

Cementing Service Report

| | | | | Customer Whiting | | | Job Number CYUT-00192 | | | | |
|---|------------------------|--|----------------------------|-------------------------------|-------------------|-----------------------------------|--------------------------|---------------------------|--------------------------|--------------------------------|--|
| Well Horsetail 07E-0636 | | | Location (legal) 217304 | | | Schlumberger Location Cheyenne | | | Job Start Feb/26/2016 | | |
| Field Wildcat | | Formation Name/Type shale | | Deviation deg | | Bit Size 13.5 in | | Well MD 1983.0 ft | | Well TVD 2028.0 ft | |
| County Weld | | State/Province Colorado | | BHP psi | | BHST 120 degF | | BHCT 100 degF | | Pore Press. Gradient lb/gal | |
| Well Master 0631641689 | | API/UWI | | | | | | | | | |
| Rig Name U409 | | Drilled For Oil & Gas | | Service Via Land | | Casing/Liner | | | | | |
| | | | | | | Depth, ft | | Size, in | | Weight, lb/ft | |
| | | | | | | | | | | | |
| Offshore Zone | | Well Class New | | Well Type Other | | 2028.0 | | 9.6 | | 36.0 | |
| | | | | | | 0.0 | | 0.0 | | 0.0 | |
| Drilling Fluid Type Bentonite | | Max. Density 8.90 lb/gal | | Plastic Viscosity cP | | Tubing/Drill Pipe | | | | | |
| | | | | | | T/D | | Depth, ft | | Size, in | |
| | | | | | | | | | | | |
| Service Line Cementing | | Job Type Surface | | | | | | | | | |
| | | | | | | | | | | | |
| Max. Allowed Tub. Press psi | | Max. Allowed Ann. Press psi | | WH Connection 9 5/8 | | Perforations/Open Hole | | | | | |
| | | | | | | Top, ft | | Bottom, ft | | shot/ft | |
| | | | | | | ft | | ft | | | |
| | | | | | | ft | | ft | | | |
| | | | | | | Treat Down Casing | | Displacement 153.0 bbl | | Packer Type | |
| | | | | | | | | | | Packer Depth ft | |
| | | | | | | Tubing Vol. bbl | | Casing Vol. 156.0 bbl | | Annular Vol. bbl | |
| | | | | | | | | | | Openhole Vol. 117.0 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 582 psi | | | | Shoe Type Float | | | | Squeeze Type | | | |
| Pipe Rotated <input type="checkbox"/> | | Pipe Reciprocated <input type="checkbox"/> | | Shoe Depth 2028.0 ft | | | | Tool Type | | | |
| No. Centralizers | | Top Plugs 1 | | Bottom Plugs | | Stage Tool Type | | | | Tool Depth ft | |
| Cement Head Type Single | | | | | | Stage Tool Depth ft | | | | Tail Pipe Size in | |
| Job Scheduled For Feb/26/2016 | | Arrived on Location Feb/26/2016 | | Leave Location Feb/26/2016 | | Collar Type Float | | | | Tail Pipe Depth ft | |
| | | | | | | Collar Depth 1983.2 ft | | | | Sqz. Total Vol. bbl | |
| Date | Time 24-hr clock | Flow Rate B/M | Density LB/G | Volume BBL | CPF1_PRESS PSI | Message | | | | | |
| 02/26/2016 | 21:36:27 | 2.7 | 8.30 | 0.4 | 66 | Started Acquisition | | | | | |
| 02/26/2016 | 21:37:22 | 7.4 | 8.37 | 3.6 | 447 | Water Test Complete | | | | | |
| 02/26/2016 | 21:40:28 | 0.0 | 8.37 | 10.9 | 2037 | Pressure Test Lines (Low) | | | | | |
| 02/26/2016 | 21:41:20 | 0.0 | 8.37 | 10.9 | 3590 | Pressure Test Lines (High) | | | | | |
| 02/26/2016 | 21:41:28 | 0.0 | 8.37 | 10.9 | 3579 | | | | | | |
| 02/26/2016 | 21:46:29 | 7.9 | 8.37 | 16.5 | 452 | | | | | | |
| 02/26/2016 | 21:48:10 | 0.0 | 8.37 | 20.4 | 110 | Start Pumping Spacer | | | | | |
| 02/26/2016 | 21:48:13 | 0.0 | 8.37 | 20.4 | 110 | End Spacer | | | | | |
| 02/26/2016 | 21:48:14 | 0.0 | 8.37 | 20.4 | 108 | Reset Total, Vol = 19.95 bbl | | | | | |
| 02/26/2016 | 21:50:25 | 7.8 | 14.06 | 25.9 | 597 | Start Cement Slurry | | | | | |
| 02/26/2016 | 21:50:27 | 7.8 | 14.05 | 26.1 | 562 | Wet Dry Sample | | | | | |
| 02/26/2016 | 21:51:30 | 7.7 | 14.13 | 34.2 | 511 | | | | | | |
| 02/26/2016 | 21:56:31 | 7.7 | 14.21 | 73.0 | 414 | | | | | | |
| 02/26/2016 | 22:01:32 | 7.8 | 14.19 | 112.1 | 411 | | | | | | |
| 02/26/2016 | 22:06:33 | 7.8 | 14.19 | 151.3 | 418 | | | | | | |
| 02/26/2016 | 22:09:59 | 7.8 | 14.14 | 178.1 | 399 | Good Returns | | | | | |
| 02/26/2016 | 22:11:34 | 7.8 | 14.16 | 190.5 | 420 | | | | | | |
| 02/26/2016 | 22:16:35 | 7.8 | 14.29 | 229.7 | 417 | | | | | | |
| 02/26/2016 | 22:18:37 | 5.4 | 13.92 | 245.6 | 34 | End Cement Slurry | | | | | |
| 02/26/2016 | 22:19:40 | 0.0 | 13.91 | 245.8 | 25 | Reset Total, Vol = 225.44 bbl | | | | | |
| 02/26/2016 | 22:20:43 | 0.0 | 13.45 | 245.8 | 22 | Drop Top Plug | | | | | |

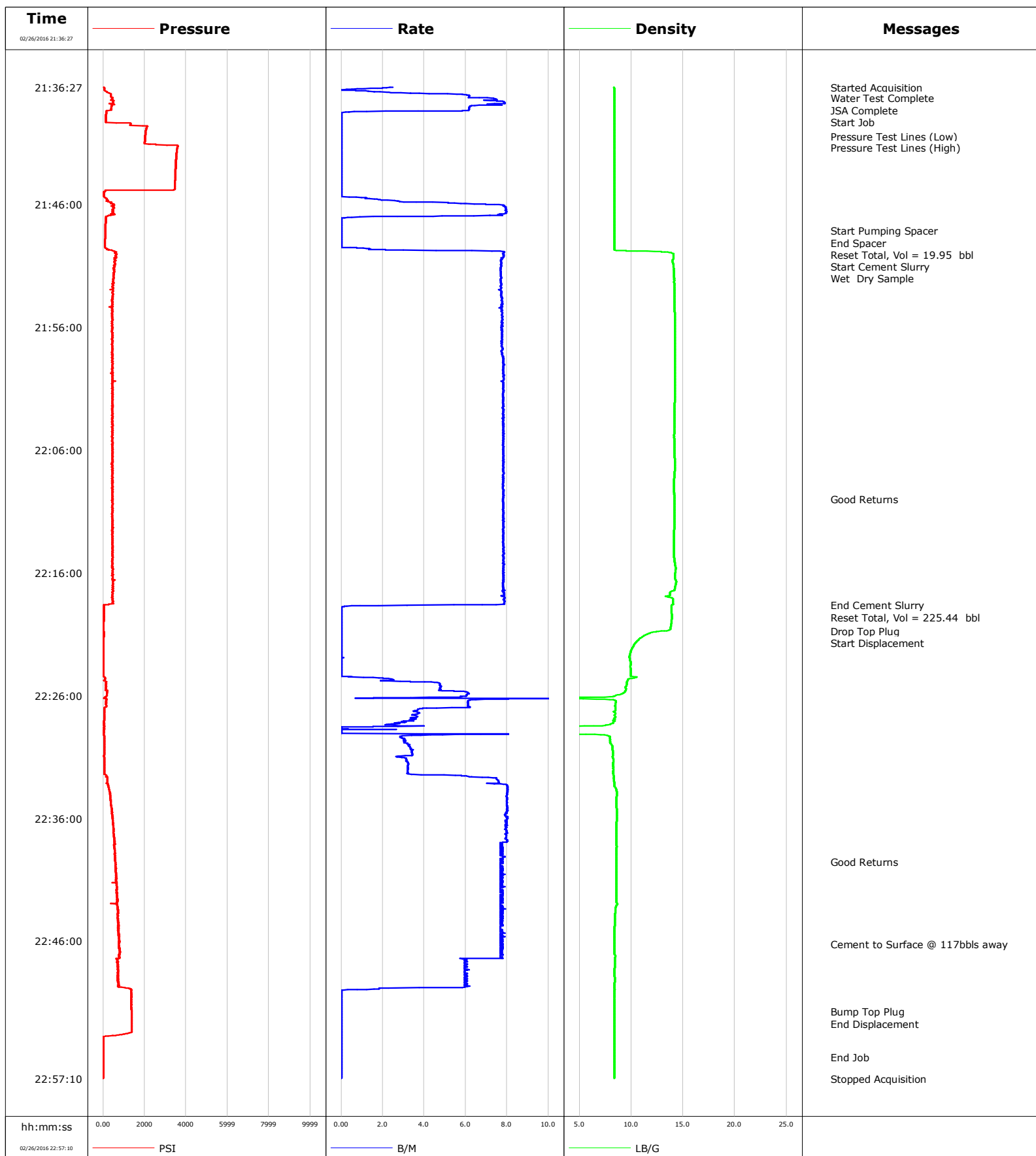
| Well | | | Field | | Job Start | Customer | | Job Number |
|--------------------|------------------------|---------------------|-----------------|---------------|-------------------|----------------------------------|--|------------|
| Horsetail 07E-0636 | | | Wildcat | | Feb/26/2016 | Whiting | | CYUT-00192 |
| Date | Time 24-hr clock | Flow Rate B/M | Density LB/G | Volume BBL | CPF1_PRESS PSI | Message | | |
| 02/26/2016 | 22:21:36 | 0.0 | 10.53 | 245.8 | 22 | | | |
| 02/26/2016 | 22:26:37 | 6.1 | 8.49 | 256.4 | 150 | | | |
| 02/26/2016 | 22:31:38 | 3.2 | 8.24 | 272.3 | 54 | | | |
| 02/26/2016 | 22:36:39 | 8.0 | 8.57 | 307.8 | 442 | | | |
| 02/26/2016 | 22:39:31 | 7.8 | 8.58 | 330.3 | 594 | Good Returns | | |
| 02/26/2016 | 22:41:40 | 7.7 | 8.57 | 346.9 | 672 | | | |
| 02/26/2016 | 22:46:14 | 7.7 | 8.39 | 382.2 | 763 | Cement to Surface @ 117bbls away | | |
| 02/26/2016 | 22:46:41 | 7.7 | 8.39 | 385.6 | 772 | | | |
| 02/26/2016 | 22:51:42 | 0.0 | 8.38 | 405.8 | 1376 | | | |
| 02/26/2016 | 22:51:43 | 0.0 | 8.38 | 405.8 | 1376 | Bump Top Plug | | |
| 02/26/2016 | 22:52:43 | 0.0 | 8.38 | 405.8 | 1378 | End Displacement | | |
| 02/26/2016 | 22:55:25 | 0.0 | 8.37 | 405.8 | 21 | End Job | | |
| 02/26/2016 | 22:56:43 | 0.0 | 8.38 | 405.8 | 21 | | | |

Post Job Summary

| Average Pump Rates, bbl/min | | | | | Volume of Fluid Injected, bbl | | | | | | |
|---------------------------------------|-------------------------------------|---------------------------|--|-------------------------------|-------------------------------|-------------------------------------|-------------------------------------|--|--|--|--|
| Slurry 7.0 | N2 | Mud | Maximum Rate 8.1 | Total Slurry 225.3 | Mud 0.0 | Spacer 20.0 | N2 | | | | |
| Treating Pressure Summary, psi | | | | | Breakdown Fluid | | | | | | |
| Maximum 3602 | Final 20 | Average 576 | Bump Plug to 1000 | Breakdown | Type | Volume bbl | Density lb/gal | | | | |
| Avg. N2 Percent % | Designed Slurry Volume 221.0 bbl | Displacement 153.0 bbl | Mix Water Temp 65 degF | Cement Circulated to Surface? | | <input checked="" type="checkbox"/> | Volume 30.0 bbl | | | | |
| | | | | Washed Thru Perfs | | <input type="checkbox"/> | To ft | | | | |
| Customer or Authorized Representative | | | Schlumberger Supervisor Wayne Silvester/Justin Storey | | | Circulation Lost | Job Completed | | | | |
| | | | | | | <input type="checkbox"/> | <input checked="" type="checkbox"/> | | | | |
| | | | | | | - | - | | | | |

Well Horsetail
Field Wildcat
Engineer Wayne Silvester/Justin Storey
Country United States

Client Whiting
SIR No. CYUT-00192
Job Type Surface
Job Date 02-26-2016



Well Horsetail
Field Wildcat
Engineer Wayne Silvester/Justin Storey
Country United States

Client Whiting
SIR No. CYUT-00192
Job Type Surface
Job Date 02-26-2016

