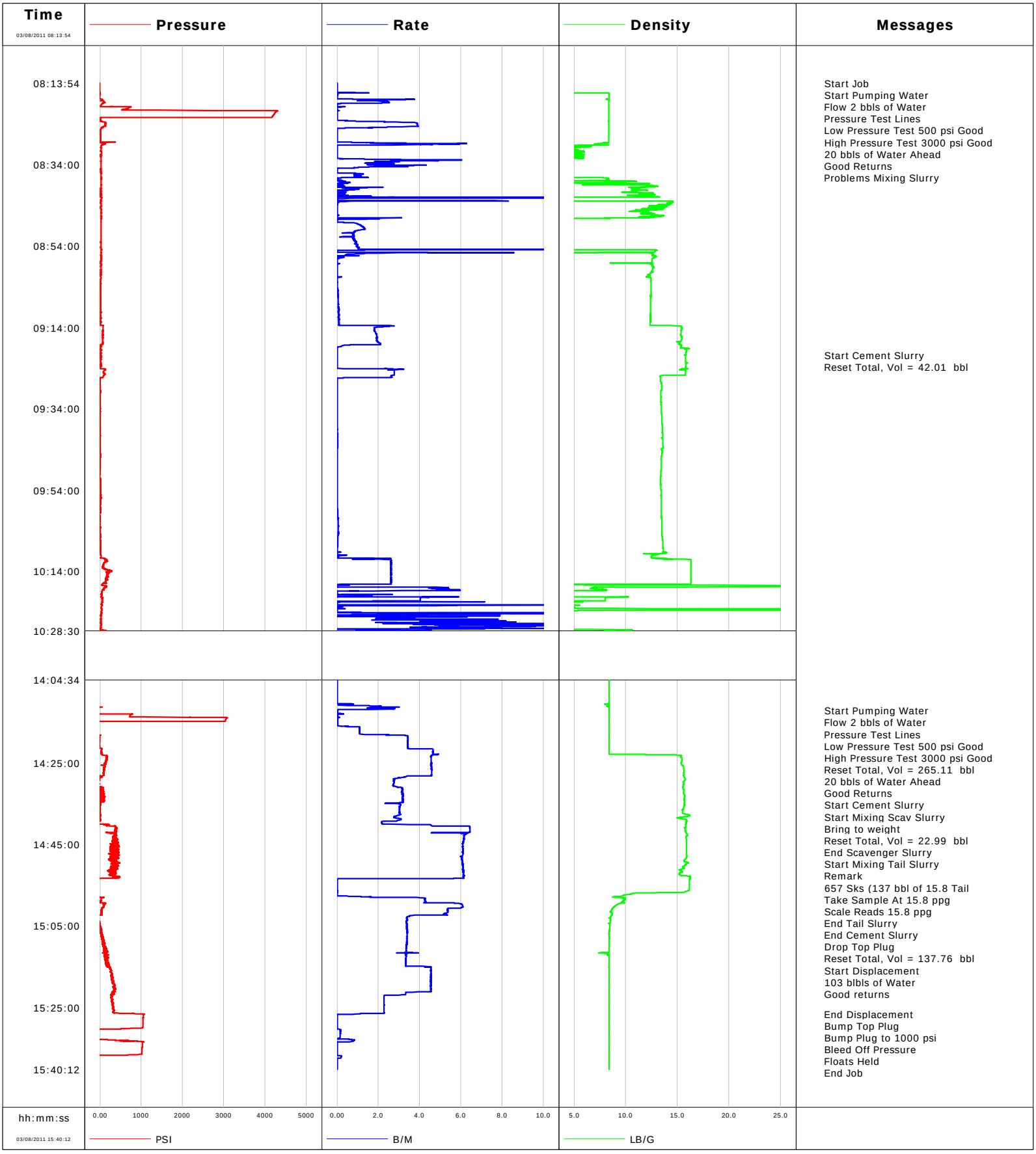
# Schlumberger Cementing Job Report

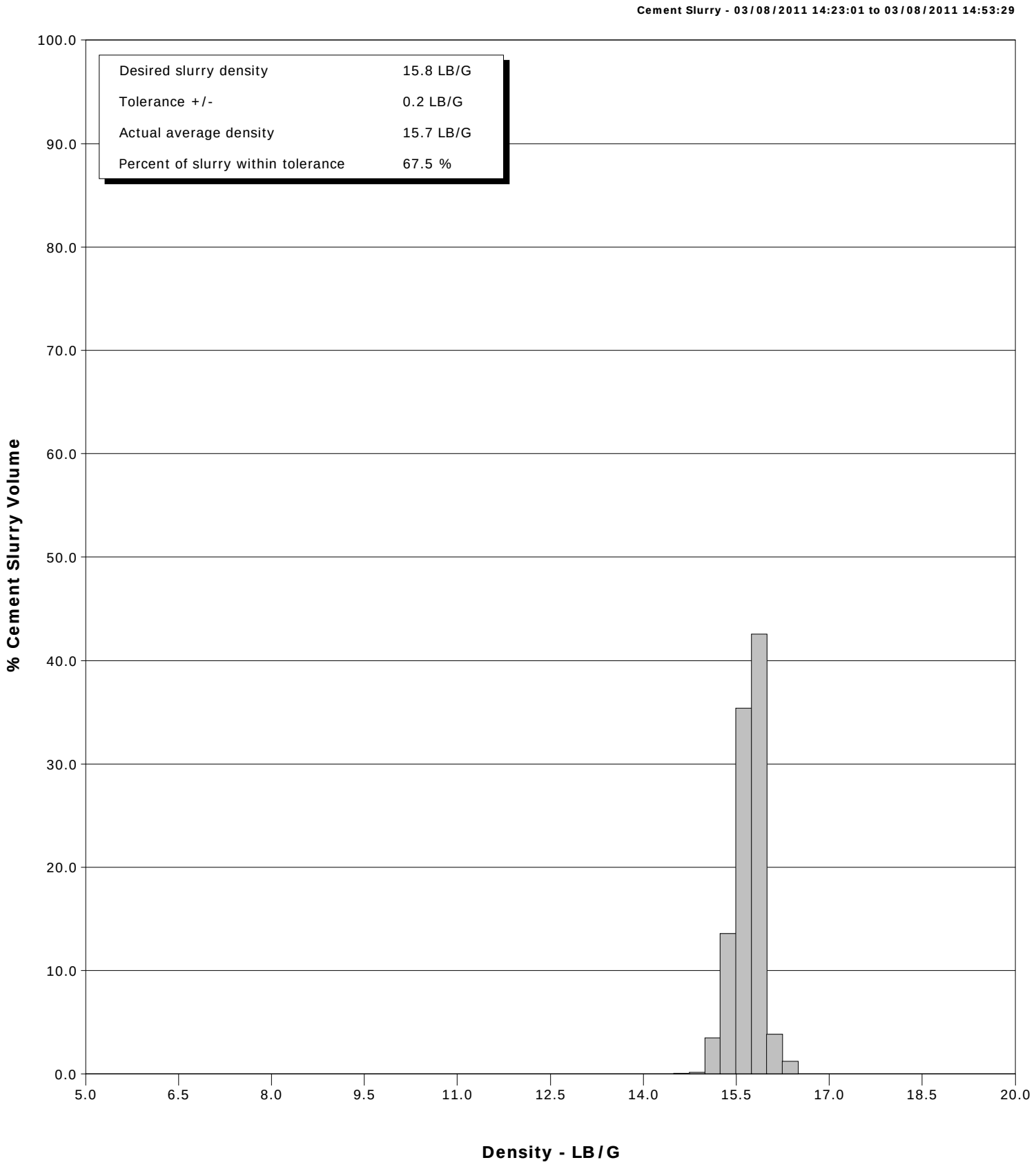
| | | | |
|---|---|---|---|
| **Well** | ENCANA FEE 10-2D | **Client** | Encana |
| **Field** | Mamm Creek | **SIR No.** | 510849 |
| **Engineer** | Jeff Eulberg | **Job Type** | 9 5/8" Surface |
| **Country** | United States | **Job Date** | 03-07-2011 |



# Schlumberger

# Cementing Qa/Qc Density Report

| | | | |
|---|---|---|---|
| **Well** | ENCANA FEE 10-2D | **Client** | Encana |
| **Field** | Mamm Creek | **SIR No.** | 510849 |
| **Engineer** | Jeff Eulberg | **Job Type** | 9 5/8" Surface |
| **Country** | United States | **Job Date** | 03-07-2011 |



# Schlumberger Cementing Service Report

| Customer | Job Number |
|---|---|
| Encana | 510849 |

| Well | Location (legal) | Schlumberger Location | Job Start |
|---|---|---|---|
| ENCANA FEE 10-2D 10-2D | | Grand Junction | Mar/07/2011 |

| Field | Formation Name/Type | Deviation | Bit Size | Well MD | Well TVD |
|---|---|---|---|---|---|
| Mamm Creek | Shale | deg | 12.3 in | 1403.0 ft | 1403.0 ft |

| County | State/Province | BHP | BHST | BHCT | Pore Press. Gradient |
|---|---|---|---|---|---|
| Garfield | Colorado | psi | 94 degF | 81 degF | lb/gal |

| Well Master | API/UWI |
|---|---|
| 0631250972 | 05-045-20395-00 |

| Rig Name | Drilled For | Service Via |
|---|---|---|
| Nabors M13 | Oil | Land |

| Offshore Zone | Well Class | Well Type |
|---|---|---|
| | New | Development |

| Drilling Fluid Type | Max. Density | Plastic Viscosity |
|---|---|---|
| | lb/gal | cP |

| Service Line | Job Type |
|---|---|
| Cementing | 9 5/8" Surface |

| Max. Allowed Tub. Press | Max. Allowed Ann. Press | WH Connection |
|---|---|---|
| 3000 psi | psi | 9 5/8" Cement Head |

**Service Instructions**

9 5/8" Surface Casing Cementing w/o Incident

**Casing/Liner**

| Depth, ft | Size, in | Weight, lb/ft | Grade | Thread |
|---|---|---|---|---|
| 40.0 | 16.0 | 65.0 | J55 | 8RD |
| 1403.0 | 9.6 | 36.0 | J55 | 8RD |

**Tubing/Drill Pipe**

| T/D | Depth, ft | Size, in | Weight, lb/ft | Grade | Thread |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

**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 | Displacement | Packer Type | Packer Depth |
|---|---|---|---|
| Casing | 105.0 bbl | | ft |

| Tubing Vol. | Casing Vol. | Annular Vol. | Openhole Vol. |
|---|---|---|---|
| bbl | 85.0 bbl | 81.0 bbl | bbl |

| Casing/Tubing Secured | 1 Hole Vol. Circulated prior to Cement |
|---|---|
| X | X |

| Lift Pressure | Pipe Rotated | Pipe Reciprocated |
|---|---|---|
| 694 psi | X | X |

| No. Centralizers | Top Plugs | Bottom Plugs |
|---|---|---|
| 17 | 1 | 0 |

| Cement Head Type |
|---|
| Single |

| Job Scheduled For | Arrived on Location | Leave Location |
|---|---|---|
| Mar/07/2011 22:00 | Mar/07/2011 22:00 | Mar/08/2011 16:00 |

**Casing Tools**

| | |
|---|---|
| Shoe Type | Guide |
| Shoe Depth | 1403.0 ft |
| Stage Tool Type | |
| Stage Tool Depth | ft |
| Collar Type | Float |
| Collar Depth | 1358.0 ft |

**Squeeze Job**

| | |
|---|---|
| Squeeze Type | |
| Tool Type | |
| Tool Depth | ft |
| Tail Pipe Size | in |
| Tail Pipe Depth | ft |
| Sqz. Total Vol. | bbl |

| Date | Time 24-hr clock | Treating Pressure PSI | Flow Rate B/M | Density LB/G | Volume BBL | Message |
|---|---|---|---|---|---|---|
| 03/08/2011 | 08:13:54 | 1 | 0.0 | 0.40 | 0.0 | Started Acquisition |
| 03/08/2011 | 08:13:55 | -1 | 0.0 | 0.40 | 0.0 | Start Job |
| 03/08/2011 | 08:14:00 | -1 | 0.0 | 0.40 | 0.0 | Start Pumping Water |
| 03/08/2011 | 08:14:06 | -1 | 0.0 | 0.40 | 0.0 | Flow 2 bbls of Water |
| 03/08/2011 | 08:14:09 | -1 | 0.0 | 0.40 | 0.0 | Pressure Test Lines |
| 03/08/2011 | 08:14:10 | -1 | 0.0 | 0.40 | 0.0 | Low Pressure Test 500 psi Good |
| 03/08/2011 | 08:14:11 | -1 | 0.0 | 0.40 | 0.0 | 20 bbls of Water Ahead |
| 03/08/2011 | 08:15:34 | -2 | 0.0 | 0.40 | 0.0 | |
| 03/08/2011 | 08:17:14 | -1 | 0.0 | 8.39 | 0.1 | |
| 03/08/2011 | 08:18:54 | 63 | 1.2 | 8.36 | 2.5 | |
| 03/08/2011 | 08:20:34 | 1365 | 0.0 | 8.37 | 2.6 | |
| 03/08/2011 | 08:22:14 | 4173 | 0.0 | 8.37 | 2.6 | |
| 03/08/2011 | 08:23:54 | 131 | 3.9 | 8.36 | 4.5 | |
| 03/08/2011 | 08:25:34 | 20 | 0.0 | 8.36 | 8.2 | |
| 03/08/2011 | 08:27:14 | 17 | 0.0 | 8.36 | 8.2 | |
| 03/08/2011 | 08:28:54 | 120 | 4.9 | 6.99 | 9.4 | |
| 03/08/2011 | 08:29:38 | 25 | 0.0 | 5.82 | 10.6 | Good Returns |
| 03/08/2011 | 08:29:39 | 25 | 0.0 | 6.40 | 10.6 | Problems Mixing Slurry |
| 03/08/2011 | 08:30:34 | 23 | 0.0 | 4.94 | 10.6 | |
| 03/08/2011 | 08:32:14 | 25 | 0.0 | 5.43 | 10.6 | |
| 03/08/2011 | 08:33:54 | 30 | 2.5 | 0.59 | 14.1 | |

| Well | Field | Job Start | Customer | Job Number |
|---|---|---|---|---|
| ENCANA FEE 10-2D 10-2D | Mamm Creek | Mar/07/2011 | Encana | 510849 |

| Date | Time 24-hr clock | Treating Pressure PSI | Flow Rate B/M | Density LB/G | Volume BBL | Message |
|---|---|---|---|---|---|---|
| 03/08/2011 | 08:37:14 | 41 | 0.2 | 7.78 | 17.2 | |
| 03/08/2011 | 08:38:54 | 25 | 0.2 | 6.27 | 17.5 | |
| 03/08/2011 | 08:40:34 | 23 | 0.0 | 10.91 | 18.2 | |
| 03/08/2011 | 08:42:14 | 34 | 3.2 | 0.41 | 22.0 | |
| 03/08/2011 | 08:43:54 | 32 | 0.0 | 14.19 | 22.8 | |
| 03/08/2011 | 08:45:34 | 31 | 0.0 | 11.72 | 22.8 | |
| 03/08/2011 | 08:47:14 | 39 | 0.0 | 0.86 | 23.0 | |
| 03/08/2011 | 08:48:54 | 30 | 1.1 | 0.44 | 23.8 | |
| 03/08/2011 | 08:50:34 | 29 | 0.9 | 0.39 | 25.8 | |
| 03/08/2011 | 08:52:14 | 29 | 0.8 | 0.38 | 27.0 | |
| 03/08/2011 | 08:53:54 | 30 | 1.0 | 0.38 | 28.5 | |
| 03/08/2011 | 08:55:34 | 31 | 0.0 | 11.81 | 30.8 | |
| 03/08/2011 | 08:57:14 | 32 | 0.0 | 12.56 | 32.1 | |
| 03/08/2011 | 08:58:54 | 21 | 0.0 | 12.59 | 32.1 | |
| 03/08/2011 | 09:00:34 | 17 | 0.0 | 12.44 | 32.1 | |
| 03/08/2011 | 09:02:14 | 15 | 0.0 | 12.45 | 32.1 | |
| 03/08/2011 | 09:03:54 | 15 | 0.0 | 12.45 | 32.1 | |
| 03/08/2011 | 09:05:34 | 15 | 0.0 | 12.44 | 32.1 | |
| 03/08/2011 | 09:07:14 | 15 | 0.1 | 12.42 | 32.2 | |
| 03/08/2011 | 09:08:54 | 15 | 0.1 | 12.41 | 32.3 | |
| 03/08/2011 | 09:10:34 | 15 | 0.1 | 12.39 | 32.5 | |
| 03/08/2011 | 09:12:14 | 15 | 0.1 | 12.39 | 32.6 | |
| 03/08/2011 | 09:13:54 | 76 | 2.0 | 15.37 | 33.5 | |
| 03/08/2011 | 09:15:34 | 69 | 1.9 | 15.35 | 36.6 | |
| 03/08/2011 | 09:17:14 | 66 | 1.9 | 15.36 | 39.8 | |
| 03/08/2011 | 09:18:54 | 18 | 0.0 | 15.40 | 42.0 | |
| 03/08/2011 | 09:20:34 | 18 | 0.0 | 15.82 | 42.0 | |
| 03/08/2011 | 09:20:50 | 32 | 0.0 | 15.74 | 42.0 | Start Cement Slurry |
| 03/08/2011 | 09:20:52 | 34 | 0.0 | 15.78 | 42.0 | Reset Total, Vol = 42.01 bbl |
| 03/08/2011 | 09:22:14 | 19 | 0.0 | 15.78 | 42.0 | |
| 03/08/2011 | 09:23:54 | 17 | 0.0 | 15.83 | 42.0 | |
| 03/08/2011 | 09:25:34 | 109 | 2.8 | 15.76 | 46.0 | |
| 03/08/2011 | 09:27:14 | 8 | 0.0 | 13.37 | 48.1 | |
| 03/08/2011 | 09:28:54 | 6 | 0.0 | 13.51 | 48.1 | |
| 03/08/2011 | 09:30:34 | 6 | 0.0 | 13.42 | 48.1 | |
| 03/08/2011 | 09:32:14 | 6 | 0.0 | 13.42 | 48.1 | |
| 03/08/2011 | 09:33:54 | 15 | 0.0 | 13.46 | 48.1 | |
| 03/08/2011 | 09:35:34 | 5 | 0.0 | 13.48 | 48.1 | |
| 03/08/2011 | 09:37:14 | 6 | 0.0 | 13.51 | 48.1 | |
| 03/08/2011 | 09:38:54 | 6 | 0.0 | 13.55 | 48.1 | |
| 03/08/2011 | 09:40:34 | 19 | 0.0 | 13.58 | 48.1 | |
| 03/08/2011 | 09:42:14 | 6 | 0.0 | 13.59 | 48.1 | |
| 03/08/2011 | 09:43:54 | 5 | 0.0 | 13.47 | 48.2 | |
| 03/08/2011 | 09:45:34 | 13 | 0.0 | 13.47 | 48.2 | |
| 03/08/2011 | 09:47:14 | 3 | 0.0 | 13.43 | 48.2 | |
| 03/08/2011 | 09:48:54 | 0 | 0.0 | 13.43 | 48.2 | |
| 03/08/2011 | 09:50:34 | -1 | 0.0 | 13.39 | 48.2 | |
| 03/08/2011 | 09:52:14 | 13 | 0.0 | 13.37 | 48.2 | |
| 03/08/2011 | 09:53:54 | 15 | 0.0 | 13.42 | 48.2 | |
| 03/08/2011 | 09:55:34 | 25 | 0.0 | 13.46 | 48.2 | |
| 03/08/2011 | 09:57:14 | 15 | 0.0 | 13.45 | 48.2 | |
| 03/08/2011 | 09:58:54 | 14 | 0.0 | 13.46 | 48.2 | |
| 03/08/2011 | 10:00:34 | -0 | 0.0 | 13.48 | 48.2 | |
| 03/08/2011 | 10:02:14 | -0 | 0.1 | 13.49 | 48.3 | |

| Well | Field | Job Start | Customer | Job Number |
|---|---|---|---|---|
| ENCANA FEE 10-2D 10-2D | Mamm Creek | Mar/07/2011 | Encana | 510849 |

| Date | Time 24-hr clock | Treating Pressure PSI | Flow Rate B/M | Density LB/G | Volume BBL | Message |
|---|---|---|---|---|---|---|
| 03/08/2011 | 10:05:34 | 8 | 0.0 | 13.53 | 48.5 | |
| 03/08/2011 | 10:07:14 | 13 | 0.0 | 13.61 | 48.6 | |
| 03/08/2011 | 10:08:54 | 15 | 0.0 | 13.63 | 48.6 | |
| 03/08/2011 | 10:12:14 | 78 | 2.6 | 16.33 | 52.4 | |
| 03/08/2011 | 10:13:54 | 198 | 2.6 | 16.33 | 56.7 | |
| 03/08/2011 | 10:15:34 | 146 | 2.6 | 16.33 | 61.1 | |
| 03/08/2011 | 10:17:14 | 48 | 0.0 | 5.38 | 65.1 | |
| 03/08/2011 | 10:18:54 | 49 | 0.0 | 1.72 | 69.9 | |
| 03/08/2011 | 10:20:34 | 66 | 4.0 | 8.03 | 72.1 | |
| 03/08/2011 | 10:22:14 | 63 | 7.2 | 5.55 | 75.9 | |
| 03/08/2011 | 10:23:54 | 30 | 0.0 | 2.68 | 76.4 | |
| 03/08/2011 | 10:25:34 | 25 | 1.9 | 0.72 | 83.0 | |
| 03/08/2011 | 10:27:14 | 26 | 9.1 | 1.50 | 93.5 | |
| 03/08/2011 | 10:28:54 | 144 | 5.5 | 7.30 | 102.2 | |
| 03/08/2011 | 10:30:01 | 51 | 0.0 | 5.48 | 105.8 | Shut Down Job |
| 03/08/2011 | 10:30:34 | 47 | 0.4 | 18.24 | 106.4 | |
| 03/08/2011 | 10:32:14 | 59 | 0.0 | 6.95 | 106.6 | |
| 03/08/2011 | 13:14:08 | 1 | 25.0 | -0.00 | 108.7 | Start Job #2 |
| 03/08/2011 | 13:15:34 | -20 | 25.0 | -0.00 | 144.5 | |
| 03/08/2011 | 13:17:14 | -6 | 25.0 | -0.00 | 186.2 | |
| 03/08/2011 | 13:18:54 | -34 | 25.0 | -0.00 | 227.8 | |
| 03/08/2011 | 13:20:34 | 3 | 25.0 | -0.00 | 269.5 | |
| 03/08/2011 | 13:22:14 | -18 | 2.7 | 8.40 | 293.8 | |
| 03/08/2011 | 13:23:54 | 158 | 5.2 | 8.40 | 298.7 | |
| 03/08/2011 | 13:25:34 | -12 | 0.0 | 8.41 | 301.4 | |
| 03/08/2011 | 13:27:14 | -77 | 0.0 | 8.40 | 301.4 | |
| 03/08/2011 | 13:28:54 | -101 | 0.0 | 8.40 | 301.5 | |
| 03/08/2011 | 13:30:34 | -107 | 0.0 | 8.40 | 301.5 | |
| 03/08/2011 | 13:32:14 | -119 | 0.0 | 8.40 | 304.3 | |
| 03/08/2011 | 13:33:54 | -121 | 0.0 | 8.40 | 304.4 | |
| 03/08/2011 | 13:35:34 | -120 | 0.0 | 8.40 | 304.4 | |
| 03/08/2011 | 13:37:14 | -122 | 0.0 | 8.39 | 304.4 | |
| 03/08/2011 | 13:38:54 | -120 | 0.0 | 8.40 | 304.4 | |
| 03/08/2011 | 13:40:34 | -120 | 0.0 | 8.40 | 304.4 | |
| 03/08/2011 | 13:42:14 | -123 | 0.0 | 8.40 | 304.5 | |
| 03/08/2011 | 13:43:54 | -122 | 0.0 | 8.40 | 304.5 | |
| 03/08/2011 | 13:45:34 | -123 | 0.0 | 8.40 | 304.5 | |
| 03/08/2011 | 13:47:14 | -122 | 0.0 | 8.40 | 304.5 | |
| 03/08/2011 | 13:48:54 | -120 | 0.0 | 8.40 | 304.6 | |
| 03/08/2011 | 13:50:34 | -120 | 0.0 | 8.40 | 304.6 | |
| 03/08/2011 | 13:52:14 | -122 | 0.0 | 8.40 | 304.6 | |
| 03/08/2011 | 13:53:54 | -122 | 0.0 | 8.40 | 304.6 | |
| 03/08/2011 | 13:55:34 | -123 | 0.0 | 8.40 | 304.6 | |
| 03/08/2011 | 13:57:14 | -123 | 0.0 | 8.40 | 304.7 | |
| 03/08/2011 | 13:58:54 | -122 | 0.0 | 8.40 | 304.7 | |
| 03/08/2011 | 14:00:34 | -124 | 0.0 | 8.40 | 304.7 | |
| 03/08/2011 | 14:02:14 | -124 | 0.0 | 8.40 | 304.7 | |
| 03/08/2011 | 14:03:54 | -123 | 0.0 | 8.40 | 304.7 | |
| 03/08/2011 | 14:05:34 | -122 | 0.0 | 8.40 | 304.7 | |
| 03/08/2011 | 14:07:14 | -123 | 0.0 | 8.40 | 304.8 | |
| 03/08/2011 | 14:08:54 | -125 | 0.0 | 8.40 | 304.8 | |
| 03/08/2011 | 14:10:34 | -114 | 0.7 | 8.30 | 304.9 | |
| 03/08/2011 | 14:12:04 | -108 | 0.0 | 8.40 | 307.0 | Start Pumping Water |
| 03/08/2011 | 14:12:14 | -109 | 0.0 | 8.40 | 307.0 | |

| Well | Field | Job Start | Customer | Job Number |
|---|---|---|---|---|
| ENCANA FEE 10-2D 10-2D | Mamm Creek | Mar/07/2011 | Encana | 510849 |

| Date | Time 24-hr clock | Treating Pressure PSI | Flow Rate B/M | Density LB/G | Volume BBL | Message |
|---|---|---|---|---|---|---|
| 03/08/2011 | 14:13:06 | 761 | 0.0 | 8.40 | 307.0 | Pressure Test Lines |
| 03/08/2011 | 14:13:25 | 726 | 0.0 | 8.40 | 307.1 | Low Pressure Test 500 psi Good |
| 03/08/2011 | 14:13:54 | 3077 | 0.0 | 8.40 | 307.1 | |
| 03/08/2011 | 14:14:38 | 3035 | 0.0 | 8.40 | 307.1 | High Pressure Test 3000 psi Good |
| 03/08/2011 | 14:15:34 | -110 | 0.0 | 8.40 | 307.1 | |
| 03/08/2011 | 14:15:39 | -112 | 0.0 | 8.40 | 307.1 | Reset Total, Vol = 265.11 bbl |
| 03/08/2011 | 14:16:05 | -106 | 0.9 | 8.40 | 307.2 | 20 bbls of Water Ahead |
| 03/08/2011 | 14:17:14 | -75 | 1.1 | 8.40 | 308.5 | |
| 03/08/2011 | 14:18:19 | 3 | 3.4 | 8.40 | 310.2 | Good Returns |
| 03/08/2011 | 14:18:54 | -14 | 3.4 | 8.39 | 312.2 | |
| 03/08/2011 | 14:20:34 | -13 | 3.4 | 8.39 | 317.9 | |
| 03/08/2011 | 14:22:14 | 27 | 4.6 | 8.39 | 324.5 | |
| 03/08/2011 | 14:23:01 | 61 | 4.7 | 14.58 | 328.2 | Start Cement Slurry |
| 03/08/2011 | 14:23:04 | 91 | 4.6 | 15.05 | 328.4 | Start Mixing Scav Slurry |
| 03/08/2011 | 14:23:06 | 93 | 4.6 | 15.13 | 328.6 | Bring to weight |
| 03/08/2011 | 14:23:26 | 158 | 4.6 | 15.33 | 330.1 | Reset Total, Vol = 22.99 bbl |
| 03/08/2011 | 14:23:54 | 158 | 4.6 | 15.43 | 332.2 | |
| 03/08/2011 | 14:25:34 | 35 | 4.5 | 15.51 | 339.8 | |
| 03/08/2011 | 14:26:56 | 93 | 4.6 | 15.62 | 346.1 | End Scavenger Slurry |
| 03/08/2011 | 14:26:58 | 102 | 4.6 | 15.62 | 346.3 | Start Mixing Tail Slurry |
| 03/08/2011 | 14:27:01 | 95 | 4.6 | 15.62 | 346.5 | Remark |
| 03/08/2011 | 14:27:14 | 95 | 4.6 | 15.62 | 347.5 | |
| 03/08/2011 | 14:27:20 | 102 | 4.6 | 15.62 | 347.9 | 657 Sks (137 bbl of 15.8 Tail |
| 03/08/2011 | 14:28:53 | -25 | 2.8 | 15.77 | 354.0 | Scale Reads 15.8 ppg |
| 03/08/2011 | 14:28:54 | -19 | 2.8 | 15.77 | 354.1 | |
| 03/08/2011 | 14:30:34 | -16 | 2.7 | 15.56 | 358.6 | |
| 03/08/2011 | 14:32:14 | -18 | 3.1 | 15.60 | 363.8 | |
| 03/08/2011 | 14:33:54 | 55 | 3.2 | 15.67 | 369.1 | |
| 03/08/2011 | 14:35:34 | 5 | 3.0 | 15.63 | 374.2 | |
| 03/08/2011 | 14:37:14 | 6 | 3.0 | 15.52 | 379.2 | |
| 03/08/2011 | 14:38:54 | 11 | 3.1 | 15.86 | 384.1 | |
| 03/08/2011 | 14:40:34 | 374 | 6.4 | 15.82 | 389.4 | |
| 03/08/2011 | 14:42:14 | 369 | 6.3 | 15.88 | 399.9 | |
| 03/08/2011 | 14:43:54 | 352 | 6.1 | 15.90 | 410.1 | |
| 03/08/2011 | 14:45:34 | 338 | 6.1 | 15.87 | 420.3 | |
| 03/08/2011 | 14:47:14 | 432 | 6.1 | 15.89 | 430.4 | |
| 03/08/2011 | 14:48:54 | 238 | 6.1 | 15.68 | 440.5 | |
| 03/08/2011 | 14:50:34 | 332 | 6.1 | 15.51 | 450.7 | |
| 03/08/2011 | 14:52:14 | 245 | 6.1 | 15.20 | 460.9 | |
| 03/08/2011 | 14:53:25 | -100 | 0.5 | 16.29 | 467.9 | End Tail Slurry |
| 03/08/2011 | 14:53:29 | -102 | 0.0 | 16.28 | 467.9 | End Cement Slurry |
| 03/08/2011 | 14:53:54 | -112 | 0.0 | 16.15 | 467.9 | |
| 03/08/2011 | 14:53:55 | -112 | 0.0 | 16.15 | 467.9 | Drop Top Plug |
| 03/08/2011 | 14:55:34 | -117 | 0.0 | 16.17 | 467.9 | |
| 03/08/2011 | 14:55:57 | -117 | 0.0 | 16.17 | 467.9 | Reset Total, Vol = 137.76 bbl |
| 03/08/2011 | 14:57:14 | -105 | 0.0 | 10.42 | 467.9 | |
| 03/08/2011 | 14:57:37 | -112 | 0.0 | 9.72 | 467.9 | Start Displacement |
| 03/08/2011 | 14:57:41 | -79 | 0.5 | 9.66 | 467.9 | 103 blbls of Water |
| 03/08/2011 | 14:58:54 | 26 | 4.3 | 9.74 | 472.1 | |
| 03/08/2011 | 15:00:34 | 77 | 6.0 | 8.79 | 481.4 | |
| 03/08/2011 | 15:01:16 | 45 | 5.4 | 8.63 | 485.1 | Good returns |
| 03/08/2011 | 15:02:14 | 41 | 5.3 | 8.66 | 490.3 | |
| 03/08/2011 | 15:03:54 | -16 | 3.3 | 8.51 | 496.2 | |
| 03/08/2011 | 15:05:34 | 13 | 3.4 | 8.45 | 501.8 | |

| Well | Field | Job Start | Customer | Job Number |
|---|---|---|---|---|
| ENCANA FEE 10-2D 10-2D | Mamm Creek | Mar/07/2011 | Encana | 510849 |

| Date | Time 24-hr clock | Treating Pressure PSI | Flow Rate B/M | Density LB/G | Volume BBL | Message |
|---|---|---|---|---|---|---|
| 03/08/2011 | 15:08:54 | 80 | 3.4 | 8.42 | 513.1 | |
| 03/08/2011 | 15:10:34 | 156 | 3.4 | 8.39 | 518.7 | |
| 03/08/2011 | 15:12:14 | 171 | 3.3 | 8.35 | 524.4 | |
| 03/08/2011 | 15:13:54 | 136 | 3.3 | 8.39 | 529.9 | |
| 03/08/2011 | 15:15:34 | 244 | 4.6 | 8.39 | 536.2 | |
| 03/08/2011 | 15:17:14 | 275 | 4.6 | 8.39 | 543.8 | |
| 03/08/2011 | 15:18:54 | 340 | 4.5 | 8.39 | 551.4 | |
| 03/08/2011 | 15:20:34 | 367 | 4.6 | 8.39 | 559.0 | |
| 03/08/2011 | 15:22:14 | 290 | 2.3 | 8.39 | 565.1 | |
| 03/08/2011 | 15:23:54 | 326 | 2.3 | 8.40 | 568.9 | |
| 03/08/2011 | 15:25:34 | 333 | 2.3 | 8.40 | 572.7 | |
| 03/08/2011 | 15:26:37 | 952 | 1.0 | 8.40 | 575.0 | End Displacement |
| 03/08/2011 | 15:26:38 | 970 | 1.0 | 8.40 | 575.0 | Bump Top Plug |
| 03/08/2011 | 15:26:42 | 1041 | 0.4 | 8.40 | 575.0 | Bump Plug to 1000 psi |
| 03/08/2011 | 15:26:43 | 1057 | 0.1 | 8.40 | 575.0 | Bleed Off Pressure |
| 03/08/2011 | 15:27:14 | 1049 | 0.0 | 8.40 | 575.1 | |
| 03/08/2011 | 15:28:54 | 1043 | 0.0 | 8.40 | 575.1 | |
| 03/08/2011 | 15:30:34 | -112 | 0.2 | 8.40 | 575.1 | |
| 03/08/2011 | 15:32:14 | -112 | 0.2 | 8.40 | 575.4 | |
| 03/08/2011 | 15:33:54 | 1029 | 0.0 | 8.40 | 576.0 | |
| 03/08/2011 | 15:35:34 | 1020 | 0.0 | 8.40 | 576.0 | |
| 03/08/2011 | 15:37:14 | -113 | 0.2 | 8.40 | 576.1 | |
| 03/08/2011 | 15:38:54 | -114 | 0.0 | 8.40 | 576.1 | |

## Post Job Summary

| Average Pump Rates, bbl/min | | | | Volume of Fluid Injected, bbl | | | |
|---|---|---|---|---|---|---|---|
| Slurry | N2 | Mud | Maximum Rate | Total Slurry | Mud | Spacer | N2 |
| 2.7 | | | 25.0 | 137.0 | 0.0 | 20.0 | |

| Treating Pressure Summary, psi | | | | | Breakdown Fluid | | |
|---|---|---|---|---|---|---|---|
| Maximum | Final | Average | Bump Plug to | Breakdown | Type | Volume | Density |
| 3000 | -116 | 150 | 1100 | | | bbl | lb/gal |

| Avg. N2 Percent | Designed Slurry Volume | Displacement | Mix Water Temp | Cement Circulated to Surface? | Volume |
|---|---|---|---|---|---|
| % | 136.0 bbl | 103.0 bbl | 70 degF | ☐ | bbl |
| | | | | Washed Thru Perfs ☐ | To ft |

| Customer or Authorized Representative | Schlumberger Supervisor | Circulation Lost | Job Completed |
|---|---|---|---|
| Vlad Kochetov | Jeff Eulberg | ☐ - | ☐ - |

# Schlumberger Service Quality Evaluation

| | |
|---|---|
| **Client:** | Encana |
| **Field:** | Mamm Creek |
| **Rig:** | Nabors M13 |
| **Well:** | ENCANA FEE 10-2D |
| **Service Line:** | Cementing |
| **Job Type:** | 9 5/8" Surface |

| | |
|---|---|
| **Service Order #:** | |
| **Date:** | Mar/07/2011 |
| **Operating Time (hh:mm):** | 00:00 |
| **Client Rep:** | Vlad Kochetov |
| **Schlumberger Engineer:** | Jeff Eulberg |
| **Schlumberger FSM:** | |

**Main Objective:**

**To be completed by Company Rep. Please answer Y (Yes) or N (No) and add any comments below.**

| | | Score | Yes / No | Result |
|---|---|---|---|---|
| **1** | **HSE** | | | |
| 1a | Free of lost time injury and compliance with SLB and loc. spec. HSE practice | 5 | **yes** [X] **no** [ ] | 5 |
| 1b | Free of environmental spill or non-compliant discharge | 5 | **yes** [X] **no** [ ] | 5 |
| 1c | Wellsite left clean | 4 | **yes** [X] **no** [ ] | 4 |
| | | | Sub-total | 100% |
| **2** | **Design / Preparation** | | | |
| 2a | Program incl. job simulation (CemCADE) & pump schedule / tool hydraulic calcs | 3 | **yes** [X] **no** [ ] | 3 |
| 2b | Equipment maintenance schedule completed / Green tagged | 2 | **yes** [X] **no** [ ] | 2 |
| 2c | All materials and equipment required for job/contingency checked & on location | 2 | **yes** [X] **no** [ ] | 2 |
| 2d | Safety / pre-job meeting conducted with all involved present | 2 | **yes** [X] **no** [ ] | 2 |
| | | | Sub-total | 100% |
| **3** | **Execution** | | | |
| 3a | Lost time < 30 mins | 3 | **yes** [X] **no** [ ] | 3 |
| 3b | Equipment pressure tested succesfully | 3 | **yes** [X] **no** [ ] | 3 |
| 3c | All key parameters monitored and recorded accurately (Pressure, Rate, Density) | 2 | **yes** [X] **no** [ ] | 2 |
| 3d | Plugs / darts released and tested succesfully | 2 | **yes** [X] **no** [ ] | 2 |
| 3e | Density variation met expectations | 2 | **yes** [X] **no** [ ] | 2 |
| 3f | Personnel performed as per expectations | 2 | **yes** [X] **no** [ ] | 2 |
| 3g | Equipment performed as per expectations | 2 | **yes** [X] **no** [ ] | 2 |
| 3h | Job pumped as per design | 3 | **yes** [X] **no** [ ] | 3 |
| 3i | Did job start on time | 2 | **yes** [X] **no** [ ] | 2 |
| 3j | Free of Operational failures (screen out, Cementing Example, etc.) | 3 | **yes** [X] **no** [ ] | 3 |
| | | | Sub-total | 100% |
| **4** | **Evaluation** | | | |
| 4a | Main job objective achieved with no consequential non-productive time | 10 | **yes** [X] **no** [ ] | 10 |
| | | | Sub-total | 100% |

**Total** 100%

**Comments: (Please include a brief explanation for a "NO" response and summarize any innovations attempted on this well.)**

| **Client:** | **Schlumberger:** |
|---|---|
| | |
| **Client Signature:** | **Schlumberger Signature:** |