

# HALLIBURTON

iCem<sup>®</sup> Service

## **FIFTH CREEK ENERGY**

**For: Duaine Bell / Don Shambles**

Date: Monday, January 16, 2017

**Fox Creek 522-3422H**

Job Date: Monday, January 16, 2017

**Sincerely,  
Vaughn Oteri and Crew**

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Customer: FIFTH CREEK ENERGY  
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 Case: Case 1

## 2.0 Real-Time Job Summary

### 2.1 Job Event Log

Event	Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DS Pump Press (psi)	DH Density (ppg)	Comb Pump Rate (bbl/min)	Pump Stg Tot (bbl)	Comments
Event 1	Call Out		Call Out	Call Out	1/15/2017	12:00:00	USER					Call out from ARC hub Requested on location 2100 Arrived on location 2000 met with company rep to discuss job process and concerns. Rig running casing with approx. 2300' left. 1-Elite, 1-660, 1-BL, 3-Silos on location.
Event 2	Arrive At Loc		Arrive At Loc	Arrive At Loc	1/15/2017	19:00:00	USER					TD-8080 TP-8074 FC-8032 7" - 26# Casing, OH-8.75 9 5/8" 36# Surface Casing set at 1535'
Event 3	Other		Other	Other	1/15/2017	19:10:10	USER					Bottom Plug Pre-loaded in Plug Container (Witnessed by Customer Rep.)
Event 4	Other		Other	Other	1/16/2017	01:50:00	USER	-4.00	8.39	1.70	43.7	Water Provided by Rig, Tested as Follows, Chlorides -0, Sulfates <200, PH 8.5, Temp. 86 Deg.
Event 5	Start Job		Start Job	Start Job	1/16/2017	01:53:55	COM4	-15.00	8.49	0.00	0.0	Pressure Test Lines to 4178 PSI. Original Test opened PRV. Re-adjusted PRV, and performed successful test.
Event 6	Test Lines		Test Lines	Test Lines	1/16/2017	02:04:49	COM4	4178.00	8.52	0.00	2.7	Mix 40 bbls Tuned Spacer III for OBM @ 11.5 lb/gal (Density Verified by Pressurized Scales) (Surfactants added on Pump truck)
Event 7	Pump Spacer 1		Pump Tuned Spacer III	Pump Tuned Spacer III	1/16/2017	02:13:04	COM4	-12.00	8.38	0.00	0.0	

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Event	Description	Date	Time	User	Flow Rate (gpm)	Pressure (psi)	Temperature (°F)	Density (lb/gal)	Notes
8	Drop Bottom Plug	1/16/2017	02:24:56	COM4	23.00	10.50	3.00	39.5	Drop Bottom Plug on the fly. (Witnessed by Customer Rep.)
9	Pump Cement	1/16/2017	02:25:08	COM4	42.00	13.05	3.00	40.1	Mix and Pump 706 sks (236.4 bbls) Elasticem Cement @ 13.6 lb/gal (Density Verified by Pressurized Scales)
10	Check Weight	1/16/2017	02:27:48	COM4	199.00	13.65	5.50	14.6	Density Verified by Pressurized Scales
11	Shutdown	1/16/2017	02:58:13	COM4	-61.00	0.79	0.00	5.6	Shut-Down, Wash Pumps and Lines to 4-Sided Tank Provided by Rig.
12	Drop Top Plug	1/16/2017	02:58:53	COM4	-96.00	0.94	0.00	5.6	Drop Top Plug by Hand (Witnessed by Driller, and Customer Rep.)
13	Pump Displacement	1/16/2017	03:12:46	USER	337.00	9.91	8.00	23.9	Start Displacement with OBM (Provided by 2 Tankers)
14	Other	1/16/2017	03:26:43	USER	55.00	10.05	0.80	90.1	Flow Rate of Mud from Tankers was erratic, and was moving too slow to keep up with Pump Rate on Pump Truck. Made several attempts to gain flow faster, by blowing lines back to tankers, pressuring-up tankers, and these methods worked temporarily. Broke suction line from tanker to find suction screen on pump truck plugged with handfulls of material pulled from the tankers. Upon Cleaning the suction screen, we were able to keep flow at an acceptable rate for pumping.

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Event	Description	Date	Time	User	Amount	Rate	Balance	Notes
Event 15	Spacer Returns to Surface	1/16/2017	04:07:00	USER	1900.00	10.15	4.90	213.8 Spacer Returns to Surface @ 260 bbls Away
Event 16	Cement Returns to Surface	1/16/2017	04:07:01	USER	1912.00	10.15	4.90	213.9 +/- 5 bbls Cement to Surface
Event 17	Bump Plug	1/16/2017	04:27:55	COM/4	2748.00	10.19	0.00	293.1 Bump Plug at 2748 PSI, Final Pump Pressure 2250
Event 18	Other	1/16/2017	04:41:29	USER	3189.00	10.22	0.00	293.1 3190 PSI on Casing after 14 mins.
Event 19	Other	1/16/2017	04:41:55	COM/4	2728.00	10.19	0.00	293.1 Check Floats, Floats Holding, Returned 3.5 bbls back to truck.
Event 20	End Job	1/16/2017	04:46:35	COM/4	89.00	10.05	0.00	293.1 Safety Meeting with HES Crew prior to rigging-down equipment.
Event 21	Safety Meeting - Pre Rig-Down	1/16/2017	05:30:00	USER				Journey Management Meeting with Crew Prior to Departing Location
Event 22	Safety Meeting - Departing Location	1/16/2017	06:30:00	USER				

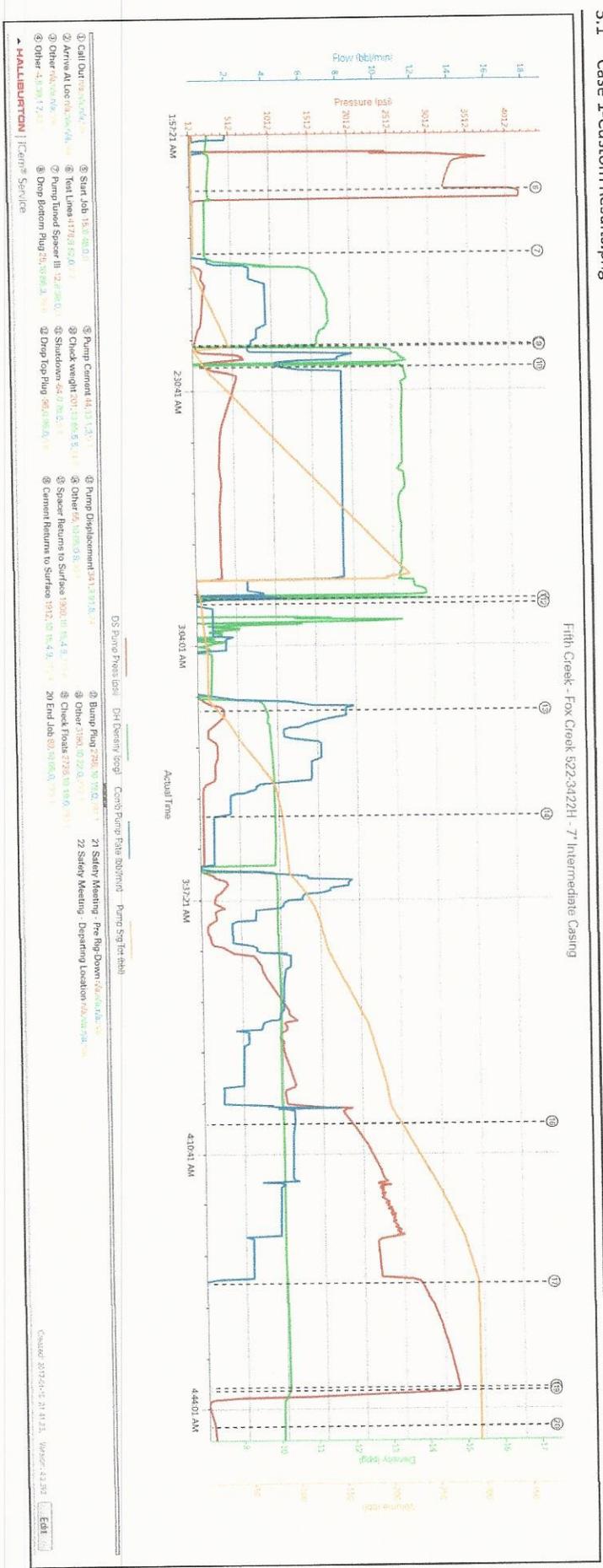
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## 3.0 Attachments

### 3.1 Case 1-Custom Results.png



The Road to Excellence Starts with Safety

Sold To #: 375970	Ship To #: 3712331	Quote #: 0022259285	Sales Order #: 0903775655
Customer: FIFTH CREEK ENERGY -		Customer Rep: Duaine Bell / Don Shambles	
Well Name: FOX CREEK		Well #: 522-3422H	API/UWI #: 05-123-42582-00
Field: HEREFORD	City (SAP): KEOTA	County/Parish: WELD	State: COLORADO
Legal Description: NE NE-34-12N-63W-310FNL-922FEL			
Contractor: ENSIGN DRLG		Rig/Platform Name/Num: ENSIGN 145	
Job BOM: 7522			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HX38199		Srcv Supervisor: Vaughn Oteri	
<b>Job</b>			

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type			BHST
Job depth MD	8074ft		Job Depth TVD
Water Depth			Wk Ht Above Floor 3'
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		9.625	8.921	36			0	1535		1534
Casing		7	6.276	26			0	8074		7400
Open Hole Section			8.75				1535	8074	1535	7400

### Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe					Top Plug	7		3 <sup>rd</sup> Party
Float Shoe	7	1		8074'	Bottom Plug	7		3rd Party
Float Collar	7	1		8032'	SSR plug set			
Insert Float					Plug Container	7		QLPC
Stage Tool					Centralizers	7		3rd Party

### Fluid Data

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	40	bbl	11.5				
		146.50 lbm/bbl BARITE, BULK (100003681)							
		36.09 gal/bbl FRESH WATER							
		0.30 gal/bbl MUSOL(R) A, BULK (100003696)							
		0.30 gal/bbl DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)							

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	ELASTICEM (TM) SYSTEM	706	sack	13.60	1.88		4	8.57
3	Displacement Mud		306	bbl	10				
Cement Left In Pipe		Amount	42 ft	Reason				Shoe Joint	
Comment +/- 5 bbls Cement to Surface									