

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS-EBUS

Date: Wednesday, January 03, 2018

Jesser 3E-10-13N Production

Job Date: Sunday, December 31, 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-10-13N** 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 #: 3830595		Quote #:		Sales Order #: 0904539190				
Customer: EXTRACTION OIL & GAS				Customer Rep: Larry Siegel						
Well Name: JESSER			Well #: 3E-10-13N			API/UWI #: 05-123-45670-00				
Field: WATTENBERG		City (SAP): BERTHOUD		County/Parish: WELD		State: COLORADO				
Legal Description: NW SW-3-4N-88W-2314FSL-598FWL										
Contractor:					Rig/Platform Name/Num: Patterson 901					
Job BOM: 7523 7523										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199					Srv Supervisor: Steven Markovich					
Job										
Formation Name										
Formation Depth (MD)		Top			Bottom					
Form Type		BHST								
Job depth MD		11940ft			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	1586	0	1586
Casing	0	5.5	4.778	20		P-110	0	11940		0
Open Hole Section			8.5				1586	11950		0
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	5.5			11940		Top Plug	5.5		HES	
Float Shoe	5.5					Bottom Plug	5.5		HES	
Float Collar	5.5					SSR plug set	5.5		HES	
Insert Float	5.5					Plug Container	5.5		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 ft ³ /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		6		
35 gal/bbl		FRESH WATER								
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	

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Cementing Job Summary

2	ElastiCem	ELASTICEM (TM) SYSTEM	2000	sack	13.2	1.57		5	7.53
0.45 %		SCR-100 (100003749)							
7.53 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft³/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
3	Displacement	Displacement	263	bbl	8.34				
Cement Left In Pipe		Amount	Reason						
		0 ft			5 bbl wet shoe				
Comment Spacer to surface at 153bbs away, Cement to surface at 203bbs away bringing 60bbls of cement to surface. Final lifting pressure was 2515psi. Plug burst at 3770psi then pumped a 5bbl wet shoe.									

2.0 Real-Time Job Summary

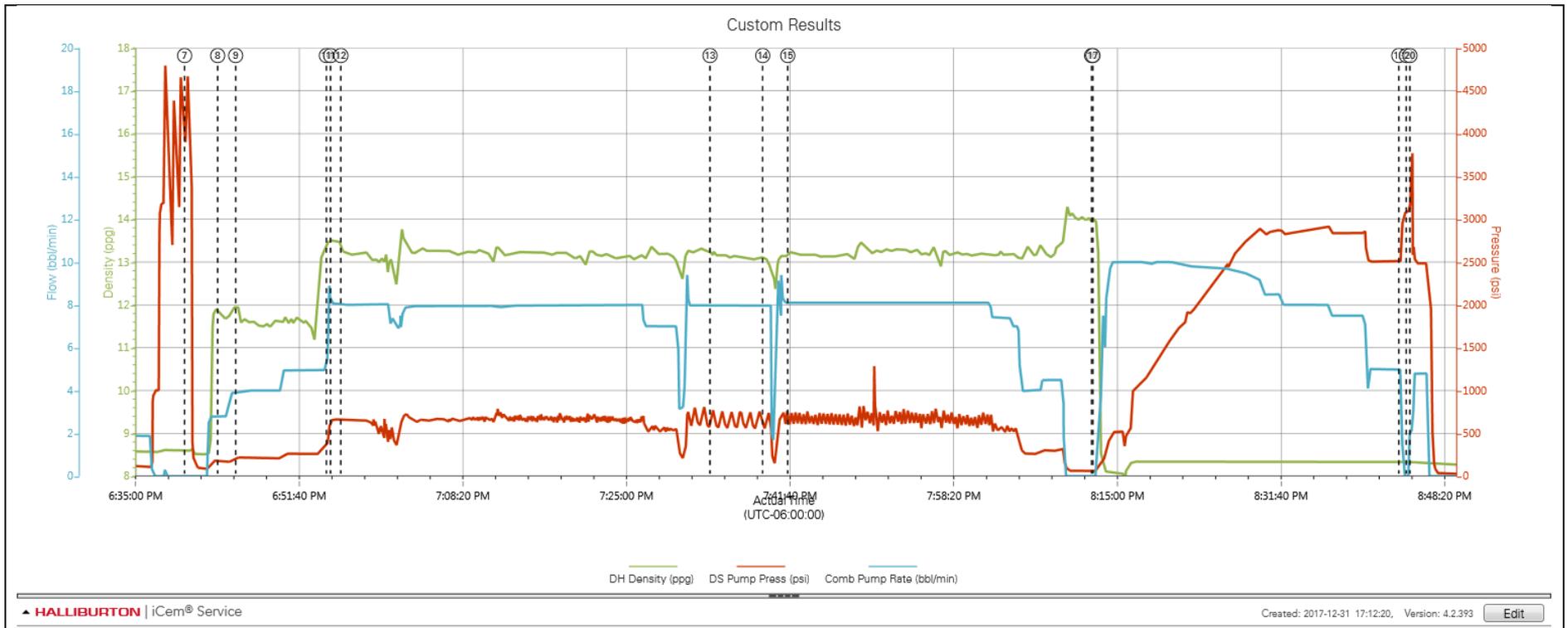
2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density <i>(ppg)</i>	DS Pump Press <i>(psi)</i>	Comb Pump Rate <i>(bbl/min)</i>	Comments
Event	1	Call Out	Call Out	12/31/2017	09:00:00	USER				Job called out with and on location time of 16:00.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	12/31/2017	14:30:00	USER				JSA with HES crew on driving safety and route to rig.
Event	3	Arrive at Location from Service Center	Arrive at Location from Service Center	12/31/2017	15:30:00	USER				Arrived on location, rig was sti running casing. Still had 4000' to run.
Event	4	Safety Meeting - Assessment of Location	Safety Meeting - Assessment of Location	12/31/2017	15:45:00	USER				JSA and Hazard hunt with HES crew.
Event	5	Rig-Up Equipment	Rig-Up Equipment	12/31/2017	16:00:00	USER				Rigged up HES lines and equipment.
Event	6	Start Job	Start Job	12/31/2017	18:32:01	COM4	8.32	141.00	4.10	TD 11950' TP 11940' FC 11935' 5 1/2" 20# production casing, 8 1/2" open hole 9 5/8" 36# surface casing at 1585'.
Event	7	Test Lines	Test Lines	12/31/2017	18:40:15	USER	8.60	4650.00	0.10	Set kick outs to 500psi and check kick outs, then bring pressure up to 4500psi. With temp below 10 degress did a quick test to make sure there was no leaks.
Event	8	Pump Spacer 1	Pump Spacer 1	12/31/2017	18:43:37	COM4	11.87	175.00	2.80	Pump 50bbs of 11.5ppg 3.73yield Tuned Spacer. Added 25 gallons of Musol A and Dual Spacer B on the fly. Pumped at 4bbl/min 214psi.
Event	9	Check Weight	Check weight	12/31/2017	18:45:26	COM4	11.94	222.00	3.90	Weight verified by Pressurized Scales.
Event	10	Pump Cement	Pump Cement	12/31/2017	18:54:41	COM4	13.46	464.00	6.70	Pump 559bbls (2000sks) of 13.2ppg 1.57yield Cement. Pumped at 8bbl/min 616psi.
Event	11	Check Weight	Check weight	12/31/2017	18:55:06	COM4	13.49	665.00	8.10	Weight verified by Pressurized Scales.
Event	12	Check Weight	Check weight	12/31/2017	18:56:09	COM4	13.22	656.00	8.10	Weight verified by Pressurized Scales.
Event	13	Check Weight	Check weight	12/31/2017	19:33:45	COM4	13.15	803.00	7.90	Weight verified by Pressurized Scales.
Event	14	Check Weight	Check weight	12/31/2017	19:39:07	COM4	13.06	554.00	7.90	Weight verified by Pressurized Scales.
Event	15	Check Weight	Check weight	12/31/2017	19:41:40	COM4	13.25	609.00	8.10	Weight verified by Pressurized Scales.

Event	16	Drop Top Plug	Drop Top Plug	12/31/2017	20:12:37	COM4	14.01	60.00	0.00	Plug loaded into HES head with Tool hand and Company rep. Plug drop verified by company rep and tool hand.
Event	17	Pump Displacement	Pump Displacement	12/31/2017	20:12:45	COM4	13.91	61.00	0.00	Pump 263bbbls of H2O. Pumped at 10bb/min and slowed rate with pressure increase. Spacer to surface at 153bbbls away Cement to surface at 203bbbls away bringing 60bbbls of cement to surface.
Event	18	Bump Plug	Bump Plug	12/31/2017	20:43:55	COM4	8.33	2515.00	5.00	Final lifting pressure was 2515psi, brought pressure 500psi over and held.
Event	19	Other	Other	12/31/2017	20:44:41	USER	8.31	3092.00	0.00	Kicked pumps in to burst plug.
Event	20	Other	Other	12/31/2017	20:45:02	COM4	8.34	3770.00	2.10	Plug burst at 3770psi, then brought rate up to 5bbl/min and pumped 5bbl wet shoe. Opened release line to check floats, after 2bbbls back floats held.
Event	21	End Job	End Job	12/31/2017	20:51:12	COM4	8.26	25.00	0.00	Thank you Steve Markovich and Crew.

3.0 Attachments

3.1 Custom Results – Job Chart with Events



3.2 Custom Results – Job Chart without Events

