

HALLIBURTON

iCem[®] Service

Laramie Energy LLC

United States of America, COLORADO

For: Laramie

Date: Thursday, May 16, 2019

CC 697-04-08E Surface

API#05-045-23987

Sincerely,

Grand Junction Cement Engineering

2.0 Real-Time Job Summary

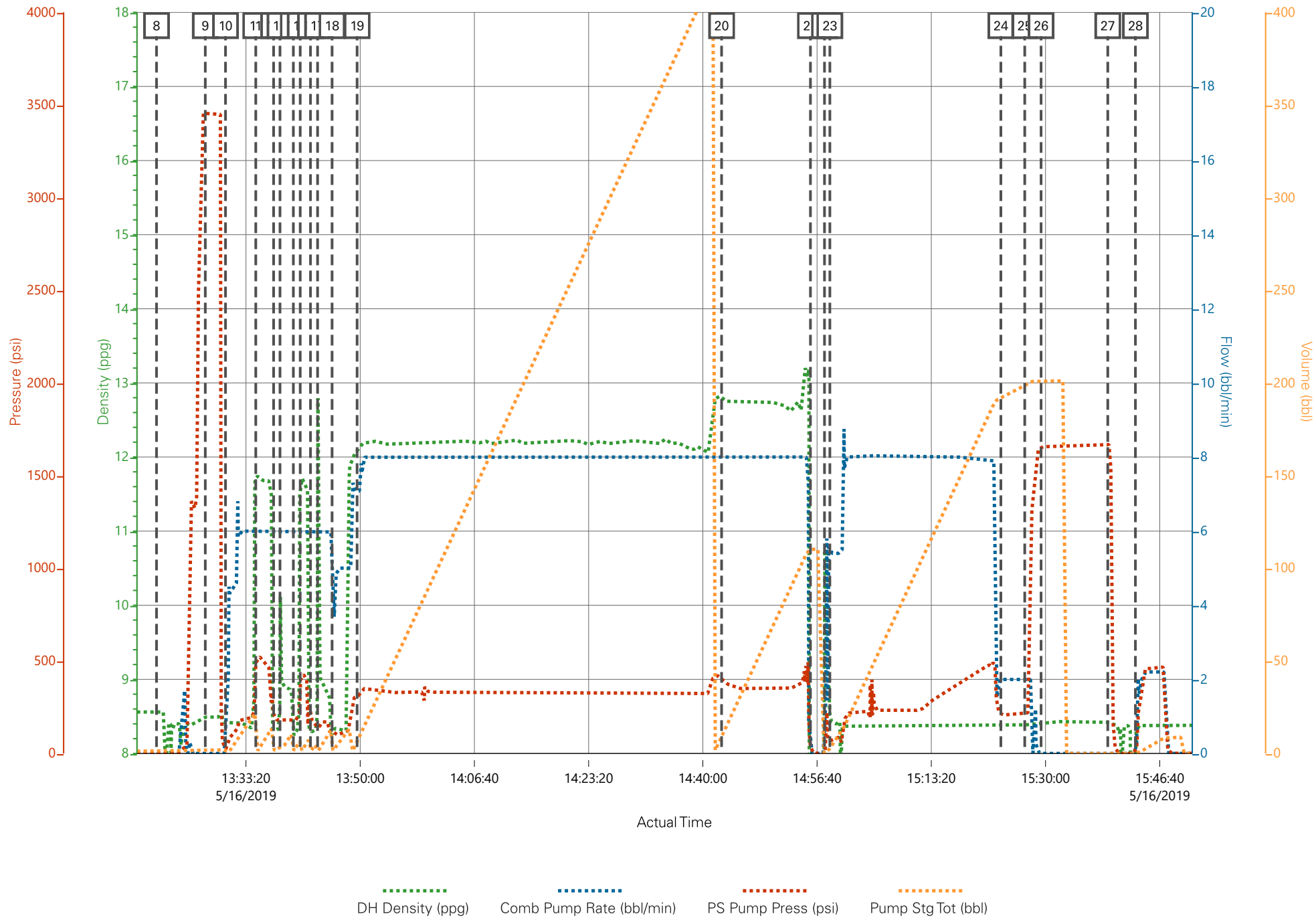
2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	Call Out	5/16/2019	06:30:00	USER					
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	5/16/2019	08:45:00	USER					JOURNEY MANAGEMENT COMPLETE, AS WELL AS JSA
Event	3	Crew Leave Yard	Crew Leave Yard	5/16/2019	09:00:00	USER					
Event	4	Arrive At Loc	Arrive At Loc	5/16/2019	10:30:00	USER					JOURNEY MANAGEMENT CLOSED OUT. RIG RUNNING CASING
Event	5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	5/16/2019	11:00:00	USER					
Event	6	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	5/16/2019	11:45:00	USER					JSA COMPLETE
Event	7	Rig-Up Equipment	Rig-Up Equipment	5/16/2019	12:14:16	USER					
Event	8	Other	Other	5/16/2019	12:19:47	USER					MUD SCALES CHECKED WITH WATER PRIOR TO JOB.
Event	9	Other	Other	5/16/2019	12:20:00	USER					WATER TEST: PH-7, CL-0, TEMP-67 WELL INFO: 9 5/8 36# SET @ 2568, TD-2578, F.C.- 2521.29, HOLE- 14 3/4, MUD#-9.0
Event	10	Pre-Job Safety Meeting	Pre-Job Safety Meeting	5/16/2019	12:58:27	USER					JSA COMPLETE
Event	11	Start Job	Start Job	5/16/2019	13:20:17	USER					
Event	12	Test Lines	Test Lines	5/16/2019	13:27:24	USER	8.33	0.00	3463.00		3463 PSI

Event	13	Pump Spacer 1	Pump Spacer 1	5/16/2019	13:30:21	USER	8.33	6.00	199.0	20.00	FRESH WATER
Event	14	Pump Spacer 2	Pump Spacer 2	5/16/2019	13:34:46	USER	11.70	6.00	485.00	10.00	SUPERFLUSH
Event	15	Pump Spacer 1	Pump Spacer 1	5/16/2019	13:37:22	USER	8.33	6.00	211.00	5.00	FRESH WATER
Event	16	Pump Spacer 2	Pump Spacer 2	5/16/2019	13:38:18	USER	9.30	6.00	172.00	10.00	CALCIUM CHLORIDE WATER 50 LBS/BBL
Event	17	Pump Spacer 1	Pump Spacer 1	5/16/2019	13:40:15	USER	8.33	6.00	180.00	5.00	FRESH WATER
Event	18	Pump Spacer 2	Pump Spacer 2	5/16/2019	13:41:15	USER	11.70	6.00	341.00	10.00	SUPERFLUSH
Event	19	Pump Spacer 1	Pump Spacer 1	5/16/2019	13:42:45	USER	8.33	6.00	196.00	5.00	FRESH WATER
Event	20	Pump Spacer 2	Pump Spacer 2	5/16/2019	13:43:47	USER	9.30	6.00	122.00	10.00	CALCIUM CHLORIDE WATER 50 LBS/BBL
Event	21	Pump Spacer 1	Pump Spacer 1	5/16/2019	13:45:54	USER	8.33	5.00	128.00	10.00	FRESH WATER
Event	22	Pump Lead Cement	Pump Lead Cement	5/16/2019	13:49:33	USER	12.30	8.00	316.00	370.0	878 SKS VARICEM, 12.3 PPG, 2.37 FT3/SK, 13.74 GAL/SK
Event	23	Pump Tail Cement	Pump Tail Cement	5/16/2019	14:42:44	USER	12.80	8.00	410.00	94.7	252 SKS VARICEM, 12.8 PPG, 2.11 FT3/SK, 11.75 GAL/SK
Event	24	Shutdown	Shutdown	5/16/2019	14:55:42	USER					TO DROP TOP PLUG AND WASH UP ON TOP OF PLUG.
Event	25	Drop Top Plug	Drop Top Plug	5/16/2019	14:57:45	USER					AWAY
Event	26	Pump Displacement	Pump Displacement	5/16/2019	14:58:32	USER	8.33	8.00	500.0	194.9	FRESH WATER.
Event	27	Slow Rate	Slow Rate	5/16/2019	15:23:29	USER	8.33	2.00	225.00	184.00	TO BUMP PLUG
Event	28	Bump Plug	Bump Plug	5/16/2019	15:26:58	USER	8.33	2.00	220.00	194.9	PLUG BUMPED ON CALCULATED
Event	29	Other	Other	5/16/2019	15:29:21	USER			1654.00		CASING TEST FOR 10 MINS.
Event	30	Check Floats	Check Floats	5/16/2019	15:39:05	USER			1668.00		1.5 BBLS BACK TO TRUCK
Event	31	Standby Other	Standby Other	5/16/2019	15:43:07	USER	8.33	2.00	16.00	10.0	PUMP 10 BBLS OF SUGAR WATER DOWN PARISITE STRING.

Event	32	Pump Cement	Pump Cement	5/16/2019	17:35:00	USER	15.6	1.5	108	35.00	167 SKS TOP OUT, 15.6 PPG, 1.19 FT3/SK, 5.24 GAL/SK. PUMPED 15 BBLS OF SUPERFLUSH DOWN BACK SIDE BEFORE CEMENT.
Event	33	Standby - Other - see comments	SHUTDOWN	5/16/2019	17:50:00	USER					SHUTDOWN CEMENT
Event	34	End Job	End Job	5/16/2019	17:55:00	USER					NO CIRCULATION PRIOR, OR DURING JOB, NO PIPE MOVEMENT. JOB PUMPED OFF LINE
Event	35	Post-Job Safety Meeting (Pre Rig-Down)	Post-Job Safety Meeting (Pre Rig-Down)	5/16/2019	18:10:00	USER					
Event	36	Crew Leave Location	Crew Leave Location	5/16/2019	19:00:00	USER					THANK YOU FOR USING HALLIBURTON CEMENT, JAMES LEIST AND CREW.

LARAMIE ENERGY - CC 697-04-08E - 9 5/8" SURFACE CASING



HALLIBURTON

iCem[®] Service

Laramie Energy LLC

United States of America, COLORADO

For: Laramie

Date: Monday, May 20, 2019

CC 697-04-08E Production

API#05-045-23987

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	Comb Pump Rate (bbl/min)	DH Density (ppg)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	Call Out	5/19/2019	15:00:00	USER					REQUESTED ON LOCATION 5/19/19 @ 22:30
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	5/19/2019	17:55:00	USER					JSA COMPLETED
Event	3	Crew Leave Shop	Crew Leave Shop	5/19/2019	18:00:00	USER					
Event	4	Arrive At Loc	Arrive At Loc	5/19/2019	19:30:00	USER					RIG RUNNING CASING
Event	5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	5/19/2019	19:35:00	USER					JSA COMPLETED
Event	6	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	5/19/2019	19:45:00	USER					JSA COMPLETED
Event	7	Rig-Up Equipment	Rig-Up Equipment	5/19/2019	19:50:00	USER					
Event	8	Pre-Job Safety Meeting	Pre-Job Safety Meeting	5/19/2019	22:30:00	USER					JSA COMPLETED, PRESSURIZED MUD SCALES CALIBRATED TO FRESH WATER
Event	9	Start Job	Start Job	5/19/2019	22:59:45	COM4					4 1/2"-11.6# CASING IN 8 3/4" OH, TD 9953', TP 9943', ST 95.3', MUD 9.0 PPG, WATER TEMP 50, PH 7, CHLORIDES 0
Event	10	Test Lines	Test Lines	5/19/2019	23:02:29	COM4			5000.00		TEST LINES TO 5000 PSI
Event	11	Pump Spacer 1	Pump Spacer 1	5/19/2019	23:07:30	COM4	4.00	8.40	120.00	60.00	60 BBLS MUDFLUSH
Event	12	Pump Lead Cement	Pump Lead Cement	5/19/2019	23:23:55	COM4	6.00	12.50	530.00	342.10	342.1 BBLS LEAD CEMENT, 990 SKS @ 12.5 PPG / 1.94 YLD / 9.59 GAL/SK

Event	13	Pump Tail Cement	Pump Tail Cement	5/20/2019	00:23:16	COM4	6.00	13.00	500.00	197.20	197.2 BBLS TAIL CEMENT, 535 SKS @ 13.0 PPG / 2.07 YLD / 9.42 GAL/SK
Event	14	Drop Top Plug	Drop Top Plug	5/20/2019	01:13:23	COM4					PLUGS AWAY
Event	15	Pump Displacement	Pump Displacement	5/20/2019	01:14:10	COM4	8.00	8.33	1680.00	152.60	152.6 BBLS FRESHWATER DISPLACEMENT WITH 1 GALLON MMCR AND 5 GALLONS CLA-WEB THROUGHOUT
Event	16	Bump Plug	Bump Plug	5/20/2019	01:34:14	COM4	4.00	8.33	1200.00	152.60	PLUG BUMPED AT CALCULATED, FINAL CIRCULATING PRESSURE 1200 PSI @ 4 BBL/MIN, BROUGHT TO 2500 FOR 10 MINUTE CASING TEST
Event	17	Other	CHECK FLOATS	5/20/2019	01:44:46	COM4			2800.00		FINAL PRESSURE ON CASING TEST 2800 PSI, FLOATS HELD, 1.5 BBLS BACK TO PUMP
Event	18	Pump Cement	Pump Cement	5/20/2019	01:56:34	COM4	2.50	15.60	75.00	6.30	6.3 BBLS TOP OUT CEMENT TO FILL PARASITE LINE, 30 SKS @ 15.6 PPG / 1.18 YLD / 5.23 GAL/SK
Event	19	End Job	End Job	5/20/2019	02:03:21	COM4					PIPE LEFT STATIC, PARTIAL RETURNS THROUGHOUT, AIR SHUT OFF AT 130 BBLS AWAY ON DISPLACEMENT, 10 BBLS MUDFLUSH TO SURFACE
Event	20	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	5/20/2019	02:15:00	USER					JSA COMPLETED
Event	21	Rig-Down Equipment	Rig-Down Equipment	5/20/2019	02:20:00	USER					
Event	22	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	5/20/2019	02:55:00	USER					JSA COMPLETED

3.0 Attachments

3.1 905702647-Custom Results.png

