N                       | 84.97 E |  |                     |  |
| 300.0                 | .46     | 117.15 | S 62    | 51 E | .13           | 5798.7        | 86.8                                   | 83.2            | 10.21 N                       | 86.19 E |  |                     |  |
| 200.0                 | .38     | 96.80  | S 83    | 12 E | .08           | 5998.7        | 88.1                                   | 83.6            | 9.77 N                        | 87.56 E |  |                     |  |
| 200.0                 | .45     | 145.14 | S 34    | 51 E | .17           | 6198.7        | 89.1                                   | 84.2            | 9.05 N                        | 88.66 E |  |                     |  |
| 100.0                 | .40     | 143.14 | S 36    | 52 E | .02           | 6398.7        | 89.9                                   | 85.0            | 7.85 N                        | 89.53 E |  |                     |  |
| 500.0                 | .33     | 175.99 | S 4     | 1 E  | .11           | 6598.7        | 90.2                                   | 85.7            | 6.70 N                        | 90.00 E |  |                     |  |
| 300.0                 | .34     | 171.02 | S 8     | 59 E | .01           | 6798.7        | 90.3                                   | 86.5            | 5.54 N                        | 90.13 E |  |                     |  |
| 200.0                 | .33     | 186.56 | S 6     | 34 W | .05           | 6998.7        | 90.3                                   | 87.2            | 4.39 N                        | 90.16 E |  |                     |  |
| 200.0                 | .23     | 164.62 | S 15    | 23 E | .07           | 7198.7        | 90.3                                   | 87.8            | 3.44 N                        | 90.20 E |  |                     |  |
| 100.0                 | .29     | 191.62 | S 11    | 37 W | .07           | 7398.7        | 90.2                                   | 88.4            | 2.56 N                        | 90.21 E |  |                     |  |
| 500.0                 | .34     | 268.04 | S 88    | 3 W  | .20           | 7598.7        | 89.5                                   | 88.7            | 2.04 N                        | 89.51 E |  |                     |  |
| 300.0                 | .28     | 249.18 | S 69    | 11 W | .06           | 7798.7        | 88.5                                   | 88.8            | 1.85 N                        | 88.46 E |  |                     |  |
| 200.0                 | .64     | 242.11 | S 62    | 7 W  | .18           | 7998.7        | 87.0                                   | 89.2            | 1.16 N                        | 87.02 E |  |                     |  |
| 200.0                 | 1.21    | 269.27 | S 89    | 16 W | .35           | 8198.7        | 83.9                                   | 89.6            | .61 N                         | 83.92 E |  |                     |  |
| 100.0                 | 2.21    | 283.62 | N 76    | 23 W | .54           | 8398.6        | 78.1                                   | 88.9            | 1.49 N                        | 78.06 E |  |                     |  |
| 500.0                 | 2.89    | 281.84 | N 78    | 9 W  | .34           | 8598.4        | 69.5                                   | 87.2            | 3.43 N                        | 69.39 E |  |                     |  |
| 100.0                 | 3.20    | 282.15 | N 77    | 51 W | .16           | 8798.1        | 59.3                                   | 84.5            | 5.64 N                        | 59.00 E |  |                     |  |
| 200.0                 | 3.34    | 280.26 | N 79    | 44 W | .09           | 8997.8        | 48.4                                   | 80.7            | 7.85 N                        | 47.80 E |  |                     |  |

## A G Y r o d a t a D i r e c t i o n a l S u r v e y

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RLINGTON RESOURCES INC.

LL: FEDERAL "AW" WELL NO. 1

Location: YALE E. KEY #117, LEA COUNTY, NEW MEXICO

b Number: H1297GMW823

| ASURED<br>EPH<br>feet | I N C L<br>deg. | A Z I M U T H<br>deg. | BORE HOLE<br>BEARING<br>deg. min. | DOGLEG<br>SEVERITY<br>deg./<br>100 ft. | VERTICAL<br>DEPTH<br>feet | CLOSURE<br>DIST.<br>feet | A Z I M U T H<br>deg. | H O R I Z O N T A L<br>C O O R D I N A T E S<br>feet |
|-----------------------|-----------------|-----------------------|-----------------------------------|----------------------------------------|---------------------------|--------------------------|-----------------------|------------------------------------------------------|
| 200.0                 | 3.48            | 279.46                | N 80 32 W                         | .07                                    | 9197.4                    | 37.4                     | 74.7                  | 9.89 N 36.07 E                                       |
| 400.0                 | 3.13            | 282.49                | N 77 31 W                         | .20                                    | 9397.1                    | 27.5                     | 64.0                  | 12.07 N 24.75 E                                      |
| 500.0                 | 2.01            | 268.37                | S 88 22 W                         | .64                                    | 9596.9                    | 20.6                     | 50.4                  | 13.15 N 15.92 E                                      |
| 300.0                 | 1.82            | 270.51                | N 89 29 W                         | .10                                    | 9796.8                    | 16.0                     | 35.2                  | 13.08 N 9.24 E                                       |
| 300.0                 | 1.60            | 251.79                | S 71 47 W                         | .30                                    | 9996.7                    | 12.7                     | 15.5                  | 12.23 N 3.40 E                                       |
| 200.0                 | 1.05            | 273.17                | N 86 50 W                         | .37                                    | 10196.6                   | 11.5                     | 354.6                 | 11.46 N 1.09 W                                       |
| 400.0                 | 1.14            | 283.14                | N 76 51 W                         | .11                                    | 10396.6                   | 13.0                     | 338.0                 | 12.01 N 4.85 W                                       |
| 500.0                 | 1.27            | 274.31                | N 85 41 W                         | .11                                    | 10596.5                   | 15.5                     | 324.5                 | 12.63 N 8.99 W                                       |
| 300.0                 | 1.29            | 269.59                | S 89 35 W                         | .05                                    | 10796.5                   | 18.6                     | 313.5                 | 12.78 N 13.46 W                                      |

Total Station Closure: Distance: 18.56 ft Az: 313.52 deg.

MDC Operations  
4607 South County Rd. #1310  
Odessa, Texas 77477  
Phone (915) 563-3057  
Fax (915) 563-3059

January 7, 1998

Bureau of Land Management  
414 W Taylor  
P.O. Box 1960  
Hobbs, New Mexico 88240

Re: Burlington Resources Oil & Gas Co.  
Federal AW #1  
Sec. 26, T-19-S, R-32-E  
Lea County, New Mexico  
API # 30-025-27017

Enclosed, please find the original and one copy of the survey performed on the referenced well by Anadrill, a division of Schlumberger Technology Corporation. Other information required by your office is as follows:

| <u>Name &amp; Title<br/>of Surveyor</u> | <u>Drainhole Number</u> | <u>Surveyed Depths</u> | <u>Dates Performed</u> | <u>Type of Survey</u> |
|-----------------------------------------|-------------------------|------------------------|------------------------|-----------------------|
| Lex Barton<br>MWD I                     | #01                     | 10764' to 12493'       | 12/21/97 - 1/3/98      | MWD/D&I               |

A certified plat on which the bottom hole is oriented both to the surface location and to the lease lines ( or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Sincerely,



Tom Follis  
MWD Coordinator

Cc: Burlington Resources Oil & Gas Co.

Enclosures: 2

MDC Operations  
4607 South County Rd. #1310  
Odessa, Texas 77477  
Phone (915) 563-3057  
Fax (915) 563-3059

State of Texas  
County of Midland

I, Lex Barton, certify that; I am employed by Anadrill, a division of Schlumberger Technology Corporation; that I did on the days of 12/21/97 through 1/3/98 conduct or supervise the taking of MWD surveys from a depth of 10764 feet to a depth of 12493 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Anadrill, a division of Schlumberger Technology Corporation; that I am authorized and qualified to make this report; that this survey was conducted at the request of Burlington Resources Oil & Gas Co., for the Federal AW #1, API No. 30-025-27017 in Lea County, New Mexico; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Anadrill, a division of Schlumberger Technology Corporation.



Lex Barton,  
MWD I

## Schlumberger Survey Report

Burlington Resources Oil & Gas Co.  
Federal AW #1  
Lea County, New Mexico

Magnetic Declination: 9.14 DEG

## Tie In Point (TIP):

|                             |         |     |
|-----------------------------|---------|-----|
| Measured Depth              | 10600   | FT. |
| True Vertical Depth         | 10596.5 | FT. |
| Inclination                 | 1.27    | DEG |
| Azimuth                     | 274.31  | DEG |
| N/S Displacement(-ve for S) | 12.63   | FT. |
| E/W Displacement(-ve for W) | -8.99   | FT. |

Azim. From Rotary Table To Target 90 DEG

## Accepted Survey Listing:

| M.Depth<br>(ft) | Int.<br>(ft) | TVD<br>(ft) | TargetS<br>(ft) | Incl.<br>(deg) | Azim<br>(deg) | N.Disp<br>(ft) | E.Disp<br>(ft) | T.Disp<br>(ft) | Clr.Ang<br>(deg) | DLS<br>(D/HF) |
|-----------------|--------------|-------------|-----------------|----------------|---------------|----------------|----------------|----------------|------------------|---------------|
| 10764           | 164          | 10760.34    | -7.19           | 4.48           | 34.35         | 18.06          | -7.19          | 19.44          | 338.3            | 3.19          |
| 10793           | 29           | 10789.14    | -5.06           | 8.73           | 42.78         | 20.61          | -5.06          | 21.22          | 346.22           | 14.99         |
| 10825           | 32           | 10820.69    | -1.06           | 10.54          | 53.4          | 24.14          | -1.06          | 24.16          | 357.48           | 7.91          |
| 10857           | 32           | 10851.61    | 6.04            | 19.08          | 64.97         | 28.11          | 6.04           | 28.75          | 12.13            | 28.11         |
| 10888           | 31           | 10880.12    | 17.3            | 26.99          | 71.06         | 32.54          | 17.3           | 36.86          | 28               | 26.62         |
| 10920           | 32           | 10907.7     | 33.01           | 33.94          | 80.65         | 36.36          | 33.01          | 49.11          | 42.24            | 26.45         |
| 10952           | 32           | 10932.42    | 53.2            | 44.96          | 94.53         | 36.92          | 53.2           | 64.75          | 55.24            | 43.94         |
| 10984           | 32           | 10952.91    | 77.42           | 55.37          | 102.43        | 33.18          | 77.42          | 84.23          | 66.8             | 37.61         |
| 11015           | 31           | 10967.78    | 104.05          | 67.2           | 99.88         | 27.96          | -104.05        | 107.74         | 74.96            | 38.83         |
| 11046           | 31           | 10976.86    | 133.25          | 78.69          | 98.75         | 23.18          | 133.25         | 135.25         | 80.13            | 37.23         |
| 11066           | 20           | 10979.77    | 152.8           | 84.6           | 98.78         | 20.17          | 152.8          | 154.12         | 82.48            | 29.55         |
| 11098           | 32           | 10980.72    | 184.5           | 92             | 95.96         | 16.07          | 184.5          | 185.2          | 85.02            | 24.74         |
| 11130           | 32           | 10979.66    | 216.31          | 91.8           | 95.85         | 12.78          | 216.31         | 216.69         | 86.62            | 0.71          |
| 11161           | 31           | 10978.75    | 247.12          | 91.57          | 96.39         | 9.48           | 247.12         | 247.3          | 87.8             | 1.89          |
| 11193           | 32           | 10977.99    | 278.93          | 91.17          | 95.94         | 6.04           | 278.93         | 278.99         | 88.76            | 1.88          |
| 11225           | 32           | 10977.42    | 310.8           | 90.89          | 94.15         | 3.23           | 310.8          | 310.82         | 89.41            | 5.66          |
| 11256           | 31           | 10977.02    | 341.75          | 90.6           | 92.11         | 1.54           | 341.75         | 341.75         | 89.74            | 6.65          |
| 11288           | 32           | 10976.69    | 373.72          | 90.57          | 92.41         | 0.28           | 373.72         | 373.72         | 89.96            | 0.94          |
| 11320           | 32           | 10976.3     | 405.7           | 90.83          | 90.94         | -0.66          | 405.7          | 405.7          | 90.09            | 4.66          |
| 11352           | 32           | 10975.88    | 437.69          | 90.66          | 90.57         | -1.08          | 437.69         | 437.7          | 90.14            | 1.27          |
| 11383           | 31           | 10975.55    | 468.69          | 90.57          | 89.78         | -1.17          | 468.69         | 468.69         | 90.14            | 2.56          |
| 11415           | 32           | 10975.42    | 500.69          | 89.89          | 90.36         | -1.21          | 500.69         | 500.69         | 90.14            | 2.79          |
| 11447           | 32           | 10975.5     | 532.69          | 89.83          | 90            | -1.31          | 532.69         | 532.69         | 90.14            | 1.14          |
| 11478           | 31           | 10975.61    | 563.69          | 89.77          | 89.54         | -1.19          | 563.69         | 563.69         | 90.12            | 1.5           |
| 11510           | 32           | 10975.82    | 595.69          | 89.49          | 90.01         | -1.06          | 595.69         | 595.69         | 90.1             | 1.71          |
| 11542           | 32           | 10976.13    | 627.69          | 89.4           | 89.84         | -1.02          | 627.69         | 627.69         | 90.09            | 0.6           |
| 11574           | 32           | 10976.43    | 659.69          | 89.54          | 88.94         | -0.68          | 659.69         | 659.69         | 90.06            | 2.85          |
| 11606           | 32           | 10976.82    | 691.68          | 89.06          | 89.1          | -0.13          | 691.68         | 691.68         | 90.01            | 1.58          |
| 11637           | 31           | 10977.36    | 722.67          | 88.94          | 88.7          | 0.47           | 722.67         | 722.67         | 89.96            | 1.35          |
| 11668           | 31           | 10977.87    | 753.65          | 89.17          | 87.92         | 1.08           | 753.65         | 753.65         | 89.39            | 2.62          |
| 11700           | 35           | 10978.47    | 788.62          | 88.38          | 87.77         | 2.7            | 788.62         | 788.62         | 89.8             | 0.93          |
| 11734           | 31           | 10978.85    | 819.6           | 89.71          | 88.35         | 0.75           | 819.6          | 819.61         | 89.74            | 3.27          |

| M.Depth<br>(ft) | Int.<br>(ft) | TVD<br>(ft) | TargetS<br>(ft) | Incl.<br>(deg) | Azim<br>(deg) | N.Disp<br>(ft) | E.Disp<br>(ft) | T.Disp<br>(ft) | Clr.Ang<br>(deg) | DLS<br>(D/HF) |
|-----------------|--------------|-------------|-----------------|----------------|---------------|----------------|----------------|----------------|------------------|---------------|
| 11766           | 32           | 10978.96    | 851.58          | 89.9           | 87.89         | 4.8            | 851.58         | 851.6          | 89.68            | 1.56          |
| 11797           | 31           | 10979.1     | 882.57          | 89.6           | 89.59         | 5.48           | 882.57         | 882.59         | 89.64            | 5.57          |
| 11829           | 32           | 10979.4     | 914.57          | 89.34          | 90.41         | 5.48           | 914.57         | 914.58         | 89.66            | 2.69          |
| 11861           | 32           | 10979.84    | 946.57          | 89.1           | 90.7          | 5.17           | 946.57         | 946.58         | 89.69            | 1.18          |
| 11893           | 32           | 10980.26    | 978.56          | 89.4           | 91.41         | 4.58           | 978.56         | 978.57         | 89.73            | 2.41          |
| 11924           | 31           | 10980.56    | 1009.55         | 89.5           | 91.41         | 3.82           | 1009.55        | 1009.56        | 89.78            | 0.32          |
| 11956           | 32           | 10980.86    | 1041.54         | 89.43          | 91.61         | 2.98           | 1041.54        | 1041.54        | 89.84            | 0.66          |
| 11988           | 32           | 10981.18    | 1073.53         | 89.43          | 91.56         | 2.09           | 1073.53        | 1073.53        | 89.89            | 0.16          |
| 12020           | 32           | 10981.62    | 1105.51         | 89             | 91.65         | 1.19           | 1105.51        | 1105.52        | 89.94            | 1.37          |
| 12051           | 31           | 10982.25    | 1136.49         | 88.66          | 91.42         | 0.36           | 1136.49        | 1136.49        | 89.98            | 1.32          |
| 12083           | 32           | 10983.01    | 1168.47         | 88.6           | 91.43         | -0.44          | 1168.47        | 1168.47        | 90.02            | 0.19          |
| 12115           | 32           | 10983.7     | 1200.45         | 88.94          | 91.88         | -1.36          | 1200.45        | 1200.45        | 90.07            | 1.76          |
| 12146           | 31           | 10984.31    | 1231.43         | 88.8           | 92.11         | -2.44          | 1231.43        | 1231.43        | 90.11            | 0.87          |
| 12178           | 32           | 10984.91    | 1263.41         | 89.06          | 91.51         | -3.45          | 1263.41        | 1263.41        | 90.16            | 2.04          |
| 12210           | 32           | 10985.31    | 1295.4          | 89.5           | 90.7          | -4.07          | 1295.4         | 1295.41        | 90.18            | 2.88          |
| 12242           | 32           | 10985.7     | 1327.39         | 89.11          | 91.66         | -4.73          | 1327.39        | 1327.4         | 90.2             | 3.24          |
| 12273           | 31           | 10986.38    | 1358.38         | 88.37          | 90.5          | -5.31          | 1358.38        | 1358.39        | 90.22            | 4.44          |
| 12305           | 32           | 10987.65    | 1390.35         | 87.09          | 89.11         | -5.2           | 1390.35        | 1390.36        | 90.21            | 5.9           |
| 12336           | 31           | 10989.37    | 1421.29         | 86.54          | 88.32         | -4.51          | 1421.29        | 1421.3         | 90.18            | 3.1           |
| 12368           | 32           | 10991.69    | 1453.19         | 85.13          | 88.29         | -3.57          | 1453.19        | 1453.2         | 90.14            | 4.41          |
| 12399           | 31           | 10994.59    | 1484.02         | 84.14          | 86.42         | -2.15          | 1484.02        | 1484.02        | 90.08            | 6.8           |
| 12430           | 31           | 10998.01    | 1514.78         | 83.2           | 87.19         | -0.43          | 1514.78        | 1514.78        | 90.02            | 3.91          |
| 12462           | 32           | 11002.02    | 1546.47         | 82.4           | 85.78         | 1.52           | 1546.47        | 1546.47        | 89.94            | 5.04          |
| 12493           | 31           | 11006.32    | 1577.08         | 81.65          | 85.25         | 3.92           | 1577.08        | 1577.08        | 89.86            | 2.95          |
| Projected:      |              |             |                 |                |               |                |                |                |                  |               |
| 12531           | 38           | 11011.82    | 1614.55         | 81.7           | 85.2          | 7.05           | 1614.55        | 1614.56        | 89.75            | 0.19          |