

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

Grenemyrer 13N-3HZ

**Majors 41**

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

Prepared for:  
Date Prepared: 11/19/2013  
Version: 1

Service Supervisor: PICKELL, CHRISTOPHER

Submitted by: FINNEY, SEAN

**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	1,068.00	43.00
Open Hole Section	13 1/2" Open Hole Section		13.500		0.00	1,078.00	0.00

# HALLIBURTON

## 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	2.00	10.0 bbl	10.0 bbl
1	2	Spacer	Mud Flush	8.40	2.00	12.0 bbl	12.0 bbl
1	1	Spacer	Fresh Water Spacer	8.33	3.00	10.0 bbl	10.0 bbl
1	3	Cement Slurry	SwiftCem B2	14.20	5.00	406.0 sacks	406.0 sacks

## Fluids Pumped

**Stage/Plug # 1      Fluid 1:**      Fresh Water Spacer  
DUMMY MUD / FLUSH / SPACER SBC MATERIAL

Fluid Density: 8.33 lbm/gal  
Fluid Volume: 10.00 bbl  
Pump Rate: 2.00 bbl/min

**Stage/Plug # 1      Fluid 2:**      Mud Flush  
DUMMY MUD / FLUSH / SPACER SBC MATERIAL  
3.5 lbm/bbl      Mud Flush III  
42 gal/bbl      Mud Flush III

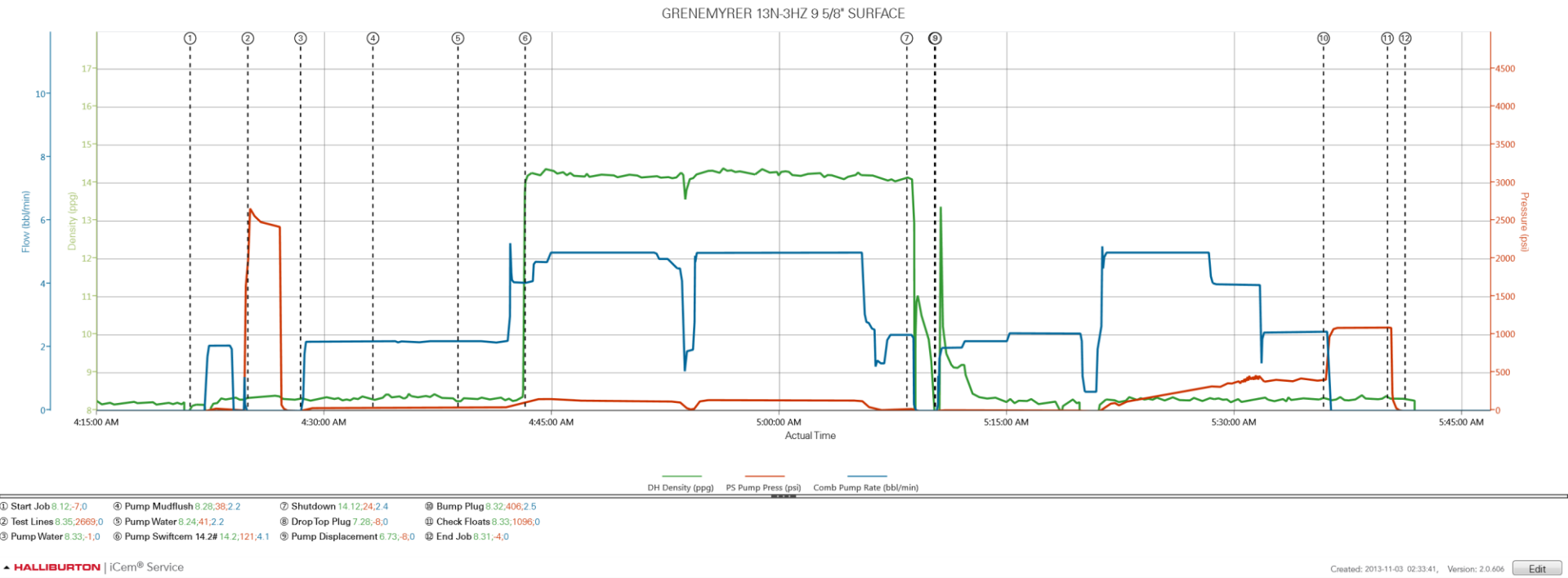
Fluid Density: 8.40 lbm/gal  
Fluid Volume: 12.00 bbl  
Pump Rate: 2.00 bbl/min

**Stage/Plug # 1      Fluid 3:**      SwiftCem B2  
SWIFTCM (TM) SYSTEM

Fluid Weight: 14.20 lbm/gal  
Slurry Yield: 1.53 ft<sup>3</sup>/sack  
Total Mixing Fluid: 7.63 Gal  
Surface Volume: 406.0 sacks  
Sacks: 406.0 sacks  
Calculated Fill: 900.00 ft  
Calculated Top of Fluid: 0.00 ft

# HALLIBURTON

## Data Acquisition



# HALLIBURTON

## Service Supervisor Reports

### Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump		Pressure (psig)		Comments
11/02/2013 21:00		Call Out							CREW CALLED OUT TO AT 2100 TO BE ON LOCATION AT 0000. CREW WAS PICKELL, JEWELL, SIMMONS. CREW WAS ON ANOTHER JOB AT TIME OF CALL OUT.
11/03/2013 01:25		Depart from Service Center or Other Site							LEAVE MAJOR 42 FOR MAJOR 41. SIMMONS SENT BACK TO GET BULK TRUCK AND MUDFLUSH
11/03/2013 01:30		Arrive At Loc							ARRIVE AT LOCATION 1.5 HOURS LATE. RIG STILL RUNNING CASING
11/03/2013 01:40		Rig-Up Equipment							SET UP RAIN FOR RENT CONTAINMENT. SPOT IN PUMP TRUCK AND RIG UP LINES. BULK TRUCK ARRIVED AT 0215
11/03/2013 03:45		Pre-Job Safety Meeting							SAFETY MEETING WITH ALL PERSONEL ON LOCATION TO DISCUSS JOB SAFETY AND PROCEDURE
11/03/2013 04:21		Start Job							QUICK LATCH PLUG CONTAINER USED ON JOB
11/03/2013 04:25		Test Lines	1	3				2500.0	PRESSURE TEST LINES TO 2500 PSI. CHECK FOR VISIBLE LEAKS AND PRESSURE LOSS
11/03/2013 04:28		Pump Spacer 1	2	10				45.0	PUMP WATER. RETURNS BEGAN WITH 1 BBL AWAY
11/03/2013 04:33		Pump Spacer 2	2	12				55.0	PUMP MUDFLUSH
11/03/2013 04:38		Pump Spacer 1	3	10				70.0	PUMP WATER
11/03/2013 04:43		Pump Cement	5	111.4				160.0	PUMP SWIFCEM CEMENT 406 SKS 14.2 PPG 1.54 CUFT/SK 7.67 GAL/SK
11/03/2013 05:08		Shutdown							WASH PUMPS AND LINES ON TOP OF THE PLUG
11/03/2013 05:10		Drop Top Plug							PLUG PRELOADED. WITNESSED BY COMPANY MAN
11/03/2013 05:10		Pump Displacement	5	79.4				450.0	PUMP DISPLACEMENT USING WATER
11/03/2013 05:36		Bump Plug	2.5					406.0	CALCULATED PRESSURE TO LAND WAS 312. PLUG LANDED WITH 406 PSI GOING 500 PSI OVER
11/03/2013 05:40		Check Floats						1096.0	PRESSURE WAS HELD FOR 4 MINUTES THEN RELEASED. FLOATS HELD. 1/2 BBL BACK TO TANKS
11/03/2013 05:41		End Job							17 BBL OF CEMENT BACK TO SURFACE
11/03/2013 05:45		Pre-Rig Down Safety Meeting							SAFETY MEETING TO DISCUSS RIG DOWN
11/03/2013 05:50		Rig-Down Equipment							BLOW OUT LINES. RIG DOWN ALL EQUIPMENT. NO SPILLS
11/03/2013 07:00		Depart Location for Service Center or Other Site							LEAVE LOCATION FOR THE YARD

## The Road to Excellence Starts with Safety

Sold To #: 300466	Ship To #: 3195805	Quote #:	Sales Order #: 900868053
Customer: ANADARKO PETROLEUM CORP - EBUS		Customer Rep: Seacrest, Allen	
Well Name: Grenemyrer		Well #: 13N-3HZ	API/UWI #:
Field: WATTENBERG	City (SAP): BRIGHTON	County/Parish: Weld	State: Colorado
Contractor: Majors		Rig/Platform Name/Num: Majors 41	
Job Purpose: Cement Surface Casing			
Well Type: Development Well		Job Type: Cement Surface Casing	
Sales Person: PLIENESS, RYAN	Srv Supervisor: PICKELL, CHRISTOPHER		MBU ID Emp #: 396838

## Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
JEWELL, WILLIAM Uris	0.0	503358	PICKELL, CHRISTOPHER Lee	0.0	396838	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
10866493C	7 mile	11605597	7 mile	11645063	7 mile	11667703C	7 mile

## Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
TOTAL			Total is the sum of each column separately					

## Job

## Job Times

Formation Name						Date	Time	Time Zone
Formation Depth (MD)	Top		Bottom		Called Out	02 - Nov - 2013	21:00	MST
Form Type			BHST		On Location	03 - Nov - 2013	01:30	MST
Job depth MD	1078. ft		Job Depth TVD	1078. ft	Job Started	03 - Nov - 2013	04:21	MST
Water Depth			Wk Ht Above Floor	5. ft	Job Completed	03 - Nov - 2013	05:41	MST
Perforation Depth (MD)	From		To		Departed Loc	03 - Nov - 2013	07:00	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	.	1068.		

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		
KIT,HALL WELD-A	1	EA		
CNTRLZR, 9 5/8"x13 3/4',#500-0963-1375	6	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		
Description	Qty	Qty uom	Depth	Supplier

COLLAR-STOP-9 5/8"-FRICTION-HINGED					2	EA			
Fluid Data									
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			2.0	
2	Mud Flush		12.00	bbl	8.4			3.0	
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			3.0	
3	SwiftCem B2	SWIFTCEN (TM) SYSTEM (452990)	406.0	sacks	14.2	1.53	7.63	5.0	7.63
7.63 Gal		FRESH WATER							
Calculated Values			Pressures		Volumes				
Displacement		Shut In: Instant		Lost Returns		Cement Slurry		Pad	
Top Of Cement		5 Min		Cement Returns		Actual Displacement		79.4	Treatment
Frac Gradient		15 Min		Spacers		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					

