

HALLIBURTON

iCem[®] Service

ANADARKO PETROLEUM CORP - EBUS

Date: Monday, May 15, 2014

Morning Fresh 39C-15HZ Surface

Sincerely,
Joshua Prudhomme

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1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Morning Fresh 29C-15HZ** cement **Surface** casing job. A pre-job safety meeting was held before the job where details of the job were discussed, potential safety hazards were reviewed, and environmental compliance procedures were outlined.

Halliburton maintains a continuous quality improvement process and appreciates any comments or suggestions that you may have. Halliburton again thanks you for the opportunity to perform service work on this well. We hope to be your solutions provider for future projects.

Respectfully,

Halliburton [Brighton]

Job Times

	Date	Time	Time Zone
On Location	5/14/14	23:30	MT
Job Started	5/14/14	04:44	MT
Job Completed	5/14/14	05:59	MT
Departed Location	5/14/14	07:00	MT

1.2 Cementing Job Summary

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Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 300466		Ship To #: 3117209		Quote #:		Sales Order #: 0901350687					
Customer: ANADARKO PETROLEUM CORP - EBUS				Customer Rep:							
Well Name: MORNING FRESH		Well #: 29C-15 HZ		API/UWI #: 05-123-36910-00							
Field: WATTENBERG		City (SAP): PLA		County/Parish: WELD		State: COLORADO					
Legal Description: NE NW-22-3N-66W-427FNL-1858FWL											
Contractor:				Rig/Platform Name/Num: Majors 29							
Job BOM: 7521											
Well Type: HORIZONTAL GAS											
Sales Person: HALAMERICA\HX46524				Srv Supervisor: Jason Gibbs							
Job											
Formation Name											
Formation Depth (MD)		Top		Bottom							
Form Type				BHST							
Job depth MD		995ft		Job Depth TVD							
Water Depth				Wk Ht Above Floor							
Perforation Depth (MD)		From		To							
Well Data											
Description	New / Used	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft	
Casing		9.625	8.921	36		J-55	0	985		0	
Open Hole Section			13.5				0	995			
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe	9.625			985		Top Plug	9.625		HES		
Float Shoe	9.625					Bottom Plug	9.625		HES		
Float Collar	9.625					SSR plug set	9.625		HES		
Insert Float	9.625					Plug Container	9.625		HES		
Stage Tool	9.625					Centralizers	9.625		HES		
Miscellaneous Materials											
Gelling Agt		Conc		Surfactant		Conc	Acid Type		Qty	Conc	
Treatment Fld		Conc		Inhibitor		Conc	Sand Type		Size	Qty	
Fluid Data											
Stage/Plug #: 1											
Fluid #	Stage Type	Fluid Name			Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	Mud Flush III (Powder)	Mud Flush III			12	bbl	8.4				
42 gal/bbl		FRESH WATER									

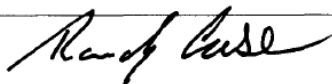
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Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
2	Lead Cement	SWIFTCEM (TM) SYSTEM	391	sack	14.2	1.54		6	7.64

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	Displacement	Displacement	74	bbl	8.33				
Cement Left in Pipe		Amount	42 ft	Reason		Shoe Joint			
Cement Returns to Surface		Amount	5 bbl						

Comment



1.3

Job Overview

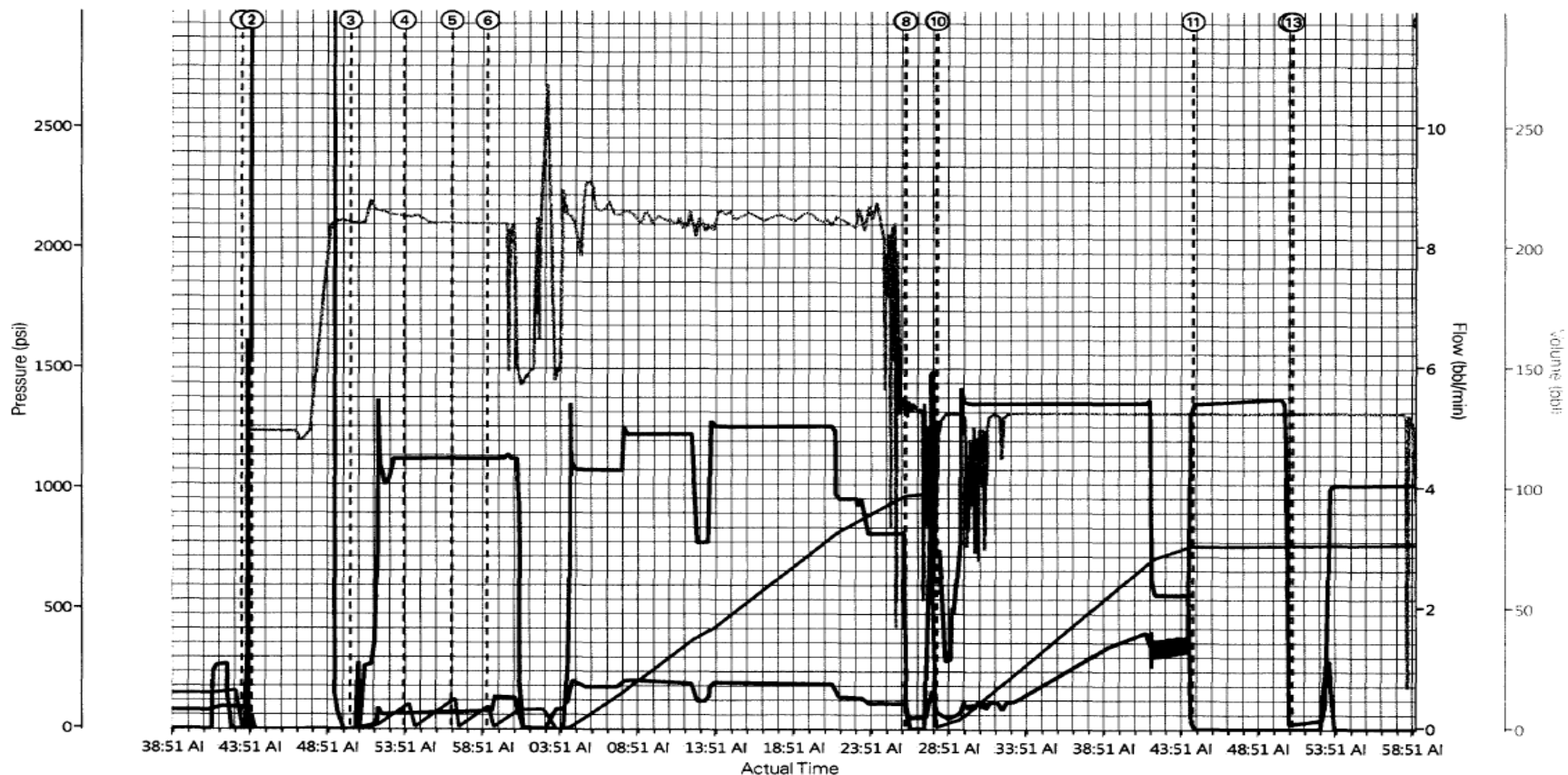
		Units	Description
1	Surface temperature at time of job	°F	65
2	Mud type (OBM, WBM, SBM, Water, Brine)	-	WBM
3	Actual mud density	lb/gal	9.5
4	Time circulated before job	HH:MM	
5	Mud volume circulated	Bbls	
6	Rate at which well was circulated	Bpm	
7	Pipe movement during hole circulation	Y/N	N
8	Rig pressure while circulating	Psi	
9	Time from end mud circulation to start of job	HH:MM	
10	Pipe movement during cementing	Y/N	N
11	Calculated displacement	Bbls	74bbls
12	Job displaced by	Rig/HES	HES
13	Annular before job ?	Y/N	N
14	Annular flow after job	Y/N	N
15	Length of rat hole	Ft	
16	Units of gas detected while circulating	Units	
17	Was lost circulation experienced at any time ?	Y/N	N

1.4 Job Event Log

Dates Person: GREGORY, JOHN Drive Supervisor: Jason L. Gibbs Job ID: EMP-1: 000401								
Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Arrive at Location from Service Center	5/14/14 2330							
Assessment Of Location Safety Meeting	5/15/14 0015							Hazard Hunt of the location and rig
Pre-Job Safety Meeting	5/15/14 0430							
Test Lines	5/15/14 0444						3471	3000psi
Pump Spacer 1	5/15/14 0450			10			69	10bbl of H2O
Pump Spacer 2	5/15/14 0454			12			71	12bbl Mudflush III @ 8.4 #/gal
Pump Spacer 3	5/15/14 0457			10			74	10bbl of H2O
Pump Cement	5/15/14 0459			107			47	391sk of SwiftCem @14.2#/gal 1.54 yeild 7.64 gal/sk
Shutdown	5/15/14 0526							
Clean Lines	5/15/14 0528							On top of Plug
Drop Top Plug	5/15/14 0528							
Pump Displacement	5/15/14 0528			74			68	Displace with H2O supplied by rig
Bump Plug	5/15/14 0544						1352	
Casing Test	5/15/14 0551						1000	5bbl cmt back to surface
Check Floats	5/15/14 0558						1021	
End Job	5/15/14 0559							

2.0 Attachments

Anadarko Morning Fresh 29C 15HZ



Recirc Density (ppg)		Comb Pump Rate (bbl/min)		DS Pump Press (psi)		Comb Pump Total (bbl)	
① Start Job	0;88.71;0	④ Pump Spacer 2	4.5;69.98;9.9	⑦ Start Job	0;47.31;97.4	⑩ Drop Top Plug	3;68.99;1.8
② Test Lines	0;3471.32;0.05	⑤ Pump Spacer 1	4.5;71.95;12.47	⑧ Shutdown	0;46.32;97.4	⑪ Bump Plug	0;1354.23;76.45
③ Pump Spacer 1	0;0.99;0.05	⑥ Pump Cement	4.5;74.91;10.04	⑨ Pump Displacement	3;68.01;1.61	⑫ Other	0;1021.09;76.98
						⑬ Pressure Up Well	0;24.64;76.45
						⑭ Other	0;20.7;76.45

3.0 Appendix
