

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS

Date: Tuesday, April 25, 2017

Stromberger #8 Production

Job Date: Sunday, April 09, 2017

Sincerely,

Julia Nichols

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Stromberger 8** cement **Production** 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.

Approximately 50 barrels of cement were returned to surface.

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 [Ft. Lupton]

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Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 369404		Ship To #: 3711301		Quote #:		Sales Order #: 0903957298					
Customer: EXTRACTION OIL & GAS				Customer Rep: Todd Stephens							
Well Name: STROMBERGER			Well #: 8		API/UWI #: 05-123-42557-00						
Field: WATTENBERG		City (SAP): WINDSOR		County/Parish: WELD		State: COLORADO					
Legal Description: SE NE-22-6N-67W-2058FNL-150FEL											
Contractor: PATTERSON-UTI ENERGY				Rig/Platform Name/Num: PATTERSON 346							
Job BOM: 7523											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HX38199				Srvc Supervisor: Vaughn Oteri							
Job											
Formation Name											
Formation Depth (MD)		Top			Bottom						
Form Type											
BHST											
Job depth MD		16782ft			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			0	1575		1575	
Casing		5.5	4.778	20			0	16769	0	6900	
Open Hole Section			8.5				1575	16782	0	6900	
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe	5.5					Top Plug	5.5	1	KLX		
Float Shoe	5.5			16769		Bottom Plug	5.5				
Float Collar	5.5			16764		SSR plug set	5.5				
Insert Float	5.5					Plug Container	5.5	1	HES		
Stage Tool	5.5					Centralizers	5.5				
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	11.5 lb/gal Tuned Spacer III	Tuned Spacer III			50	bbl	11.5	3.74		4	
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	ElastiCem Lead	ELASTICEM (TM) SYSTEM			1225	sack	13.2	1.57		8	7.53

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Cementing Job Summary

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
3	ElastiCem Tail	ELASTICEM (TM) SYSTEM	1450	sack	13.2	1.57		8	7.49
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
4	Displacement	Displacement	370	bbl	8.34			8	
Cement Left In Pipe									
	Amount	4 ft			Reason			Shoe Joint	
Comment 50bbl of cement back to surface									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DS Pump Press <i>(psi)</i>	DH Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	Comments
Event	1	Call Out	Call Out	4/9/2017	13:00:00	USER				Call out From ARC hub
Event	2	Arrive At Loc	Arrive At Loc	4/9/2017	17:00:00	USER				Arrived on location met with company rep to discuss job process and concerns
Event	3	Other	Other	4/9/2017	17:01:01	USER				TD-16782 TP-16769 FC-16764 Surf-1575 Mud9.2ppg Casing 5.5 20# OH-8.5
Event	4	Start Job	Start Job	4/10/2017	02:55:21	COM4	0.00	8.41	0.00	Held pre-job safety meeting with all hands on location to discuss job process and hazards
Event	5	Test Lines	Test Lines	4/10/2017	03:32:25	COM4	4579.00	8.57	0.00	Pressure tested pumps and lines with fresh water 4742psi
Event	6	Pump Spacer 1	Pump Spacer 1	4/10/2017	03:35:49	COM4	243.00	11.67	3.10	Mixed 50bbl of 11.5ppg Tuned spacer III at 4.0bpm
Event	7	Pump Cement	Pump Cement	4/10/2017	03:48:18	COM4	593.00	13.20	8.20	Mixed 2675sks or 747bbl of 13.2ppg Y-1.57 G/sk-7.48 ElastiCem at 8.0bpm
Event	8	Other	Other	4/10/2017	04:46:49	COM4	2.00	19.20	0.00	Shut down due to 1502 Iron leaking
Event	9	Shutdown	Shutdown	4/10/2017	05:26:36	COM4	67.00	4.48	0.00	
Event	10	Drop Top Plug	Drop Top Plug	4/10/2017	05:26:51	COM4	32.00	0.43	0.00	KLX tool hand released plug witnessed by company rep and HES supervisor
Event	11	Clean Lines	Clean Lines	4/10/2017	05:26:55	COM4	28.00	0.39	0.00	Washed pumps and lines with fresh water
Event	12	Pump Displacement	Pump Displacement	4/10/2017	05:34:52	COM4	3.00	7.49	0.00	Pumped 370bbl of fresh water to displace cement
Event	13	Other	Other	4/10/2017	06:21:37	USER	2152.00	8.52	1.40	Shut down due to lost power in pass deck engine
Event	14	Other	Other	4/10/2017	06:26:15	USER	2813.00	8.54	4.60	Regained power in pass engine
Event	15	Pressure Up Well	Pressure Up Well	4/10/2017	06:34:17	COM4	3118.00	8.54	0.00	Pressure up well to blow disc and pumped 5bbl for wet shoe
Event	16	Other	Other	4/10/2017	06:37:47	COM4	2006.00	8.51	0.00	Released pressure back to pump truck to check floats 2.5bbl back

3.0 Attachments

3.1 Custom Results – Job Chart with Events



3.2 Custom Results – Job Chart without Events

