

# HALLIBURTON

iCem<sup>®</sup> Service

## **EXTRACTION OIL & GAS-EBUS**

Date: Tuesday, August 01, 2017

### **HFE 7 Surface**

Job Date: Wednesday, July 26, 2017

Sincerely,

**Bryce Hinsch**

## 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 **HFE 7** cement **surface** 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 26 bbls 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]**

*The Road to Excellence Starts with Safety*

Sold To #: 369404	Ship To #: 3800427	Quote #:	Sales Order #: 0904184067
Customer: EXTRACTION OIL & GAS -		Customer Rep:	
Well Name: HFE		Well #: 7	API/UWI #: 05-123-44773-00
Field: WATTENBERG	City (SAP): MEAD	County/Parish: WELD	State: COLORADO
Legal Description: SW SW-22-4N-68W-1125FSL-1047FWL			
Contractor: UNKNOWN		Rig/Platform Name/Num: WORKOVER RIG	
Job BOM: 7521 7521			
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	1580ft	Job Depth TVD	
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	8 RD	J-55	0	1580	0	0
Open Hole Section			13.5				0	1580	0	0

**Tools and Accessories**

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	9.625	1	HES	1580	Top Plug	9.625	1	HES
Float Shoe	9.625	1	HES	1537	Bottom Plug			
Float Collar					SSR plug set			
Insert Float					Plug Container	9.625	1	HES
Stage Tool					Centralizers			

**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	Fresh Water	Fresh Water	30	bbl	8.33		42	5	1260	
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	Red Dye Spacer	Red Dye Spacer	10	dbl	8.33		42	5	420	
<b>Fluid #</b>	<b>Stage Type</b>	<b>Fluid Name</b>	<b>Qty</b>	<b>Qty UoM</b>	<b>Mixing Density lbm/gal</b>	<b>Yield ft<sup>3</sup>/sack</b>	<b>Mix Fluid Gal</b>	<b>Rate bbl/min</b>	<b>Total Mix Fluid Gal</b>	
2	SwiftCem	SWIFTCEM (TM) SYSTEM	550	sack	13.5	1.74	9.2	6	5,060	
9.20 Gal		<b>FRESH WATER</b>								
<b>Fluid #</b>	<b>Stage Type</b>	<b>Fluid Name</b>	<b>Qty</b>	<b>Qty UoM</b>	<b>Mixing Density lbm/gal</b>	<b>Yield ft<sup>3</sup>/sack</b>	<b>Mix Fluid Gal</b>	<b>Rate bbl/min</b>	<b>Total Mix Fluid Gal</b>	
3	Displacement	Fresh Water	119	dbl	8.33			6	4,998	
Cement Left In Pipe		<b>Amount</b>	43 ft		<b>Reason</b>			<b>Shoe Joint</b>		
Mix Water:		pH 7.0	<b>Mix Water Chloride:</b> 0 ppm			Mix Water Temperature: <b>75 °F</b>				
Cement Temperature:		## °F	<b>Plug Displaced by:</b> 8.33 lb/gal			Disp. Temperature: <b>75 °F</b>				
Plug Bumped?		Yes/No	<b>Bump Pressure:</b> 450 psi			Floats Held? <b>Yes</b>				
Cement Returns:		26 dbl	<b>Returns Density:</b> 13.5 lb/gal			Returns Temperature: <b>## °F</b>				
<p><b>Comment:</b> Pumped 30 dbls Fresh water ahead of dye per company mans request, 10 dbls Dye, 170.44 dbls cement, and 118 dbls of displacement. Plug landed @ calculated got 26 dbls cement to surface. Pressured up to 1500 psi for 5 min casing pressure test per company mans request. Floats held got 1 dbl back.</p>										

## 2.0 Real-Time Job Summary

### 2.1 Job Event Log

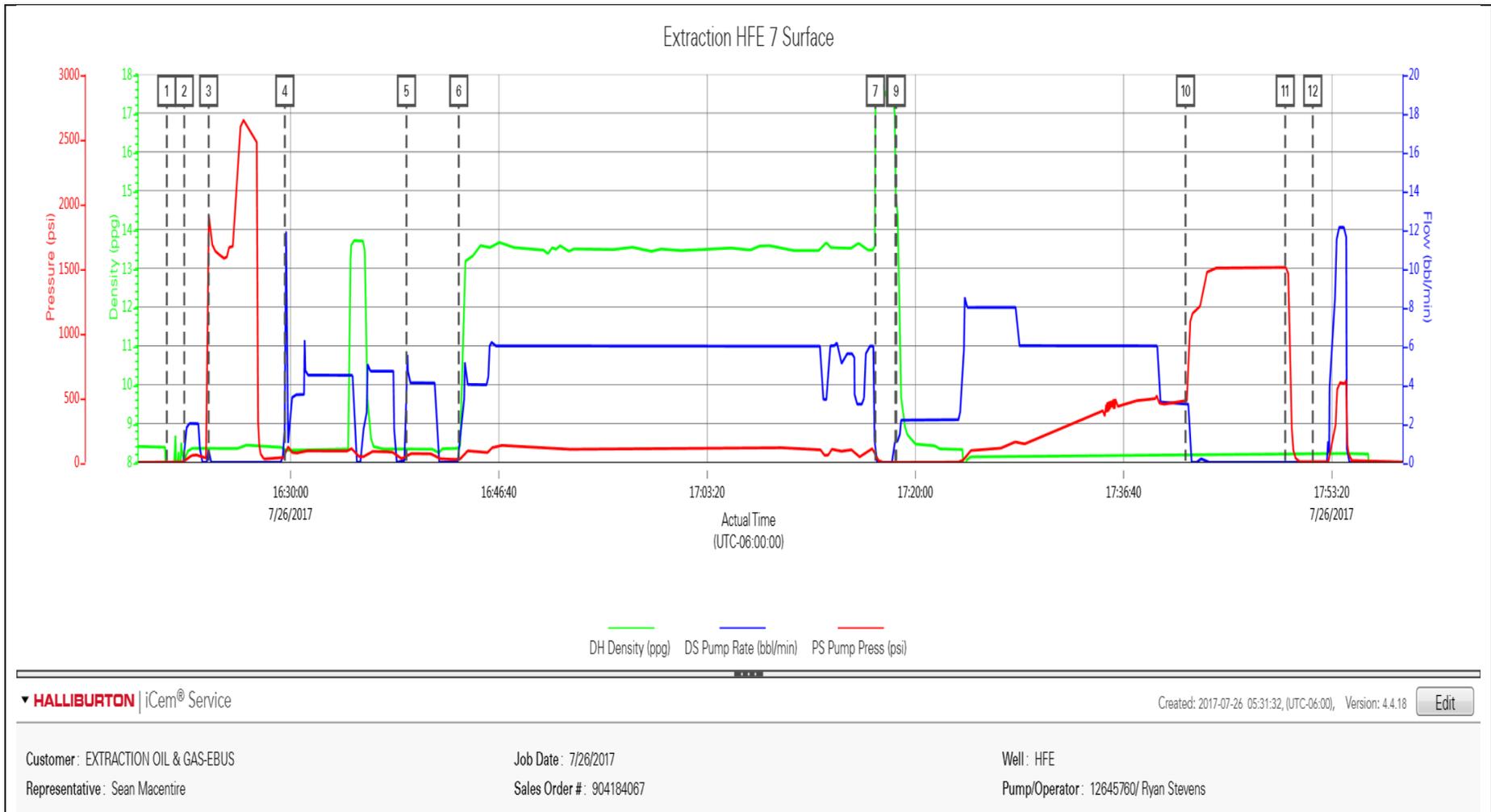
Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	DS Pump Rate (bbl/min)	PS Pump Press (psi)	Comments
Event		Call Out	Call Out	7/26/2017	06:00:00	USER				CREW CALLED OUT AT 06:00, REQUESTED ON LOCATION 10:00. CREW PICKED UP CEMENT, 100 LBS OF SUGAR, CEMENT PLUG AND 2 LBS RED DYE FROM FT. LUPTON, CO. EQUIPMENT ON LOCATION BULK 660, E-2, 12649238, AND PUMP RT-1.
Event		Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	7/26/2017	06:45:00	USER				DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
Event		Crew Leave Yard	Crew Leave Yard	7/26/2017	07:00:00	USER				STARTED JOURNEY MANAGEMENT.
Event		Arrive at Location from Service Center	Arrive at Location	7/26/2017	08:00:00	USER				END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; CASING- 9.625 36# @ 1,580', 13..5" HOLE 1,580' SHOE 43', FRESH WATER DISPLACEMENT, HALLIBURTON FLOATS AND, PLUGS. CASING LANDED @ 16:00 06/26/2017.
Event		Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	7/26/2017	12:00:00	USER				HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER.
Event		Rig-Up Equipment	Rig-Up Equipment	7/26/2017	12:15:00	USER				CREW STAGED EQUIPMENT

										AND RIGGED UP BULK, IRON, AND WATER HOSES TO PERFORM JOB.
Event		Safety Meeting - Pre Job	Safety Meeting - Pre Job	7/26/2017	16:15:00	USER	8.42	0.00	0.00	MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS.
Event	1	Start Job	Start Job	7/26/2017	16:20:05	COM5	3.51	0.00	1.00	BEGIN RECORDING JOB DATA.
Event	2	Pump Water	Pump Water	7/26/2017	16:21:29	USER	7.98	0.00	3.00	FILL LINES 2 BBLS. FRESH WATER.
Event	3	Pressure Test	Pressure Test	7/26/2017	16:23:26	USER	8.37	0.60	1932.00	PRESSURE TESTED IRON TO 2500 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 1800 PSI, 5TH GEAR STALL OUT @ 1678 PSI.
Event	4	Pump Spacer 1	Pump Spacer 1	7/26/2017	16:29:32	COM5	8.29	2.20	41.00	PUMPED 30 BBLS FRESH WATER @ 5 BBLS/MIN 80 PSI.
Event	5	Pump Spacer 2	Pump Spacer 2	7/26/2017	16:39:16	USER	8.36	2.30	32.00	PUMP 10 BBLS OF FRESH WATER WITH RED DYE @ 5 BBL/MIN 80 PSI.
Event	6	Pump Cement	Pump Cement	7/26/2017	16:43:27	COM5	8.37	1.10	24.00	PUMP 550 SKS OF SWIFTCEM @ 13.5 LB/GAL, 1.74 FT3/SK, 9.2 GAL/SK 170.44 BBLS. HOT @ 1,580' TOC @ SURFACE. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMPED CEMENT @ 6 BBLS/MIN 104 PSI.
Event	7	Shutdown	Shutdown	7/26/2017	17:16:48	COM5	16.41	0.00	61.00	
Event	8	Drop Top Plug	Drop Top Plug	7/26/2017	17:18:24	COM5	15.34	1.10	2.00	PLUG LEFT CONTAINER, VERIFIED BY COMPANY REP.

Event	9	Pump Displacement	Pump Displacement	7/26/2017	17:18:28	COM5	14.60	1.10	4.00	BEGIN CALCULATED DISPLACEMENT OF 118 BBLS WITH FRESH WATER. CEMENT TO SURFACE @ 92 BBLS INTO DISPLACEMENT, 26 BBLS OF CEMENT TO SURFACE. PUMPED DISPLACEMENT @ 6 BBLS/MIN 350 PSI.
Event	10	Bump Plug	Bump Plug	7/26/2017	17:41:37	COM5	8.19	3.00	473.00	PLUG BUMPED AT CALCULATED DISPLACEMENT. PRESSURED 450 PSI OVER BUMP TO 1500 PSI FOR 5 MIN CASING PRESSURE TEST.
Event	11	Check Floats	Check Floats	7/26/2017	17:49:36	USER	8.22	0.00	1508.00	FLOATS HELD GOT 1 BBL BACK.
Event	12	End Job	End Job	7/26/2017	17:51:48	COM5	8.21	0.00	1.00	STOP RECORDING JOB DATA.
Event		Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	7/26/2017	18:00:00	USER	-0.07	0.00	0.00	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event		Rig-Down Completed	Rig-Down Completed	7/26/2017	18:30:00	USER				ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL, AND LOCATION WAS CLEAN.
Event		Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	7/26/2017	18:45:00	USER				DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.
Event		Depart Location	Depart Location	7/26/2017	19:00:00	USER				THANK YOU FOR USING HALLIBURTON - NICK PETERSON AND CREW.

3.0 Attachments

3.1 Extraction HFE 7 Surface Job Chart



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Edit

Customer: EXTRACTION OIL & GAS-EBUS

Job Date: 7/26/2017

Well: HFE

Representative: Sean Macentire

Sales Order #: 904184067

Pump/Operator: 12645760/ Ryan Stevens