

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS-EBUS

Date: Friday, December 29, 2017

Jesser 3E-10-5N PRODUCTION

Job Date: Saturday, December 09, 2017

Sincerely,

Julia Nichols

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **JESSER 3E-10-5N** 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 60 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 [Fort Lupton]

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Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 389404	Ship To #: 3830808	Quote #:	Sales Order #: 0904490556							
Customer: EXTRACTION OIL & GAS		Customer Rep: Larry Siegel								
Well Name: JESSER	Well #: 3E-10-5N	API/UWI #: 05-123-45660-00								
Field: WATTENBERG	City (SAP): BERTHOUD	County/Parish: WELD	State: COLORADO							
Legal Description: NW SW-3-4N-68W-2314FSL-436FWL										
Contractor:		Rig/Platform Name/Num: Patterson 901								
Job BOM: 7523 7523										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199		Srvc Supervisor: Nicholas Roles								
Job										
Formation Name										
Formation Depth (MD)	Top	Bottom								
Form Type		BHST								
Job depth MD	11926ft	Job Depth TVD								
Water Depth		Wk Ht Above Floor								
Perforation Depth (MD)	From	To								
Well Data										
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	9.625	8.921	36		J-55	0	1599	0	1599
Casing	0	5.5	4.778	20		P-110	0	11926	0	7050
Open Hole Section			8.5				1599	11930	1599	7050
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make		
Guide Shoe	5.5				Top Plug	5.5		HES		
Float Shoe	5.5			11926	Bottom Plug	5.5		HES		
Float Collar	5.5				SSR plug set	5.5		HES		
Insert Float	5.5				Plug Container	5.5	1	HES		
Stage Tool	5.5				Centralizers	5.5		HES		
Fluid Data										
Stage/Plug #: 1										
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	3.73		5		
149.34 lbm/bbl		BARITE, BULK (100003681)								
35 gal/bbl		FRESH WATER								
0.50 gal/bbl		MUSOL A, 330 GAL TOTE - (790828)								
0.50 gal/bbl		DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003685)								

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Cementing Job Summary

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	ELASTICEM (TM) SYSTEM	2000	sack	13.2	1.57		8	7.53
0.40 %		SCR-100 (100003749)							
7.50 Gal		FRESH WATER							
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	Displacement	Displacement	265	bbl	8.34			10	
Cement Left In Pipe		Amount	0 ft		Reason			Wet Shoe	
Comment Got 60bbls Cement to surface.									

2.0 Real-Time Job Summary

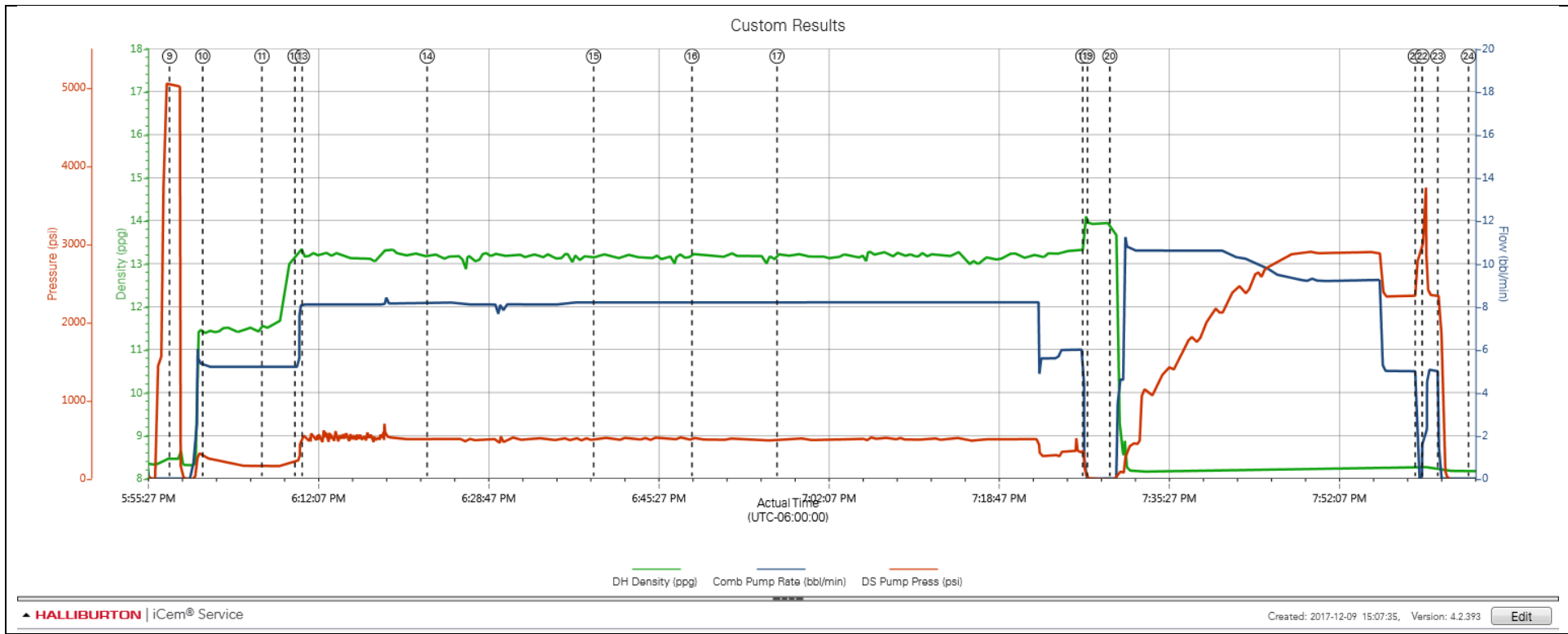
2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	DS Pump Press (psi)	Comments
Event	1	Call Out	Call Out	12/9/2017	09:00:00	USER				Called out by Service Coordinator for O/L at 1400
Event	2	Depart Location Safety Meeting	Depart Location Safety Meeting	12/9/2017	12:15:00	USER				Held meeting with all personnel in convoy to discuss directions and hazards associated with drive, all fit to drive.
Event	3	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	12/9/2017	12:30:00	USER				Journey Management prior to departure
Event	4	Arrive at Location from Other Job or Site	Arrive at Location from Other Job or Site	12/9/2017	13:00:00	USER				Upon arrival met with company man to discuss job details and calculations, performed hazard hunt and site assessment.
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	12/9/2017	13:15:00	USER				Discussed rigging up hazards and procedure according to HMS.
Event	6	Other	Other	12/9/2017	13:30:00	USER				Water test- PH-6, Chlor-0, Temp-60. Cement temp-65.
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	12/9/2017	16:30:00	USER	8.34	0.00	-29.00	Held safety meeting with all job associated personnel to discuss job procedure, hazards and stop work authority.
Event	8	Start Job	Start Job	12/9/2017	17:47:16	COM4	8.34	0.00	-34.00	TD-11930', TP-11926' 5.5" 20#, FC-11921', TVD-7050', SURF-1599' 9.625" 36#, MUD 8.2#
Event	9	Test Lines	Test Lines	12/9/2017	17:57:46	COM4	8.46	0.00	5032.00	Pumped 5bbls fresh water to fill lines at 2bpm 110psi, shut manifold, and performed 500psi k/o function test, followed with 5th gear stall at 1480psi, proceeded to bring pressure to 4500psi, pressure stabilized and held with no leaks.
Event	10	Pump Spacer	Pump Spacer	12/9/2017	18:01:01	USER	11.38	5.20	279.00	Pumped 50bbls of 11.5# 3.73y 23.4g/s Tuned Spacer III with 25g Musol A, 25g Dual Spacer B and 10g D-air at 5bpm 210psi.
Event	11	Check Weight	Check weight	12/9/2017	18:06:49	COM4	11.54	5.20	158.00	Weight verified with pressurized mud scales.
Event	12	Pump Cement	Pump Cement	12/9/2017	18:10:03	COM4	13.21	5.20	225.00	Pumped 2000sks or 559bbls of 13.2# 1.57y 7.53g/s Elasticem at 8bpm 537psi.
Event	13	Check Weight	Check weight	12/9/2017	18:10:46	COM4	13.16	8.10	531.00	Weight verified with pressurized mud scales.

Event	14	Check Weight	Check weight	12/9/2017	18:23:00	COM4	13.20	8.20	517.00	Weight verified with pressurized mud scales.
Event	15	Check Weight	Check weight	12/9/2017	18:39:18	COM4	13.16	8.10	515.00	Weight verified with pressurized mud scales.
Event	16	Check Weight	Check weight	12/9/2017	18:48:56	COM4	13.23	8.20	510.00	Weight verified with pressurized mud scales.
Event	17	Check Weight	Check weight	12/9/2017	18:57:16	COM4	13.23	8.20	508.00	Weight verified with pressurized mud scales.
Event	18	Shutdown	Shutdown	12/9/2017	19:27:13	COM4	14.10	0.00	89.00	No wash up. Extra bbl on wet shoe to account for clean shoe.
Event	19	Drop Top Plug	Drop Top Plug	12/9/2017	19:27:40	COM4	13.93	0.00	-7.00	Dropped by KLX tool hand, witnessed by company man and HES supervisor.
Event	20	Pump Displacement	Pump Displacement	12/9/2017	19:29:52	COM4	13.78	0.00	-12.00	Pumped 265bbls fresh water at 10bpm
Event	21	Bump Plug	Bump Plug	12/9/2017	19:59:47	COM4				Slowed down at 250bbls away to 5bpm, final circulating pressure-2330psi. Bump pressure-2910psi.
Event	22	Pressure Up Well	Pressure Up Well	12/9/2017	20:00:28	USER	8.26	2.10	3409.00	Pumped fresh water to burst at 3715psi, continued to pump 6bbls fresh water at 5bpm 2345psi for wet shoe.
Event	23	Check Floats	Check Floats	12/9/2017	20:02:00	USER	8.23	0.00	2010.00	Released pressure and got 2bbls back. Floats held.
Event	24	End Job	End Job	12/9/2017	20:05:00	USER	8.17	0.00	-20.00	Got 60bbls Cement to surface.
Event	25	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	12/9/2017	20:15:00	USER	-0.32	0.00	-23.00	Discussed rigging down hazards and procedure according to HMS.
Event	26	Depart Location Safety Meeting	Depart Location Safety Meeting	12/9/2017	21:45:00	USER				Held meeting with all personnel in convoy to discuss directions and hazards associated with drive, all fit to drive.
Event	27	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	12/9/2017	22:00:00	USER				Pre journey management prior to departure.

3.0 Attachments

3.1 Custom Results – Job Chart with Events



3.2 Custom Results – Job Chart without Events

