HALLIBURTON

**ANADARKO PETROLEUM CORP - EBUS**
**DO NOT MAIL - PO BOX 4995**
**THE WOODLANDS, Texas**

Badding 37N-35HZ

**Majors 29**

# Post Job Summary
# Cement Surface Casing

Date Prepared: 11/17/2013
Version: 1

Service Supervisor: LAVALLEY, LARRY

Submitted by: TRIER, DEREK

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## *Wellbore Geometry*

| Job Tubulars | | | | | MD | | Shoe Joint Length ft |
|---|---|---|---|---|---|---|---|
| **Type** | **Description** | **Size in** | **ID in** | **Wt lbm/ft** | **Top ft** | **Bottom ft** | |
| Casing | 9 5/8" Surface Casing | 9.63 | 8.921 | 36.00 | 0.00 | 1,325.00 | 43.00 |
| Open Hole Section | 13 1/2" Open Hole Section | | 13.500 | | 0.00 | 1,334.00 | 0.00 |

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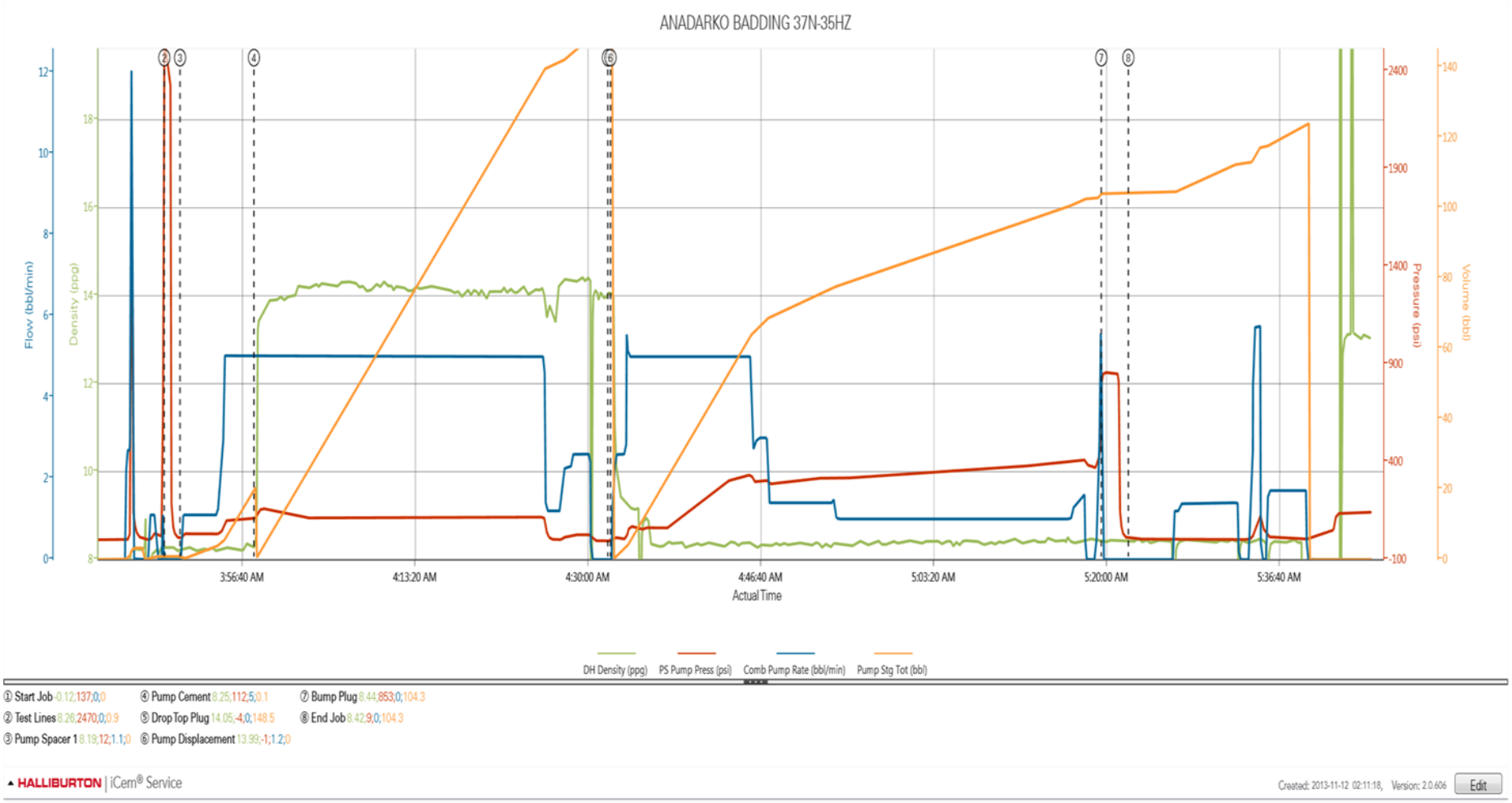
## *Pumping Schedule*

| Stage /Plug # | Fluid # | Fluid Type | Fluid Name | Surface Density lbm/gal | Avg Rate bbl/min | Surface Volume | Downhole Volume |
|---|---|---|---|---|---|---|---|
| 1 | 1 | Spacer | Fresh Water Spacer | 8.33 | 5.00 | 10.0 bbl | 10.0 bbl |
| 1 | 2 | Spacer | Mud Flush | 8.40 | 5.00 | 12.0 bbl | 12.0 bbl |
| 1 | 1 | Spacer | Fresh Water Spacer | 8.33 | 5.00 | 10.0 bbl | 10.0 bbl |
| 1 | 3 | Cement Slurry | SwiftCem B2 | 14.20 | 5.0 | 499.0 sacks | 499.0 sacks |


ANADARKO BADDING 37N-35HZ
Flow (bbl/min)
Density (ppg)
Pressure (psi)
Volume (bbl)
Actual Time
3:56:40 AM
4:13:20 AM
4:30:00 AM
4:46:40 AM
5:03:20 AM
5:20:00 AM
5:36:40 AM
DH Density (ppg)
PS Pump Press (psi)
Comb Pump Rate (bbl/min)
Pump Stg Tot (bbl)
① Start Job 0.12;137;0;0
② Test Lines 8.26;2470;0;0.9
③ Pump Spacer 1 8.19;12;1.1;0
④ Pump Cement 8.25;112;5;0.1
⑤ Drop Top Plug 14.05;-4;0;148.5
⑥ Pump Displacement 13.99;-1;1.2;0
⑦ Bump Plug 8.44;863;0;104.3
⑧ End Job 8.42;9;0;104.3
HALLIBURTON | iCem® Service
Created: 2013-11-12 02:11:18, Version: 2.0.606
Edit

## Job Log

| Date/Time | Chart # | Activity Code | Pump Rate | Cum Vol | Pump | | Pressure (psig) | | Comments |
|---|---|---|---|---|---|---|---|---|---|
| 11/11/2013 23:00 | | Call Out | | | | | | | CREW CALLED AT 23:00 |
| 11/12/2013 01:45 | | Arrive at Location from Service Center | | | | | | | |
| 11/12/2013 01:50 | | Assessment Of Location Safety Meeting | | | | | | | HAZARD HUNT ON LOCATION |
| 11/12/2013 03:45 | | Safety Meeting - Pre Job | | | | | | | |
| 11/12/2013 03:49 | | Start Job | | | | | | | |
| 11/12/2013 03:49 | | Test Lines | | | | | | 2470.0 | FRESH WATER WITH NO ADDITIVES |
| 11/12/2013 03:50 | | Pump Spacer 2 | 5 | 20 | | | | 12.0 | FRESH WATER WITH NO ADDITIVES |
| 11/12/2013 03:57 | | Pump Lead Cement | 5 | 136 | | | | 112.0 | 499 SKS SWIFTCEM B2 MIXED @ 14.2 PPG YIELD 1.53 FT3/FT AND 7.63 GAL/SK. VERIFIED BY PRESSURIZED SCALES |
| 11/12/2013 04:30 | | Shutdown | | | | | | | |
| 11/12/2013 04:32 | | Drop Top Plug | | | | | | | HWE TOP PLUG PRELOADED |
| 11/12/2013 04:32 | | Pump Displacement | 5 | 100 | | | | 382.0 | FRESH WATER WITH NO ADDITIVES. CAUGHT CEMENT @ 30 BBLS AWAY AND SPACER RETURNED TO SURFACE @ 27 BBLS AWAY AND 16 BBLS CEMENT BACK TO SURFACE |
| 11/12/2013 05:19 | | Bump Plug | 1 | | | | | 851.0 | CALCULATED PRESSURE TO LAND WAS 477 AND PRESSURE TO LIFT WAS 561 PSI |
| 11/12/2013 05:20 | | Other | | | | | | | FLOATS HELD AND GOT 1 BBLS BACK. |
| 11/12/2013 05:22 | | End Job | | | | | | | HELD SAFETY MEETING TO RIG DOWN AND DEPART LOCATION |

HALLIBURTON

# *Cementing Job Summary*

***The Road to Excellence Starts with Safety***

| | | | |
|---|---|---|---|
| **Sold To #:** 300466 | **Ship To #:** 3198512 | **Quote #:** | **Sales Order #:** 900888644 |
| **Customer:** ANADARKO PETROLEUM CORP - EBUS | | **Customer Rep:** Case, Randy | |
| **Well Name:** Badding | **Well #:** 37N-35HZ | | **API/UWI #:** 05-213-38335 |
| **Field:** WATTENBERG | **City (SAP):** FORT LUPTON | **County/Parish:** Weld | **State:** Colorado |
| **Contractor:** Majors | **Rig/Platform Name/Num:** Majors29 | | |
| **Job Purpose:** Cement Surface Casing | | | |
| **Well Type:** Development Well | **Job Type:** Cement Surface Casing | | |
| **Sales Person:** PLIENESS, RYAN | **Srvc Supervisor:** LAVALLEY, LARRY | **MBU ID Emp #:** 419296 | |

## Job Personnel

| HES Emp Name | Exp Hrs | Emp # | HES Emp Name | Exp Hrs | Emp # | HES Emp Name | Exp Hrs | Emp # |
|---|---|---|---|---|---|---|---|---|
| LANGE, TIMOTHY Paul | 0.0 | 520811 | LAVALLEY, LARRY P | 0.0 | 419296 | NESBITT, ROY Iverson | 0.0 | 537416 |
| SIMMONS, KEATON J | 0.0 | 524850 | | | | | | |

## Equipment

| HES Unit # | *Distance-1 way* | HES Unit # | *Distance-1 way* | HES Unit # | *Distance-1 way* | HES Unit # | *Distance-1 way* |
|---|---|---|---|---|---|---|---|
| 10679720C | 12 mile | 11106651 | 12 mile | 11488570C | 12 mile | 11518549 | 12 mile |
| 11562562 | 12 mile | | | | | | |

## Job

| | | | |
|---|---|---|---|
| **Formation Name** | | | |
| **Formation Depth (MD)** | **Top** | | **Bottom** |
| **Form Type** | | **BHST** | |
| **Job depth MD** | 1334. ft | **Job Depth TVD** | 1325. ft |
| **Water Depth** | | **Wk Ht Above Floor** | 6. ft |
| **Perforation Depth (MD)** | *From* | | **To** |

## Job Times

| | Date | Time | Time Zone |
|---|---|---|---|
| **Called Out** | 11 - Nov - 2013 | 23:00 | MST |
| **On Location** | 12 - Nov - 2013 | 01:45 | MST |
| **Job Started** | 12 - Nov - 2013 | 03:45 | MST |
| **Job Completed** | 12 - Nov - 2013 | 05:30 | MST |
| **Departed Loc** | 12 - Nov - 2013 | 06:15 | MST |

## Well Data

| *Description* | New / Used | Max pressure psig | Size in | ID in | Weight lbm/ft | Thread | Grade | Top MD ft | Bottom MD ft | Top TVD ft | Bottom TVD ft |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 13 1/2" Open Hole Section | | | | 13.5 | | | | . | 1334. | | |
| 9 5/8" Surface Casing | Unknown | | 9.625 | 8.921 | 36. | | J-55 | . | 1325. | | |

## Sales/Rental/3rd Party (HES)

| Description | Qty | Qty uom | Depth | Supplier |
|---|---|---|---|---|
| CMT CASING EQUIPMENT BOM | 1 | JOB | | |
| MILEAGE FOR CEMENTING CREW,ZI | 20 | MI | | |
| ZI FUEL SURCHG-CARS/PICKUPS<1 1/2TON | 20 | MI | | |
| KIT,HALL WELD-A | 1 | EA | | |
| **Description** | **Qty** | **Qty uom** | **Depth** | **Supplier** |
| CNTRLZR, 9 5/8'x13 3/4',#500-0963-1375 | 10 | EA | | |
| BASKET - CEMENT - 9-5/8 CSG X 12-1/4 | 1 | EA | | |
| PLUG,CMTG,TOP,9 5/8,HWE,8.16 MIN/9.06 MA | 1 | EA | | |
| COLLAR-STOP-9 5/8"-FRICTION-HINGED | 2 | EA | | |

## Fluid Data

HALLIBURTON

# *Cementing Job Summary*

| Stage/Plug #: 1 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Fluid #** | **Stage Type** | **Fluid Name** | **Qty** | **Qty uom** | **Mixing Density lbm/gal** | **Yield ft3/sk** | **Mix Fluid Gal/sk** | **Rate bbl/min** | **Total Mix Fluid Gal/sk** |
| **1** | **Fresh Water Spacer** | | **10.00** | **bbl** | **8.33** | | | **5.0** | |
| **2** | **Mud Flush** | | **12.00** | **bbl** | **8.4** | | | **5.0** | |
| 3.5 lbm/bbl | | MUD FLUSH III, 40 LB SACK (101633304) | | | | | | | |
| 42 gal/bbl | | MUD FLUSH III - SBM (528788) | | | | | | | |
| **1** | **Fresh Water Spacer** | | **10.00** | **bbl** | **8.33** | | | **5.0** | |
| **3** | **SwiftCem B2** | **SWIFTCEM (TM) SYSTEM (452990)** | **499.0** | **sacks** | **14.2** | **1.53** | **7.63** | **5.0** | **7.63** |
| 7.63 Gal | | FRESH WATER | | | | | | | |

| Calculated Values | | Pressures | | Volumes | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| *Displacement* | 100 | **Shut In: Instant** | | **Lost Returns** | 0 | *Cement Slurry* | | **Pad** | |
| **Top Of Cement** | | **5 Min** | | **Cement Returns** | 16 | **Actual Displacement** | 100 | **Treatment** | |
| **Frac Gradient** | | **15 Min** | | **Spacers** | 32 | **Load and Breakdown** | | **Total Job** | |

*Rates*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| *Circulating* | | *Mixing* | | *Displacement* | | **Avg. Job** | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Cement Left In Pipe* | **Amount** | ***43 ft*** | *Reason* | ***Shoe Joint*** | | | | | | | | | | | |
| *Frac Ring # 1 @* | | *ID* | | *Frac ring # 2 @* | | *ID* | | *Frac Ring # 3 @* | | *ID* | | *Frac Ring # 4 @* | | *ID* | |

| | |
|---|---|
| *The Information Stated Herein Is Correct* | ***Customer Representative Signature*** |