

# HALLIBURTON

iCem<sup>®</sup> Service

## **EXTRACTION OIL & GAS**

United States of America, COLORADO

Date: Saturday, October 29, 2016

### **Winder South #10**

Production

Job Date: Sunday, October 23, 2016

Sincerely,

**Lauren Roberts**

## Legal Notice

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Table of Contents

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1.0    Cementing Job Summary ..... 4

      1.1    Executive Summary .....4

2.0    Real-Time Job Summary ..... 7

      2.1    Job Event Log .....7

## 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 #10** 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.

**30 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]**

*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 369404		<b>Ship To #:</b> 3749910		<b>Quote #:</b>		<b>Sales Order #:</b> 0903605473				
<b>Customer:</b> EXTRACTION OIL & GAS				<b>Customer Rep:</b> Jose Torres						
<b>Well Name:</b> WINDER SOUTH			<b>Well #:</b> 10		<b>API/UWI #:</b> 05-123-43419-00					
<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-348FEL										
<b>Contractor:</b> PATTERSON-UTI ENERGY				<b>Rig/Platform Name/Num:</b> PATTERSON 346						
<b>Job BOM:</b> 7523										
<b>Well Type:</b> HORIZONTAL OIL										
<b>Sales Person:</b> HALAMERICA\HX38199				<b>Srv 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>		17355ft		<b>Job Depth TVD</b>		6810				
<b>Water Depth</b>				<b>Wk Ht Above Floor</b>		5				
<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	1566		0
Casing		5.5	4.778	20			0	17348	0	0
Open Hole Section			7.875				1566	17355	0	0
<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>	
<b>Guide Shoe</b>	5.5					<b>Top Plug</b>	5.5	1	KLX	
<b>Float Shoe</b>	5.5	1	KLX	17348		<b>Bottom Plug</b>	5.5		HES	
<b>Float Collar</b>	5.5	1	KLX	17341.5		<b>SSR plug set</b>	5.5		HES	
<b>Insert Float</b>	5.5					<b>Plug Container</b>	5.5	1	HES	
<b>Stage Tool</b>	5.5					<b>Centralizers</b>	5.5		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	11.5 lb/gal Tuned Spacer III	Tuned Spacer III	50	bbl	11.5	3.74		6		

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	ElastiCemW/O CBL	ELASTICEM (TM) SYSTEM	150	sack	13.2	1.57		5	7.48
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	ElastiCem W/ Super CBL	ELASTICEM (TM) SYSTEM	2050	sack	13.2	1.57		5	7.49
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	Displacement	385	bbl	8.33			8	
Cement Left In Pipe		Amount	6 ft		Reason			Shoe Joint	
Comment									

## 2.0 Real-Time Job Summary

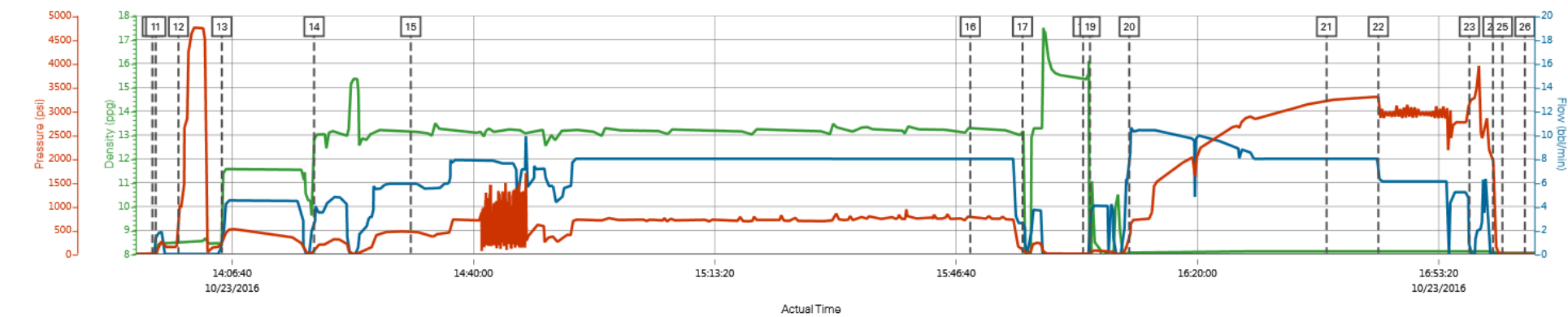
### 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comments
Event	1	Call Out	Call Out	10/23/2016	04:00:00	USER	Crew called out at 0400 Hrs.
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	10/23/2016	07:15:00	USER	Journey management meeting held prior to departure
Event	3	Depart from Service Center or Other Site	Depart from Service Center or Other Site	10/23/2016	07:30:00	USER	Journey called into dispatch
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	10/23/2016	08:30:00	USER	Crew arrived on location with all equipment
Event	5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	10/23/2016	08:35:00	USER	Hazard hunt and water test performed
Event	6	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	10/23/2016	08:45:00	USER	JSA to discuss hazards of rig up
Event	7	Rig-Up Equipment	Rig-Up Equipment	10/23/2016	09:00:00	USER	Spot trucks and rig all service lines
Event	8	Rig-Up Completed	Rig-Up Completed	10/23/2016	10:00:00	USER	Rig up completed to buffer zone
Event	9	Pre-Job Safety Meeting	Pre-Job Safety Meeting	10/23/2016	13:05:20	USER	Held safety meeting with all essential personnel
Event	10	Start Job	Start Job	10/23/2016	13:55:39	COM5	
Event	11	Pump Water	Pump Water	10/23/2016	13:56:06	USER	Fill lines with 2 BBLS.
Event	12	Test Lines	Test Lines	10/23/2016	13:59:15	USER	HMS pressure test to 5000 PSI
Event	13	Pump Spacer	Pump Spacer	10/23/2016	14:05:14	USER	Pump 50 BBLS. Tuned Spacer @ 11.5 PPG verified with scales
Event	14	Pump Lead Cement	Pump Lead Cement	10/23/2016	14:17:59	USER	Pump 150 sacks lead cement without super cbl @ 13.2 PPG, verified with scales
Event	15	Pump Lead Cement	Pump Lead Cement	10/23/2016	14:31:20	USER	Pump 2050 sacks lead cement with super cbl @ 13.2 PPG, verified with scales
Event	16	Check Weight	Check weight	10/23/2016	15:48:37	COM5	
Event	17	Shutdown	Shutdown	10/23/2016	15:55:50	USER	Shutdown to clean lines
Event	18	Clean Lines	Clean Lines	10/23/2016	16:04:12	USER	Clean lines

Event	19	Drop Top Plug	Drop Top Plug	10/23/2016	16:05:10	USER	Drop top plug verified by customer rep
Event	20	Pump Displacement	Pump Displacement	10/23/2016	16:10:35	USER	Pump 385 BBLS fresh water displacement
Event	21	Spacer Returns to Surface	Spacer Returns to Surface	10/23/2016	16:37:50	USER	Spacer returns to surface @ 305 BBLS
Event	22	Cement Returns to Surface	Cement Returns to Surface	10/23/2016	16:45:00	USER	Cement returns to surface @ 355 BBLS. Bbls to surface 30
Event	23	Bump Plug	Bump Plug	10/23/2016	16:57:34	USER	Bump Plug @ 500 over final circulating pressure 2986 psi
Event	24	Check Floats	Check Floats	10/23/2016	17:00:49	USER	Floats held. 2.5 BBLS. back to pump truck
Event	25	End Job	End Job	10/23/2016	17:02:07	COM5	Thanks- Mike Loughran and crew
Event	26	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	10/23/2016	17:05:14	USER	Held JSA to discuss hazards of rig down
Event	27	Rig-Down Equipment	Rig-Down Equipment	10/23/2016	17:15:00	USER	Rig-down all equipment and surface lines
Event	28	Rig-Down Completed	Rig-Down Completed	10/23/2016	17:57:02	USER	With no incidents
Event	29	Depart Location Safety Meeting	Depart Location Safety Meeting	10/24/2016	18:00:00	USER	Journey management meeting held prior to departure
Event	30	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	10/24/2016	18:15:00	USER	Journey called into dispatch



Custom Results



Description	Actual Time	DH Density (ppg)	Comb Pump Rate (bbl/min)	DS Pump Press (psi)
10 Start Job	13:55:39	0.06	0.00	1.00
11 Pump Water	13:56:06	0.65	1.30	3.00
12 Test Lines	13:59:15	8.45	0.00	152.00
13 Pump Spacer	14:05:14	8.38	1.60	245.00
14 Pump Lead Cement	14:17:59	12.81	2.20	46.00

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Created: 2016-10-23 07:01:56, (UTC-06:00), Version: 4.3.44

Edit

Customer : EXTRACTION OIL & GAS  
Representative : Aaron Smith

Job Date : 10/23/2016 12:00:00 AM  
Sales Order # : 903605473

Well : Winder South 10  
Elite #/ Operator : 11826999/ Brad Hinkle