

## Results of Directional Survey

|             |                     |           |                               |
|-------------|---------------------|-----------|-------------------------------|
| API number: | <b>30-025-40483</b> |           |                               |
| OGRID:      |                     | Operator: | <b>CONOCOPHILLIPS COMPANY</b> |
|             |                     | Property: | <b>BUCK 20 FEDERAL</b> # 2H   |

|         |        |          |           |                |                 |
|---------|--------|----------|-----------|----------------|-----------------|
| surface | ULSTR: | <b>B</b> | <b>20</b> | <b>T</b> 26S   | <b>R</b> 32E    |
|         |        |          |           | <b>215</b> FNL | <b>1760</b> FEL |

|              |           |               |            |                 |                 |
|--------------|-----------|---------------|------------|-----------------|-----------------|
| BH Loc       | ULSTR:    | <b>O</b>      | <b>20</b>  | <b>T</b> 26S    | <b>R</b> 32E    |
| <b>13444</b> | <b>MD</b> | <b>9227.9</b> | <b>TVD</b> | <b>544</b> FSL  | <b>1733</b> FEL |
|              |           |               |            | <b>4736</b> FNL |                 |

|             |           |               |            |                |                 |
|-------------|-----------|---------------|------------|----------------|-----------------|
| Top Perf/OH | ULSTR:    | <b>B</b>      | <b>20</b>  | <b>T</b> 26S   | <b>R</b> 32E    |
| <b>9664</b> | <b>MD</b> | <b>9235.3</b> | <b>TVD</b> | <b>961</b> FNL | <b>1764</b> FEL |

|              |           |               |            |                 |                 |
|--------------|-----------|---------------|------------|-----------------|-----------------|
| Bot Perf/OH  | ULSTR:    | <b>O</b>      | <b>20</b>  | <b>T</b> 26S    | <b>R</b> 32E    |
| <b>13347</b> | <b>MD</b> | <b>9223.7</b> | <b>TVD</b> | <b>641</b> FSL  | <b>1738</b> FEL |
|              |           |               |            | <b>4639</b> FNL |                 |

|              |              |          |       |         |
|--------------|--------------|----------|-------|---------|
|              | MD           | N/S      | E/W   | VD      |
|              | 9563         | -645.30  | -7.20 | 9232.7  |
| TOP PERFS/OH | <b>9664</b>  | -746.22  | -4.09 | 9235.28 |
|              | 9696         | -778.20  | -3.10 | 9236.10 |
|              | 13388        | -4465.30 | 24.10 | 9225.50 |
| BOT PERFS/OH | <b>13347</b> | -4424.37 | 21.98 | 9223.74 |
|              | 13444        | -4521.20 | 27.00 | 9227.90 |

|              |              |          |       |         |
|--------------|--------------|----------|-------|---------|
| NEXT TO LAST | 13388        | -4465.30 | 24.10 | 9225.50 |
| LAST READING | 13444        | -4521.20 | 27.00 | 9227.90 |
| TD           | <b>13444</b> | -4521.20 | 27.00 | 9227.90 |

|                  |      |    |      |    |
|------------------|------|----|------|----|
| Surface Location | 215  | FN | 1760 | FE |
| Projected BHL    | 4736 | FN | 1733 | FE |
| Location of      |      |    |      |    |
| Top Perfs/OH     | 961  | FN | 1764 | FE |
| Bottom Perfs/OH  | 4639 | FN | 1738 | FE |

### SUMMARY of Subsurface Locations

|                  |              |      |    |      |    |             |
|------------------|--------------|------|----|------|----|-------------|
| Surface Location | B-20-26S-32E | 215  | FN | 1760 | FE | Vert. Depth |
|                  |              |      |    |      |    |             |
| Top Perfs/OH     | B-20-26S-32E | 961  | FN | 1764 | FE | 9235.28     |
| Bottom Perfs/OH  | O-20-26S-32E | 4639 | FN | 1738 | FE | 9223.74     |
|                  |              |      |    |      |    |             |
| Projected TD     | O-20-26S-32E | 4736 | FN | 1733 | FE | 9227.90     |



## Conoco Phillips

Lea County, New Mexico  
Sec 20, T26S, 32E  
Buck Federal 20 #2H

Wellbore #1

Survey: MWD - ddc

## DDC Survey Report

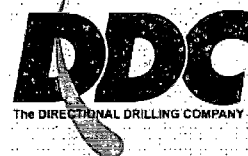
07 May, 2012

HOBBS OCD

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SUR: B-20-26s-32e, 215/N & 1760/E  
BHL: O-20-26s-32e, 4736/N & 1733/E  
API # 30-025-40483



|                  |                        |                                     |                                |
|------------------|------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | ConocoPhillips         | <b>Local Co-ordinate Reference:</b> | Well Buck Federal 20 #2H       |
| <b>Project:</b>  | Lea County, New Mexico | <b>TVD Reference:</b>               | WELL @ 3177.0usft (Nabors M-9) |
| <b>Site:</b>     | Sec 20, T26S, 32E      | <b>MD Reference:</b>                | WELL @ 3177.0usft (Nabors M-9) |
| <b>Well:</b>     | Buck Federal 20 #2H    | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | Wellbore #1            | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | Wellbore #1            | <b>Database:</b>                    | EDM 5000.1 Single User Db      |

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

|                              |                   |                          |                   |
|------------------------------|-------------------|--------------------------|-------------------|
| <b>Site</b>                  | Sec 20, T26S, 32E |                          |                   |
| <b>Site Position:</b>        |                   | <b>Northing:</b>         | 376,829.70 usft   |
| <b>From:</b>                 | Map               | <b>Easting:</b>          | 698,257.30 usft   |
| <b>Position Uncertainty:</b> | 0.0 usft          | <b>Slot Radius:</b>      | 13-3/16 "         |
|                              |                   | <b>Latitude:</b>         | 32° 2' 3.859 N    |
|                              |                   | <b>Longitude:</b>        | 103° 41' 36.778 W |
|                              |                   | <b>Grid Convergence:</b> | 0.34 °            |

|                             |                     |                            |                                  |
|-----------------------------|---------------------|----------------------------|----------------------------------|
| <b>Well</b>                 | Buck Federal 20 #2H |                            |                                  |
| <b>Well Position</b>        | <b>+N/-S</b>        | 0.0 usft                   | <b>Northing:</b> 376,829.70 usft |
|                             | <b>+E/-W</b>        | 0.0 usft                   | <b>Easting:</b> 698,257.30 usft  |
| <b>Position Uncertainty</b> | 0.0 usft            | <b>Wellhead Elevation:</b> | usft                             |
|                             |                     | <b>Latitude:</b>           | 32° 2' 3.859 N                   |
|                             |                     | <b>Longitude:</b>          | 103° 41' 36.778 W                |
|                             |                     | <b>Ground Level:</b>       | 3,155.0 usft                     |

|                  |                   |                    |                    |
|------------------|-------------------|--------------------|--------------------|
| <b>Wellbore</b>  | Wellbore #1       |                    |                    |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination</b> |
|                  | IGRF2010          | 3/12/2012          | (°)                |
|                  |                   |                    | 7.54               |
|                  |                   |                    | 59.97              |
|                  |                   |                    | 48,416             |

|                          |                         |                      |              |
|--------------------------|-------------------------|----------------------|--------------|
| <b>Design</b>            | Wellbore #1             |                      |              |
| <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)</b> | <b>+N/-S</b>         | <b>+E/-W</b> |
|                          | (usft)                  | (usft)               | (usft)       |
|                          | 0.0                     | 0.0                  | 0.0          |
|                          |                         |                      | 182.87       |

|                       |             |                          |                  |                    |
|-----------------------|-------------|--------------------------|------------------|--------------------|
| <b>Survey Program</b> | <b>Date</b> | 5/7/2012                 |                  |                    |
| <b>From</b>           | <b>To</b>   | <b>Survey (Wellbore)</b> | <b>Tool Name</b> | <b>Description</b> |
| (usft)                | (usft)      |                          |                  |                    |
| 100.0                 | 8,150.0     | Gyro (Wellbore #1)       | Good_gyro        | Good Gyro          |
| 8,166.0               | 9,065.0     | MWD (Wellbore #1)        | MWD default      | MWD - Standard     |
| 9,092.0               | 13,444.0    | MWD - ddc (Wellbore #1)  | MWD default      | MWD - Standard     |

|                                      |                    |                |                       |              |              |                         |                    |                   |                  |
|--------------------------------------|--------------------|----------------|-----------------------|--------------|--------------|-------------------------|--------------------|-------------------|------------------|
| <b>Survey</b>                        |                    |                |                       |              |              |                         |                    |                   |                  |
| <b>Measured Depth</b>                | <b>Inclination</b> | <b>Azimuth</b> | <b>Vertical Depth</b> | <b>+N/-S</b> | <b>+E/-W</b> | <b>Vertical Section</b> | <b>Dogleg Rate</b> | <b>Build Rate</b> | <b>Turn Rate</b> |
| (usft)                               | (°)                | (°)            | (usft)                | (usft)       | (usft)       | (usft)                  | (°/100usft)        | (°/100usft)       | (°/100usft)      |
| <b>Tie in @ 9065' MD / 9022' TVD</b> |                    |                |                       |              |              |                         |                    |                   |                  |
| 9,065.0                              | 40.00              | 174.60         | 9,022.0               | -214.2       | -10.7        | 214.4                   | 0.00               | 0.00              | 0.00             |
| 9,092.0                              | 41.90              | 173.80         | 9,042.3               | -231.8       | -8.9         | 231.9                   | 7.30               | 7.04              | -2.96            |
| 9,123.0                              | 44.70              | 175.90         | 9,064.9               | -253.0       | -7.1         | 253.0                   | 10.16              | 9.03              | 6.77             |
| 9,155.0                              | 46.30              | 179.80         | 9,087.3               | -275.7       | -6.2         | 275.7                   | 10.03              | 5.00              | 12.19            |
| 9,186.0                              | 49.10              | 181.40         | 9,108.2               | -298.7       | -6.5         | 298.6                   | 9.81               | 9.03              | 5.16             |
| 9,218.0                              | 51.80              | 184.40         | 9,128.6               | -323.3       | -7.7         | 323.3                   | 11.11              | 8.44              | 9.38             |
| 9,249.0                              | 55.20              | 184.60         | 9,147.0               | -348.1       | -9.7         | 348.2                   | 10.98              | 10.97             | 0.65             |
| 9,281.0                              | 59.40              | 182.60         | 9,164.3               | -375.0       | -11.3        | 375.1                   | 14.14              | 13.13             | -6.25            |

|           |                        |                              |                                |
|-----------|------------------------|------------------------------|--------------------------------|
| Company:  | ConocoPhillips         | Local Co-ordinate Reference: | WellBuck Federal 20 #2H        |
| Project:  | Lea County, New Mexico | TVD Reference:               | WELL @ 3177.0usft (Nabors M-9) |
| Site:     | Sec 20 T26S 32E        | MD Reference:                | WELL @ 3177.0usft (Nabors M-9) |
| Well:     | Buck Federal 20 #2H    | North Reference:             | Grid                           |
| Wellbore: | Wellbore #1            | Survey Calculation Method:   | Minimum Curvature              |
| Design:   | Wellbore #1            | Database:                    | EDM:5000.1 Single User Db      |

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 9,312.0               | 63.40           | 180.50      | 9,179.1               | -402.2       | -12.1        | 402.3                   | 14.21                   | 12.90                  | -6.77                 |
| 9,344.0               | 67.20           | 178.20      | 9,192.5               | -431.3       | -11.7        | 431.3                   | 13.55                   | 11.88                  | -7.19                 |
| 9,375.0               | 71.40           | 177.40      | 9,203.5               | -460.2       | -10.6        | 460.2                   | 13.76                   | 13.55                  | -2.58                 |
| 9,406.0               | 75.70           | 177.90      | 9,212.2               | -489.9       | -9.4         | 489.8                   | 13.96                   | 13.87                  | 1.61                  |
| 9,438.0               | 79.10           | 178.60      | 9,219.2               | -521.2       | -8.5         | 520.9                   | 10.84                   | 10.63                  | 2.19                  |
| 9,469.0               | 81.60           | 179.50      | 9,224.4               | -551.7       | -7.9         | 551.4                   | 8.56                    | 8.06                   | 2.90                  |
| 9,501.0               | 83.90           | 179.80      | 9,228.5               | -583.5       | -7.8         | 583.1                   | 7.25                    | 7.19                   | 0.94                  |
| 9,532.0               | 86.20           | 179.50      | 9,231.1               | -614.3       | -7.6         | 613.9                   | 7.48                    | 7.42                   | -0.97                 |
| 9,563.0               | 87.90           | 179.10      | 9,232.7               | -645.3       | -7.2         | 644.8                   | 5.63                    | 5.48                   | -1.29                 |
| 9,696.0               | 89.20           | 177.40      | 9,236.1               | -778.2       | -3.1         | 777.4                   | 1.61                    | 0.98                   | -1.28                 |
| 9,791.0               | 91.00           | 177.40      | 9,235.9               | -873.1       | 1.2          | 871.9                   | 1.89                    | 1.89                   | 0.00                  |
| 9,886.0               | 91.70           | 177.20      | 9,233.7               | -967.9       | 5.7          | 966.4                   | 0.77                    | 0.74                   | -0.21                 |
| 9,981.0               | 89.80           | 178.90      | 9,232.4               | -1,062.9     | 8.9          | 1,061.1                 | 2.68                    | -2.00                  | 1.79                  |
| 10,076.0              | 90.40           | 179.30      | 9,232.3               | -1,157.9     | 10.4         | 1,155.9                 | 0.76                    | 0.63                   | 0.42                  |
| 10,172.0              | 92.00           | 179.50      | 9,230.3               | -1,253.8     | 11.4         | 1,251.7                 | 1.68                    | 1.67                   | 0.21                  |
| 10,267.0              | 90.30           | 179.50      | 9,228.4               | -1,348.8     | 12.2         | 1,346.5                 | 1.79                    | -1.79                  | 0.00                  |
| 10,362.0              | 90.20           | 179.80      | 9,227.9               | -1,443.8     | 12.8         | 1,441.3                 | 0.33                    | -0.11                  | 0.32                  |
| 10,457.0              | 90.90           | 180.00      | 9,227.0               | -1,538.8     | 13.0         | 1,536.2                 | 0.77                    | 0.74                   | 0.21                  |
| 10,552.0              | 93.10           | 179.60      | 9,223.7               | -1,633.7     | 13.3         | 1,631.0                 | 2.35                    | 2.32                   | -0.42                 |
| 10,647.0              | 92.10           | 180.30      | 9,219.4               | -1,728.6     | 13.4         | 1,725.8                 | 1.28                    | -1.05                  | 0.74                  |
| 10,742.0              | 89.30           | 180.00      | 9,218.2               | -1,823.6     | 13.1         | 1,820.7                 | 2.96                    | -2.95                  | -0.32                 |
| 10,838.0              | 89.40           | 180.20      | 9,219.3               | -1,919.6     | 13.0         | 1,916.6                 | 0.23                    | 0.10                   | 0.21                  |
| 10,933.0              | 88.70           | 179.50      | 9,220.9               | -2,014.6     | 13.2         | 2,011.4                 | 1.04                    | -0.74                  | -0.74                 |
| 11,028.0              | 88.20           | 179.10      | 9,223.5               | -2,109.6     | 14.4         | 2,106.2                 | 0.67                    | -0.53                  | -0.42                 |
| 11,123.0              | 87.60           | 178.90      | 9,227.0               | -2,204.5     | 16.0         | 2,200.9                 | 0.67                    | -0.63                  | -0.21                 |
| 11,218.0              | 88.10           | 179.10      | 9,230.5               | -2,299.4     | 17.7         | 2,295.6                 | 0.57                    | 0.53                   | 0.21                  |
| 11,313.0              | 91.20           | 178.90      | 9,231.1               | -2,394.4     | 19.3         | 2,390.4                 | 3.27                    | 3.26                   | -0.21                 |
| 11,409.0              | 89.30           | 178.60      | 9,230.7               | -2,490.3     | 21.4         | 2,486.1                 | 2.00                    | -1.98                  | -0.31                 |
| 11,504.0              | 92.60           | 180.50      | 9,229.1               | -2,585.3     | 22.2         | 2,580.9                 | 4.01                    | 3.47                   | 2.00                  |
| 11,599.0              | 93.00           | 180.50      | 9,224.5               | -2,680.2     | 21.4         | 2,675.8                 | 0.42                    | 0.42                   | 0.00                  |
| 11,694.0              | 89.40           | 181.10      | 9,222.5               | -2,775.1     | 20.0         | 2,770.7                 | 3.84                    | -3.79                  | 0.63                  |
| 11,789.0              | 89.20           | 180.90      | 9,223.6               | -2,870.1     | 18.4         | 2,865.6                 | 0.30                    | -0.21                  | -0.21                 |
| 11,884.0              | 93.60           | 182.80      | 9,221.3               | -2,965.0     | 15.3         | 2,960.5                 | 5.04                    | 4.63                   | 2.00                  |
| 11,979.0              | 92.60           | 181.60      | 9,216.2               | -3,059.8     | 11.7         | 3,055.4                 | 1.64                    | -1.05                  | -1.26                 |
| 12,075.0              | 92.20           | 181.60      | 9,212.2               | -3,155.7     | 9.0          | 3,151.3                 | 0.42                    | -0.42                  | 0.00                  |
| 12,170.0              | 91.40           | 182.10      | 9,209.2               | -3,250.6     | 5.9          | 3,246.2                 | 0.99                    | -0.84                  | 0.53                  |
| 12,265.0              | 92.70           | 181.80      | 9,205.8               | -3,345.5     | 2.7          | 3,341.1                 | 1.40                    | 1.37                   | -0.32                 |
| 12,360.0              | 95.60           | 181.80      | 9,198.9               | -3,440.2     | -0.3         | 3,435.9                 | 3.05                    | 3.05                   | 0.00                  |
| 12,455.0              | 92.20           | 181.60      | 9,192.4               | -3,534.9     | -3.1         | 3,530.6                 | 3.59                    | -3.58                  | -0.21                 |
| 12,550.0              | 92.70           | 181.20      | 9,188.4               | -3,629.8     | -5.4         | 3,625.5                 | 0.67                    | 0.53                   | -0.42                 |
| 12,646.0              | 90.90           | 181.10      | 9,185.4               | -3,725.7     | -7.3         | 3,721.4                 | 1.88                    | -1.88                  | -0.10                 |
| 12,741.0              | 88.50           | 179.30      | 9,185.9               | -3,820.7     | -7.7         | 3,816.3                 | 3.16                    | -2.53                  | -1.89                 |
| 12,836.0              | 84.80           | 178.10      | 9,191.4               | -3,915.5     | -5.5         | 3,910.8                 | 4.09                    | -3.89                  | -1.26                 |

|                  |                        |                                     |                                |
|------------------|------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>  | ConocoPhillips         | <b>Local Co-ordinate Reference:</b> | Well Buck Federal 20 #2H       |
| <b>Project:</b>  | Lea County, New Mexico | <b>TVD Reference:</b>               | WELL @ 3177.0usft (Nabors M-9) |
| <b>Site:</b>     | Sec 20, T26S, 32E      | <b>MD Reference:</b>                | WELL @ 3177.0usft (Nabors M-9) |
| <b>Well:</b>     | Buck Federal 20 #2H    | <b>North Reference:</b>             | Grid                           |
| <b>Wellbore:</b> | Wellbore #1            | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Design:</b>   | Wellbore #1            | <b>Database:</b>                    | EDM 5000.1 Single User Db      |

## Survey

| Measured Depth (usft)             | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|-----------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 12,931.0                          | 83.70           | 176.50      | 9,200.9               | -4,009.9     | -1.1         | 4,004.9                 | 2.04                    | -1.16                  | -1.68                 |
| 13,026.0                          | 86.00           | 176.50      | 9,209.5               | -4,104.3     | 4.7          | 4,098.9                 | 2.42                    | 2.42                   | 0.00                  |
| 13,121.0                          | 85.80           | 175.90      | 9,216.3               | -4,198.9     | 11.0         | 4,193.1                 | 0.66                    | -0.21                  | -0.63                 |
| 13,216.0                          | 88.20           | 177.70      | 9,221.2               | -4,293.6     | 16.3         | 4,287.4                 | 3.16                    | 2.53                   | 1.89                  |
| 13,311.0                          | 89.30           | 177.40      | 9,223.3               | -4,388.5     | 20.3         | 4,381.9                 | 1.20                    | 1.16                   | -0.32                 |
| 13,388.0                          | 87.50           | 177.00      | 9,225.5               | -4,465.3     | 24.1         | 4,458.5                 | 2.39                    | -2.34                  | -0.52                 |
| <b>TD @ 13444' MD / 9228' TVD</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 13,444.0                          | 87.50           | 177.00      | 9,227.9               | -4,521.2     | 27.0         | 4,514.2                 | 0.00                    | 0.00                   | 0.00                  |

## Survey Annotations

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              | Comment                       |
|-----------------------|-----------------------|-------------------|--------------|-------------------------------|
|                       |                       | +N/-S (usft)      | +E/-W (usft) |                               |
| 9,065.0               | 9,022.0               | -214.2            | -10.7        | Tie In @ 9065' MD / 9022' TVD |
| 13,444.0              | 9,227.9               | -4,521.2          | 27.0         | TD @ 13444' MD / 9228' TVD    |

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