

# HALLIBURTON

iCem<sup>®</sup> Service

## **EXTRACTION OIL & GAS**

Date: Sunday, January 08, 2017

### **Matrix T-29HN Production**

Job Date: Tuesday, December 20, 2016

Sincerely,

**Julia Nichols**

## 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 **Matrix T-29HN 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 40 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 #: 3627206		Quote #:		Sales Order #: 0903723289					
Customer: EXTRACTION OIL & GAS				Customer Rep: Shane Hackford							
Well Name: MATRIX			Well #: T-29HN			API/UWI #: 05-123-40696-00					
Field: GREELEY		City (SAP): GREELEY		County/Parish: WELD		State: COLORADO					
Legal Description: SE SW-29-6N-65W-488FSL-2387FWL											
Contractor: H & P DRLG				Rig/Platform Name/Num: H & P 321							
Job BOM: 7523											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HX38199					Srvc Supervisor: Vaughn Oteri						
<b>Job</b>											
<b>Formation Name</b>											
Formation Depth (MD)		Top			Bottom						
Form Type					BHST						
Job depth MD		12030ft			Job Depth TVD						
Water Depth					Wk Ht Above Floor						
Perforation Depth (MD)		From			To						
<b>Well Data</b>											
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			0.625	8.921	36			0	1525	0	1525
Casing			5.5	4.778	20			0	12018	0	6800
Open Hole Section				8.5				1525	12030	1525	6800
<b>Tools and Accessories</b>											
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			12018		Bottom Plug	5.5				
Float Collar	5.5			12012		SSR plug set	5.5				
Insert Float	5.5					Plug Container	5.5	1	HES		
Stage Tool	5.5					Centralizers	5.5				
<b>Fluid Data</b>											
<b>Stage/Plug #: 1</b>											
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
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 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

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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	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 <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
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
5	Displacement	Displacement	289	bbl	8.33			8	
<b>Cement Left In Pipe</b>									
<b>Amount</b>	5 ft		<b>Reason</b>				Shoe Joint		
<b>Comment</b> 40bbl 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	12/20/2016	18:00:00	USER				Call out from ARC hub
Event	2	Arrive At Loc	Arrive At Loc	12/20/2016	22:00:00	USER				Arrived on location met with company rep to discuss job process and concerns
Event	3	Other	Other	12/20/2016	22:10:10	USER				TD-12030 TP-12018 FC-12012 Surf-1525 Mud 9.5 Casing 5.5 20#
Event	4	Start Job	Start Job	12/20/2016	01:46:45	COM4	0.00	0.00	0.00	Held pre-job safety meeting with all hands on location to discuss job process and hazards
Event	5	Test Lines	Test Lines	12/20/2016	02:01:45	COM4	4970.00	8.63	0.00	Pressure tested pumps and lines to 4920psi found no leaks and pressure held good
Event	6	Pump Spacer 1	Pump Spacer 1	12/20/2016	02:05:50	COM4	135.00	11.59	1.70	Mixed 50bbl of 11.5ppg Tuned spacer III at 4.0bpm 164psi
Event	7	Pump Cement	Pump Cement	12/20/2016	02:19:12	COM4	63.00	12.69	3.80	Mixed 1800sks or 447bbl of 13.2ppg Y-1.57 g/sk-7.48 Elasticem at 8.0bpm 547psi
Event	8	Check Weight	Check weight	12/20/2016	02:21:10	COM4	708.00	13.25	8.50	Confirmed weight on scales of 13.2ppg
Event	9	Check Weight	Check weight	12/20/2016	03:00:33	COM4	358.00	13.22	8.20	Confirmed weight on scales of 13.2ppg
Event	10	Shutdown	Shutdown	12/20/2016	03:23:22	COM4	42.00	13.78	0.00	
Event	11	Clean Lines	Clean Lines	12/20/2016	03:27:43	COM4	12.00	15.21	0.00	Washed pumps and lines with fresh water
Event	12	Drop Top Plug	Drop Top Plug	12/20/2016	03:27:47	COM4	5.00	16.61	0.00	KLX tool hand released plug witnessed by company rep and HES supervisor
Event	13	Pump Displacement	Pump Displacement	12/20/2016	03:34:04	COM4	-8.00	-0.27	0.00	Pumped 269bbl of fresh water to displace cement
Event	14	Bump Plug	Bump Plug	12/20/2016	04:02:55	COM4	3008.00	8.29	0.00	Bumped plug 500psi over final pump pressure
Event	15	Pressure Up Well	Pressure Up Well	12/20/2016	04:03:22	COM4	3024.00	8.29	0.00	Pressure up well to rupture disc in plug and pumped 5bbl for wet shoe
Event	16	Other	Other	12/20/2016	04:05:59	COM4	1821.00	8.25	0.00	Released pressure back to pump truck to check floats 2.0bbl

back, floats held good

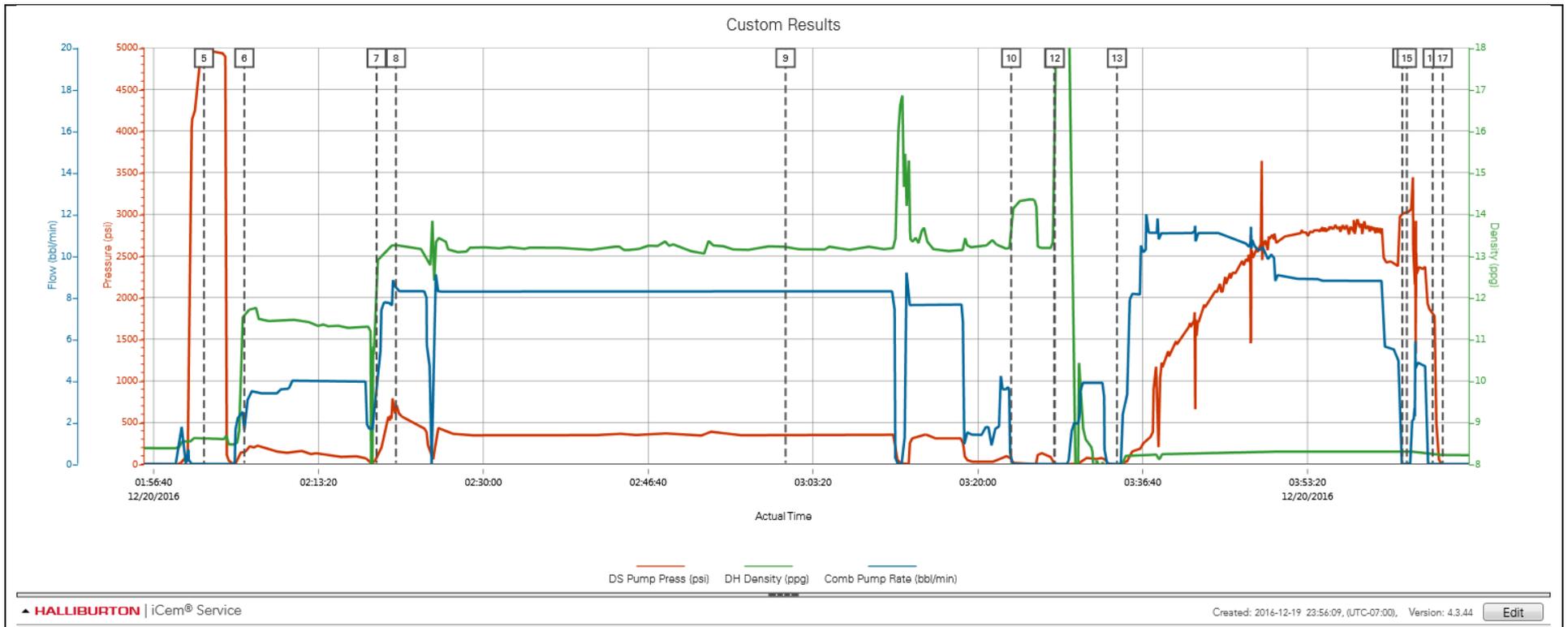
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Event	17	End Job	End Job	12/20/2016	04:07:00	USER	-10.00	8.23	0.00	40bbl of cement back to surface
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3.0 Attachments

3.1 Custom Results – Job Chart with Events



3.2 Custom Results – Job Chart without Events

