

HALLIBURTON

iCem[®] Service

ANADARKO PETROLEUM CORP - EBUS

For: Allen Secrest

Date: Tuesday, June 17, 2014

Benson Farms 33N-23HZ

Sincerely,

Mark Dean & Crew

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1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Benson Farms 33N-23HZ** cement **Surface** casing job. A pre-job safety meeting was held before the job where details of the job were discussed, potential safety hazards were reviewed, and environmental compliance procedures were outlined.

Halliburton maintains a continuous quality improvement process and appreciates any comments or suggestions that you may have. Halliburton again thanks you for the opportunity to perform service work on this well. We hope to be your solutions provider for future projects.

Respectfully,

Halliburton [Brighton]

Job Times

	Date	Time	Time Zone
Called Out	6/16/2014	17:30:34	MT
On Location	6/16/2014	22:30:28	MT
Job Started	6/17/2014	02:20:05	MT
Job Completed	6/17/2014	03:58:27	MT
Departed Location	6/17/2014	05:30:40	MT

1.2 Cementing Job Summary

The Road to Excellence Starts with Safety										
Sold To #: 300466		Ship To #: 3473001		Quote #:		Sales Order #: 0901418217				
Customer: ANADARKO PETROLEUM CORP - EBUS				Customer Rep: Allen Secrest						
Well Name: BENSON FARMS			Well #: 33N-23HZ			API/UWI #: 05-123-39338-00				
Field: WATTENBERG		City (SAP): LONGMONT		County/Parish: WELD			State: COLORADO			
Legal Description: SE SE-23-3N-68W-767FSL-71FEL										
Contractor:				Rig/Platform Name/Num: Majors 42						
Job BOM: 7521										
Well Type: HORIZONTAL GAS										
Sales Person: HALAMERICA\HX41066				Srvc Supervisor: Mark Dean						
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST						
Job depth MD		1237ft		Job Depth TVD						
Water Depth				Wk Ht Above Floor		3 ft				
Perforation Depth (MD)		From		To						
Well Data										
Description	New / Used	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Casing		9.625	8.921	36		J-55	0	1237		
Open Hole Section			13.5				0	1237		
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make		
Guide Shoe	9.625	1		1237	Top Plug	9.625	1	HES		
Float Shoe	9.625	1			Bottom Plug	9.625		HES		
Float Collar	9.625	1			SSR plug set	9.625	1	HES		
Insert Float	9.625	1			Plug Container	9.625	1	HES		
Stage Tool	9.625	1			Centralizers	9.625	1	HES		
Miscellaneous Materials										
Gelling Agt		Conc		Surfactant		Conc	Acid Type		Qty	Conc
Treatment Fld		Conc		Inhibitor		Conc	Sand Type		Size	Qty
Fluid Data										
Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	Fresh Water Spacer	Fresh Water Spacer	10	bbl	8.33					
Fluid Data										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
2	Lead Cement	SWIFCEM (TM) SYSTEM	463	sack	14.2	1.54		6	7.64	

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	Displacement	Displacement	91	bbl	8.33				
Cement Left In Pipe Amount 39 ft Reason Shoe Joint									
Comment									

HALLIBURTON

Summary Report

Crew: _____

Job Start Date: 6/17/2014

Sales Order #: 0901418217

WO #: 0901418217

PO/AFE #: NA

Customer: ANADARKO PETROLEUM CORP - Field: WATTENBERG
 EBUS
 UWI / API Number: 05-123-39338-00
 Well Name: BENSON FARMS
 Well No: 33N-23HZ

County/Parish: WELD
 State: COLORADO
 Latitude: 40.205437
 Longitude: -104.960980
 Sect / Twn / Rng: 23/3/68

Job Type: CMT SURFACE
 CASING BOM
 Service Supervisor: Mark Dean

Cust Rep Name: Allen Secrest
 Cust Rep Phone #:

Remarks:		
The Information Stated Herein Is Correct	Customer Representative Signature 	Date
	Customer Representative Printed Name	

1.3 Planned 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	1.7	10.0 bbl	10.0 bbl
1	1	Spacer	Mud Flush	8.40	2.0	12.0 bbl	12.0 bbl
1	1	Spacer	Fresh Water Spacer	8.33	3.0	10.0 bbl	10.0 bbl
1	2	Cement Slurry	SwiftCem B2	14.2	5.5	463.0 sacks	463.0 sacks

1.4 Job Overview

		Units	Description
1	Surface temperature at time of job	°F	
2	Mud type (OBM, WBM, SBM, Water, Brine)	-	
3	Actual mud density	lb/gal	
4	Time circulated before job	HH:MM	
5	Mud volume circulated	Bbls	
6	Rate at which well was circulated	Bpm	
7	Pipe movement during hole circulation	Y/N	N
8	Rig pressure while circulating	Psi	
9	Time from end mud circulation to start of job	HH:MM	
10	Pipe movement during cementing	Y/N	N
11	Calculated displacement	Bbls	91
12	Job displaced by	Rig/HES	HES
13	Annular before job)?	Y/N	N
14	Annular flow after job	Y/N	N
15	Length of rat hole	Ft	
16	Units of gas detected while circulating	Units	
17	Was lost circulation experienced at any time ?	Y/N	N

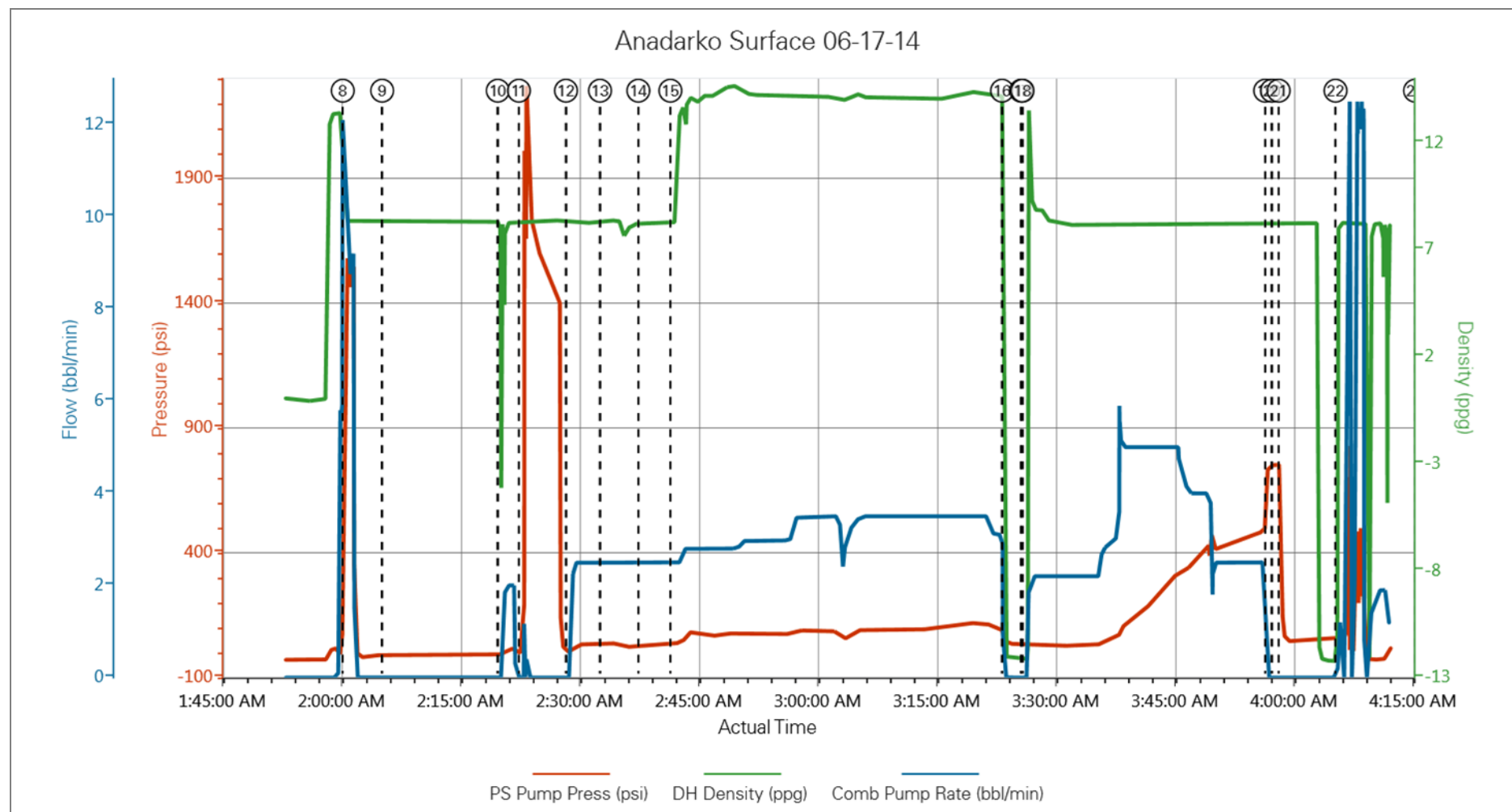
1.5 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Pass-Side Pump Pressure (psi)	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Comment
Event	1	Call Out	Call Out	6/16/2014	17:30:34	USER				Crew called @ 17:30
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	6/16/2014	21:30:35	USER				Discussed load checks, planned route and safe driving
Event	3	Depart from Service Center or Other Site	Depart from Service Center or Other Site	6/16/2014	21:45:36	USER				Departed yard in convoy
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	6/16/2014	22:30:28	USER				Requested on location @ 23:00
Event	5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	6/16/2014	22:35:29	USER				Rig running casing. Discussed spotting, PPE and red zones
Event	6	Rig-Up Equipment	Rig-Up Equipment	6/16/2014	22:45:30	USER				Rigged up safely
Event	7	Wait on Customer or Customer Sub-Contractor Equip - Start Time	Wait on Customer or Customer Sub-Contractor Equip - Start Time	6/16/2014	23:30:32	USER				Waiting for rig to finish running Casing
Event	8	Wait on Customer or Customer Sub-Contractor Equipment - End Time	Wait on Customer or Customer Sub-Contractor Equipment - End Time	6/17/2014	02:00:33	USER	1571.00	8.33	9.80	Rig finished running Casing. Ready for HES
Event	9	Pre-Job Safety Meeting	Pre-Job Safety Meeting	6/17/2014	02:05:31	USER	-11.00	8.28	0.00	Discussed Job procedure and safety with Customer & Crew
Event	10	Start Job	Start Job	6/17/2014	02:20:05	COM1	-8.00	6.65	0.00	Primed pump and lines
Event	11	Test Lines	Test Lines	6/17/2014	02:22:44	COM1	-3.00	8.30	0.00	Tested lines to 2000 psi (Pressure Held)
Event	12	Pump Spacer 1	Pump Water	6/17/2014	02:28:40	COM1	3.00	8.27	0.00	Pumped 10 bbl of water ahead
Event	13	Pump Spacer 2	Pump Mud Flush III	6/17/2014	02:32:57	COM1	36.00	8.29	2.50	Pumped 12 bbl of Mud Flush III
Event	14	Pump Spacer 1	Pump Water	6/17/2014	02:37:47	COM1	32.00	8.27	2.50	Pumped 10 bbl of Water behind

Event	15	Pump Lead Cement	Pump Lead Cement	6/17/2014	02:41:49	COM1	36.00	8.28	2.50	Pumped 127 bbl of CMT @ 14.2# (463 sks)
Event	16	Shutdown	Shutdown	6/17/2014	03:23:36	COM1	41.00	-12.05	0.00	Shutdown to drop top plug
Event	17	Drop Top Plug	Drop Top Plug	6/17/2014	03:26:00	COM1	30.00	-12.04	0.00	Released top plug
Event	18	Pump Displacement	Pump Displacement	6/17/2014	03:26:11	COM1	29.00	-12.06	0.00	Pumped 91.5 bbl of fresh water displacement (first 10 wash up)
Event	19	Bump Plug	Bump Plug	6/17/2014	03:56:45	COM1	746.00	8.22	0.00	Bumped plug @ 400 psi (500 psi over)
Event	20	Cement Returns to Surface	Cement Returns to Surface	6/17/2014	03:57:37	USER	753.00	8.25	0.00	6 bbl of CMT to Surface
Event	21	Other	Check Floats	6/17/2014	03:58:27	COM1	149.00	8.23	0.00	.5 bbl back to truck
Event	22	Post-Job Safety Meeting (Pre Rig-Down)	Post-Job Safety Meeting (Pre Rig-Down)	6/17/2014	04:05:38	USER	59.00	8.30	1.20	Discussed trapped pressure and Hazards
Event	23	Rig-Down Equipment	Rig-Down Equipment	6/17/2014	04:15:39	USER				Rigged down safely
Event	24	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	6/17/2014	05:30:40	USER				Job completed successfully by M. Dean & Crew

2.0 Custom Graphs

2.1 Custom Graph



3.0 Appendix

Insert Planned Pump Schedule from Proposal or actual Job Procedure built for job