

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

Ziemer 13C-5HZ

Ensign 145

Post Job Summary

Cement Surface Casing

Date Prepared: 10/31/2013
Version: 1

Service Supervisor: SMITH, AARON

Submitted by: TRIER, DEREK

HALLIBURTON

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	1,102.00	41.00
Open Hole Section	13 1/2" Open Hole Section		13.500		0.00	1,115.00	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	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	5.00	415.0 sacks	415.0 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: 5.00 bbl/min

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

Fluid Density: 8.40 lbm/gal
Fluid Volume: 12.00 bbl
Pump Rate: 5.00 bbl/min

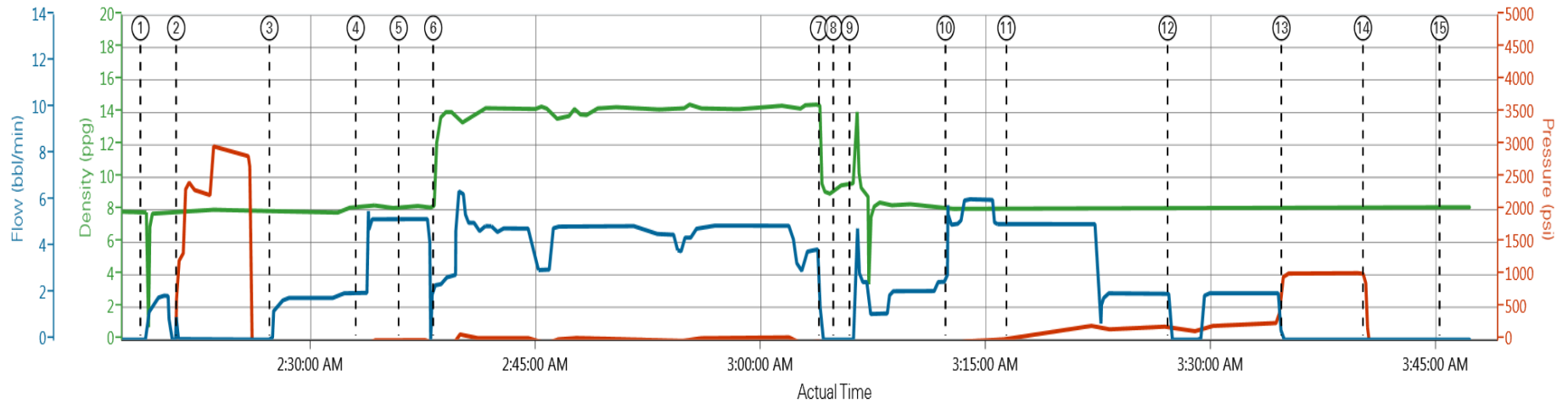
Stage/Plug # 1 Fluid 3: SwiftCem B2
SWIFTCEM (TM) SYSTEM

Fluid Weight: 14.20 lbm/gal
Slurry Yield: 1.54 ft³/sack
Total Mixing Fluid: 7.66 Gal
Surface Volume: 415.0 sacks
Sacks: 415.0 sacks

HALLIBURTON

Data Acquisition

ANADARKO PETROLEUM ZIEMER 13C-5HZ SURFACE



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

- | | | | | |
|----------------------------|-----------------------------|-----------------------------|-------------------------------|---------------------------|
| ① Start Job 7.85;-118;0 | ④ Pump Spacer 2 8.16;-87;2 | ⑦ Shutdown 9.53;-76;0 | ⑩ Pump Displacement 8.2;-73;5 | ⑬ Bump Plug 8.23;993;0 |
| ② Test Lines 7.86;1139;0 | ⑤ Pump Spacer 1 8.14;-7;5.2 | ⑧ Drop Top Plug 9.31;-120;0 | ⑪ Other 8.12;20;5 | ⑭ Check Floats 8.11;831;0 |
| ③ Pump Spacer 17.87;-116;0 | ⑥ Pump Cement 11.62;-74;2.4 | ⑨ Clean Lines 9.65;-120;0 | ⑫ Other 8.12;185;0 | ⑮ End Job 8.06;-119;0 |

▼ HALLIBURTON | iCem® Service

Created: 2013-10-26 20:04:16, Version: 2.0.606

Edit

Customer: ANADARKO PETROLEUM CORP - EBUS

Job Date: 10/27/2013 1:34:30 AM

Well: Ziemer 13C-5HZ

Representative: AARON SMITH

Sales Order #: 900851403

THANKS: AARON SMITH AND CREW

HALLIBURTON

Service Supervisor Reports

Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump	Pressure (psig)	Comments
10/26/2013 22:00		Arrive at Location from Service Center					WITH ALL EQUIPMENT AND MATERIALS
10/26/2013 22:15		Assessment Of Location Safety Meeting					
10/27/2013 00:30		Casing on Bottom					
10/27/2013 00:30		Pre-Rig Up Safety Meeting					RIG-UP JSA
10/27/2013 00:45		Circulate Well					
10/27/2013 00:45		Rig-Up Equipment					
10/27/2013 01:20		Rig-Up Completed					
10/27/2013 02:00		Pre-Job Safety Meeting					WITH CUSTOMER REP AND RIG CREW
10/27/2013 02:18		Start Job					
10/27/2013 02:21		Test Lines				2500.0	FRESH WATER WITH NO ADDITIVES
10/27/2013 02:27		Pump Spacer 1	5	10		85.0	FRESH WATER WITH NO ADDITIVES
10/27/2013 02:33		Pump Spacer 2	5	12		125.0	FRESH WATER WITH MUD FLUSH
10/27/2013 02:36		Pump Spacer 1	5	10		125.0	FRESH WATER WITH NO ADDITIVES
10/27/2013 02:38		Pump Cement	5	114		85.0	415 SKS SWIFTCEM B1 @ 14.2 PPG 1.55 YIELD, 7.68 GAL/SK
10/27/2013 03:04		Shutdown					
10/27/2013 03:05		Drop Top Plug					PRE-LOADED HWE TOP PLUG IN PLUG CONTAINER VERIFIED BY CUSTOMER REP
10/27/2013 03:06		Clean Lines					WASH PUMPS AND LINES ON TOP OF PLUG.
10/27/2013 03:12		Pump Displacement	5	82		325.0	FRESH WATER WITH NO ADDITIVES @ 39 BBLS DISPLACEMENT, 32 BBLS TO THE PIT
10/27/2013 03:16		Spacer Returns to Surface					@71 BBLS DISPLACEMENT, 11 BBLS TO THE PIT
10/27/2013 03:27		Cement Returns to Surface					
10/27/2013 03:34		Bump Plug				1028.0	FINAL CIRCULATING PRESSURE 275, PSI TO LAND 353, PSI TO LIFT 483,
10/27/2013 03:40		Check Floats					FLOATS HELD, .5 BBLS BACK
10/27/2013 03:45		End Job					RIG DOWN JSA, JOURNEY MANAGMENT MEETING, THANKS AARON SMITH AND CREW

The Road to Excellence Starts with Safety

Sold To #: 300466		Ship To #: 3117326		Quote #:		Sales Order #: 900851403	
Customer: ANADARKO PETROLEUM CORP - EBUS				Customer Rep:			
Well Name: Ziemer			Well #: 13C-5HZ		API/UWI #: 05-123-37830		
Field: WATTENBERG		City (SAP): FORT LUPTON		County/Parish: Weld		State: Colorado	
Lat: N 40.087 deg. OR N 40 deg. 5 min. 12.707 secs.				Long: W 104.696 deg. OR W -105 deg. 18 min. 14.407 secs.			
Contractor: Ensign			Rig/Platform Name/Num: Ensign 145				
Job Purpose: Cement Surface Casing							
Well Type: Development Well				Job Type: Cement Surface Casing			
Sales Person: PLIENESS, RYAN			Srvc Supervisor: SMITH, AARON			MBU ID Emp #: 518187	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
DODSON, RICHARD Bryan	6.5	518192	MYRE, JAMES	6.5	549859	SMITH, AARON David	6.5	518187
TOWNSON, JUSTIN T	6.5	555407						

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10982754C	15 mile	11064046C	15 mile	11398490	15 mile	11527037	15 mile

Job

Job Times

Formation Name	Formation Depth (MD)	Top	Bottom	Called Out	Date	Time	Time Zone
					26 - Oct - 2013	17:30	MST
Form Type			BHST	On Location	26 - Oct - 2013	22:00	MST
Job depth MD	1115. ft		Job Depth TVD	1115. ft	Job Started	27 - Oct - 2013	02:18
Water Depth			Wk Ht Above Floor	3. ft	Job Completed	27 - Oct - 2013	03:45
Perforation Depth (MD)	<i>From</i>		<i>To</i>		Departed Loc	27 - Oct - 2013	04:30

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				.	1115.		
9 5/8" Surface Casing	Unknown		9.625	8.921	36.		J-55	.	1102.		

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		
Description	Qty	Qty uom	Depth	Supplier
KIT,HALL WELD-A	1	EA		
CNTRLZR, 9 5/8"x13 3/4',#500-0963-1375	9	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		
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		10.00	bbl	8.33			5.0	
2	Mud Flush		12.00	bbl	8.4			5.0	
42 gal/bbl		MUD FLUSH III - SBM (528788)							
3.5 lbm/bbl		MUD FLUSH III, 40 LB SACK (101633304)							
1	Fresh Water Spacer		10.00	bbl	8.33			5.0	
3	SwiftCem B2	SWIFTCEM (TM) SYSTEM (452990)	415.0	sacks	14.2	1.54	7.66	5.0	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		11.0	Actual Displacement	82.0	Treatment
Frac Gradient		15 Min		Spacers		32.0	Load and Breakdown	Total Job	
Rates									
Circulating		Mixing		Displacement		Avg. Job			
Cement Left In Pipe		Amount	41 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					

