

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

Howard 9C-22HZ

**Xtreme 24**

## **Post Job Summary** **Cement Production Liner**

Prepared for:  
Date Prepared: 12/8/2013  
Version: 1

Service Supervisor: MCBRIDE, NATHAN

Submitted by: FINNEY, SEAN

**HALLIBURTON**

# HALLIBURTON

## Wellbore Geometry

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Job Tubulars					MD		TVD	
Type	Description	Size in	ID in	Wt lbm/ft	Top ft	Bottom ft	Top ft	Bottom ft
Casing	7' Intermediate Casing	7.00	6.276	26.00	0.00	7,885.00	0.00	7,003.00
Open Hole Section	6 1/8" Open Hole		6.125		7,885.00	14,786.00	7,003.00	7,003.00
Casing	4 1/2" Production Liner	4.50	4.000	11.60	6,377.00	14,786.00	7,003.00	7,003.00
Drill Pipe	4" Drill Pipe	4.00	3.340	14.00	0.00	6,719.00		

# 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	TUNED SPACER III	11.50	4.00	40.0 bbl	40.0 bbl
1	2	Cement Slurry	ExpandaCem	13.80	4.80	520.0 sacks	520.0 sacks

## ***Fluids Pumped***

**Stage/Plug # 1      Fluid 1:**      TUNED SPACER III  
TUNED SPACER III - SBM (483826)  
148.725    Barite  
lbm/bbl

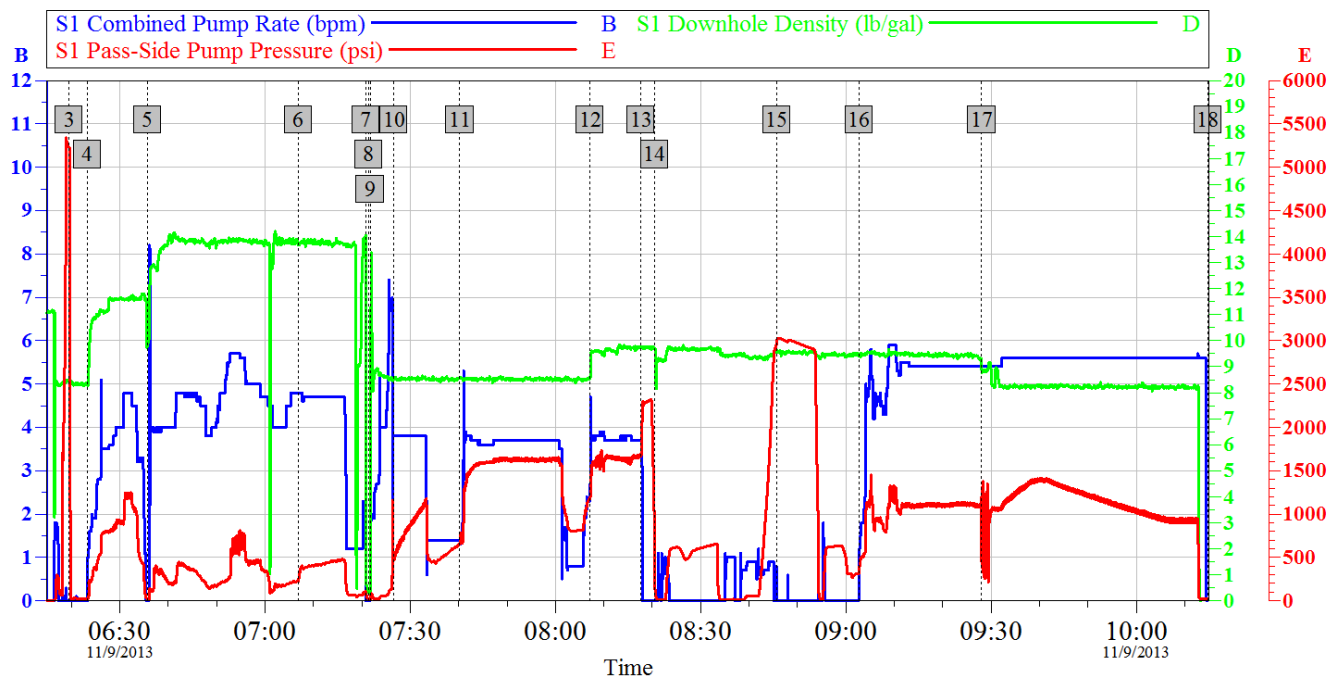
Fluid Density:    11.50 lbm/gal  
Fluid Volume:    40.00 bbl  
Pump Rate:       4.00 bbl/min

**Stage/Plug # 1      Fluid 2:**      ExpandaCem  
EXPANDACEM (TM) SYSTEM

Fluid Weight:    13.80 lbm/gal  
Slurry Yield:     1.68 ft<sup>3</sup>/sack  
Total Mixing Fluid: 7.73 Gal  
Calculated Fill:    5,410.00 ft  
Calculated Top of Fluid: 6,519.00 ft

# HALLIBURTON

## Data Acquisition



### Global Event Log

3	Test Lines	06:19:34	4	Pump Spacer 1	06:23:20	5	Pump Cement	06:35:47
6	Spacer in Annulus	07:06:53	7	Shutdown	07:20:48	8	Drop Plug	07:21:27
9	Sugar Water Displacement	07:21:45	10	Displ Reached Cmmt	07:26:40	11	Pick Up Casing Wiper Plug	07:40:14
12	Mud Displacement	08:07:11	13	Bump Plug	08:17:42	14	Check Floats	08:20:30
15	Test Liner	08:45:38	16	Roll Liner Top With Mud	09:02:40	17	Fresh Water	09:28:02
18	Ending Job	10:14:43						

Customer: Anadarko  
Well Description: Howard 9C-22HZ

Job Date: 09-Nov-2013  
Job Type: Liner

Sales Order #: 900887520  
Supervisor: McBride

OptiCem v6.4.10  
09-Nov-13 10:30

# HALLIBURTON

## Service Supervisor Reports

### Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump		Pressure (psig)	Comments
11/08/2013 16:00		Arrive at Location from Service Center						Rig Picking up Liner hanger and Preparing to run in collars and DP
11/08/2013 16:05		Assessment Of Location Safety Meeting						Meet With Customer and Tool hand to discuss Job
11/08/2013 18:00		Pre-Rig Up Safety Meeting						Ran to yard to get additional iron needed for job
11/08/2013 22:00		Rig-Up Equipment						Rig up as far as possible without impeding rig operations
11/08/2013 23:00		Rig-Up Completed						
11/09/2013 04:00		Casing on Bottom						
11/09/2013 04:05		Circulate Well						
11/09/2013 05:30		Pre-Job Safety Meeting						
11/09/2013 06:15		Start Job						
11/09/2013 06:16		Pump Water	2	2			120.0	
11/09/2013 06:19		Test Lines					4989.0	
11/09/2013 06:23		Pump Spacer	4	40			720.0	TSIII @ 11.5ppg.
11/09/2013 06:35		Pump Cement	4.8	155			215.0	520sks @ 13.8ppg, 1.68yield, 7.73gal/sk
11/09/2013 07:20		Shutdown						
11/09/2013 07:21		Drop Top Plug						
11/09/2013 07:21		Pump Displacement	4	10			58.0	Sugar Water
11/09/2013 07:25		Pump Displacement	4	125			1597.0	Fresh Water
11/09/2013 07:40		Comment						Pick Up Casing Wiper Plug
11/09/2013 07:41		Comment						Resume Displacing With Fresh Water
11/09/2013 08:07		Pump Displacement	3.8				1561.0	Mud Displacement
11/09/2013 08:17		Bump Plug					1691.0	500 PSI Over
11/09/2013 08:20		Check Floats						
11/09/2013 08:25		Set Packer						
11/09/2013 08:45		Pressure Up Annulus						Test Packer 3005beggining 2900psi end after 5 minutes
11/09/2013 09:02		Circulate Well	5.5				1100.0	Circulate Liner Top With Mud
11/09/2013 09:25		Cement Returns to Surface						15bbl
11/09/2013 09:28		Circulate Well	5.6				1140.0	Roll Hole with FW
11/09/2013 09:32		Spacer Returns to Surface						40bbls Spacer to Surface
11/09/2013 10:15		End Job						Thanks McBride and Crew

### The Road to Excellence Starts with Safety

Sold To #: 300466	Ship To #: 3111084	Quote #:	Sales Order #: 900887520
Customer: ANADARKO PETROLEUM CORP - EBUS		Customer Rep: Stewart, Vern	
Well Name: Howard		Well #: 9C-22HZ	API/UWI #: 05-123-38234
Field: WATTENBERG	City (SAP): DACONO	County/Parish: Weld	State: Colorado
Lat: N 40.017 deg. OR N 40 deg. 1 min. 1.693 secs.		Long: W 104.87 deg. OR W -105 deg. 7 min. 46.333 secs.	
Contractor: Xtreme		Rig/Platform Name/Num: Xtreme 24	
Job Purpose: Cement Production Liner			
Well Type: Development Well		Job Type: Cement Production Liner	
Sales Person: PLIENESS, RYAN		Srvc Supervisor: MCBRIDE, NATHAN	MBU ID Emp #: 313810

### Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
CHISLUM, DENNIS	20.0	512130	HINKLE, BRADLEY Dean	20.0	512123	MCBRIDE, NATHAN Charles	20.0	313810

### Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10822531C	15 mile	10866497C	15 mile	11410470C	15 mile	11562570C	15 mile
11633848	15 mile	12010170	15 mile				

### Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
<b>TOTAL</b>			Total is the sum of each column separately					

### Job

### Job Times

Formation Name					Date				Time	Time Zone	
Formation Depth (MD)	Top			Bottom			Called Out	08 - Nov - 2013	10:30	MST	
Form Type				BHST				On Location	08 - Nov - 2013	15:30	MST
Job depth MD	14889. ft			Job Depth TVD		7003. ft		Job Started	09 - Nov - 2013	06:15	MST
Water Depth				Wk Ht Above Floor				Job Completed	09 - Nov - 2013	10:15	MST
Perforation Depth (MD)	From			To			Departed Loc	09 - Nov - 2013	12:00	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
6 1/8" Open Hole				6.125				7885.	14786.	7003.	7003.
4 1/2" Production Liner	Unknown		4.5	4.	11.6		HCP110	6377.	14786.	7003.	7003.
7' Intermediate Casing	New		7.	6.276	26.		HCP110	.	7885.	.	7003.
4" Drill Pipe	Unknown		4.	3.34	14.			.	6719.		

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	TUNED SPACER III	TUNED SPACER III - SBM (483826)	40.00	bbl	11.5	7.21	53.96	4.0		
36.09 gal/bbl		FRESH WATER								
148.725 lbm/bbl		BARITE, 100 LB SK (100003680)								
2	ExpandaCem	EXPANDACEM (TM) SYSTEM (452979)	520.0	sacks	13.8	1.68	7.73	4.8	7.73	
7.73 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		Treatment		
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job		
Rates										
Circulating		Mixing		Displacement		Avg. Job				
Cement Left In Pipe		Amount	0 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						

