

HALLIBURTON

iCem[®] Service

Laramie Energy LLC

Rock Springs District, CO.

For: Laramie

Date: Monday, June 10, 2019

CC 697-04-04E Surface

API#05-045-23990

Sincerely,

Grand Junction Cement Engineering

1.0 Real-Time Job Summary

1.1 Job Event Log

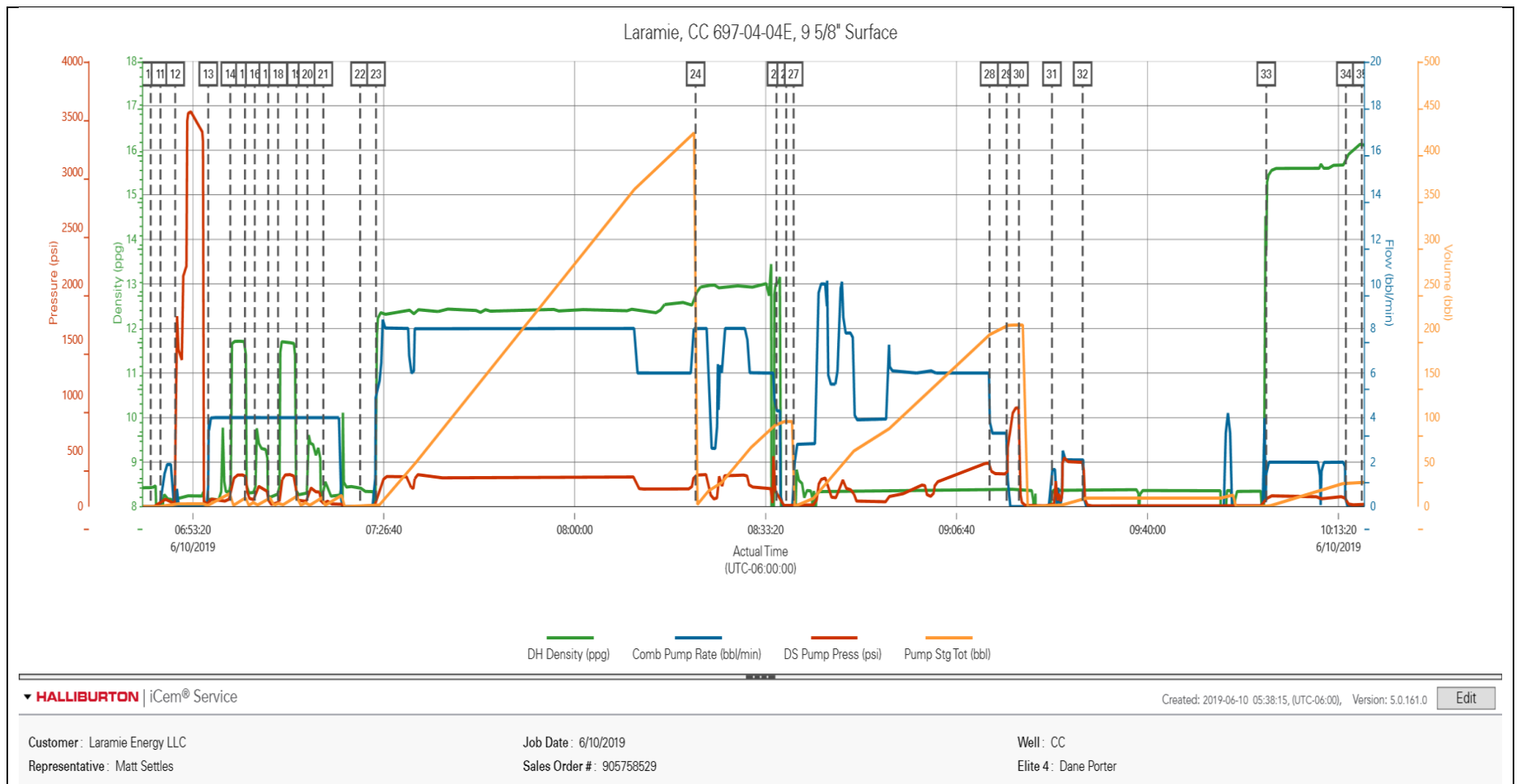
Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	DS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	Call Out	6/10/2019	00:10:00						Requested on Location @ 05:00
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	6/10/2019	01:55:00						
Event	3	Crew Leave Yard	Crew Leave Yard	6/10/2019	02:00:00						1 Elite, 1 660, 1 Transport, 1 pickup
Event	4	Arrive At Loc	Arrive At Loc	6/10/2019	05:00:00						Rig running casing
Event	5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	6/10/2019	05:10:00						JSA completed - Customer offered/received SDS - water test pH 7.0, Cl <200, temp 57 degrees
Event	6	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	6/10/2019	05:15:00						
Event	7	Rig-Up Equipment	Rig-Up Equipment	6/10/2019	05:20:00						1 hardline to standpipe, water hoses to upright, bulk hoses to silo's and 660.
Event	8	Other	Other	6/10/2019	05:22:00						Rig Circulated 30 mins prior to cement job at 450 gpm 300 psi. Mud scales calibrated to drinking water prior to job.
Event	9	Pre-Job Safety Meeting	Pre-Job Safety Meeting	6/10/2019	05:40:00						All HES personnel, rig crew, and company rep
Event	10	Other	Start Job	6/10/2019	06:45:59						TD 2584', TP 2574, SJ 46.55', OH 14 3/4", Csg 9.625" 36 lb/ft J-55, Mud 8.4 ppg

Event	11	Other	Fill Lines	6/10/2019	06:47:41	8.33	2	22	5	Fresh Water
Event	12	Test Lines	Test Lines	6/10/2019	06:50:15			3550		No Leaks
Event	13	Pump Spacer	Pump Spacer	6/10/2019	06:56:01	8.33	4	40	15	Fresh Water
Event	14	Pump Spacer	Pump Spacer	6/10/2019	06:59:52	11.7	4	282	10	Super Flush
Event	15	Pump Spacer	Pump Spacer	6/10/2019	07:02:26	8.33	4	115	5	Fresh Water
Event	16	Pump Spacer	Pump Spacer	6/10/2019	07:04:09	9.4	4	194	10	Calcium Chloride
Event	17	Pump Spacer	Pump Spacer	6/10/2019	07:06:30	8.33	4	113	5	Fresh Water
Event	18	Pump Spacer	Pump Spacer	6/10/2019	07:08:13	11.7	4	200	10	Super Flush
Event	19	Pump Spacer	Pump Spacer	6/10/2019	07:11:25	8.33	4	50	5	Fresh Water
Event	20	Pump Spacer	Pump Spacer	6/10/2019	07:13:20	9.4	4	55	10	Calcium Chloride
Event	21	Pump Spacer	Pump Spacer	6/10/2019	07:16:07	8.33	4	52	10	Fresh Water
Event	22	Check Weight	Check Weight	6/10/2019	07:22:32					Density Verified via Mud Scales
Event	23	Pump Lead Cement	Pump Lead Cement	6/10/2019	07:25:19	12.3	8	319	393.7	921 Sks 12.3 ppg 2.4 yield 13.81 gal/sk
Event	24	Pump Tail Cement	Pump Tail Cement	6/10/2019	08:21:07	12.8	8	320	95.6	252 Sks 12.8 ppg 2.13 yield 11.79 gal/sk
Event	25	Shutdown	Shutdown	6/10/2019	08:35:13					Wash up on top of plug
Event	26	Drop Top Plug	Drop Top Plug	6/10/2019	08:36:56					Customer verified top plug launched
Event	27	Pump Displacement	Pump Displacement	6/10/2019	08:38:13	8.33	10	390	195.4	Fresh Water
Event	28	Slow Rate	Slow Rate	6/10/2019	09:12:25	8.33	3	300	185	Slow Rate 10 bbls to Calculated Displacement
Event	29	Bump Plug	Bump Plug	6/10/2019	09:15:25	8.33	3	1160	195	Plug Bumped at 300 psi, Brought up to 1160 psi
Event	30	Check Floats	Check Floats	6/10/2019	09:17:33					Floats held – 1 bbl back to the truck

Event	31	Pump Spacer	Pump Spacer	6/10/2019	09:23:20	8.33	2	295	10	Pump 10 bbl of sugar water down parasite line.
Event	32	Shutdown	Shutdown	6/10/2019	09:28:40					
Event	33	Pump Cement	Pump Cement	6/10/2019	10:00:44	15.6	2	200	36	170 sks, 15.6, 1.19 Yield, 5.24 gal/sk
Event	34	Shutdown	Shutdown	6/10/2019	10:14:38					
Event	35	Other	End Job	6/10/2019	10:17:25					Some returns throughout job, pipe was not reciprocated during cement.
Event	36	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	6/10/2019	10:50:00					40 lbs sugar, No add hours
Event	37	Rig-Down Equipment	Rig-Down Equipment	6/10/2019	11:00:00					
Event	38	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	6/10/2019	11:50:00					
Event	39	Crew Leave Location	Crew Leave Location	6/10/2019	12:00:00					Thank you for using Halliburton – Chris Martinez and crew.

2.0 Attachments

2.1 CC 697-04-04E-Custom Results.png



HALLIBURTON

iCem[®] Service

Laramie Energy LLC

United States of America, COLORADO

For: Laramie

Date: Thursday, June 13, 2019

CC FEDERAL 697-04-04E 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	Comb Pump Rate (bbl/min)	DH Density (ppg)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	Call Out	6/12/2019	23:00:00	USER					REQUESTED ON LOCATION 6/13/19 @ 05:00
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	6/13/2019	00:55:00	USER					JSA COMPLETED
Event	3	Crew Leave Shop	Crew Leave Shop	6/13/2019	01:00:00	USER					
Event	4	Arrive At Loc	Arrive At Loc	6/13/2019	03:00:00	USER					RIG RUNNING CASING
Event	5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	6/13/2019	03:15:00	USER					JSA COMPLETED
Event	6	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	6/13/2019	03:25:00	USER					JSA COMPLETED
Event	7	Rig-Up Equipment	Rig-Up Equipment	6/13/2019	03:30:00	USER					
Event	8	Pre-Job Safety Meeting	Pre-Job Safety Meeting	6/13/2019	06:30:00	USER					JSA COMPLETED, PRESSURIZED MUD SCALES CALIBRATED TO FRESH WATER
Event	9	Start Job	Start Job	6/13/2019	07:00:00	COM4					4.5"-11.6# CASING IN 8.75" OH, TD 10198', TP 10188', ST 88.1', MUD WEIGHT 8.9 PPG, WATER TEMP 50, PH 7, CHLORIDES 0
Event	10	Test Lines	Test Lines	6/13/2019	07:04:25	COM4			5000.00		TEST LINES TO 5000 PSI
Event	11	Pump Spacer 1	Pump Spacer 1	6/13/2019	07:11:09	COM4	4.00	8.40	75.00	60.00	60 BBLS MUDFLUSH
Event	12	Pump Lead Cement	Pump Lead Cement	6/13/2019	07:27:28	COM4	6.00	12.50	400.00	383.90	383.9 BBLS LEAD CEMENT, 1111 SKS @ 12.5 PPG / 1.94 YLD / 9.59 GAL/SK

Event	13	Pump Tail Cement	Pump Tail Cement	6/13/2019	08:36:04	COM4	6.00	13.00	340.00	189.10	189.1 BBLS TAIL CEMENT, 513 SKS @ 13.0 PPG / 2.07 YLD / 9.42 GAL/SK
Event	14	Drop Top Plug	Drop Top Plug	6/13/2019	09:23:05	COM4					PLUGS AWAY
Event	15	Pump Displacement	Pump Displacement	6/13/2019	09:25:46	COM4	10.00	8.33	2100.00	156.50	156.5 BBLS FRESH WATER DISPLACEMENT WITH 1 GALLON MMCR AND 5 GALLONS CLA-WEB THROUGHOUT
Event	16	Other	BUMP PLUG	6/13/2019	09:45:19	COM4	4.00	8.33	1590.00	156.50	PLUG BUMPED AT CALCULATED DISPLACEMENT, FINAL CIRCULATING PRESSURE 1590 PSI, BROUGHT TO 2500 PSI FOR 10 MINUTE CASING TEST
Event	17	Other	CHECK FLOATS	6/13/2019	09:57:44	COM4			2966.00		FINAL PRESSURE ON CASING TEST 2966 PSI, FLOATS HELD, 2 BBLS BACK TO PUMP
Event	18	Pump Cement	Pump Cement	6/13/2019	10:10:57	USER	3.00	15.60	130.00	6.30	PUMP 6.3 BBLS CEMENT DOWN PARASITE LINE, 30 SKS @ 15.6 PPG / 1.18 YLD / 5.23 GAL/SK
Event	19	End Job	End Job	6/13/2019	10:17:03	COM4					PIPE LEFT STATIC, GOOD RETURNS THROUGHOUT, AIR SHUT OFF AT 110 BBLS AWAY ON DISPLACEMENT, 20 BBLS MUDFLUSH TO SURFACE
Event	20	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	6/13/2019	10:40:00	USER					JSA COMPLETED
Event	21	Rig-Down Equipment	Rig-Down Equipment	6/13/2019	10:45:00	USER					
Event	22	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	6/13/2019	11:25:00	USER					JSA COMPLETED

Event	23	Crew Leave Location	Crew Leave Location	6/13/2019	11:30:00	USER
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THANK YOU FOR CHOOSING
HALLIBURTON CEMENTING
OF GRAND JUNCTION, CO -
RYAN MARTIN AND CREW

3.0 Attachments

3.1 905762844-Custom Results.png

