

HALLIBURTON

iCem[®] Service

BONANZA CREEK ENERGY

For:

Date: Saturday, October 11, 2014

NMU 11-12H Surface

Case 1

Sincerely,

Derek Trier

Table of Contents

1.1	Executive Summary	3
1.2	Cementing Job Summary	4
1.4	Job Overview	6
1.5	Job Event Log	7
2.0	Custom Graphs	9
2.1	Custom Graph	9

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **NMU 11-12H** 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
Called Out	10/10/14	0400	MST
On Location	10/10/14	1230	
Job Started	10/11/14	1125	
Job Completed	10/11/14	1311	
Departed Location	10/11/14	1347	

1.2 Cementing Job Summary

Sold To #: 324725		Ship To #: 3560388		Quote #:		Sales Order #: 0901726334				
Customer: BONANZA CREEK ENERGY				Customer Rep: Tim Joel						
Well Name: NMU			Well #: 11-12H			API/UWI #: 05-057-06532-00				
Field: MCCALLUM		City (SAP): WALDEN		County/Parish: JACKSON			State: COLORADO			
Legal Description: NW NE-11-9N-79W-413FNL-1886FEL										
Contractor:				Rig/Platform Name/Num: Frontier 7						
Job BOM: 7521										
Well Type: VERTICAL OIL										
Sales Person: HALAMERICA\HX46524				Srv Supervisor: Devin Birchell						
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST						
Job depth MD		300ft		Job Depth TVD						
Water Depth				Wk Ht Above Floor						
Perforation Depth (MD)				To						
Well Data										
	New / Used	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Casing		13.375	12.615		STC	J-55	0	300		
Open Hole Section			17.5				0	300		
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	13.375	1				Top Plug	13.375	1	HES	
Float Shoe	13.375	1		276		Bottom Plug	13.375		HES	
Float Collar	13.375	1		234		SSR plug set	13.375		HES	
Insert Float	13.375	1				Plug Container	13.375		HES	
	13.375	1				Centralizers	13.375		HES	
Miscellaneous Materials										
Gelling Agt		Conc		Surfactant		Conc		Acid Type	Qty	
Treatment Fld		Conc				Conc		Sand Type		
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	10	bbl	8.4			6	
42 gal/bbl									
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	HALCEM (TM) SYSTEM	300	sack	15.8	1.15		6	4.98
4.98 Gal									
94 lbm		G REG OR TYPE V, BULK (100003685)							
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	34	bbl	8.33			6	
		Amount	42 ft						
Comment									

1.4 Job Overview

		Units	Description
1	Surface temperature at time of job	°F	
2	Mud type (OBM, WBM, SBM, Water, Brine)	-	WBM
3	Actual mud density	lb/gal	8.4
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	34
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

1.5 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Truck 1 Pr (psi)	Truck 1 Dens (ppg)	Truck 1 Slry Rt (bbl/min)	Comment
Event	1	Call Out	Call Out	10/10/2014	04:00:12	USER				called cement crew for bonanza creek nmu 11-12h surface
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	10/10/2014	06:45:12	USER				discussed route weather other traffic and following distances
Event	3	Depart from Service Center or Other Site	Depart from Service Center or Other Site	10/10/2014	07:00:14	USER				called journey and departed for location
Event	4	Arrive At Loc	Arrive At Loc	10/10/2014	12:30:12	USER				ended journey and talked to company rep in rates volumes depths and pressures
Event	5	Wait on Customer or Customer Sub-Contractor Equip - Start Time	Wait on Customer or Customer Sub-Contractor Equip - Start Time	10/10/2014	12:40:12	USER				rig broke down waiting for rig to finish drilling and to run casing
Event	6	Wait on Customer or Customer Sub-Contractor Equipment - End Time	Wait on Customer or Customer Sub-Contractor Equipment - End Time	10/11/2014	09:30:12	USER				rig finished running casing
Event	7	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	10/11/2014	09:30:45	USER				discussed spotting equipment swing path hand placement
Event	8	Rig-Up Equipment	Rig-Up Equipment	10/11/2014	10:01:21	USER				spotted pump and rigged up water bulk and iron
Event	9	Pre-Job Safety Meeting	Pre-Job Safety Meeting	10/11/2014	10:50:12	USER	-2.00	10.47	0.00	discussed job procedures with cement and rig crews
Event	10	Rig-Up Completed	Rig-Up Completed	10/11/2014	11:15:41	USER	-6.00	10.51	0.00	finished rigging to casing chained down casing
Event	11	Prime Pumps	Prime Pumps	10/11/2014	11:25:45	USER	-12.00	10.52	0.00	primed pump and lines ready for pressure test
Event	12	Test Lines	Test Lines	10/11/2014	11:36:22	COM1	3033.00	10.54	0.00	test pump and lines to 3115 psi
Event	13	Pump Spacer 1	Pump Spacer 1	10/11/2014	11:41:18	COM1	0.00	10.51	0.00	pumped 10 bbls mud flush III @ 8.4 ppg
Event	14	Pump Lead Cement	Pump Lead Cement	10/11/2014	11:51:35	COM1	9.00	8.43	1.70	pump 61 bbls(300sks) 15.8 ppg slurry y: 1.15 ft3/sk w: 4.98 gal/sk
Event	15	Drop Top Plug	Drop Top Plug	10/11/2014	12:25:41	USER	-4.00	15.38	0.00	removed pumping swage and dropped plug

Event	16	Pump Displacement	Pump Displacement	10/11/2014	12:27:33	COM1	-2.00	15.62	0.00	pump 34 bbls fresh water displacement
Event	17	Cement Returns to Surface	Cement Returns to Surface	10/11/2014	12:40:26	USER	17.00	7.90	1.10	with 11 bbls displacement away cement returns to surface (23bbls)
Event	18	Bump Plug	Bump Plug	10/11/2014	12:46:28	COM1	152.00	7.88	0.20	bumped plug with 86 spi took pressure to 600 psi
Event	19	Check Floats	Check Floats	10/11/2014	12:50:33	USER	246.00	7.97	0.00	checked floats, floats held with .5 bbls back
Event	20	Pressure Up	Pressure Up	10/11/2014	12:56:54	USER	773.00	7.95	0.40	pressure up casing to 1024 psi and hold for 10 minutes
Event	21	Release Casing Pressure	Release Casing Pressure	10/11/2014	13:09:34	USER	1106.00	7.87	0.00	released all pressure ready for rig down
Event	22	End Job	End Job	10/11/2014	13:11:04	COM1	-23.00	7.85	0.00	job completed
Event	23	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	10/11/2014	13:46:01	USER	-20.00	-0.65	0.00	discussed hand placement swing path pinch points
Event	24	Rig-Down Equipment	Rig-Down Equipment	10/11/2014	13:46:13	USER	-20.00	-0.65	0.00	rig down all iron and water hoses and bulk hose
Event	25	Rig-Down Completed	Rig-Down Completed	10/11/2014	13:46:27	USER	-20.00	-0.65	0.00	rig down complete walk around to ensure everything is properly put away
Event	26	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	10/11/2014	13:46:48	USER	-20.00	-0.65	0.00	discussed route weather other traffic and following distances
Event	27	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	10/11/2014	13:47:05	USER	-20.00	-0.65	0.00	thank you for using halliburton energy services

2.0 Custom Graphs

Custom Graph



