

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

NRC 28N-8HZ

Majors 42

Post Job Summary **Cement Surface Casing**

Date Prepared: 5/30/2014
Version: 1

Service Supervisor: BIRCHELL, DEVIN

Submitted by: PRUDHOMME, JOSHUA

HALLIBURTON

Wellbore Geometry

Job Tubulars					MD	Shoe Joint Length ft
Type	Description	Size in	ID in	Wt lbm/ft	Bottom ft	
Casing	9 5/8" Surface Casing	9.63	8.921	36.00	1,061.00	44.00
Open Hole Section	13 1/2" Open Hole Section		13.500		1,063.00	0.00

HALLIBURTON

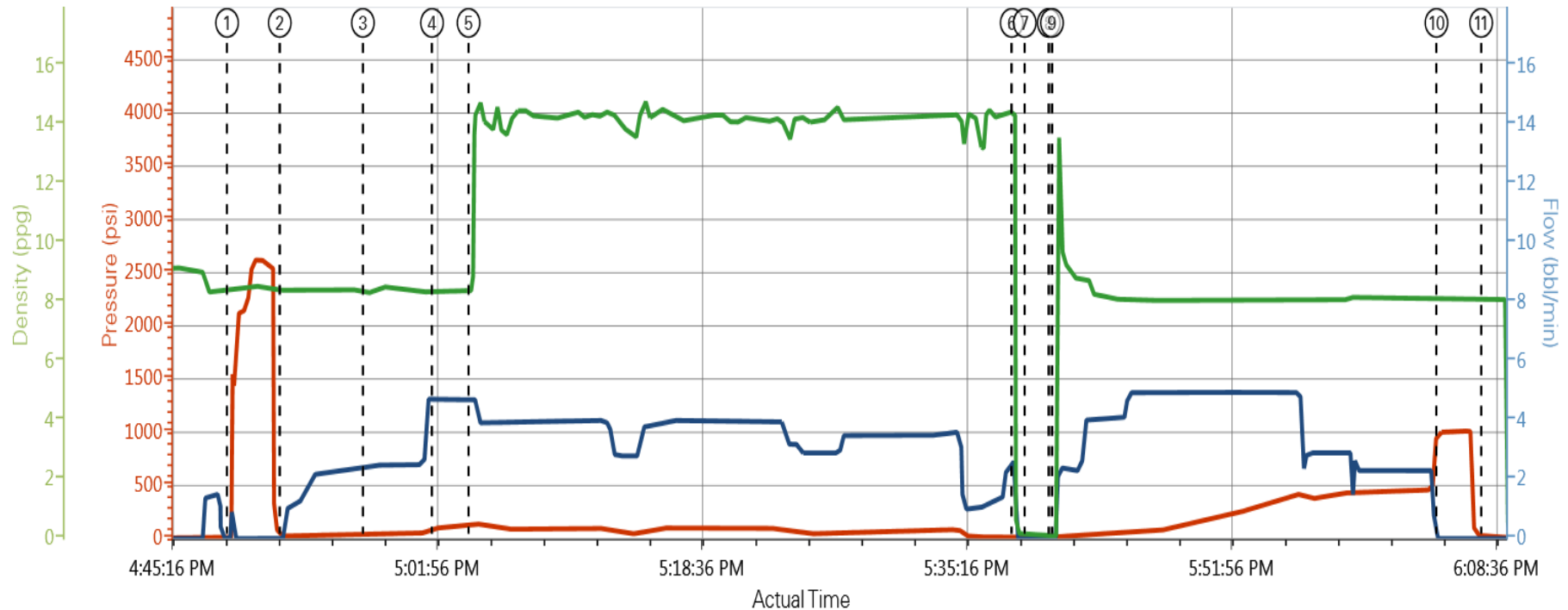
Pumping Schedule

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	2.0	10.0 bbl	10.0 bbl
1	2	Spacer	Mud Flush	8.40	2.5	12.0 bbl	12.0 bbl
1	1	Spacer	Fresh Water Spacer	8.33	4.5	10.0 bbl	10.0 bbl
1	3	Cement Slurry	SwiftCem B2	14.20	4	441.0 sacks	441.0 sacks

HALLIBURTON

Data Acquisition

Anadarko NRC 28N-8HZ



- | | | | |
|-----------------------------|---------------------------------|------------------------------|------------------------|
| ① Test Lines 12;0;8.41 | ④ Pump Spacer 1 97;4.7;8.41 | ⑦ Clean Lines 13;0;0.09 | ⑩ Bump Plug 1000;0;8.1 |
| ② Pump Spacer 1 19;0;8.37 | ⑤ Pump Lead Cement 112;4.7;8.44 | ⑧ Drop Top Plug 13;0;0.06 | ⑪ End Job 16;0;8.11 |
| ③ Pump Spacer 2 46;2.4;8.29 | ⑥ Shutdown 27;0;0.77 | ⑨ Pump Displacement 14;0;0.1 | |

HALLIBURTON

Service Supervisor Reports

Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump	Pressure (psig)	Comments
03/04/2014 10:00		Call Out					Called out for Noble Energy No Worries PC G14-62-1HN Intermediate
03/04/2014 14:20		Pre-Convoy Safety Meeting					Discuss road and weather conditions, fatigue and following distance
03/04/2014 14:30		Depart from Service Center or Other Site					Call journey management, Depart for location
03/04/2014 15:00		Arrive At Loc					Close journey, talk with company rep on volumes, rates, and depth, rig still running casing
03/04/2014 15:10		Pre-Rig Up Safety Meeting					Discussed rig up, line of fire, slips, and pinch points
03/04/2014 15:20		Rig-Up Equipment					Rig up ground line, and suction hoses
03/04/2014 16:00		Casing on Bottom					Casing on bottom rig will circulate until HES is rigged up
03/04/2014 16:30		Pre-Job Safety Meeting					Discuss pump schedule, procedure, high pressure iron, and emergency plan
03/04/2014 16:45		Other					Stop circulating rigged up cement head and tied into stand pipe
03/04/2014 16:47		Other					filled lines to pressure test pump and lines
03/04/2014 16:49		Pressure Test					Pressure test pump and lines to 3160 psi held for 2 minutes
03/04/2014 16:52		Pump Spacer	2.5	10		48.0	Pump 10 bbls Fresh Water Spacer
03/04/2014 16:57		Pump Spacer 1	2.5	12		50.0	Pump 12 bbls Mud Flush III Spacer
03/04/2014 17:01		Pump Spacer 2	5	10		104.0	Pump 10 bbls Fresh Water Spacer
03/04/2014 17:04		Pump Lead Cement	4	121		104.0	Pump cement at 14.2 ppg Y: 1.54ft ³ /sk W: 7.66gal/sk (441sks)
03/04/2014 17:38		Shutdown					Shutdown to drop top plug
03/04/2014 17:41		Drop Top Plug					Dropped top plug, washed pump and lines on plug
03/04/2014 17:41		Pump Displacement - Start	3				Pump displacement 91.6 bbls water
03/04/2014 17:42		Returns To Surface	3	4			Returns seen at surface with 4 bbls displacement away
03/04/2014 17:48		Displ Reached Cmmt	5	30		105.0	displacement reached cement with 30 bbls away
03/04/2014 17:52		Spacer Returns to Surface	5	52		240.0	With 52 bbls displacement away spacer returns to surface (32 bbls)
03/04/2014 17:59		Cement Returns to Surface	3	81		421.0	With 81 bbls displacement away cement returns to surface (10 bbls)
03/04/2014 18:05		Bump Plug	2	91		460.0	Bumped plug with 91 bbls with 460 psi took pressure to 1005 psi
03/04/2014 18:07		Check Floats					Checked floats, floats held with .5 bbls back to truck
03/04/2014 18:07		Release Casing Pressure					Released pressure ready for rig down
03/04/2014 18:10		Pre-Rig Down Safety Meeting					Discussed trapped pressure, slips, trips, falls, and overhead loads
03/04/2014 18:15		Rig-Down Equipment					Begin rigging down all iron and suction hoses
03/04/2014 18:40		Pre-Convoy Safety Meeting					Discussed fatigue, wildlife, weather, and journey management
03/04/2014 18:50		Depart Location for Service Center or Other Site					Depart for Halliburton Service Center

The Road to Excellence Starts with Safety

Sold To #: 300466	Ship To #: 3354719	Quote #:	Sales Order #: 901168109
Customer: ANADARKO PETROLEUM CORP - EBUS		Customer Rep: Case, Randy	
Well Name: NRC		Well #: 28N-8HZ	API/UWI #: 05-123-38947
Field: WATTENBERG	City (SAP): IONE	County/Parish: Weld	State: Colorado
Lat: N 40.059 deg. OR N 40 deg. 3 min. 33.484 secs.		Long: W 104.916 deg. OR W -105 deg. 5 min. 3.037 secs.	
Contractor: Majors		Rig/Platform Name/Num: Majors 42	
Job Purpose: Cement Surface Casing			
Well Type: Development Well		Job Type: Cement Surface Casing	
Sales Person: GREGORY, JON	Srvc Supervisor: BIRCHELL, DEVIN		MBU ID Emp #: 466993

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BARNES, BRIAN L	0.0	485204	BIRCHELL, DEVIN Ray	0.0	466993	MILLER, GEOFFREY Alan	0.0	460232
SCILEPPI, JOSEPH Dean	0.0	555492						

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10866497C	20 mile	11064535	20 mile	11341988C	20 mile	11562570C	20 mile
12010171	20 mile						

Job

Job Times

Formation Name					Date	Time	Time Zone
Formation Depth (MD)	Top	Bottom			Called Out	04 - Mar - 2014	10:00 MST
Form Type	BHST				On Location	04 - Mar - 2014	15:00 MST
Job depth MD	1229. ft	Job Depth TVD	1229. ft		Job Started	04 - Mar - 2014	16:49 MST
Water Depth	Wk Ht Above Floor		4. ft		Job Completed	04 - Mar - 2014	18:07 MST
Perforation Depth (MD)	From	To			Departed Loc	04 - Mar - 2014	18:50 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				.	1063.		
9 5/8" Surface Casing	Unknown		9.625	8.921	36.		J-55	.	1061.		

Fluid Data

Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft ³ /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			2.5	
1	Fresh Water Spacer		10.00	bbl	8.33			4.5	
3	SwiftCem B2	SWIFTCM (TM) SYSTEM (452990)	441.0	sacks	14.2	1.54	7.66	4.0	7.66
7.66 Gal		FRESH WATER							
Calculated Values		Pressures		Volumes					
Displacement		Shut In: Instant		Lost Returns		Cement Slurry		Pad	
Top Of Cement		5 Min		Cement Returns	10.0	Actual Displacement	91.0	Treatment	
Frac Gradient		15 Min		Spacers	32.0	Load and Breakdown		Total Job	
Rates									
Circulating		Mixing		Displacement		Avg. Job			
Cement Left In Pipe	Amount	44 ft	Reason	Shoe Joint					
Frac Ring # 1 @	ID		Frac ring # 2 @	ID		Frac Ring # 3 @	ID		Frac Ring # 4 @
The Information Stated Herein Is Correct				Customer Representative Signature					

