

# HALLIBURTON

iCem<sup>®</sup> Service

## **EXTRACTION OIL & GAS**

Date: Saturday, November 12, 2016

### **Extraction Hester Farms C-36HN Surface**

Surface

Job Date: Monday, November 07, 2016

Sincerely,

**Justin Lansdale**

## Legal Notice

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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 **Hester Farms C-36HN** 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.

30 bbl cement 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 [Fort Lupton]**

*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 369404		<b>Ship To #:</b> 3684138		<b>Quote #:</b>		<b>Sales Order #:</b> 0903648151				
<b>Customer:</b> EXTRACTION OIL & GAS -				<b>Customer Rep:</b> Larry Siegel						
<b>Well Name:</b> HESTER FARMS			<b>Well #:</b> C-36HN			<b>API/UWI #:</b> 05-123-42002-00				
<b>Field:</b> WATTENBERG		<b>City (SAP):</b> EATON		<b>County/Parish:</b> WELD			<b>State:</b> COLORADO			
<b>Legal Description:</b> 31-7N-66W-1619FNL-202FWL										
<b>Contractor:</b>				<b>Rig/Platform Name/Num:</b> Spud Rig						
<b>Job BOM:</b> 7521										
<b>Well Type:</b> HORIZONTAL OIL										
<b>Sales Person:</b> HALAMERICA\HX38199				<b>Srv Supervisor:</b> Nathaniel Moore						
<b>Job</b>										
<b>Job depth MD</b>		1588ft		<b>Job Depth TVD</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	1588	0	1588
Open Hole Section			13.5				0	1589	0	1589
<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>	
Float Shoe	9.625			1588		Bottom Plug	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	50	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	SWIFTCM (TM) SYSTEM	525	sack	13.5	1.74		5	9.2	
9.20 Gal		<b>FRESH WATER</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>	
3	Fresh Water	Fresh Water	117	bbl	8.33					

Cement Left In Pipe	Amount	42 ft	Reason	Shoe Joint	

## 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	11/6/2016	23:30:00	USER	Verify equipment and materials. OL time 0330
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	11/7/2016	02:20:00	USER	journey management with crew
Event	3	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	11/7/2016	03:30:00	USER	Spot in and rig up equipment. Rig running casing
Event	4	Start Job	Start Job	11/7/2016	04:49:22	COM1	Fill lines 3 bbl water. Establish circulation
Event	5	Test Lines	Test Lines	11/7/2016	04:52:52	COM1	500 psi kickout test and 3000 psi pressure test
Event	6	Pump Spacer 1	Pump Spacer 1	11/7/2016	04:55:50	COM1	20 bbl water with dye in last 10
Event	7	Check Weight	Check weight	11/7/2016	05:07:18	COM1	13.5 ppg cement verified with pressurized scales
Event	8	Pump Cement	Pump Cement	11/7/2016	05:08:56	COM1	525 sks/163 bbl 13.5 ppg 1.74 ft3/sk 9.2 gal/sk
Event	9	Shutdown	Shutdown	11/7/2016	05:37:15	COM1	Washup on top of plug
Event	10	Drop Top Plug	Drop Top Plug	11/7/2016	05:39:27	COM1	witnessed by company rep

Event	11	Pump Displacement	Pump Displacement	11/7/2016	05:39:32	COM1	117 bbl water displacement
Event	12	Other	Cement to surface	11/7/2016	05:50:00	USER	75 bbl into displacement. 30 bbl cement to surface
Event	13	Bump Plug	Bump Plug	11/7/2016	05:58:09	COM1	490 psi final circulating pressure. Pressured up to 1500 psi casing test
Event	14	Other	Check floats	11/7/2016	05:59:35	COM1	0.5 bbl back
Event	15	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	11/7/2016	06:00:00	USER	
Event	16	End Job	End Job	11/7/2016	06:05:22	COM1	
Event	17	Depart Location Safety Meeting	Depart Location Safety Meeting	11/7/2016	07:00:00	USER	



## 2.2 Custom Graph

