

# HALLIBURTON

iCem<sup>®</sup> Service

## **EXTRACTION OIL & GAS**

Date: Friday, August 19, 2016

### **Winder South #6**

Surface

Job Date: Tuesday, August 16, 2016

Sincerely,

**Lauren Roberts**

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## 1.0 Cementing Job Summary

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### 1.1 Executive Summary

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Halliburton appreciates the opportunity to perform the cementing services on the **Winder South #6 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.

**27 bbl. of cement 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]**

## HALLIBURTON

## Cementing Job Summary

*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 369404		<b>Ship To #:</b> 3749844		<b>Quote #:</b>		<b>Sales Order #:</b> 0903476902					
<b>Customer:</b> EXTRACTION OIL & GAS -						<b>Customer Rep:</b> Jose Torres					
<b>Well Name:</b> WINDER SOUTH			<b>Well #:</b> 6		<b>API/UWI #:</b> 05-123-43403-00						
<b>Field:</b> WATTENBERG		<b>City (SAP):</b> WINDSOR		<b>County/Parish:</b> WELD		<b>State:</b> COLORADO					
<b>Legal Description:</b> SE NE-9-6N-67W-2306FNL-428FEL											
<b>Contractor:</b> White Mountain Drilling					<b>Rig/Platform Name/Num:</b> White Mountain 272						
<b>Job BOM:</b> 7521											
<b>Well Type:</b> HORIZONTAL OIL											
<b>Sales Person:</b> HALAMERICA\HX38199					<b>Srvc Supervisor:</b> Aaron Smith						
<b>Job</b>											
<b>Formation Name</b>											
<b>Formation Depth (MD)</b>		<b>Top</b>		<b>Bottom</b>							
<b>Form Type</b>				<b>BHST</b>							
<b>Job depth MD</b>		1596ft		<b>Job Depth TVD</b>		1596					
<b>Water Depth</b>				<b>Wk Ht Above Floor</b>		4					
<b>Perforation Depth (MD)</b>		<b>From</b>		<b>To</b>							
<b>Well Data</b>											
<b>Description</b>	<b>New / Used</b>	<b>Size in</b>	<b>ID in</b>	<b>Weight lbm/ft</b>	<b>Thread</b>	<b>Grade</b>	<b>Top MD ft</b>	<b>Bottom MD ft</b>	<b>Top TVD ft</b>	<b>Bottom TVD ft</b>	
Casing		9.625	8.921	36			0	1596	0	1596	
Open Hole Section			13.5				0	1596	0	1596	
<b>Tools and Accessories</b>											
<b>Type</b>	<b>Size in</b>	<b>Qty</b>	<b>Make</b>	<b>Depth ft</b>		<b>Type</b>	<b>Size in</b>	<b>Qty</b>	<b>Make</b>		
Guide Shoe	9.625					Top Plug	9.625	1	HES		
Float Shoe	9.625	1	SSII	1596		Bottom Plug	9.625		HES		
Float Collar	9.625	1	SSII	1552		SSR plug set	9.625		HES		
Insert Float	9.625					Plug Container	9.625	1	HES		
Stage Tool	9.625					Centralizers	9.625		HES		
<b>Fluid Data</b>											
<b>Stage/Plug #: 1</b>											
<b>Fluid #</b>	<b>Stage Type</b>	<b>Fluid Name</b>			<b>Qty</b>	<b>Qty UoM</b>	<b>Mixing Density lbm/gal</b>	<b>Yield ft3/sack</b>	<b>Mix Fluid Gal</b>	<b>Rate bbl/min</b>	<b>Total Mix Fluid Gal</b>
1	Fresh Water	Fresh Water			20	bbl	8.33				
<b>Fluid #</b>	<b>Stage Type</b>	<b>Fluid Name</b>			<b>Qty</b>	<b>Qty UoM</b>	<b>Mixing Density lbm/gal</b>	<b>Yield ft3/sack</b>	<b>Mix Fluid Gal</b>	<b>Rate bbl/min</b>	<b>Total Mix Fluid Gal</b>
2	SwiftCem	SWIFTCEM (TM) SYSTEM			565	sack	13.5	1.74		6	9.19
9.19 Gal		FRESH WATER									

last updated on 8/19/2016 10:19:45 AM

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***Cementing Job Summary***

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal	
3	Displacement	Displacement	120	bbl	8.33					
<b>Cement Left In Pipe</b>		<b>Amount</b>	42 ft		<b>Reason</b>			Shoe Joint		
<b>Comment</b>										

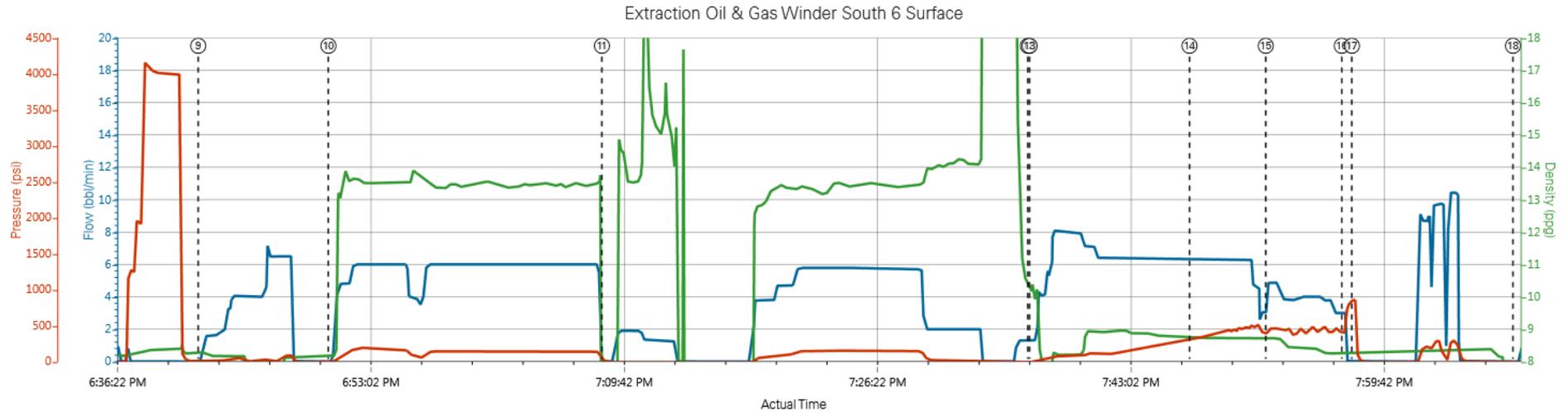
## 2.0 Real-Time Job Summary

### 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comb Pump Rate (bbl/min)	DH Density (ppg)	PS Pump Press (psi)	Comments
Event	1	Call Out	Call Out	8/16/2016	11:30:00	USER				For on location @ 1730
Event	2	Depart from Service Center or Other Site	Depart from Service Center or Other Site	8/16/2016	16:30:00	USER				Journey management meeting held, Journey called into dispatch
Event	3	Arrive at Location from Service Center	Arrive at Location from Service Center	8/16/2016	17:30:00	USER				With all equipment and materials, rig circulating on bottom.
Event	4	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	8/16/2016	17:40:00	USER				JSA to discuss the hazards of rig-up
Event	5	Rig-Up Completed	Rig-Up Completed	8/16/2016	17:55:00	USER				
Event	6	Pre-Job Safety Meeting	Pre-Job Safety Meeting	8/16/2016	18:00:00	USER				With all essential personnel.
Event	7	Start Job	Start Job	8/16/2016	18:11:19	COM6	0.00	0.00	-25.00	With water supplied from frac tanks, water tested good to mix cement, Temp 76, PH 7, CI 34.
Event	8	Prime Pumps	Prime Pumps	8/16/2016	18:35:54	COM6	0.90	8.23	3.00	Fill lines with 2 bbls fresh water
Event	9	Pump Spacer 1	Pump Spacer 1	8/16/2016	18:41:50	COM6	0.00	8.29	-1.00	20 bbls fresh water, first 10 bbls with red dye.
Event	10	Pump Lead Cement	Pump Lead Cement	8/16/2016	18:50:24	COM6	0.00	8.19	-2.00	565 sks (175 bbls) Swiftcem @ 13.5 ppg, verified with scales before pumping.
Event	11	Shutdown	Shutdown	8/16/2016	19:08:23	USER	0.00	0.39	8.00	Scaled and scales were off by 3/10s, shutdown and fixed recirc, Start to pump and noticed recirc was lower than what scaled and auto-scaled too, due to master water being opened, shutdown, fixed weight and rescaled.
Event	12	Drop Top Plug	Drop Top Plug	8/16/2016	19:36:25	COM6	1.30	10.33	-7.00	Pre-load top plug in plug container, verified by customer rep.
Event	13	Pump Displacement	Pump Displacement	8/16/2016	19:36:32	COM6	1.30	10.44	-8.00	120 bbls pit water.
Event	14	Other	Spacer Returns to Surface	8/16/2016	19:47:03	COM6	6.30	8.77	322.00	@73 bbls displacement 20 bbls to surface
Event	15	Other	Cement Returns to	8/16/2016	19:52:04	COM6	4.90	8.72	483.00	@93 bbls displacement, 27 bbls to surface

Surface

Event	16	Bump Plug	Bump Plug	8/16/2016	19:57:04	USER	3.00	8.25	393.00	@ 500 Over, Final Circulating pressure 476 psi
Event	17	Check Floats	Check Floats	8/16/2016	19:57:44	USER	0.00	8.27	864.00	Floats good .5 bbls back
Event	18	End Job	End Job	8/16/2016	20:08:20	COM6	0.00	0.08	-8.00	
Event	19	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	8/16/2016	20:10:21	USER	2.10	8.59	-10.00	JSA to discuss the hazards of rig-down
Event	20	Rig-Down Equipment	Rig-Down Completed	8/16/2016	20:30:00	USER				
Event	21	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	8/16/2016	21:00:00	USER				Journey management meeting, Journey called into dispatch



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

Location from Service Center n/a;n/a;n/a    ⑤ Rig-Up Completed n/a;n/a;n/a    ⑦ Start Job 0;0;-25    ⑨ Pump Spacer 1 0;8.29;-1    ⑪ Shutdown 0;0.39;8    ⑬ Pump Displacement 1.3;10.44;-8    ⑮ Cement Returns to Surface 4.9;8.72;483    ⑰ Check Floats 0;8.27;864    ⑲ Pre-Job Safety Meeting n/a;n/a;n/a    ⑥ Pre-Job Safety Meeting n/a;n/a;n/a    ⑧ Prime Pumps 0.9;8.23;3    ⑩ Pump Lead Cement 0;8.19;-2    ⑫ Drop Top Plug 1.3;10.33;-7    ⑭ Spacer Returns to Surface 6.3;8.77;322    ⑯ Bump Plug 3;8.25;393    ⑱ End Job 0;0.08;-8    20 Ri

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Customer: EXTRACTION OIL & GAS    Job Date: 8/16/2016 6:09:20 PM    Well: Winder South 6  
 Representative:    Sales Order #:

