

HALLIBURTON

iCem® Service

Post Job Report

ENCANA OIL & GAS (USA) INC

Date: Thursday, June 19, 2014

2B-5H-E267

Encana Oil Vogl-Geist #2B-5 H-E267

Sincerely,

Onuorah, Theodore

Table of Contents

- 1.1 Executive Summary
- 1.2 Cementing Job Summary
- 1.3 Planned Pumping Schedul
- 1.4 Job Overview
- 3.1 Custom Graph

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the EnCana Oil Vogl-Geist #2B-5H-E267 cement Intermediate 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 District]

Job Times

	Date	Time	Time Zone
Requested Time On Location			MTN
Called Out			
On Location	18:45	04/22/14	
Job Started	00:08	04/23/14	
Job Completed	03:45	04/23/14	
Departed Location	03:50	04/23/14	

1.2 Cementing Job Summary

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 340078	Ship To #: 3113299	Quote #:	Sales Order #: 0901286301							
Customer: ENCANA OIL & GAS (USA) INC. - EBUS		Customer Rep: Roy Hunt								
Well Name: VOGL-GEIST	Well #: 2B-5 H-E267	API/UWI #: 05-123-37816-00								
Field: WATTENBERG	City (SAP): LON	County/Parish: WELD	State: COLORADO							
Legal Description: SW NW-5-2N-67W-2602FNL-331FWL										
Contractor:		Rig/Platform Name/Num: H&P 522								
Job BOM: 7522										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HB50180		Srv Supervisor: Matthew Bulinski								
Job										
Formation Name										
Formation Depth (MD)	Top	Bottom								
Form Type	BHST									
Job depth MD	7622ft	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		9.825	8.835	40		N-80	0	856	0	935
Casing		7	6.366	23		N-80	0	7622	0	0
Open Hole Section			8.75				935	7632	0	0
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	7			7622		Top Plug	7		HES	
Float Shoe	7					Bottom Plug	7		HES	
Float Collar	7			7526		SSR plug set	7		HES	
Insert Float	7					Plug Container	7		HES	
Stage Tool	7					Centralizers	7		HES	
Miscellaneous Materials										
Gelling Agt		Conc		Surfactant		Conc		Acid Type		Qty
Treatment Fld		Conc		Inhibitor		Conc		Sand Type		Size
Fluid Data										
Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	10 lb/gal Tuned Spacer III	Tuned Spacer III	30	30bbl	10	5.86		3.6		
38.32 gal/bbl		FRESH WATER								
61.01 lbm/bbl		BARITE, BULK (100003681)								

1.3

HALLIBURTON***Cementing Job Summary***

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
2	Tuned Light B1	TUNED LIGHT (TM) SYSTEM	306	306sack	10	2.32		4	8.73
8.73 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	VariCem B1	VARICEM (TM) CEMENT	284	284sack	13	1.95		5.5	9.83
9.83 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
4	Displacement	Mud	288	bbl	10.5			3	
Cement Left In Pipe		Amount	96 ft		Reason		Shoe Joint		
Comment									

1.4 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	PS Pump Press (psi)	Comb Pump Rate (bbl/min)	Comment
Event	1	Depart Yard Safety Meeting	Depart Yard Safety Meeting	4/22/2014	17:30:00	USER				JSA on Job materials, pre-tripping trucks, and driving to location
Event	2	Arrive At Loc	Arrive At Loc	4/22/2014	18:45:00	USER				Arrived 15mins early and rig is running Csg... Finished running Csg at 22:00 and took 1hr to rig down Csg crew
Event	3	Safety Meeting - Pre Rig-Up	Safety Meeting - Pre Rig-Up	4/22/2014	19:00:00	USER				Hazard Hunt, and JSA on rigging up bulk trucks and iron to rig
Event	4	Rig-Up Equipment	Rig up	4/22/2014	19:15:00	USER				
Event	5	Rig-Up Completed	Rig-Up Completed	4/22/2014	20:15:00	USER				
Event	6	Safety Meeting - Pre Job	Safety Meeting - Pre Job	4/22/2014	21:00:00	USER	8.29	1.00	0.00	JSA with Company Man, Rig hands, and HES hands on Pump Schedule
Event	7	Start Job	Start Job	4/23/2014	00:08:41	COM5	-0.07	-1.00	0.00	
Event	8	Test Lines	Test Lines	4/23/2014	00:11:47	COM5	8.30	1394.00	0.00	4500psi Pressure Test Lines
Event	9	Pump Spacer 1	Pump Spacer 1	4/23/2014	00:18:03	COM5	9.46	68.00	1.90	30bbl 10ppg Tuned Spacer III Mixed with rig water and # verify by pressurized mud scales. Avg 3.5bbl/min 260psi
Event	10	Drop Bottom Plug	Drop Bottom Plug	4/23/2014	00:18:04	USER	9.59	82.00	2.00	Pre-Loaded
Event	11	Pump Lead Cement	Pump Lead Cement	4/23/2014	00:27:46	COM5	9.26	142.00	2.90	306sks Tuned Lite Lead Cmt (126.4bbls) Mixed with rig water and # verify by pressurized mud scales 4x's.. Avg 3.5bbl/min 480psi
Event	12	Drop Bottom Plug	Drop Bottom Plug	4/23/2014	01:24:29	COM5	11.32	564.00	2.80	Pre-Loaded
Event	13	Pump Tail Cement	Pump Tail Cement	4/23/2014	01:24:31	COM5	12.09	566.00	2.80	284sks Varicem Tail Cmt

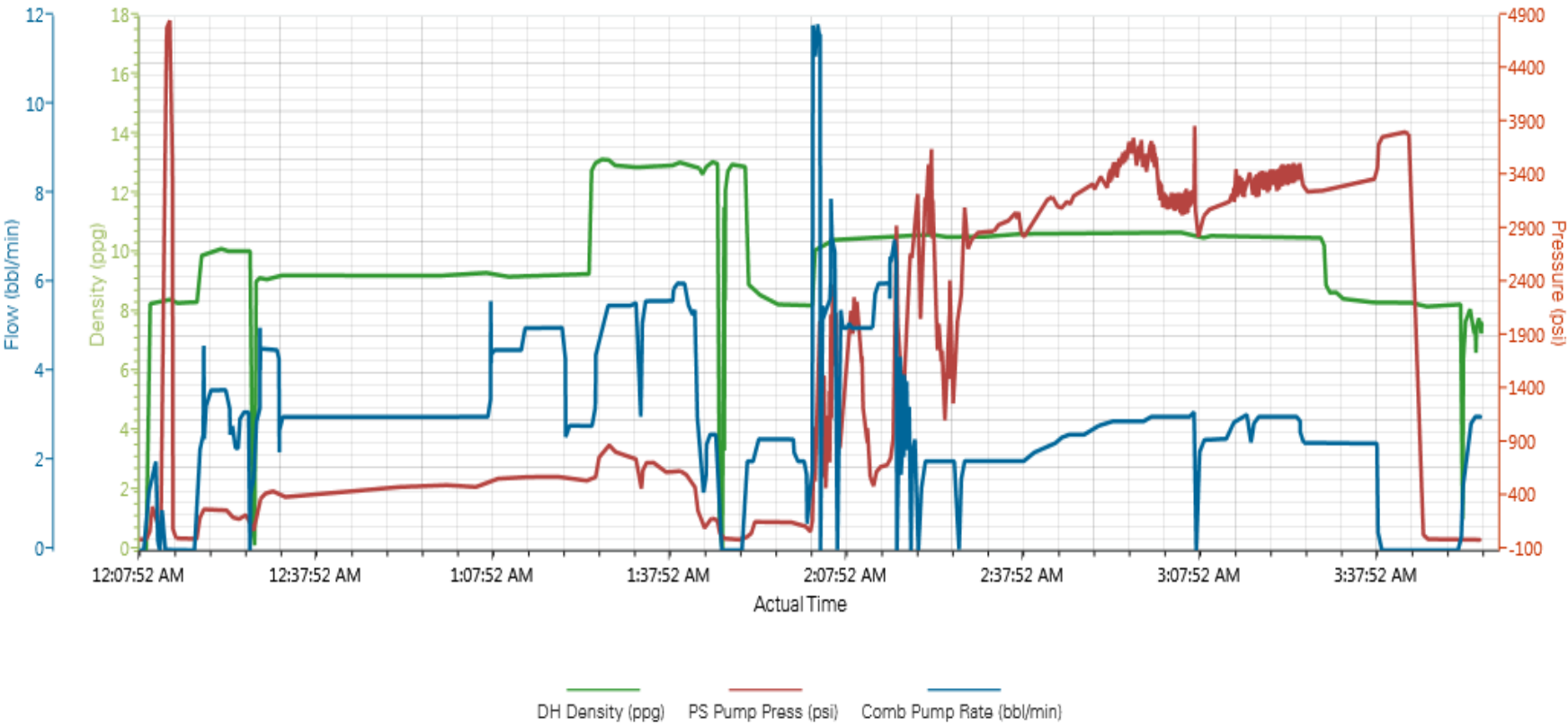
										(98.6bbls) Mixed with rig water and # verify by pressurized mud scales... Avg 5.5bbl/min 760psi
Event	14	Shutdown	Shutdown	4/23/2014	01:46:15	COM5	3.44	131.00	0.00	
Event	15	Drop Top Plug	Drop Top Plug	4/23/2014	01:49:10	COM5	12.99	1.00	0.00	Pre-Loaded
										288bbls Mud Displacement, 20bbls into displacement started to Catch High pressure, Slowed down to 6bbl/min psi kept rising. Finally slowed down to 2bbl/min with avg 3000psi... Lost returns at 140bbls into displacement, only seeing a glimpse here or there throughout the rest of displacement.. Avg displacement was 3bbl/min 3400psi.. Rig did try to recipitate 2'
Event	16	Pump Displacement	Pump Displacement	4/23/2014	01:50:29	COM5	12.97	2.00	1.00	
Event	17	Bump Plug	Bump Plug	4/23/2014	03:38:02	COM5	8.36	3481.00	2.40	
Event	18	End Job	End Job	4/23/2014	03:45:54	COM5				

2.0 Custom Graphs

2.1 Custom Graph



Custom Results



3.0 Appendix
