HALLIBURTON

iCem® Service

EXTRACTION OIL & GAS-EBUS

Date: Friday, January 12, 2018

Jesser 3E-10-14C PRODUCTION

Job Date: Wednesday, January 03, 2018

Sincerely,

Julia Nichols

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Table of Contents

1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Jesser 3E-10-14C** 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 51 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 #: 369404	**Ship To #:** 3830598	**Quote #:**	**Sales Order #:** 0904545815
Customer: EXTRACTION OIL & GAS		**Customer Rep:**	
Well Name: JESSER	**Well #:** 3E-10-14C		**API/UWI #:** 05-123-45667-00
Field: WATTENBERG	**City (SAP):** BERTHOUD	**County/Parish:** WELD	**State:** COLORADO
Legal Description: NW SW-3-4N-68W-2314FSL-616FWL			
Contractor:		**Rig/Platform Name/Num:** Patterson 901	
Job BOM: 7523 7523			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HX38199		**Srvc Supervisor:** Nicholas Peterson	

Job

Formation Name					
Formation Depth (MD)	**Top**		**Bottom**		
Form Type			**BHST**		
Job depth MD	12,166'		**Job Depth TVD**	7,270	
Water Depth			**Wk Ht Above Floor**	5'	
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	1593	0	0
Casing	0	5.5	4.778	20		P-110	0	12166		0
Open Hole Section			8.5				1593	12176	0	0

Tools and Accessories

Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make
Guide Shoe	5.5	1	KLX	12,166		Top Plug	5.5	1	KLX
Float Shoe	5.5	1	KLX	12,161		Bottom Plug			
Float Collar						SSR plug set			
Insert Float						Plug Container	5.5	1	HES
Stage Tool						Centralizers	5.5		

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	23.4	6	1,170

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	2,000	sack	13.2	1.57	7.53	8	15,060

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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
3	Displacement	Displacement	270	bbl	8.34		42	10	

Cement Left In Pipe	Amount	ft	Reason		
Mix Water:	pH 7.0	Mix Water Chloride:	0	Mix Water Temperature:	65 °F
Cement Temperature:	## °F	Plug Displaced by:	8.33 lb/gal	Disp. Temperature:	65 °F
Plug Bumped?	Yes	Bump Pressure:	2,230 psi	Floats Held?	Yes
Cement Returns:	51 bbls	Returns Density:	13.2 lb/gal	Returns Temperature:	## °F

Comment: Pumped 50 bbls Spacer, 559 Cement, 270 Displacement, 51 bbls cement to surface.

2.0 Real-Time Job Summary

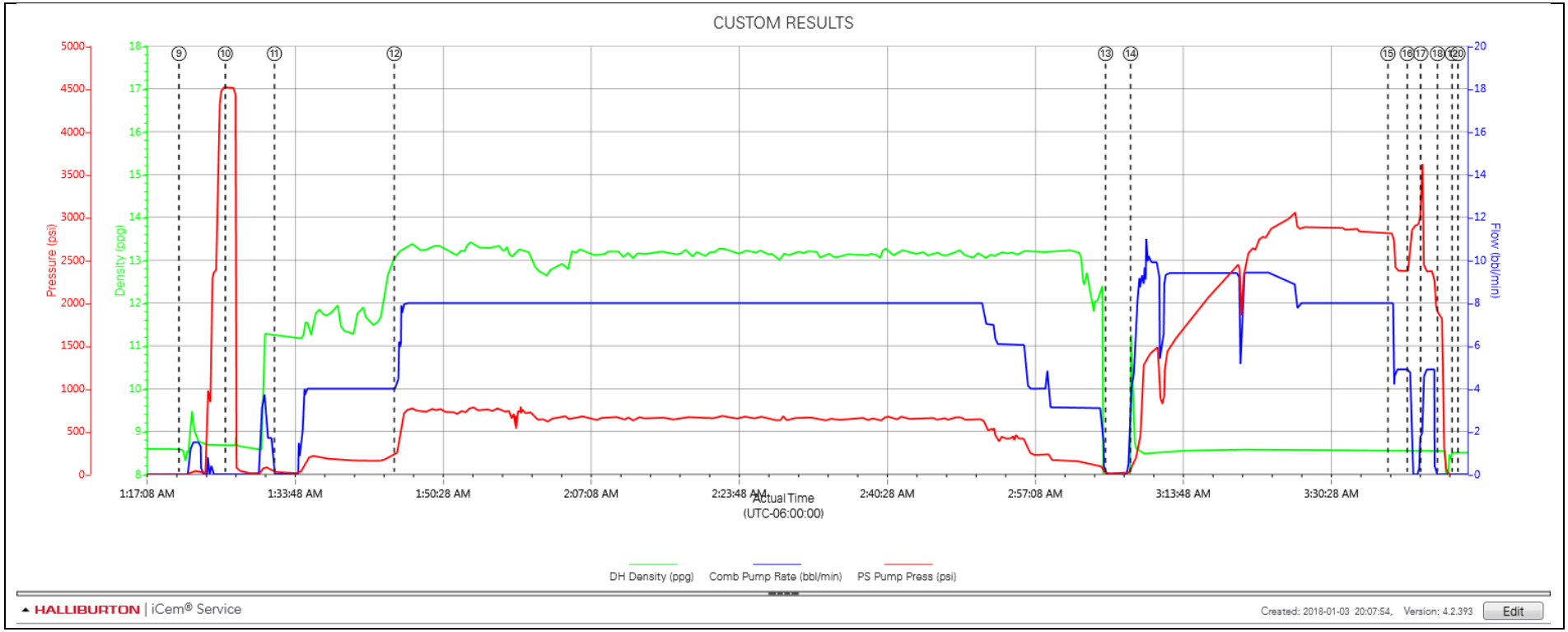
2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Comments
Event	1	Call Out	Call Out	1/3/2018	17:30:00	USER				CREW CALLED OUT AT 17:30, REQUESTED ON LOCATION 22:30. CREW PICKED UP CEMENT, CHEMICALS, AND PLUG CONTAINER FROM FT. LUPTON, CO. BULK 660 10866799, AND PUMP 11189145, 10360874.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	1/3/2018	20:45:00	USER				CREW DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
Event	3	Crew Leave Yard	Crew Leave Yard	1/3/2018	21:00:00	USER				STARTED JOURNEY MANAGEMENT.
Event	4	Arrive At Loc	Arrive At Loc	1/3/2018	22:30:00	USER				END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING- 9.625” 36 LB/FT @ 1,593', 5.5" CASING: 20 LB/FT TOTAL 12,166’, 8.5" HOLE, TD 12,176', 5’ SHOE TRAC, TVD- 7,270’. PUMP FRESH WATER DISPLACEMENT. CASING LANDED @ 00:30 01/04/2018. RIG CIRCULATED 1 BOTTOM’S UP.
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	1/3/2018	22:45:00	USER				HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP, AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	1/3/2018	23:00:00	USER				CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON AND WATER HOSES TO PERFORM JOB.
Event	7	Rig-Up Completed	Rig-Up Completed	1/4/2018	00:00:00	USER	0.37	0.00	-11.00	WAITED ON RIG TO FINISH RUNNING CASING TO COMPLETE RIG UP.
Event	8	Pre-Job Safety Meeting	Pre-Job Safety Meeting	1/4/2018	01:00:00	USER	8.57	0.00	0.00	SAFETY MEETING WITH HALLIBURTON, AND RIG PERSONNEL. CREW COMMUNICATED POTENTIAL SAFETY HAZARDS, AND JOB DETAILS.
Event	9	Start Job	Start Job	1/4/2018	01:21:00	COM5	8.59	0.00	0.00	BEGIN RECORDING JOB DATA.
Event	10	Test Lines	Test Lines	1/4/2018	01:26:13	COM5	8.69	0.00	4522.00	PRESSURE TESTED IRON TO 4,500 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 1,000 PSI, 5TH GEAR STALL OUT @ 2000 PSI.
Event	11	Pump Spacer 1	Pump Spacer 1	1/4/2018	01:31:44	COM5	11.26	0.00	22.00	PUMP 50 BBLS OF TUNED SPACER @ 11.5 LB/GAL, 10 GALLONS D-AIR, 25 GALS DUAL SPACER B, 25 GALS MUSOL A. DENSITY

										VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 4 BBLS/MIN @ 160 PSI.
Event	12	Pump Cement	Pump Cement	1/4/2018	01:45:14	COM5	13.13	4.00	246.00	PUMP 2,000 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.57 FT3/SK, 7.53 GAL/SK, 559.23 BBLS. HOT CALCULATED @ 12,176', TOT CALCULATED @ SURFACE. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 8 BBLS/MIN, PRESSURE 650 PSI.
Event	13	Drop Top Plug	Drop Top Plug	1/4/2018	03:05:19	COM5	0.61	0.00	11.00	PLUG LEFT CONTAINER, VERIFIED BY CO. MAN.
Event	14	Pump Displacement	Pump Displacement	1/4/2018	03:08:08	COM5	9.37	4.70	142.00	BEGIN CALCULATED DISPLACEMENT OF 270 BBLS WITH FRESH WATER. CEMENT TO SURFACE 219 BBLS AWAY, 51 BBLS CEMENT TO SURFACE.
Event	15	Slow Rate	Slow Rate	1/4/2018	03:37:06	USER	8.57	8.00	2814.00	SLOW PUMP RATE TO 5 BBLS/MIN.
Event	16	Bump Plug	Bump Plug	1/4/2018	03:39:17	USER	8.56	4.90	2375.00	PLUG BUMPED AT CALCULATED DISPLACEMENT. 2253 PSI PRESSURED 500 PSI OVER BUMP.
Event	17	Shift Tool Lower	Shift Tool	1/4/2018	03:40:47	USER	8.60	1.70	2552.00	TOOL SHIFTED @ 3,639 PSI. PUMPED 5 BBL WET SHOE @ 5 BBLS/MIN.
Event	18	Check Floats	Check Floats	1/4/2018	03:42:41	USER	8.55	0.00	1856.00	RELEASED PRESSURE, FLOATS HELD, 2 BBLS BACK.
Event	19	End Job	End Job	1/4/2018	03:44:20	COM5				STOP RECORDING JOB DATA.
Event	20	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	1/4/2018	03:45:00	USER	8.52	0.00	-8.00	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	21	Rig-Down Equipment	Rig-Down Equipment	1/4/2018	04:00:00	USER	8.49	0.00	-6.00	RIG DOWN BULK AND MIXING EQUIPMENT
Event	22	Rig-Down Completed	Rig-Down Completed	1/4/2018	05:00:00	USER				ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL, AND LOCATION WAS CLEAN.
Event	23	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	1/4/2018	05:30:00	USER				CREW DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.
Event	24	Crew Leave Location	Crew Leave Location	1/4/2018	05:45:00	USER				THANK YOU FOR USING HALLIBURTON – NICK PETERSON AND CREW.

3.0 Attachments

3.1 CUSTOM RESULTS – JOB CHART WITH EVENTS



3.2 CUSTOM RESULTS – JOB CHART WITHOUT EVENTS