

HALLIBURTON

iCem[®] Service

CONOCO/PHILLIPS COMPANY EBUSINESS

Date: Wednesday, July 05, 2017

B&D LAND 4-64 4-5 #4BH Surface

Job Date: Thursday, June 29, 2017

Sincerely,

Julia Nichols

Legal Notice

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **B&D Land 4-64 4-5 4BH cement Surface** casing job. A pre-job safety meeting was held before the job where details of the job were discussed, potential safety hazards were reviewed, and environmental compliance procedures were outlined.

Approximately 77 barrels of cement were returned to surface.

Halliburton maintains a continuous quality improvement process and appreciates any comments or suggestions that you may have. Halliburton again thanks you for the opportunity to perform service work on this well. We hope to be your solutions provider for future projects.

Respectfully,

Halliburton [Ft. Lupton]

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Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 352431	Ship To #: 352431	Quote #: 0022317088	Sales Order #: 0904131196							
Customer: CONOCO/PHILLIPS COMPANY-EBUS		Customer Rep:								
Well Name: B&D LAND 4-64 4-5	Well #: 4BH	API/UWI #: 05-005-07245-00								
Field:	City (SAP): WATKINS	County/Parish: ARAPAHOE	State: COLORADO							
Legal Description:										
Contractor: H & P DRLG		Rig/Platform Name/Num: H & P 448								
Job BOM: 7521 7521										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA/HB41307		Srvc Supervisor:								
Job										
Formation Name										
Formation Depth (MD)	Top	Bottom								
Form Type	BHST									
Job depth MD	1980ft	Job Depth TVD	1980ft							
Water Depth	Wk Ht Above Floor									
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
Open Hole Section			12.25				0	1980		
Casing		9.625	8.921	36	LTC	J-55	0	1970		0
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe						Top Plug	9.625	1	Weatherford	
Float Shoe	9.625			1970		Bottom Plug	9.625		Weatherford	
Float Collar	9.625			1922		SSR plug set				
Insert Float						Plug Container	9.625	1	HES	
Stage Tool						Centralizers	9.625	16	HES	
Fluid Data										
Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	10 lb/gal Tuned Spacer III	Tuned Spacer III	50	bbl	10	8.82		5		
Stage/Plug #: 2										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
2	Lead	SWIFTCCEM	310	sack	12	2.56		7.7	15.11	
Stage/Plug #: 3										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	

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Cementing Job Summary

3	SwiftCem	SWIFTCEN (TM) SYSTEM	165	sack	14.2	1.59		7.7	7.89
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
4	Displacement	Displacement	148.7	bbl	8.33			7	
Cement Left In Pipe		Amount	48 ft		Reason			Shoe Joint	
Comment Got 77 bbls. of cement back to surface. Estimated top of tail is 1,153'.									

2.0 Real-Time Job Summary

2.1 Job Event Log

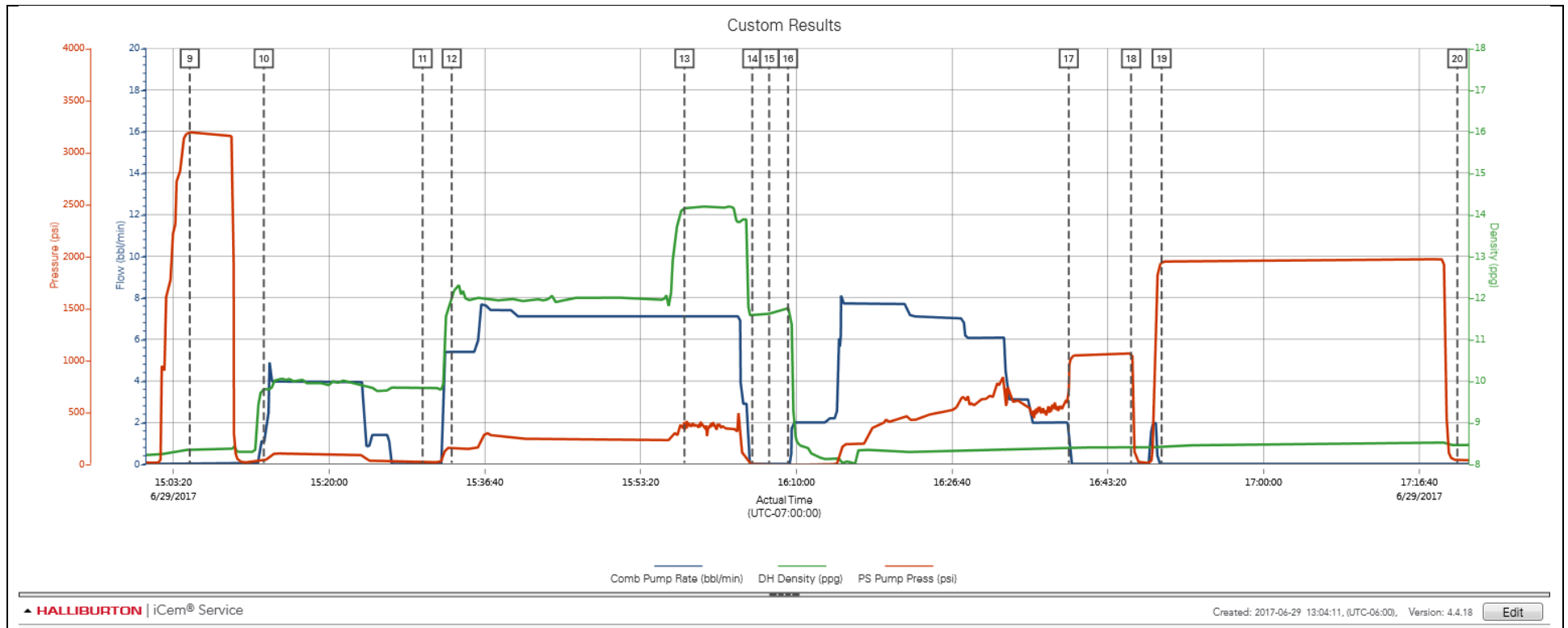
Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comb Pump Rate (bbl/min)	DH Density (ppg)	PS Pump Press (psi)	Comments
Event	1	Call Out	Call Out	6/29/2017	03:30:00	USER				Crew called out at 03:30 for a location time of 07:30.
Event	2	Safety Meeting - Departing Location	Safety Meeting - Departing Location	6/29/2017	06:30:00	USER				Held pre journey safety meeting and JSA.
Event	3	Depart from Service Center or Other Site	Depart from Service Center or Other Site	6/29/2017	06:40:00	USER				Started journey management with dispatch and the crew left the yard.
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	6/29/2017	07:30:00	USER				Checked in with the customer. Discussed numbers needed to calculate the job and rig up. Rig running casing. Casing: 9.625" 36# OH: 12.25" Mud#: 9.5 ppg. TD: 1,980'. TP:1,970'. FC:1,1,922'. Water test, Temp: 77F PH: 7.3 Chlorides: 0 ppm.
Event	5	Safety Meeting - Pre Rig-Up	Safety Meeting - Pre Rig-Up	6/29/2017	08:30:00	USER				Performed a hazard hunt and site assessment. Held pre rig up safety meeting and JSA.
Event	6	Rig-Up Equipment	Rig-Up Equipment	6/29/2017	09:00:00	USER				Spotted trucks in and rigged up all iron and hoses for the job.
Event	7	Safety Meeting	Safety Meeting	6/29/2017	14:00:00	USER				Held pre job safety meeting with all personnel on location.
Event	8	Start Job	Start Job	6/29/2017	14:53:41	COM4				Pumped 6 bbls of fresh water to fill lines.
Event	9	Test Lines	Test Lines	6/29/2017	15:05:05	COM4	0.00	8.34	3190.00	Pressure tested lines to 3,000 psi. with a 500 psi. electronic kick out test.
Event	10	Pump Spacer 1	Pump Spacer 1	6/29/2017	15:13:00	COM4	1.10	9.80	37.00	Pumped 50 bbls. of Tuned Spacer III mixed at 10 ppg.
Event	11	Drop Bottom Plug	Drop Bottom Plug	6/29/2017	15:30:00	USER	0.00	9.82	18.00	Shutdown and dropped the bottom plug with one bbl. of spacer on top. Witnessed and verified by the customer.
Event	12	Pump Lead Cement	Pump Lead Cement	6/29/2017	15:33:06	COM4	5.40	12.03	157.00	Pumped 141.3402 bbls. (310 sks.) of ElastiCem mixed at 12 ppg. Density was verified by pressurized scales.
Event	13	Pump Tail Cement	Pump Tail Cement	6/29/2017	15:58:01	COM4	7.10	14.15	324.00	Pumped 46.7245 bbls. (165 sks.) of ElastiCem mixed at

14.2 ppg. Density was verified by pressurized scales.

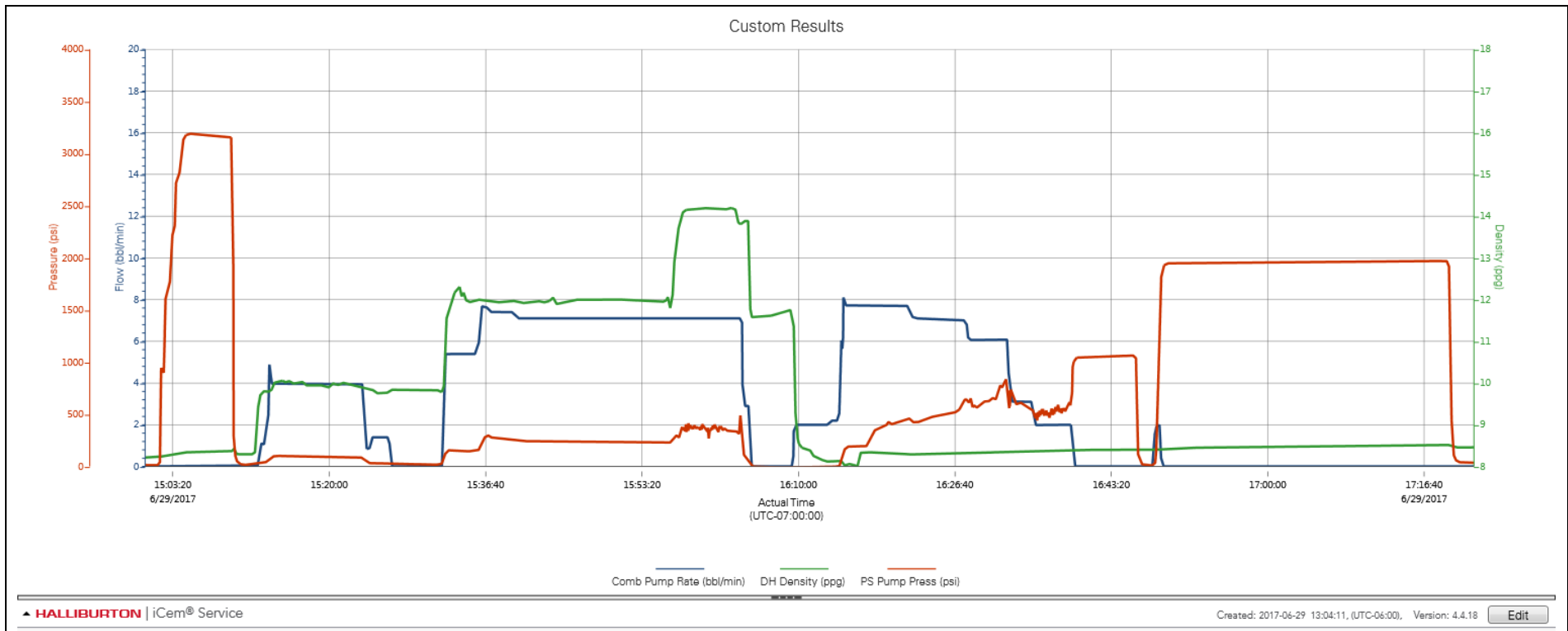
Event	14	Shutdown	Shutdown	6/29/2017	16:05:17	COM4	0.00	11.57	-6.00	Shut down to wash up on top of the plug.
Event	15	Drop Top Plug	Drop Top Plug	6/29/2017	16:07:05	COM4	0.00	11.62	-10.00	Dropped the top plug. Top plug being dropped was witnessed and verified by the customer.
Event	16	Pump Displacement	Pump Displacement	6/29/2017	16:09:06	COM4				Pumped 148.7 bbls. of fresh water for displacement.
Event	17	Bump Plug	Bump Plug	6/29/2017	16:39:09	COM4	2.00	8.38	706.00	Bumped the plug 500 psi. over 550 psi. at 2 bpm.
Event	18	Other	Other	6/29/2017	16:45:49	COM4	0.00	8.41	1064.00	Bled off pressure to check floats. Floats held.
Event	19	Other	Other	6/29/2017	16:49:05	COM4	0.00	8.43	1943.00	Pressured up on the well to perform a 30 minute casing test at 1,800 psi. Held pressure for 30 minutes. Pressure leveled off at 1,949 psi. and gained 22 psi. During 30 minutes. Finale pressure was 1,971 psi. Bled off pressure and recheck floats. Floats held and got 1 bbl. of fluid back to the truck.
Event	20	End Job	End Job	6/29/2017	17:20:44	COM4				Washed pumps and lines until clean.
Event	21	Safety Meeting - Pre Rig-Down	Safety Meeting - Pre Rig-Down	6/29/2017	20:00:00	USER				Held JSA and rig down safety meeting.
Event	22	Rig Down Lines	Rig Down Lines	6/29/2017	20:30:00	USER				Rigged down all lines and hoses.
Event	23	Safety Meeting - Departing Location	Safety Meeting - Departing Location	6/29/2017	21:00:00	USER				Held pre journey safety meeting and JSA.
Event	24	Depart from Service Center or Other Site	Depart from Service Center or Other Site	6/29/2017	21:30:00	USER				Crew left location and started journey management with dispatch.

3.0 Attachments

3.1 Custom Results – Job Chart with Events



3.2 Custom Results – Job Chart without Events



3.3 Casing Test

