

# HALLIBURTON

iCem<sup>®</sup> Service

## **EXTRACTION OIL & GAS**

United States of America

Date: Thursday, December 29, 2016

### **Hester Farms D-36HN**

Job Date: Monday, December 12, 2016

Sincerely,

**Justin Lansdale**

## Legal Notice

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Table of Contents

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Cementing Job Summary ..... 4

    Executive Summary .....4

Real-Time Job Summary ..... 7

    Job Event Log.....7

    Custom Graph.....9

## 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 D-36HN** 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.

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> 3684139		<b>Quote #:</b>		<b>Sales Order #:</b> 0903716778				
<b>Customer:</b> EXTRACTION OIL & GAS				<b>Customer Rep:</b> Jose Torres						
<b>Well Name:</b> HESTER FARMS			<b>Well #:</b> D-36HN		<b>API/UWI #:</b> 05-123-41994-00					
<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-1634FNL-202FWL										
<b>Contractor:</b> CYCLONE				<b>Rig/Platform Name/Num:</b> CYCLONE 37						
<b>Job BOM:</b> 7523										
<b>Well Type:</b> HORIZONTAL OIL										
<b>Sales Person:</b> HALAMERICA\HX38199				<b>Srv Supervisor:</b> Vaughn Oteri						
<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>		11865ft		<b>Job Depth TVD</b>						
<b>Water Depth</b>				<b>Wk Ht Above Floor</b>						
<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	1550	0	1550
Casing		5.5	4.778	20			0	11865	0	7189
Open Hole Section			8.5				1550	11874	1550	7189
<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			11865		<b>Bottom Plug</b>	5.5			
<b>Float Collar</b>	5.5			11859		<b>SSR plug set</b>	5.5			
<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			
<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	ElastiCem W/O CBL	ELASTICEM (TM) SYSTEM	150	sack	13.2	1.57		6	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 Tail	ELASTICEM (TM) SYSTEM	1800	sack	13.2	1.57		6	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
5	Displacement	Displacement	265	bbl	8.33			8	
Cement Left In Pipe		Amount	5 ft		Reason			Shoe Joint	
Comment 50bbl of cement									

## 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	12/12/2016	08:00:00	USER	Call out from ARC
Event	2	Arrive At Loc	Arrive At Loc	12/12/2016	12:30:00	USER	Arrived on location met with company rep to discuss job process and concerns
Event	3	Other	Other	12/12/2016	12:31:00	USER	TD-11874 TP-11865 FC-11859 OH-8.5 Surf-1550 mud-9.6 Casing 5.5 20#
Event	4	Start Job	Start Job	12/12/2016	16:12:08	COM4	Held pre-job safety meeting with all hands on location to discuss job process and hazards
Event	5	Test Lines	Test Lines	12/12/2016	16:52:27	COM4	Pressure tested pumps and lines with fresh water found no leaks and pressure held good
Event	6	Pump Spacer 1	Pump Spacer 1	12/12/2016	16:56:18	COM4	Mixed 50bbl of 11.5ppg Tuned spacer III at 4.0bpm 350psi
Event	7	Pump Lead Cement	Pump Lead Cement	12/13/2016	17:12:00	COM4	Mixed 1950sks or 545bbl of 13.2ppg y-1.57 g/sk 7.48 Elasticem at 8.0bpm 586psi
Event	8	Check Weight	Check weight	12/13/2016	17:48:04	COM4	Confrimed weight on scales of 13.2ppg
Event	9	Shutdown	Shutdown	12/13/2016	18:34:42	COM4	
Event	10	Clean Lines	Clean Lines	12/13/2016	18:34:48	COM4	Washed pumps and lines with fresh water
Event	11	Drop Top Plug	Drop Top Plug	12/13/2016	18:34:52	COM4	KLX tool hand released plug witnessed by company rep and HES supervisor
Event	12	Pump Displacement	Pump Displacement	12/13/2016	18:42:32	COM4	Pumped 265bbl of fresh water to displace cement
Event	13	Bump Plug	Bump Plug	12/13/2016	19:13:15	COM4	Bumped plug 500 psi over final pump pressure

Event	14	Pressure Up Well	Pressure Up Well	12/13/2016	19:13:36	COM4	Pressure up well to burst plug
Event	15	Other	Other	12/13/2016	19:16:16	COM4	Released pressure back to pump truck to check floats 3.0bbl back floats held good
Event	16	End Job	End Job	12/13/2016	19:20:57	COM4	50bbl of cement back to surface



## 2.2 Custom Graph

