

HALLIBURTON

iCem[®] Service

TAPSTONE ENERGY LLC

For:

Date: Sunday, January 11, 2015

ralph 2h

Case 1

Sincerely,

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1.0 Job Design

1.1 Time of Stages

Graph Label	Time (min)	Stage Starts Pumping	Stage Enters Annulus
①	0	Drop Bottom Plug	
②	0	Shutdown	
③	0	Drop Top Plug	
④	0	Slow Rate	

2.0 Hydraulics Summary

3.0 Temperature Modeling

4.0 Real-Time Job Summary

4.1 Stage Summary - Liquid Volume, Density, & Design Shutdown

4.2 Stage Summary - Pump Pressure & ECD

4.3 Stage Summary - Pump Rate & Nitrogen Rate

4.4 Shutdown Summary

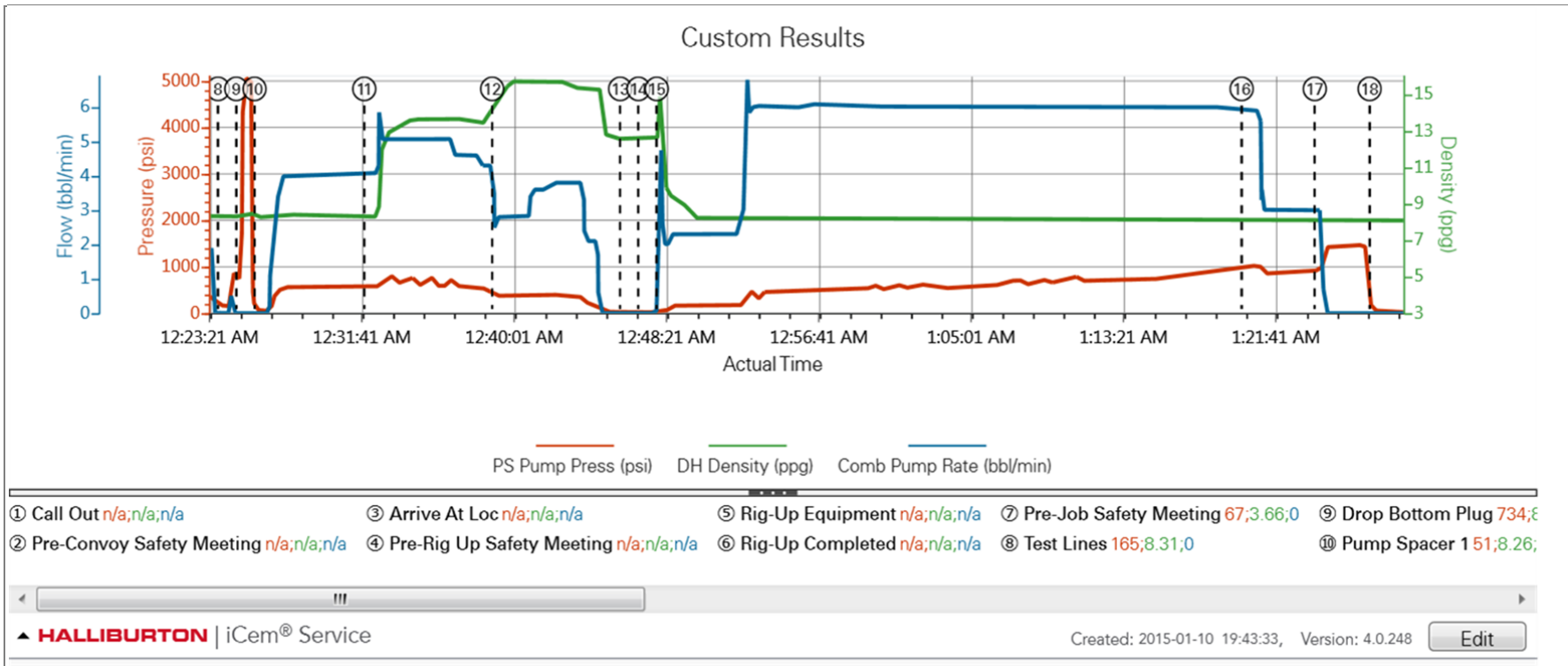
4.5 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	PS Pump Press (psi)	DH Density (ppg)	Comb Pump Rate (bbl/min)	Comments
Event	1	Call Out	Call Out	1/10/2015	14:00:00	USER				requested 20:00
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	1/10/2015	17:30:00	USER				stay on route, use smith driving skills
Event	3	Arrive At Loc	Arrive At Loc	1/10/2015	18:00:00	USER				get job info from companyman,
Event	4	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	1/10/2015	18:20:00	USER				spot equipment using spotters, watch icy area near rig up area, stay clear of line of fire
Event	5	Rig-Up Equipment	Rig-Up Equipment	1/10/2015	18:25:00	USER				
Event	6	Rig-Up Completed	Rig-Up Completed	1/10/2015	19:20:00	USER				wait on casing crew to run casing
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	1/10/2015	23:50:00	USER				stay clear of red zone, don't hammer on pressurized iron,
Event	8	Test Lines	Test Lines	1/11/2015	00:24:00	COM5	5000.00	8.34	0.00	test lines 500 low, 5000 psi high
Event	9	Drop Bottom Plug	Drop Bottom Plug	1/11/2015	00:25:00	USER	0.00	8.34	0.00	drop bottom plug
Event	10	Pump Spacer 1	Pump Spacer 1	1/11/2015	00:26:00	COM5	530.00	8.40	4.50	pump 10 bbls mudflush ahead...good returns
Event	11	Pump Lead Cement	Pump Lead Cement	1/11/2015	00:32:00	COM5	563.00	13.60	5.00	pump 37 bbls (140 sks) lead at 13.6# TOLC 3207'...good returns
Event	12	Pump Tail Cement	Pump Tail Cement	1/11/2015	00:39:00	COM5	391.00	15.60	4.50	pump 19 bbls (90 sks) tail at 15.6# TOTC 4600'...good returns
Event	13	Shutdown	Shutdown	1/11/2015	00:46:00	USER	0.00	15.60	0.00	
Event	14	Drop Top Plug	Drop Top Plug	1/11/2015	00:47:00	USER				drop top plug
Event	15	Pump Displacement	Pump Displacement	1/11/2015	00:48:00	COM5	445.00	8.34	6.00	pump 195 bbls water displacement...good returns

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	PS Pump Press (psi)	DH Density (ppg)	Comb Pump Rate (bbl/min)	Comments
Event	16	Slow Rate	Slow Rate	1/11/2015	01:20:00	USER	855.00	8.34	3.00	slow rate to 3 bbls mmin at 185 bbls gone
Event	17	Bump Plug	Bump Plug	1/11/2015	01:24:00	COM5	1450.00	8.34	3.00	land plug from 930-1450 psi
Event	18	Check Floats	Check Floats	1/11/2015	01:27:00	USER	0.00	8.34	0.00	floats holding 1 bbl back
Event	19	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	1/11/2015	01:30:00	USER				watch line of fire, use tag line, use proper lifting
Event	20	Rig-Down Equipment	Rig-Down Equipment	1/11/2015	01:35:00	USER				
Event	21	Rig-Down Completed	Rig-Down Completed	1/11/2015	02:10:00	USER				
Event	22	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	1/11/2015	02:15:00	USER				stay on route
Event	23	Depart Location	Depart Location	1/11/2015	02:30:00	USER				

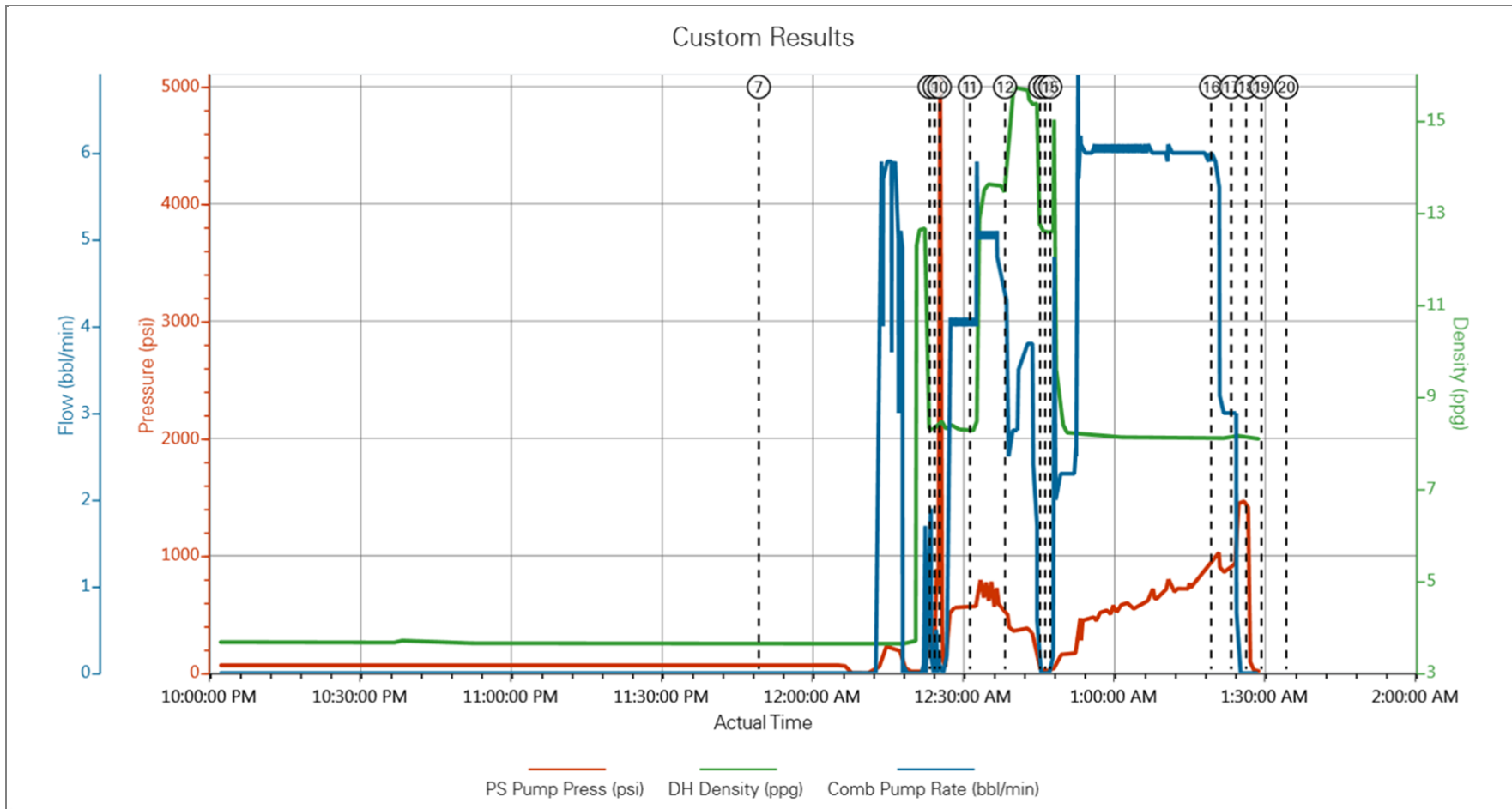
5.0 Attachments

5.1 Case 1-Custom Results.png



6.0 Custom Graphs

6.1 Custom Graph



7.0 Appendix

7.1 One-Minutes Real-Time Data Listing
