

# HALLIBURTON

iCem<sup>®</sup> Service

**Laramie Energy LLC**

United States of America, COLORADO

**For: Laramie**

Date: Wednesday, June 05, 2019

**CC FEDERAL 697-04-05E Surface**

API#05-045-23985

Sincerely,

**Grand Junction Cement Engineering**

3	Was the well full prior to cementing?	Y/N	
4	How many joints of workstring pulled wet?	# Joints	
5	Depth of workstring for circulation after the plug?	ft	
6	Calculated Plug Height (workstring out)	ft	

## 2.0 Real-Time Job Summary

### 2.1 Job Event Log

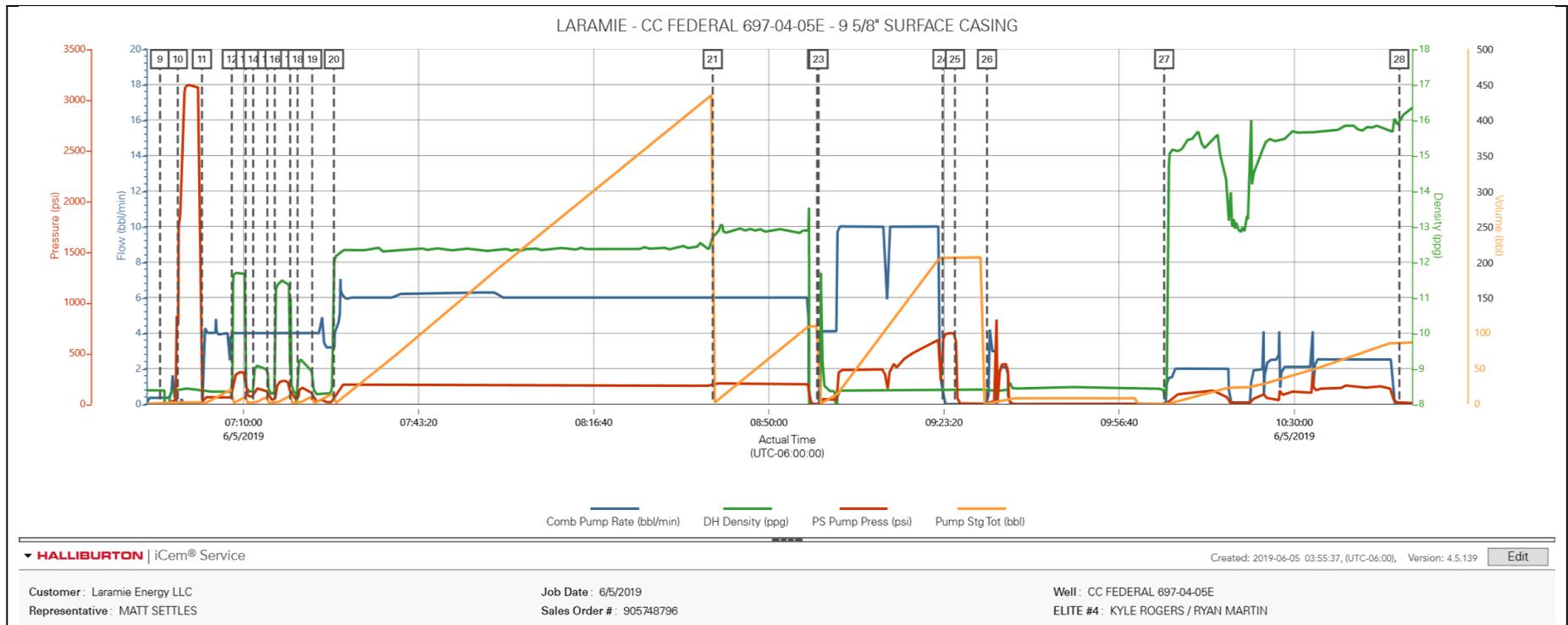
Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comb Pump Rate <i>(bbl/min)</i>	DH Density <i>(ppg)</i>	PS Pump Press <i>(psi)</i>	Pump Stg Tot <i>(bbl)</i>	Comments
Event	1	Call Out	Call Out	6/4/2019	22:30:00	USER					REQUESTED ON LOCATION 6/5/19 @ 04:30
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	6/5/2019	00:55:00	USER					JSA COMPLETED
Event	3	Crew Leave Shop	Crew Leave Shop	6/5/2019	01:00:00	USER					
Event	4	Arrive At Loc	Arrive At Loc	6/5/2019	03:00:00	USER					RIG RUNNING CASING
Event	5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	6/5/2019	03:15:00	USER					JSA COMPLETED
Event	6	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	6/5/2019	03:25:00	USER					JSA COMPLETED
Event	7	Rig-Up Equipment	Rig-Up Equipment	6/5/2019	03:30:00	USER					
Event	8	Pre-Job Safety Meeting	Pre-Job Safety Meeting	6/5/2019	06:30:00	USER					JSA COMPLETED, PRESSURIZED MUD SCALES CALIBRATED TO FRESH WATER
Event	9	Start Job	Start Job	6/5/2019	06:54:08	COM4					9 5/8"-36# CASING IN 14 3/4" OH, TD 2670', TP 2660', ST 46.6', MUD 8.9 PPG, WATER TEMP 55, PH 7 CHLORIDES 0
Event	10	Test Lines	Test Lines	6/5/2019	06:57:30	COM4			3000.00		TEST LINES TO 3000 PSI
Event	11	Pump Spacer 1	Pump Spacer 1	6/5/2019	07:02:06	COM4	4.00	8.33	80.00	20.00	20 BBLS FRESH WATER
Event	12	Pump Spacer 2	Pump Spacer 2	6/5/2019	07:07:47	COM4	4.00	10.00	250.00	10.00	10 BBLS SUPERFLUSH
Event	13	Pump Spacer 1	Pump Spacer 1	6/5/2019	07:10:24	COM4	4.00	8.33	80.00	5.00	5 BBLS FRESH WATER

Event	14	Pump Spacer 2	Pump Spacer 2	6/5/2019	07:11:51	COM4	4.00	9.00	160.00	10.00	10 BBLS CaCl WATER
Event	15	Pump Spacer 1	Pump Spacer 1	6/5/2019	07:14:32	COM4	4.00	8.33	80.00	5.00	5 BBLS FRESH WATER
Event	16	Pump Spacer 2	Pump Spacer 2	6/5/2019	07:15:57	COM4	4.00	10.00	250.00	10.00	10 BBLS SUPERFLUSH
Event	17	Pump Spacer 1	Pump Spacer 1	6/5/2019	07:18:54	COM4	4.00	8.33	80.00	5.00	5 BBLS FRESH WATER
Event	18	Pump Spacer 2	Pump Spacer 2	6/5/2019	07:20:18	COM4	4.00	9.00	160.00	10.00	10 BBLS CaCl WATER
Event	19	Pump Spacer 1	Pump Spacer 1	6/5/2019	07:23:05	COM4	4.00	8.33	80.00	10.00	10 BBLS FRESH WATER
Event	20	Pump Lead Cement	Pump Lead Cement	6/5/2019	07:27:13	COM4	6.00	12.30	185.00	393.70	393.7 BBLS LEAD CEMENT, 921 SKS @ 12.3 PPG / 2.4 YLD / 13.81 GAL/SK
Event	21	Pump Tail Cement	Pump Tail Cement	6/5/2019	08:39:19	COM4	6.00	12.80	200.00	95.60	95.6 BBLS TAIL CEMENT, 252 SKS @ 12.8 PPG / 2.13 YLD / 11.79 GAL/SK
Event	22	Drop Plug	Drop Plug	6/5/2019	08:59:11	COM4					PLUG AWAY
Event	23	Pump Displacement	Pump Displacement	6/5/2019	08:59:27	COM4	10.00	8.33	630.00	202.00	202 BBLS FRESH WATER DISPLACEMENT
Event	24	Bump Plug	Bump Plug	6/5/2019	09:23:04	COM4	2.00	8.33	220.00	202.00	PLUG BUMPED AT CALCULATED DISPLACEMENT, FINAL CIRCULATING PRESSURE 220 PSI @ 2 BBL/MIN, BROUGHT TO 700 PSI
Event	25	Other	CHECK FLOATS	6/5/2019	09:25:25	COM4					FLOATS HELD, 1 BBL BACK TO PUMP
Event	26	Circulate Well	Circulate Well	6/5/2019	09:31:32	COM4	3.00	8.33	400.00	7.00	PUMP 7 BBLS SUGAR WATER TO CLEAR PARASITE LINE
Event	27	Pump Cement	Pump Cement	6/5/2019	10:05:15	COM4	2.00	15.60	80.00	62.70	62.7 BBLS TOP OUT CEMENT, 296 SKS @ 15.6 PPG / 1.19 YLD / 5.24 GAL/SK, 9 SKS CaCl AND 6 BBLS SUPERFLUSH USED

Event	28	End Job	End Job	6/5/2019	10:50:00	COM4	PIPE LEFT STATIC, NO RETURNS THROUGHOUT, 7 TRANSPORT HOURS AND NO ADD HOURS, 10 LBS SUGAR
Event	29	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	6/5/2019	11:15:00	USER	JSA COMPLETED
Event	30	Rig-Down Equipment	Rig-Down Equipment	6/5/2019	11:20:00	USER	
Event	31	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	6/5/2019	11:55:00	USER	JSA COMPLETED
Event	32	Crew Leave Location	Crew Leave Location	6/5/2019	12:00:00	USER	THANK YOU FOR CHOOSING HALLIBURTON CEMENTING OF GRAND JUNCTION, CO - RYAN MARTIN AND CREW

## 3.0 Attachments

### 3.1 905748796-Custom Results.png



# HALLIBURTON

iCem<sup>®</sup> Service

**Laramie Energy LLC**

Rock Springs District, Colorado

**For: Laramie**

Date: Saturday, June 08, 2019

**Cascade Creek 0697-04-05E Production**

Sincerely,

Grand Junction Cement Engineering

## 2.0 Real-Time Job Summary

### 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	PS Pump Press <i>(psi)</i>	DH Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	Pump Stg Tot <i>(bbl)</i>	Comments
Event	1	Other	Call Out	6/8/2019	05:00:00	USER					REQUESTED ON LOCATION @ 930
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	6/8/2019	07:00:00	USER					ALL HES PRESENT
Event	3	Crew Leave Yard	Crew Leave Yard	6/8/2019	07:30:00	USER					1 F550, 1 PUMP TRUCK & 2 660 BULK TURCK.
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	6/8/2019	09:00:00	USER					RIG RUNNING CASING
Event	5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	6/8/2019	09:15:00	USER					MET WITH COMP REP, AND WENT OVER NUMBERS AND JOB PROCEDURE. WALKED AROUND LOCATION AND COLLECTED WATER SAMPLE (PH- 7, CHLORIDES- 100, TEMP- 67F). COMP REP WAS OFFERED SDS FOR ALL CHEMICLES USED BY HES.
Event	6	Pre-Rig Up Safety Meeting	Safety Meeting - Pre Rig-Up	6/8/2019	09:20:00	USER					ALL HES PRESENT
Event	7	Rig-Up Equipment	Rig-Up Equipment	6/8/2019	09:30:00	USER					HES RIGGED UP EQUIPMENT WITHOUT ENTERING RED ZONE.
Event	8	Pre-Job Safety Meeting	Pre-Job Safety Meeting	6/8/2019	11:00:00	USER					ALL HES AND RIG CREW PRESENT
Event	9	Start Job	Start Job	6/8/2019	11:34:00	COM2					TD 9567', TP 9557', SJ 92', OH 8.75", CSG 4.5" 11.6#, MUD 9 PPG. RIG CIRCULATED WELL @

APPROX 12 BPM WITH 340  
 PSI AND 1200 CFM ON THE  
 PARASITE.

Event	10	Prime Pumps	Prime Pumps	6/8/2019	11:34:42	USER	40.00	8.33	1.00	2.00	8.33 PPG FRESH WATER
Event	11	Test Lines	Test Lines	6/8/2019	11:39:17	COM2	5571.00	8.33	0.50	0.50	ALL LINES HELD PRESSURE AT 5571 PSI
Event	12	Pump Spacer 1	Pump Spacer 1	6/8/2019	11:42:10	COM2	120.00	8.50	6.00	60.00	MUD FLUSH III (60 BBL), 8.5 PPG
Event	13	Check Weight	Check Weight	6/8/2019	11:48:37	COM2					WEIGHT VERIFIED VIA PRESSUREIZED MUD SCALES
Event	14	Pump Lead Cement	Pump Lead Cement	6/8/2019	11:54:12	COM2	689.00	12.50	8.00	374.00	NEOCEM CEMENT 1082 SKS (374 BBLS), 12.5 PPG, 1.94 FT3/SK, 9.6 GAL/SK
Event	15	Pump Tail Cement	Pump Tail Cement	6/8/2019	12:46:06	COM2	698.00	13.00	8.00	156.00	NEOCEM HT CEMENT 423 SKS (156 BBLS), 13 PPG, 2.07 FT3/SK, 9.42 GAL/SK.
Event	16	Check Weight	Check Weight	6/8/2019	12:49:27	COM2					WEIGHT VERIFIED VIA PRESSUREIZED MUD SCALES
Event	17	Shutdown	Shutdown	6/8/2019	13:08:36	USER					END OF CMT
Event	18	Clean Lines	Clean Lines	6/8/2019	13:12:51	USER					WASH UP PUMPS AND LINES
Event	19	Drop Top Plug	Drop Top Plug	6/8/2019	13:20:58	USER					BOTH PLUGS WENT, VERIFIED BY CO REP.
Event	20	Pump Displacement	Pump Displacement	6/8/2019	13:21:34	COM2	1700.00	8.33	0.00	0.00	8.34 PPG FRESH WATER (146.7 BBLS) 5 GAL CLA WEB & 1 GAL MMCR
Event	21	Bump Plug	Bump Plug	6/8/2019	13:39:50	COM2	1200.00	8.33	0.00	147.60	LAND PLUG AT 1200 PSI, BROUGHT UP TO 2600 PSI FOR A 10 MIN CSG TEST.
Event	22	Check Floats	Check Floats	6/8/2019	13:51:45	USER	2501.00	8.433	0.00	147.60	FLOATS HELD, 1 BBL BACK TO TRUCK

Event	23	Other	Other	6/8/2019	13:54:58	USER					WASH UP PUMPS AND LINES
Event	24	Pump Cement	Pump Cement	6/8/2019	14:06:25	USER	300.00	15.6	1.19	5.24	TYPE I/II CEMENT 30 SKS (6 BBL), 15.6 PPG, 1.19 FT3, 5.24 GL/SK.
Event	25	End Job	End Job	6/8/2019	14:13:04	USER					PIPE WAS NOT RECIPROCATED DURING THE JOB, 50 BBL OF SPACER BACK TO SURFACE; GOOD RETURNS THROUGHOUT CEMENT & 50 BBL OF DISP., ONCE THE AIR WAS SHUT OFF ALL RETURNS WERE LOST.
Event	26	Post-Job Safety Meeting (Pre Rig-Down)	Post-Job Safety Meeting (Pre Rig-Down)	6/8/2019	14:19:51	USER					ALL HES PRESENT
Event	27	Slow Rate	Slow Rate	6/8/2019	14:28:28	USER					SLOW RATE TO 4 BPM PER CO REP TO LAND PLUG
Event	28	Rig-Down Equipment	Rig-Down Equipment	6/8/2019	14:35:00	USER					ALL HES PRESENT
Event	29	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	6/8/2019	15:00:00	USER					ALL HES PRESENT
Event	30	Crew Leave Location	Crew Leave Location	6/8/2019	15:15:00	USER					THANK YOU FOR CHOOSING HALLIBURTON CEMENT, CHRIS SMITH AND CREW

3.0 Attachments

3.1 Chart.png

