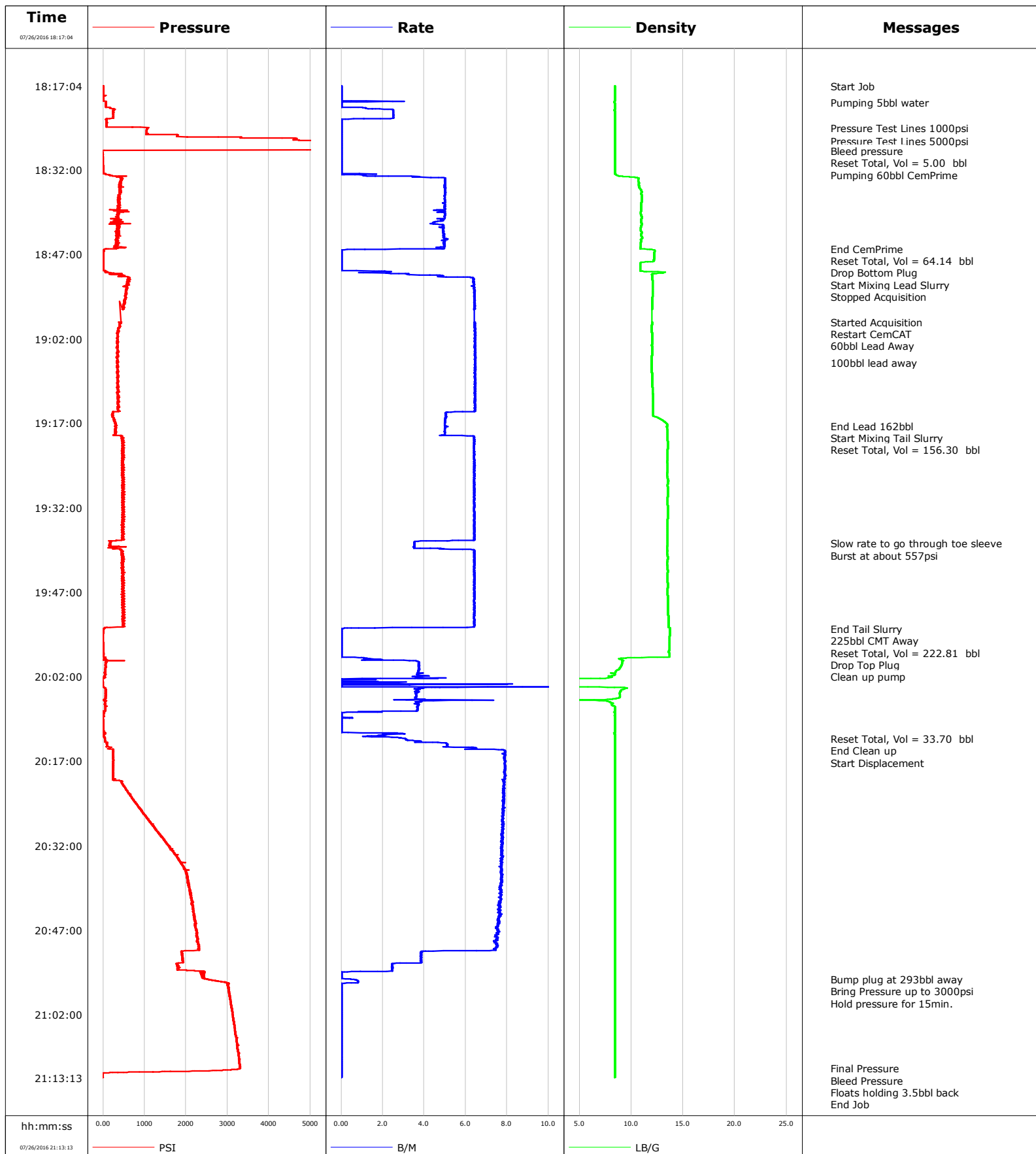


**Well** Land  
**Field** Wattenberg  
**Engineer** Chris Valerio/Matt Lieker  
**Country** United States

**Client** Anadarko  
**SIR No.** DDGG-00083  
**Job Type** Production  
**Job Date** 07-26-2016



# Cementing Service Report

|   |                        |  |                     |                                     |                      |                            |                              |                           |                          |                                |  |
|---|------------------------|--|---------------------|-------------------------------------|----------------------|----------------------------|------------------------------|---------------------------|--------------------------|--------------------------------|--|
|   |                        |  |                     |                                     | Customer<br>Anadarko |                            |                              | Job Number<br>DDGG-00083  |                          |                                |  |
| Well<br>Land 15N-32HZ                                     |                        |  | Location (legal)    |                                     |                      | Schlumberger Location      |                              |                           | Job Start<br>Jul/26/2016 |                                |  |
| Field<br>Wattenberg                                       |                        | Formation Name/Type<br>Shale   |                     | Deviation<br>90 deg                 |                      | Bit Size<br>7.9 in         |                              | Well MD<br>12744.0 ft     |                          | Well TVD<br>7337.0 ft          |  |
| County<br>Weld  |                        | State/Province<br>Colorado   |                     | BHP<br>psi                          |                      | BHST<br>229 degF           |                              | BHCT<br>222 degF          |                          | Pore Press. Gradient<br>lb/gal |  |
| Well Master<br>0631662976                                 |                        | API/UWI<br>05123423030000  |                     |                                     |                      |                            |                              |                           |                          |                                |  |
| Rig Name<br>Precision #461                                |                        | Drilled For<br>Oil   |                     | Service Via<br>Land                 |                      | Casing/Liner               |                              |                           |                          |                                |  |
|   |                        |  |                     |                                     |                      | Depth, ft                  |                              | Size, in                  |                          | Weight, lb/ft                  |  |
|   |                        |  |                     |                                     |                      |                            |                              |                           |                          | Grade                          |  |
|   |                        |  |                     |                                     |                      |                            |                              |                           |                          | Thread                         |  |
| Offshore Zone   |                        | Well Class<br>New  |                     | Well Type<br>Development            |                      | 1561.0                     |                              | 9.6                       |                          | 36.0                           |  |
|   |                        |  |                     |                                     |                      | 12744.0                    |                              | 5.5                       |                          | 17.0                           |  |
|   |                        |  |                     |                                     |                      |                            |                              |                           |                          | J55                            |  |
|   |                        |  |                     |                                     |                      |                            |                              |                           |                          | P110                           |  |
|   |                        |  |                     |                                     |                      |                            |                              |                           |                          | 8RD                            |  |
|   |                        |  |                     |                                     |                      |                            |                              |                           |                          | 8RD                            |  |
| Drilling Fluid Type<br>Oil Mud                            |                        | Max. Density<br>9.50 lb/gal  |                     | Plastic Viscosity<br>cP             |                      | Tubing/Drill Pipe          |                              |                           |                          |                                |  |
|   |                        |  |                     |                                     |                      | T/D                        |                              | Depth, ft                 |                          | Size, in                       |  |
|   |                        |  |                     |                                     |                      |                            |                              |                           |                          | Weight, lb/ft                  |  |
|   |                        |  |                     |                                     |                      |                            |                              |                           |                          | Grade                          |  |
|   |                        |  |                     |                                     |                      |                            |                              |                           |                          | Thread                         |  |
| Service Line<br>Cementing                                 |                        | Job Type<br>Production   |                     |                                     |                      |                            |                              |                           |                          |                                |  |
|   |                        |  |                     |                                     |                      |                            |                              |                           |                          |                                |  |
|   |                        |  |                     |                                     |                      |                            |                              |                           |                          |                                |  |
| Max. Allowed Tub. Press<br>4500 psi                       |                        | Max. Allowed Ann. Press<br>psi   |                     | WH Connection<br>Double Cement head |                      | Perforations/Open Hole     |                              |                           |                          |                                |  |
|   |                        |  |                     |                                     |                      | Top, ft                    |                              | Bottom, ft                |                          | shot/ft                        |  |
|   |                        |  |                     |                                     |                      |                            |                              |                           |                          | No. of Shots                   |  |
|   |                        |  |                     |                                     |                      |                            |                              |                           |                          | Total Interval                 |  |
|   |                        |  |                     |                                     |                      | ft                         |                              | ft                        |                          | ft                             |  |
|   |                        |  |                     |                                     |                      | ft                         |                              | ft                        |                          | Diameter                       |  |
|   |                        |  |                     |                                     |                      | ft                         |                              | ft                        |                          | in                             |  |
|   |                        |  |                     |                                     |                      | Treat Down<br>Casing       |                              | Displacement<br>293.5 bbl |                          | Packer Type                    |  |
|   |                        |  |                     |                                     |                      |                            |                              |                           |                          | Packer Depth                   |  |
|   |                        |  |                     |                                     |                      | Tubing Vol.<br>bbl         |                              | Casing Vol.<br>295.6 bbl  |                          | Annular Vol.<br>4202.0 bbl     |  |
|   |                        |  |                     |                                     |                      |                            |                              |                           |                          | Openhole Vol.<br>bbl           |  |
| Casing/Tubing Secured <input checked="" type="checkbox"/> |                        | 1 Hole Vol. Circulated prior to Cement <input checked="" type="checkbox"/> |                     |                                     |                      | Casing Tools               |                              | Squeeze Job               |                          |                                |  |
| Lift Pressure<br>psi                                      |                        |  |                     |                                     |                      | Shoe Type<br>Float         |                              | Squeeze Type              |                          |                                |  |
| Pipe Rotated <input type="checkbox"/>                     |                        | Pipe Reciprocated <input type="checkbox"/>                                 |                     |                                     |                      | Shoe Depth<br>12744.0 ft   |                              | Tool Type                 |                          |                                |  |
| No. Centralizers  |                        | Top Plugs<br>1   |                     | Bottom Plugs<br>1                   |                      | Stage Tool Type            |                              | Tool Depth<br>ft          |                          |                                |  |
| Cement Head Type<br>Double                                |                        |  |                     |                                     |                      | Stage Tool Depth<br>ft     |                              | Tail Pipe Size<br>in      |                          |                                |  |
| Job Scheduled For<br>Jul/26/2016 15:00                    |                        | Arrived on Location<br>Jul/26/2016 15:00                                   |                     | Leave Location<br>Jul/26/2016 22:30 |                      | Collar Type<br>Float       |                              | Tail Pipe Depth<br>ft     |                          |                                |  |
|   |                        |  |                     |                                     |                      | Collar Depth<br>12652.0 ft |                              | Sqz. Total Vol.<br>bbl    |                          |                                |  |
| Date  | Time<br>24-hr<br>clock | Treating<br>Pressure<br>PSI  | Flow<br>Rate<br>B/M | Density<br>LB/G                     | Stg<br>Volume<br>BBL | Volume<br>BBL              | Message                      |                           |                          |                                |  |
| 07/26/2016  | 18:17:04               | 1  | 0.0                 | 8.40                                | 0.0                  | 0.0                        | Started Acquisition          |                           |                          |                                |  |
| 07/26/2016  | 18:17:07               | 1  | 0.0                 | 8.40                                | 0.0                  | 0.0                        | Start Job                    |                           |                          |                                |  |
| 07/26/2016  | 18:19:59               | 65   | 0.0                 | 8.40                                | 0.3                  | 0.3                        | Pumping 5bbl water           |                           |                          |                                |  |
| 07/26/2016  | 18:22:04               | 249  | 0.0                 | 8.40                                | 2.8                  | 2.8                        |                              |                           |                          |                                |  |
| 07/26/2016  | 18:24:33               | 1079   | 0.0                 | 8.40                                | 5.0                  | 5.0                        | Pressure Test Lines 1000psi  |                           |                          |                                |  |
| 07/26/2016  | 18:26:50               | 5853   | 0.0                 | 8.40                                | 5.0                  | 5.0                        | Pressure Test Lines 5000psi  |                           |                          |                                |  |
| 07/26/2016  | 18:27:04               | 5823   | 0.0                 | 8.40                                | 5.0                  | 5.0                        |                              |                           |                          |                                |  |
| 07/26/2016  | 18:28:37               | -29  | 0.0                 | 8.40                                | 5.0                  | 5.0                        | Bleed pressure               |                           |                          |                                |  |
| 07/26/2016  | 18:29:54               | -9   | 0.0                 | 8.40                                | 5.0                  | 5.0                        | Reset Total, Vol = 5.00 bbl  |                           |                          |                                |  |
| 07/26/2016  | 18:30:24               | -4   | 0.0                 | 8.40                                | 0.0                  | 5.0                        | Pumping 60bbl CemPrime       |                           |                          |                                |  |
| 07/26/2016  | 18:32:04               | 3  | 0.0                 | 8.40                                | 0.0                  | 5.0                        |                              |                           |                          |                                |  |
| 07/26/2016  | 18:37:04               | 376  | 2.6                 | 11.01                               | 19.8                 | 24.9                       |                              |                           |                          |                                |  |
| 07/26/2016  | 18:42:04               | 336  | 2.5                 | 10.95                               | 44.3                 | 49.3                       |                              |                           |                          |                                |  |
| 07/26/2016  | 18:46:02               | 75   | 1.4                 | 10.87                               | 63.9                 | 68.9                       | End CemPrime                 |                           |                          |                                |  |
| 07/26/2016  | 18:46:08               | 30   | 0.2                 | 11.92                               | 64.1                 | 69.1                       | Reset Total, Vol = 64.14 bbl |                           |                          |                                |  |
| 07/26/2016  | 18:46:14               | 19   | 0.0                 | 12.21                               | 0.0                  | 69.2                       | Drop Bottom Plug             |                           |                          |                                |  |
| 07/26/2016  | 18:47:04               | 8  | 0.0                 | 12.20                               | 0.0                  | 69.2                       |                              |                           |                          |                                |  |
| 07/26/2016  | 18:50:35               | 285  | 1.0                 | 12.00                               | 1.5                  | 70.6                       | Start Mixing Lead Slurry     |                           |                          |                                |  |
| 07/26/2016  | 18:52:04               | 588  | 2.5                 | 12.05                               | 10.1                 | 79.2                       |                              |                           |                          |                                |  |
| 07/26/2016  | 18:53:20               | 570  | 2.6                 | 12.06                               | 18.2                 | 87.3                       | Stopped Acquisition          |                           |                          |                                |  |
| 07/26/2016  | 18:59:01               | 433  | 2.6                 | 12.02                               | 40.5                 | 123.9                      | Started Acquisition          |                           |                          |                                |  |

| Well          |                  |                       | Field         |              | Job Start      |            | Customer                           |  | Job Number |
|---------------|------------------|-----------------------|---------------|--------------|----------------|------------|------------------------------------|--|------------|
| Land 15N-32HZ |                  |                       | Wattenberg    |              | Jul/26/2016    |            | Anadarko                           |  | DDGG-00083 |
| Date          | Time 24-hr clock | Treating Pressure PSI | Flow Rate B/M | Density LB/G | Stg Volume BBL | Volume BBL | Message                            |  |            |
| 07/26/2016    | 19:00:03         | 386                   | 2.6           | 11.98        | 47.1           | 130.5      | 60bbl Lead Away                    |  |            |
| 07/26/2016    | 19:02:04         | 346                   | 2.6           | 12.00        | 60.1           | 143.5      |                                    |  |            |
| 07/26/2016    | 19:06:13         | 324                   | 2.5           | 11.97        | 86.9           | 170.3      | 100bbl lead away                   |  |            |
| 07/26/2016    | 19:07:04         | 331                   | 2.6           | 11.98        | 92.4           | 175.8      |                                    |  |            |
| 07/26/2016    | 19:12:04         | 370                   | 2.6           | 12.10        | 124.6          | 208.0      |                                    |  |            |
| 07/26/2016    | 19:17:04         | 304                   | 2.5           | 13.41        | 153.9          | 237.3      |                                    |  |            |
| 07/26/2016    | 19:17:28         | 318                   | 2.5           | 13.51        | 155.9          | 239.3      | End Lead 162bbl                    |  |            |
| 07/26/2016    | 19:17:30         | 291                   | 2.6           | 13.49        | 156.1          | 239.5      | Start Mixing Tail Slurry           |  |            |
| 07/26/2016    | 19:17:33         | 308                   | 2.6           | 13.43        | 156.3          | 239.7      | Reset Total, Vol = 156.30 bbl      |  |            |
| 07/26/2016    | 19:22:04         | 482                   | 2.5           | 13.49        | 26.6           | 266.3      |                                    |  |            |
| 07/26/2016    | 19:27:04         | 482                   | 2.6           | 13.54        | 58.7           | 298.4      |                                    |  |            |
| 07/26/2016    | 19:32:04         | 462                   | 2.5           | 13.53        | 90.7           | 330.4      |                                    |  |            |
| 07/26/2016    | 19:37:04         | 487                   | 2.6           | 13.49        | 122.8          | 362.5      |                                    |  |            |
| 07/26/2016    | 19:38:21         | 175                   | 2.6           | 13.48        | 129.7          | 369.4      | Slow rate to go through toe sleeve |  |            |
| 07/26/2016    | 19:39:43         | 452                   | 2.6           | 13.47        | 135.7          | 375.4      | Burst at about 557psi              |  |            |
| 07/26/2016    | 19:42:04         | 461                   | 2.6           | 13.47        | 150.8          | 390.5      |                                    |  |            |
| 07/26/2016    | 19:47:04         | 482                   | 2.5           | 13.50        | 182.8          | 422.6      |                                    |  |            |
| 07/26/2016    | 19:52:04         | 524                   | 2.6           | 13.58        | 214.9          | 454.6      |                                    |  |            |
| 07/26/2016    | 19:53:31         | 15                    | 0.0           | 13.72        | 222.8          | 462.5      | End Tail Slurry                    |  |            |
| 07/26/2016    | 19:53:42         | 7                     | 0.0           | 13.72        | 222.8          | 462.5      | 225bbl CMT Away                    |  |            |
| 07/26/2016    | 19:53:46         | 5                     | 0.0           | 13.72        | 222.8          | 462.5      | Reset Total, Vol = 222.81 bbl      |  |            |
| 07/26/2016    | 19:53:53         | 3                     | 0.0           | 13.72        | 0.0            | 462.5      | Drop Top Plug                      |  |            |
| 07/26/2016    | 19:54:00         | 1                     | 0.0           | 13.72        | 0.0            | 462.5      | Clean up pump                      |  |            |
| 07/26/2016    | 19:57:04         | 1                     | 0.0           | 13.68        | 0.0            | 462.5      |                                    |  |            |
| 07/26/2016    | 20:02:04         | 41                    | 1.0           | 8.13         | 11.8           | 474.3      |                                    |  |            |
| 07/26/2016    | 20:07:04         | 46                    | 1.0           | 8.15         | 26.9           | 489.5      |                                    |  |            |
| 07/26/2016    | 20:12:04         | 51                    | 0.0           | 8.39         | 31.5           | 494.0      |                                    |  |            |
| 07/26/2016    | 20:13:02         | 38                    | 0.0           | 8.42         | 33.7           | 496.2      | Reset Total, Vol = 33.70 bbl       |  |            |
| 07/26/2016    | 20:13:07         | 39                    | 0.0           | 8.42         | 0.3            | 496.5      | End Clean up                       |  |            |
| 07/26/2016    | 20:13:08         | 50                    | 0.0           | 8.42         | 0.3            | 496.5      | Start Displacement                 |  |            |
| 07/26/2016    | 20:17:04         | 244                   | 4.0           | 8.41         | 26.0           | 522.2      |                                    |  |            |
| 07/26/2016    | 20:22:04         | 562                   | 4.0           | 8.41         | 65.3           | 561.6      |                                    |  |            |
| 07/26/2016    | 20:27:04         | 1054                  | 4.0           | 8.41         | 104.4          | 600.6      |                                    |  |            |
| 07/26/2016    | 20:32:04         | 1605                  | 4.0           | 8.40         | 143.3          | 639.5      |                                    |  |            |
| 07/26/2016    | 20:37:04         | 2020                  | 4.0           | 8.40         | 182.0          | 678.2      |                                    |  |            |
| 07/26/2016    | 20:42:04         | 2152                  | 4.0           | 8.40         | 220.5          | 716.7      |                                    |  |            |
| 07/26/2016    | 20:47:04         | 2258                  | 4.0           | 8.40         | 258.4          | 754.7      |                                    |  |            |
| 07/26/2016    | 20:52:04         | 1910                  | 0.0           | 8.40         | 290.9          | 787.1      |                                    |  |            |
| 07/26/2016    | 20:55:44         | 2507                  | 0.0           | 8.40         | 297.7          | 793.9      | Bump plug at 293bbl away           |  |            |
| 07/26/2016    | 20:55:59         | 2713                  | 0.0           | 8.40         | 297.8          | 794.1      | Bring Pressure up to 3000psi       |  |            |
| 07/26/2016    | 20:56:15         | 2950                  | 0.0           | 8.40         | 298.1          | 794.3      | Hold pressure for 15min.           |  |            |
| 07/26/2016    | 20:57:04         | 3016                  | 0.0           | 8.40         | 298.2          | 794.4      |                                    |  |            |
| 07/26/2016    | 21:02:04         | 3124                  | 0.0           | 8.40         | 298.2          | 794.4      |                                    |  |            |
| 07/26/2016    | 21:07:04         | 3221                  | 0.0           | 8.40         | 298.2          | 794.4      |                                    |  |            |
| 07/26/2016    | 21:11:37         | 3294                  | 0.0           | 8.40         | 298.2          | 794.4      | Final Pressure                     |  |            |
| 07/26/2016    | 21:12:04         | 2164                  | 0.0           | 8.40         | 298.2          | 794.4      |                                    |  |            |
| 07/26/2016    | 21:12:25         | -5                    | 0.0           | 8.40         | 298.2          | 794.4      | Bleed Pressure                     |  |            |
| 07/26/2016    | 21:12:58         | -13                   | 0.0           | 8.40         | 298.2          | 794.4      | Floats holding 3.5bbl back         |  |            |

|                              |                            |                                 |                             |                                 |
|------------------------------|----------------------------|---------------------------------|-----------------------------|---------------------------------|
| <b>Well</b><br>Land 15N-32HZ | <b>Field</b><br>Wattenberg | <b>Job Start</b><br>Jul/26/2016 | <b>Customer</b><br>Anadarko | <b>Job Number</b><br>DDGG-00083 |
|------------------------------|----------------------------|---------------------------------|-----------------------------|---------------------------------|

## Post Job Summary

| Average Pump Rates, bbl/min                                 |  |                                  |   |   | Volume of Fluid Injected, bbl |  |  |           |  |  |  |  |
|---|--|----------------------------------|---|---|-------------------------------|--|--|-----------|--|--|--|--|
| <b>Slurry</b><br>6.3  | <b>N2</b>                                  | <b>Mud</b><br>0.0                | <b>Maximum Rate</b><br>8.0                                  |   | <b>Total Slurry</b><br>387.0  | <b>Mud</b><br>0.0                                | <b>Spacer</b><br>60.0                                    | <b>N2</b> |  |  |  |  |
| Treating Pressure Summary, psi                              |  |                                  |   |   | Breakdown Fluid               |  |  |           |  |  |  |  |
| <b>Maximum</b><br>3307                                      | <b>Final</b><br>-10                        | <b>Average</b><br>1056           | <b>Bump Plug to</b><br>2300                                 | <b>Breakdown</b>  | <b>Type</b>                   | <b>Volume</b><br>bbl                             | <b>Density</b><br>lb/gal                                 |           |  |  |  |  |
| <b>Avg. N2 Percent</b><br>%                                 | <b>Designed Slurry Volume</b><br>387.0 bbl | <b>Displacement</b><br>293.0 bbl | <b>Mix Water Temp</b><br>68 degF                            | <b>Cement Circulated to Surface?</b> <input type="checkbox"/> |                               | <b>Volume</b> bbl                                |  |           |  |  |  |  |
|   |  |                                  |   | <b>Washed Thru Perfs</b> <input type="checkbox"/>             |                               | <b>To</b> ft                                     |  |           |  |  |  |  |
| <b>Customer or Authorized Representative</b><br>James Gober |  |                                  | <b>Schlumberger Supervisor</b><br>Chris Valerio/Matt Lieker |   |                               | <b>Circulation Lost</b> <input type="checkbox"/> | <b>Job Completed</b> <input checked="" type="checkbox"/> |           |  |  |  |  |
|   |  |                                  |   |   |                               | -  | -  |           |  |  |  |  |