

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

Pettinger 4C-18HZ

Majors 42

## **Post Job Summary** **Cement Surface Casing**

Date Prepared: 11/17/2013  
Version: 1

Service Supervisor: LAVALLEY, LARRY

Submitted by: TRIER, DEREK

**HALLIBURTON**

# HALLIBURTON

## Wellbore Geometry

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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	1,196.00	43.00
Open Hole Section	13 1/2" Open Hole Section		13.500		0.00	1,078.00	0.00

# HALLIBURTON

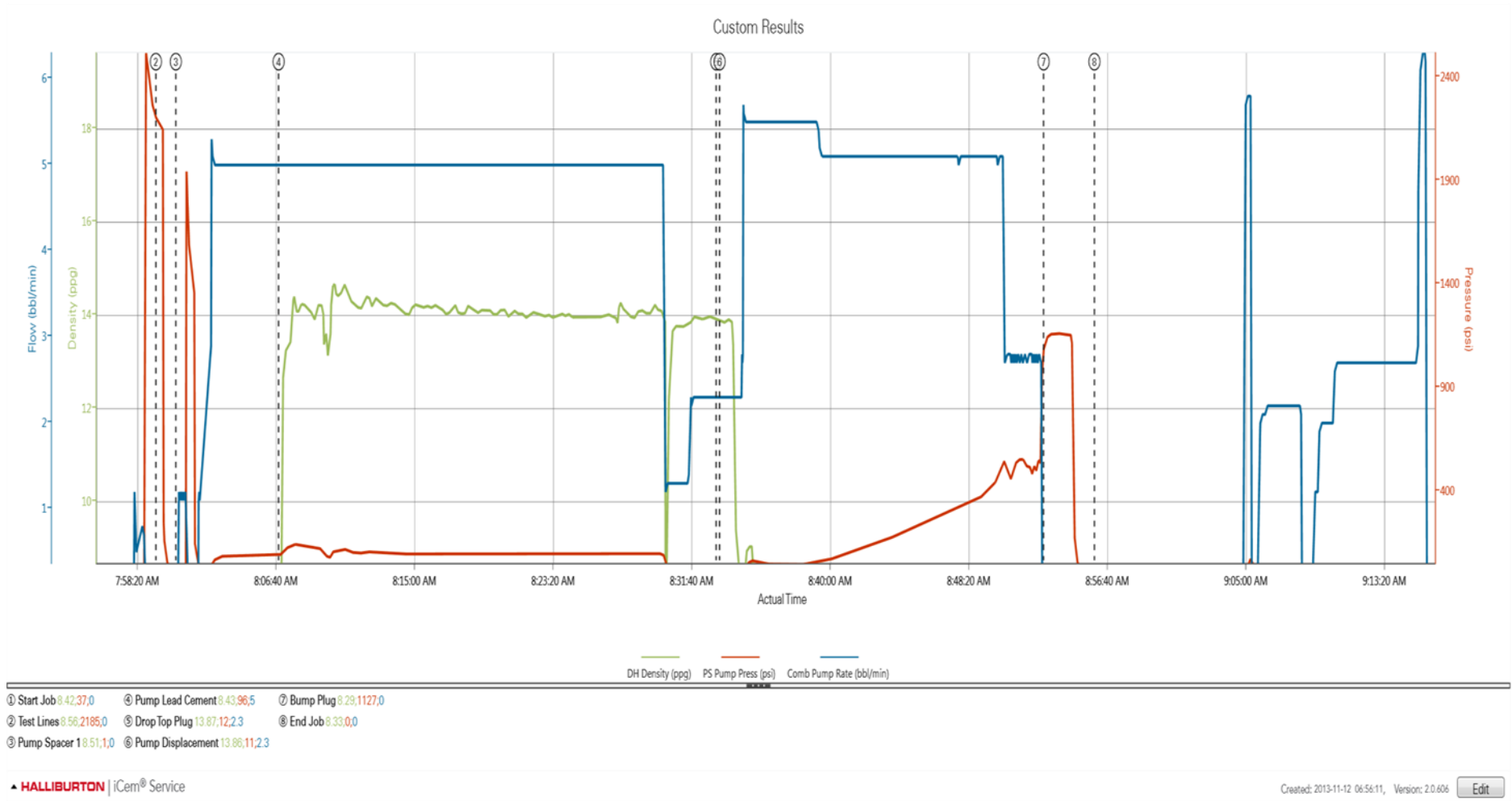
## ***Pumping Schedule***

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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	430.0 sacks	430.0 sacks

# HALLIBURTON

## Data Acquisition



# HALLIBURTON

## Service Supervisor Reports

### Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump		Pressure (psig)		Comments
11/12/2013 00:32		Call Out							CREW CALLED AT 02:00 AM
11/12/2013 06:30		Arrive at Location from Service Center							
11/12/2013 06:35		Assessment Of Location Safety Meeting							HAZARD HUNT ON LOCATION
11/12/2013 07:50		Safety Meeting - Pre Job							
11/12/2013 07:59		Start Job							
11/12/2013 07:59		Test Lines					2185.0		FRESH WATER WITH NO ADDITIVES
11/12/2013 08:00		Pump Spacer 2	5	20			96.0		FRESH WATER WITH NO ADDITIVES
11/12/2013 08:06		Pump Lead Cement	5	117			96.0		430 SKS SWIFTCEM B2 MIXED @ 14.2 PPG YIELD 1.53 FT3/FT AND 7.66GAL/SK. VERIFIED BY PRESSURIZED SCALES
11/12/2013 08:32		Shutdown							
11/12/2013 08:33		Drop Top Plug							PRELOADED HWE TOP PLUG
11/12/2013 08:33		Pump Displacement	5	89			590.0		FRESH WATER WITH NO ADDITIVES. CAUGHT CEMENT @ 35 BBLS AWAY AND SPACER RETURNED TO SURFACE @ 27 BBLS AWAY AND 12 BBLS CEMENT BACK TO SURFACE
11/12/2013 08:52		Bump Plug	3				1123.0		CALCULATED PRESSURE TO LAND WAS 212 AND PRESSURE TO LIFT WAS 238 PSI
11/12/2013 08:54		Other							FLOATS HELD AND GOT 1 BBLS BACK.
11/12/2013 08:55		End Job							HELD SAFETY MEETING TO RIG DOWN AND DEPART LOCATION

### The Road to Excellence Starts with Safety

<b>Sold To #:</b> 300466	<b>Ship To #:</b> 3117349	<b>Quote #:</b>	<b>Sales Order #:</b> 900879743
<b>Customer:</b> ANADARKO PETROLEUM CORP - EBUS		<b>Customer Rep:</b> PORTER, BOB	
<b>Well Name:</b> Pettinger		<b>Well #:</b> 4C-148HZ	<b>API/UWI #:</b> 05-123-38020
<b>Field:</b> WATTENBERG	<b>City (SAP):</b> BRIGHTON	<b>County/Parish:</b> Weld	<b>State:</b> Colorado
<b>Lat:</b> N 40.045 deg. OR N 40 deg. 2 min. 41.604 secs.		<b>Long:</b> W 104.712 deg. OR W -105 deg. 17 min. 15.238 secs.	
<b>Contractor:</b> Majors		<b>Rig/Platform Name/Num:</b> Majors42	
<b>Job Purpose:</b> Cement Surface Casing			
<b>Well Type:</b> Development Well		<b>Job Type:</b> Cement Surface Casing	
<b>Sales Person:</b> GREGORY, JON		<b>Srvc Supervisor:</b> LAVALLEY, LARRY	<b>MBU ID Emp #:</b> 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
10246780C	5 mile	10988836	5 mile	11488570C	5 mile	11518549	5 mile

### Job

### Job Times

Formation Name	Formation Depth (MD)	Top	Bottom	Form Type	Job depth MD	Job Depth TVD	Water Depth	Perforation Depth (MD)	From	To	Called Out	Date	Time	Time Zone
				BHST	1206. ft	1206. ft						11 - Nov - 2013	23:00	MST
											On Location	12 - Nov - 2013	06:30	MST
											Job Started	12 - Nov - 2013	08:00	MST
											Job Completed	12 - Nov - 2013	09:00	MST
											Departed Loc	12 - Nov - 2013	09:45	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				.	1078.		
9 5/8" Surface Casing	Unknown		9.625	8.921	36.		J-55	.	1196.		

### Sales/Rental/3<sup>rd</sup> 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		
Description	Qty	Qty uom	Depth	Supplier
KIT,HALL WELD-A	1	EA		
CNTRLZR, 9 5/8"x13 3/4',#500-0963-1375	9	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		

Summit

Sunday, November 17, 2013 15:49:00

Version:

Fluid Data									
Stage/Plug #: 1									
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft <sup>3</sup> /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	SWIFTCM (TM) SYSTEM (452990)	430.0	sacks	14.2	1.53	7.63	5.0	7.63
7.63 Gal		FRESH WATER							
Calculated Values		Pressures		Volumes					
Displacement	89	Shut In: Instant		Lost Returns	0	Cement Slurry		Pad	
Top Of Cement		5 Min		Cement Returns	12.0	Actual Displacement	89	Treatment	
Frac Gradient		15 Min		Spacers	32.0	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					

