

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

NRC 3N-4HZ

Majors 42

Post Job Summary **Cement Surface Casing**

Date Prepared: 2/7/2014
Version: 1

Service Supervisor: BIRCHELL, DEVIN

Submitted by: GROVES, COREY

HALLIBURTON

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Wellbore Geometry

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	1,076.00	45.00
Open Hole Section	13 1/2" Open Hole Section		13.500		0.00	1,076.00	0.00

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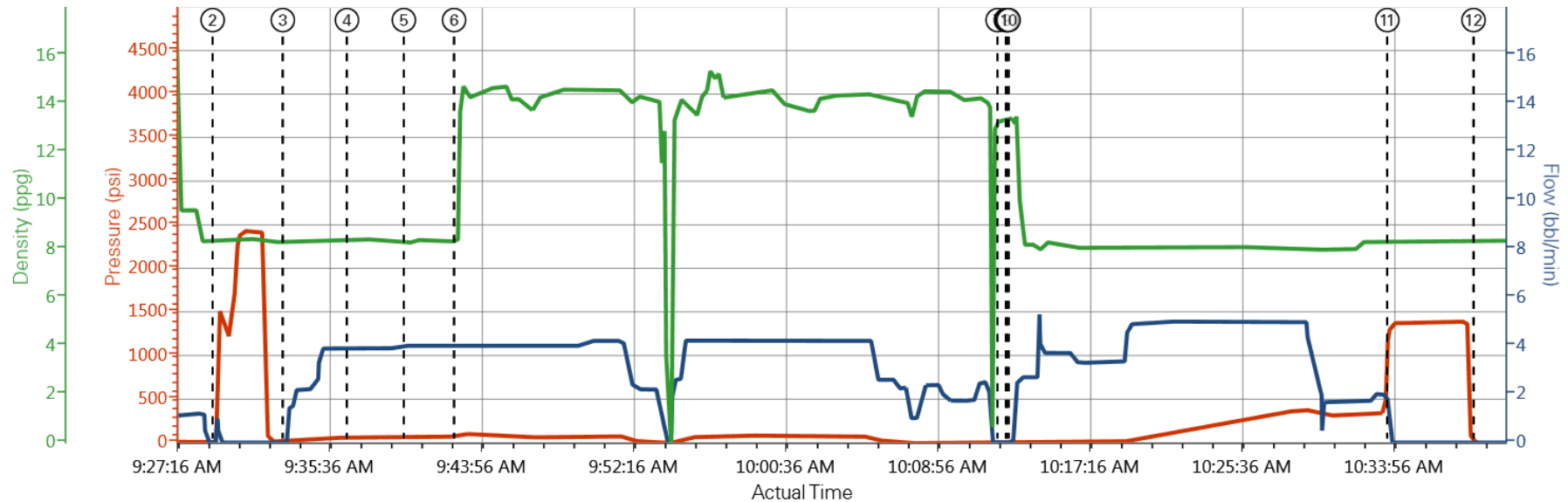
Pumping Schedule

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	20.0 bbl	20.0 bbl
1	2	Spacer	Mud Flush	8.40	4.00	12.0 bbl	12.0 bbl
1	3	Cement Slurry	SwiftCem B2	14.20	4.00	175 sacks	175 sacks

HALLIBURTON

Data Acquisition

Anadarko NRC 3N-4HZ



PS Pump Press (psi) Comb Pump Rate (bbl/min) DH Density (ppg)

- | | | | |
|--------------------------|------------------------------|-----------------------------|--------------------------------|
| ① Drop Ball n/a;n/a;n/a | ④ Pump Spacer 2 57;3.9;8.31 | ⑦ Shutdown -15;0;13.32 | ⑩ Pump Displacement -15;0;13.4 |
| ② Test Lines 1;0;8.32 | ⑤ Pump Spacer 1 62;4;8.29 | ⑧ Clean Lines -15;0;13.37 | ⑪ Bump Plug 1342;0;8.4 |
| ③ Pump Spacer 1 0;0;8.36 | ⑥ Pump Lead Cement 70;4;8.48 | ⑨ Drop Top Plug -15;0;13.39 | ⑫ End Job -8;0;8.29 |

HALLIBURTON

Service Supervisor Reports

Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pressure (psig)	Comments
01/25/2014 05:00		Call Out				Called out for Anadarko NRC 3N-4HZ Surface
01/25/2014 07:20		Pre-Convoy Safety Meeting				Discuss road and weather conditions, fatigue and following distance
01/25/2014 07:30		Depart from Service Center or Other Site				Call journey management, Depart for location
01/25/2014 08:00		Arrive At Loc				Close journey, talk with compan rep on valumes, rates, and depth, rig still running casing
01/25/2014 08:00		Casing on Bottom				Casing on bottom rig will circulate until HES is rigged up
01/25/2014 08:05		Pre-Rig Up Safety Meeting				Discussed rig up, line of fire, slips, and pinch points
01/25/2014 08:10		Rig-Up Equipment				Rig up ground line, and suction hoses
01/25/2014 09:10		Pre-Job Safety Meeting				Discuss pump schedule, procedure, high pressure iron, and emergency plan
01/25/2014 09:24		Other				Stop circulating, rigged up cement head and tied into stand pipe
01/25/2014 09:27		Other				filled lines to pressure test pump and lines
01/25/2014 09:29		Pressure Test			2416.0	Pressure test pump and lines to 2416 psi held for 3 minutes
01/25/2014 09:33		Pump Spacer	2	10	60.0	Pumped 10 bbls Fresh water
01/25/2014 09:36		Pump Spacer 1	4	12	57.0	Pumped 12 bbls Mud Flush III Spacer
01/25/2014 09:40		Pump Spacer 2	4	10	69.0	Pumped 10 bbls Fresh water
01/25/2014 09:42		Pump Lead Cement	4	106	101.0	Pump lead cement at 14.2 ppg Y: 1.54ft ³ /sk W: 7.66gal/sk (175sks)
01/25/2014 10:11		Shutdown				Shutdown to drop top plug
01/25/2014 10:13		Drop Top Plug				Dropped top plug, washed pump and lines on plug
01/25/2014 10:13		Pump Displacement - Start	3			Pump displacement 80 bbls water
01/25/2014 10:15		Returns To Surface	3	6	24.0	Returns seen at surface with 20 bbls displacement away
01/25/2014 10:23		Displ Reached Cmmt	5	41	150.0	displacement reached cement with 40 bbls away
01/25/2014 10:23		Spacer Returns to Surface	5	41	150.0	With 41 bbls displacement away spacer returns to surface (32 bbls)
01/25/2014 10:30		Cement Returns to Surface	2	73	380.0	With 73 bbls displacement away cement returns to surface (7 bbls)
01/25/2014 10:34		Bump Plug	2	80	358.0	Bumped plug with 80 bbls with 358 psi took pressure to 1366 psi
01/25/2014 10:38		Check Floats			1376.0	Checked floats, floats held with .5 bbls back to truck
01/25/2014 10:45		Pre-Rig Down Safety Meeting				Discussed trapped pressure, slips, trips, falls, and overhead loads
01/25/2014 10:50		Rig-Down Equipment				Begin rigging down all iron and suction hoses
01/25/2014 11:30		Pre-Convoy Safety Meeting				Discussed fatigue, wildlife, weather, and journey management
01/25/2014 11:35		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 #: 3271811	Quote #:	Sales Order #: 901060917
Customer: ANADARKO PETROLEUM CORP - EBUS		Customer Rep: Hersh, Larry	
Well Name: NRC		Well #: 3N-4HZ	API/UWI #:
Field: WATTENBERG	City (SAP): IONE	County/Parish: Weld	State: Colorado
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 #
BIRCHELL, DEVIN Ray	0.0	466993	MILLER, GEOFFREY Alan	0.0	460232	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
11341988C	20 mile	11562570C	20 mile	12010171	20 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	25 - Jan - 2014	05:00 MST
Form Type		BHST		On Location	25 - Jan - 2014	08:00 MST
Job depth MD	1229. ft	Job Depth TVD	1076. ft	Job Started	25 - Jan - 2014	09:30 MST
Water Depth		Wk Ht Above Floor	4. ft	Job Completed	25 - Jan - 2014	10:40 MST
Perforation Depth (MD)	From		To	Departed Loc	25 - Jan - 2014	11:30 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				.	1076.		
9 5/8" Surface Casing	Unknown		9.625	8.921	36.		J-55	.	1076.		

Sales/Rental/3rd 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		
PLUG,CMTG,TOP,9 5/8,HWE,8.16 MIN/9.06 MA	1	EA		
COLLAR-STOP-9 5/8"-FRICTION-HINGED	2	EA		
CNTRLZR, 9 5/8"x13 3/4',#500-0963-1375	9	EA		
Description	Qty	Qty uom	Depth	Supplier

BASKET - CEMENT - 9-5/8 CSG X 12-1/4						1	EA		
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		20.0	bbl	8.33			2.0	
2	Mud Flush		12.0	bbl	8.4			4.0	
3.5 lbm/bbl		MUD FLUSH III, 40 LB SACK (101633304)							
42 gal/bbl		MUD FLUSH III - SBM (528788)							
3	SwiftCem B2	SWIFTCM (TM) SYSTEM (452990)	175	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		Actual Displacement		Treatment	
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job	
Rates									
Circulating		Mixing		Displacement		Avg. Job			
Cement Left In Pipe		Amount	45 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					

