

# HALLIBURTON

iCem<sup>®</sup> Service

## Post Job Report

**ANADARKO PETROLEUM CORP - EBUS**

**For: ALAN SEACREST**

Date: Friday, June 06, 2014

**Benson Farms 11N-19HZ Surface**

BENSON FARMS

Case 1

Sincerely,

**AARON SMITH**

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## 1.1 Executive Summary

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Halliburton appreciates the opportunity to perform the cementing services on the **Benson Farms 11N-19HZ** 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
<b>Called Out</b>	06/06	0100	MST
<b>On Location</b>		0545	
<b>Job Started</b>		0842	
<b>Job Completed</b>		1009	
<b>Departed Location</b>		1032	

## 1.2 Cementing Job Summary

<b>Sold To #:</b> 300466		<b>Ship To #:</b> 3475283		<b>Quote #:</b>		<b>Sales Order #:</b> 0901403994	
<b>Customer:</b> ANADARKO PETROLEUM CORP - EBUS				<b>Customer Rep:</b> Alan Seacrest			
<b>Well Name:</b> BENSON FARMS			<b>Well #:</b> 11N-19HZ		<b>API/UWI #:</b> 05-123-39398-00		
<b>Field:</b> WATTENBERG		<b>City (SAP):</b> MEAD		<b>County/Parish:</b> WELD		<b>State:</b> COLORADO	
<b>Legal Description:</b> NW SW-24-3N-68W-2105FSL-50FWL							
<b>Contractor:</b>				<b>Rig/Platform Name/Num:</b> Majors 42			
<b>Job BOM:</b> 7521							
<b>Well Type:</b> HORIZONTAL GAS							
<b>Sales Person:</b> HALAMERICA\HX46524				<b>Srvc Supervisor:</b> Aaron Smith			

### Job

<b>Formation Name</b>			
<b>Formation Depth (MD)</b>		<b>Top</b>	<b>Bottom</b>
<b>Form Type</b>		BHST	
<b>Job depth MD</b>		1232ft	<b>Job Depth TVD</b> 1232
<b>Water Depth</b>			<b>Wk Ht Above Floor</b> 5
<b>Perforation Depth (MD)</b>			<b>To</b>

### Well Data

	<b>New / Used</b>	<b>Size in</b>	<b>ID in</b>	<b>Weight lbm/ft</b>	<b>Thread</b>	<b>Grade</b>	<b>Top MD ft</b>	<b>Bottom MD ft</b>	<b>Top TVD ft</b>	<b>Bottom TVD ft</b>
Casing	3	9.625	8.921	36		J-55	0	1222	0	1222
Open Hole Section			13.5				0	1232	0	1232

### Tools and Accessories

<b>Type</b>	<b>Size in</b>	<b>Qty</b>	<b>Make</b>	<b>Depth ft</b>	<b>Type</b>	<b>Size in</b>	<b>Qty</b>	<b>Make</b>
Guide Shoe	9.625				Top Plug	9.625	1	HWE
Float Shoe	9.625	1	SSII	1222	Bottom Plug	9.625		HES
Float Collar	9.625	1	SSII	1181	SSR plug set	9.625		HES
Insert Float	9.625				Plug Container	9.625	1	HES
	9.625				Centralizers	9.625	10	HES

### Miscellaneous Materials

<b>Gelling Agt</b>	<b>Conc</b>	<b>Surfactant</b>	<b>Conc</b>	<b>Acid Type</b>	<b>Qty</b>
<b>Treatment Fld</b>	<b>Conc</b>		<b>Conc</b>	<b>Sand Type</b>	

### Fluid Data

<b>Stage/Plug #:</b> 1
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Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	Mud Flush III (Powder)	Mud Flush III	10	bbl	8.4				
42 gal/bbl									
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
2	Lead Cement	SWIFTCEM (TM) SYSTEM	461	sack	14.2	1.54		6	7.64
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	Displacement	Displacement	92	bbl	8.33				
		Amount	41 ft						
<b>Comment</b>									

## 1.4 Job Overview

		Units	Description
1	Surface temperature at time of job	°F	
2	Mud type (OBM, WBM, SBM, Water, Brine)	-	WBM
3	Actual mud density	lb/gal	
4	Actual mud Plastic Viscosity (PV)	cP	
5	Actual mud Yield Point (YP)	lb <sub>f</sub> /100ft <sup>2</sup>	
6	Actual mud 30 min Gel Strength	lb <sub>f</sub> /100ft <sup>2</sup>	
7	Time circulated before job	HH:MM	
8	Mud volume circulated	Bbls	
9	Rate at which well was circulated	Bpm	
10	Pipe movement during hole circulation	Y/N	N
11	Rig pressure while circulating	Psi	
12	Time from end mud circulation to start of job	HH:MM	
13	Pipe movement during cementing	Y/N	N
14	Calculated displacement	Bbls	
15	Job displaced by	Rig/HES	
16	Annular flow before job	Y/N	N
17	Annular flow after job	Y/N	N
18	Length of rat hole	Ft	
19	Units of gas detected while circulating	Units	
20	Was lost circulation experienced at any time?	Y/N	N

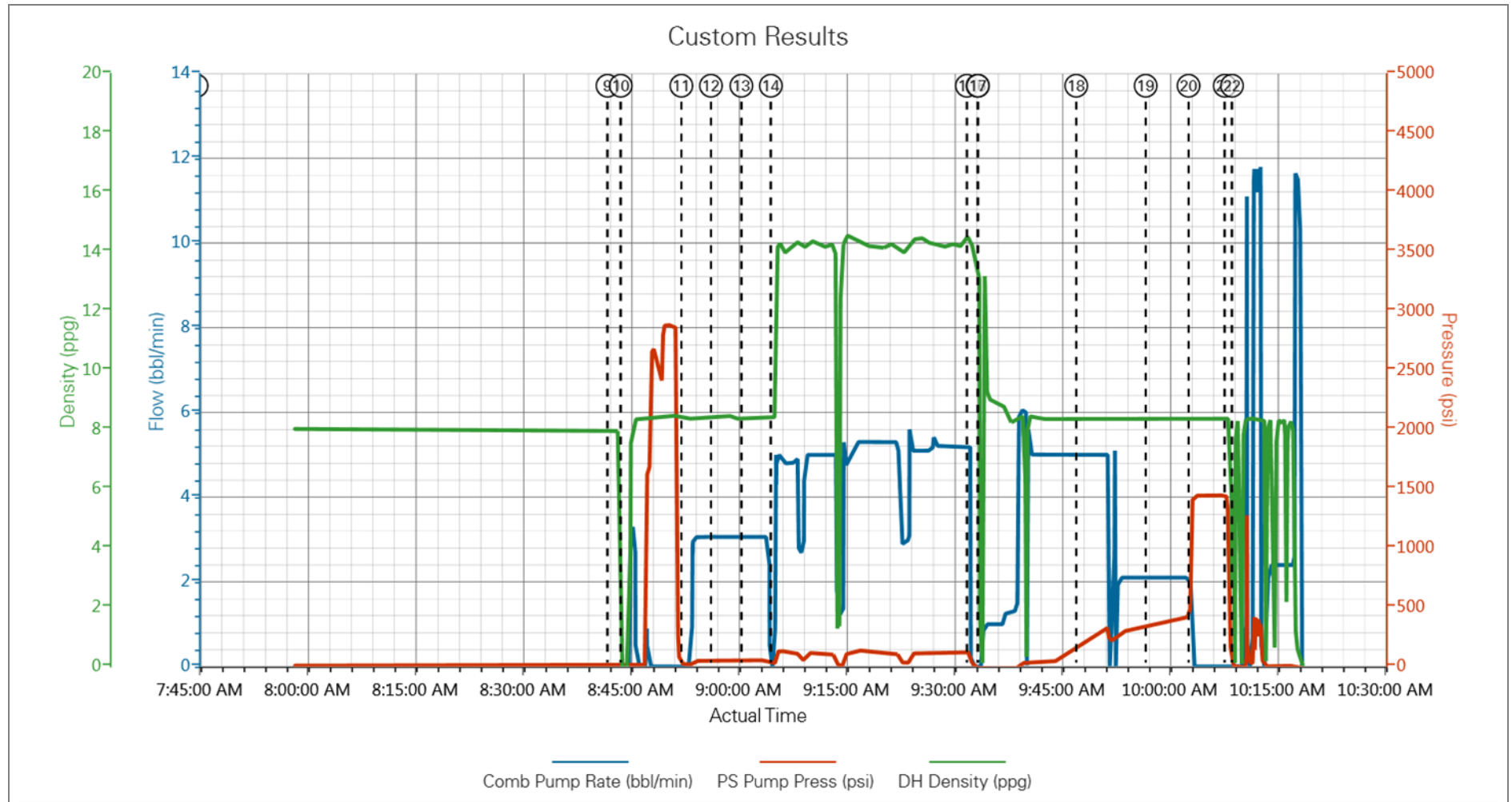
## 1.5 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	DH Density (ppg)	Comment
Event	1	Depart from Service Center or Other Site	Depart from Service Center or Other Site	6/6/2014	05:20:00	USER				
Event	2	Arrive at Location from Service Center	Arrive at Location from Service Center	6/6/2014	05:45:00	USER				WITH ALL EQUIPMENT AND MATERIALS
Event	3	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	6/6/2014	06:00:00	USER				
Event	4	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	6/6/2014	06:05:00	USER				RIG-UP JSA WITH HES CREW
Event	5	Rig-Up Equipment	Rig-Up Equipment	6/6/2014	06:10:00	USER				
Event	6	Rig-Up Completed	Rig-Up Completed	6/6/2014	06:25:00	USER				
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	6/6/2014	06:41:05	USER				WITH CUSTOMER REP AND RIG CREW
Event	8	Casing on Bottom	Casing on Bottom	6/6/2014	07:45:00	USER				
Event	9	Start Job	Start Job	6/6/2014	08:42:11	COM7	0.00	5.00	7.98	
Event	10	Test Lines	Test Lines	6/6/2014	08:44:01	COM7	0.00	3.00	-0.33	@ 2500 PSI
Event	11	Pump Spacer 1	Pump Spacer 1	6/6/2014	08:52:27	COM7	0.00	15.00	8.28	10 BBLS FRESH WATER
Event	12	Pump Spacer 2	Pump Spacer 2	6/6/2014	08:56:34	COM7	3.10	49.00	8.42	12 BBLS MUD FLUSH
Event	13	Pump Spacer 1	Pump Spacer 1	6/6/2014	09:00:48	COM7	3.10	51.00	8.37	10 BBLS FRESH WATER
Event	14	Pump Cement	Pump Cement	6/6/2014	09:04:54	COM7	0.00	19.00	8.40	126 BBLS/461 SKS, @ 14.2 PPG, 1.54 YIELD, 7.64 GAL/SK
Event	15	Shutdown	Shutdown	6/6/2014	09:32:11	COM7	0.20	97.00	14.49	
Event	16	Drop Top Plug	Drop Top Plug	6/6/2014	09:33:39	COM7	0.00	-12.00	0.21	PRE-LOADED HWE TOP PLUG IN PLUG CONTAINER
Event	17	Pump Displacement	Pump Displacement	6/6/2014	09:33:44	COM7				92 BBLS FRESH WATER
Event	18	Other	Spacer Returns to Surface	6/6/2014	09:47:24	COM7	5.00	174.00	8.36	47 BBLS DISPLACEMENT 32 TOSURFACE
Event	19	Other	Cement Returns to Surface	6/6/2014	09:57:04	COM7				79 BBLS DISPLACEMENT 13 BBLS TO SURFACE
Event	20	Bump Plug	Bump Plug	6/6/2014	10:03:02	COM7				FINAL CIRCULATING PRESSURE 416 PSI

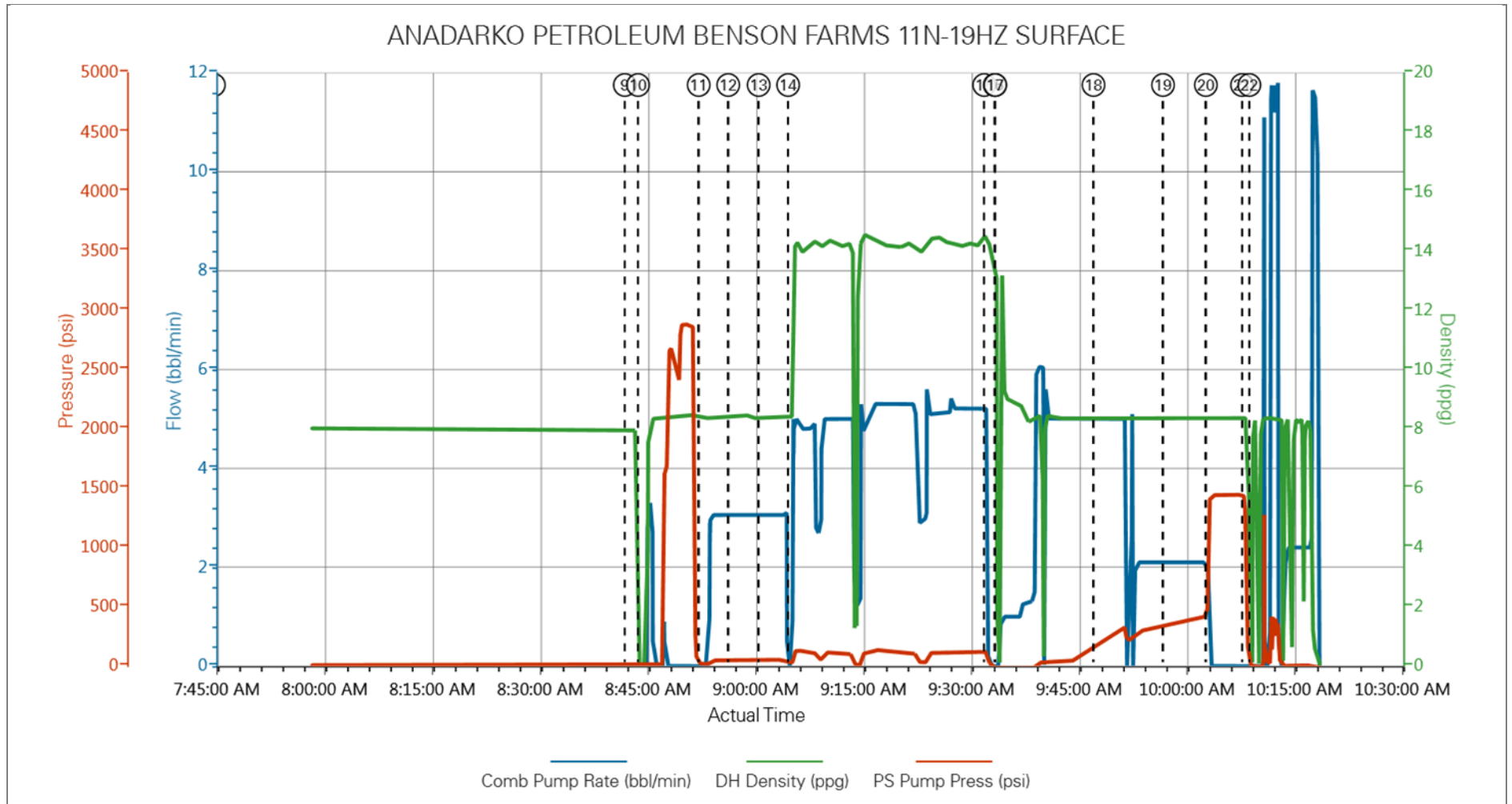
Event	21	Check Floats	Check Floats	6/6/2014	10:08:05	USER	0.00	1059.00	8.34	FLOATS HELD .5 BBLS BACK
Event	22	End Job	End Job	6/6/2014	10:09:05	COM7	0.00	-12.00	8.09	THANKS AARON SMITH AND CREW
Event	23	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	6/6/2014	10:32:20	USER				

## 2.0 Custom Graphs

### 2.1 Custom Graph



2.2 Custom Graph



3.0 Appendix

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