

# HALLIBURTON

iCem<sup>®</sup> Service

## **EXTRACTION OIL & GAS**

United States of America, COLORADO

### **Matrix E-29HN**

Production

903752645

Job Date: Saturday, December 31, 2016

Sincerely,

**Derek Trier**

## Legal Notice

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### Disclaimer:

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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 E-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, 40bbl 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*

Sold To #: 369404		Ship To #: 3627194		Quote #:		Sales Order #: 0903752645				
Customer: EXTRACTION OIL & GAS				Customer Rep:						
Well Name: MATRIX			Well #: E-29HN			API/UWI #: 05-123-40705-00				
Field: GREELEY		City (SAP): GREELEY		County/Parish: WELD		State: COLORADO				
Legal Description: SE SW-29-6N-65W-462FSL-2348FWL										
Contractor: H & P DRLG					Rig/Platform Name/Num: H & P 321					
Job BOM: 7523										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199					Srcv Supervisor: Andrew Brennecke					
<b>Job</b>										
Formation Name										
Formation Depth (MD)		Top			Bottom					
Form Type					BHST					
Job depth MD		11670ft			Job Depth TVD					
Water Depth					Wk Ht Above Floor <sup>3</sup>					
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		9.625	8.921	36			0	1570	0	1570
Casing		5.5	4.778	20		P-110	0	11670	0	0
Open Hole Section			7.875				1570	11673	1570	7050
<b>Tools and Accessories</b>										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe						Top Plug	5.5	1	KLX	
Float Shoe	5.5	1		11670		Bottom Plug				
Float Collar	5.5	1		11616		SSR plug set				
Insert Float						Plug Container	5.5	1	HES	
Stage Tool						Centralizers				
<b>Fluid Data</b>										
Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /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		3		
0.30 gal/bbl		MUSOL A, 330 GAL TOTE - (790828)								
149.34 lbm/bbl		BARITE, BULK (100003681)								
35.40 gal/bbl		FRESH WATER								
0.30 gal/bbl		DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)								

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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/min	Total Mix Fluid Gal	
2	ElastiCem W/O CBL	ELASTICEM (TM) SYSTEM	150	sack	13.2	1.57		6	7.48	
7.48 Gal		FRESH WATER								
0.90 %		HR-5, 50 LB SK (100005050)								
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
3	ElastiCem Tail	ELASTICEM (TM) SYSTEM	1400	sack	13.2	1.57		7.4	7.49	
7.49 Gal		FRESH WATER								
0.80 %		HR-5, 50 LB SK (100005050)								
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
4	Displacement	Displacement	256.7	bbl	8.33			11.5		
Cement Left In Pipe		Amount	53 ft			Reason		Shoe Joint		
Mix Water:		pH 7	Mix Water Chloride:		0 ppm		Mix Water Temperature:		55 °F	
Cement Temperature:			Plug Displaced by:		8.4 lb/gal		Disp. Temperature:			
Plug Bumped?:		Yes	Bump Pressure:		2607 psi MPa		Floats Held?:		Yes	
Cement Returns:		40 bbl	Returns Density:				Returns Temperature:			
Comment										

## 2.0 Real-Time Job Summary

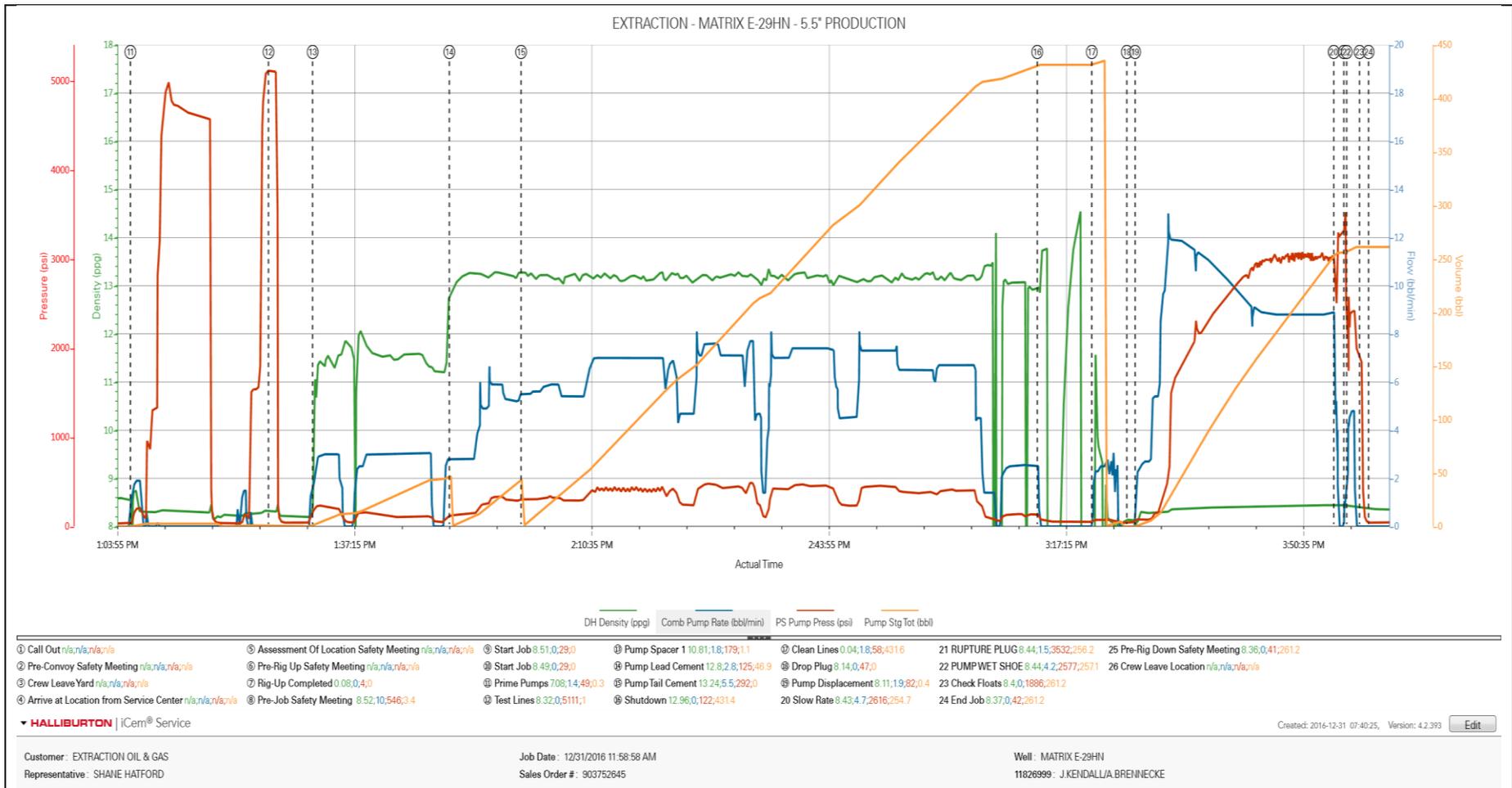
### 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	PS Pump Press <i>(psi)</i>	DH Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	Comments
Event	1	Call Out	Call Out	12/31/2016	06:00:00	USER				
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	12/31/2016	08:45:00	USER				ALL HES PRESENT
Event	3	Crew Leave Yard	Crew Leave Yard	12/31/2016	09:00:00	USER				
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	12/31/2016	10:00:00	USER				RIG RUNNING CASING
Event	5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	12/31/2016	10:15:00	USER				
Event	6	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	12/31/2016	10:25:00	USER				ALL HES PRESENT
Event	7	Rig-Up Completed	Rig-Up Completed	12/31/2016	12:00:00	USER	4.00	0.08	0.00	1-ELITE, 1-660 BULK TRAILER, 1-1400 FIELD BIN, 1-1600 FIELD BIN, 5.5" QUICK LATCH PLUG CONTAINER, 2' PUMP IRON, 4" SUCTION HOSE
Event	8	Pre-Job Safety Meeting	Pre-Job Safety Meeting	12/31/2016	12:15:00	USER	546.00	8.52	10.00	ALL HES AND RIG CREW PRESENT
Event	9	Start Job	Start Job	12/31/2016	12:52:26	COM5	29.00	8.51	0.00	
Event	10	Start Job	Start Job	12/31/2016	13:00:00	USER	29.00	8.49	0.00	TD-11673', TVD-7050", TP-11670.3', SJ-53.37', CSG-5.5" 20# P110, OH-7.875", SCSG-9.625" 36# 0-1570', MUD-8.7PPG
Event	11	Prime Pumps	Prime Pumps	12/31/2016	13:05:59	USER	45.00	6.19	1.40	FRESH WATER
Event	12	Test Lines	Test Lines	12/31/2016	13:25:24	COM5	5111.00	8.32	0.00	1" LOTORQ WAS REPLACED ON FIRST PRESSURE TEST, ALL PRESSURE HELD AFTER

Event	13	Pump Spacer 1	Pump Spacer 1	12/31/2016	13:31:36	COM5	179.00	10.81	1.80	TUNED SPACER III, 50BBLs, 11.5PPG, 3.74CF/SK, 23.7GAL/SK
Event	14	Pump Lead Cement	Pump Lead Cement	12/31/2016	13:50:48	COM5	125.00	12.79	2.80	ELASTICEM W/O CBL 150SKS, 1.57CF/SK, 7.48GAL/SK
Event	15	Pump Tail Cement	Pump Tail Cement	12/31/2016	14:00:53	COM5	293.00	13.24	5.50	ELASTICEM W/CBL 1400SKS, 13.2PPG, 1.57CF/SK, 7.49GAL/SK
Event	16	Shutdown	Shutdown	12/31/2016	15:13:25	USER	127.00	12.96	0.70	
Event	17	Clean Lines	Clean Lines	12/31/2016	15:21:05	COM5	57.00	-0.09	1.80	CLEANED PUMPS AND LINES TO 4 SIDED TANK
Event	18	Drop Plug	Drop Plug	12/31/2016	15:26:01	USER	47.00	8.14	0.00	
Event	19	Pump Displacement	Pump Displacement	12/31/2016	15:27:10	COM5	82.00	8.11	1.80	
Event	20	Slow Rate	Slow Rate	12/31/2016	15:55:05	USER	2698.00	8.44	4.60	
Event	21	Other	RUPTURE PLUG	12/31/2016	15:56:30	USER	3532.00	8.44	1.50	RUPTURED PLUG 3500PSI
Event	22	Other	PUMP WET SHOE	12/31/2016	15:56:54	USER	1745.00	8.40	4.10	PUMPED 5 BBL WET SHOE
Event	23	Check Floats	Check Floats	12/31/2016	15:58:43	USER	1886.00	8.40	0.00	FLOATS HELD 2 BBLs BACK
Event	24	End Job	End Job	12/31/2016	15:59:59	COM5	42.00	8.37	0.00	GOOD RETURNS THROUGH OUT JOB, 40BBLs CEMENT TO SURFACE
Event	25	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	12/31/2016	16:05:00	USER	41.00	8.36	0.00	ALL HES PRESENT
Event	26	Crew Leave Location	Crew Leave Location	1/1/2017	17:30:00	USER				THANK YOU FOR CHOOSING HALLIBURTON, ANDREW BRENNECKE AND CREW

3.0 Attachments

3.1 903752645-Custom Results.png



3.2 903752645-Custom Results (1).png

