

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS

Date: Monday, March 28, 2016

Bybee #7

Production

Job Date: Monday, March 21, 2016

Sincerely,
Lauren Roberts

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Bybee #7** cement **Production** 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.

35 bbl. of cement 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 #: 369404	Ship To #: 3677708	Quote #:	Sales Order #: 0903198264							
Customer: EXTRACTION OIL & GAS		Customer Rep: JOSE								
Well Name: BYBEE	Well #: 7	API/UWI #: 05-123-41799-00								
Field: WATTENBERG	City (SAP): FIRESTONE	County/Parish: WELD	State: COLORADO							
Legal Description: NE SE-14-2N-68W-2268FSL-1248FEL										
Contractor: PATTERSON-UTI ENERGY		Rig/Platform Name/Num: PATTERSON 346								
Job BOM: 7523										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199		Srvc Supervisor: Joseph Scileppi								
Job										
Formation Name										
Formation Depth (MD)	Top 0	Bottom	12428							
Form Type	BHST									
Job depth MD	12428ft	Job Depth TVD	7365							
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
Casing		9.625	8.921	36			0	1597		0
Casing		5.5	4.778	20			0	12428	0	7365
Open Hole Section			7.875				1597	12428	1597	7365
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make		
Guide Shoe	5.5			12428	Top Plug	5.5	1	HES		
Float Shoe	5.5				Bottom Plug	5.5				
Float Collar	5.5				SSR plug set	5.5				
Insert Float	5.5				Plug Container	5.5		HES		
Stage Tool	5.5				Centralizers	5.5				
Fluid Data										
Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	11.5 lb/gal Tuned Spacer III	Tuned Spacer III	50	bbl	11.5	3.74		6		
36.09 gal/bbl		FRESH WATER								
0.75 gal/bbl		MUSOL(R) A, BULK (100003696)								
0.75 gal/bbl		DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)								
149.34 lbm/bbl		BARITE, BULK (100003681)								

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Cementing Job Summary

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	ElastiCem Lead	ELASTICEM (TM) SYSTEM	150	sack	13.2	1.569		8	7.54
7.54 Gal		FRESH WATER							
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
3	ElastiCem Tail Cement .6 HR	ELASTICEM (TM) SYSTEM	1450	sack	13.2	1.57		8	7.54
7.54 Gal		FRESH WATER							
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	MMCR Displacement	MMCR Displacement	10	bbl	8.33			8	
0.50 gal/bbl		MICRO MATRIX CEMENT RETARDER, 1 GAL PAIL (100003780)							
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
5	Displacement	Displacement	274.5	bbl	8.33			8	
Cement Left in Pipe		Amount	5 ft		Reason			Shoe Joint	
Mix Water:		pH ##	Mix Water Chloride: ## ppm			Mix Water Temperature: ## °F °C			
Cement Temperature: ## °F °C		Plug Displaced by: ## lb/gal kg/m3 XXXX				Disp. Temperature: ## °F °C			
Plug Bumped? Yes/No		Bump Pressure: #### psi MPa				Floats Held? Yes/No			
Cement Returns: ## bbl m3		Returns Density: ## lb/gal kg/m3				Returns Temperature: ## °F °C			
Comment GOT 35 BBLs OF CMT BACK TO SURFACE									

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2.0 Real-Time Job Summary

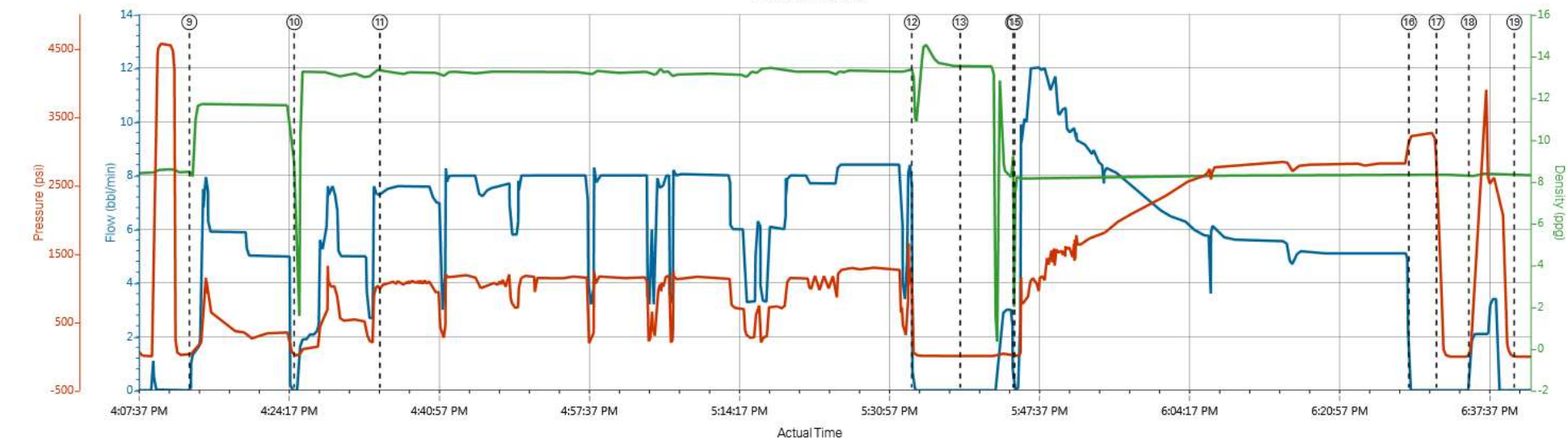
2.1 Job Event Log

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	3/21/2016	11:15:00	USER				CALLOUT FOR ON LOCATION AT 11:30, COORDINATOR SEND US TO WRONG RIG AND WE HAD TO GO BACK TO YARD TO GET EQUIPMENT FOR JOB
Event	2	Crew Leave Yard	Crew Leave Yard	3/21/2016	13:50:00	USER				PRE JOURNEY JSA W/ CREW
Event	3	Arrive At Loc	Arrive At Loc	3/21/2016	14:30:00	USER				UPON ARRIVAL RIG WAS READY, MET W/ COMPANY REP TO DISCUSS JOB PROCEDURE
Event	4	Rig-Up Equipment	Rig-Up Equipment	3/21/2016	14:35:00	USER				PRE RIG UP HAZARD HUNT JSA W/ CREW
Event	5	Other	Other	3/21/2016	14:40:00	USER				FIELD MIX WATER ANALYSIS: TEMP-61, PH-6, CHLORIDES-0, IRON-0
Event	6	Pre-Job Safety Meeting	Pre-Job Safety Meeting	3/21/2016	15:50:00	USER				JSA W/ ALL INVOLVED PERSONNEL
Event	7	Start Job	Start Job	3/21/2016	16:03:59	COM5				
Event	8	Test Lines	Test Lines	3/21/2016	16:06:15	COM5	0.00	8.35	114.00	TESTED LINES TO 4500 PSI FOR 3 MIN, NO VISIBLE LEAKS
Event	9	Pump Spacer 1	Pump Spacer 1	3/21/2016	16:13:28	COM5	1.30	8.38	41.00	PUMPED 50 BBLS OF 11.5 SPACER W/ 30 GAL OF D AIR, 37.5 GAL OF MUSOL A, AND 37.5 GAL OF DUAL SURFACTANT B AT 6 BPM AND 470 PSI
Event	10	Pump Lead Cement	Pump Lead Cement	3/21/2016	16:25:07	COM5	0.00	5.15	5.00	PUMPED 150 SKS OR 41.6 BBLS OF 13.2 LEAD CMT AT 6 BPM AND 920 PSI
Event	11	Pump Tail Cement	Pump Tail Cement	3/21/2016	16:34:38	COM5	7.40	13.30	1043.00	PUMPED 1450 SKS OR 405.4 BBLS OF 13.2 TAIL CMT AT 8 BPM AND 1120 PSI
Event	12	Shutdown	Shutdown	3/21/2016	17:33:43	COM5	0.00	11.71	29.00	
Event	13	Drop Top Plug	Drop Top Plug	3/21/2016	17:39:06	COM5	0.00	13.51	4.00	PLUG LOADED AND WITNESSED BY COMPANY REP
Event	14	Other	Other	3/21/2016	17:44:58	COM5	0.00	8.10	-4.00	WASHED PUMPS AND LINES
Event	15	Pump Displacement	Pump Displacement	3/21/2016	17:45:09	COM5	0.00	8.24	-7.00	PUMPED 274.5 BBLS OF H2O W/ 5 GAL OF MMCR IN FIRST 10 BBLS AT 6.2 BPM AND 2552 PSI, GOT 35 BBLS OF CMT

BACK TO SURFACE

Event	16	Bump Plug	Bump Plug	3/21/2016	18:28:56	COM5	0.00	8.31	3215.00	FINAL CIRCULATING PRESSURE WAS 2812 PSI AND PLUG BUMPED AT 3216
Event	17	Other	Other	3/21/2016	18:32:00	COM5	0.00	8.27	1728.00	CHECKED FLOATS AND GOT 3 BBLS BACK TO TRUCK, FLOATS HELD
Event	18	Other	Other	3/21/2016	18:35:35	COM5	1.80	8.23	259.00	PUMPED A WET SHOE W/ 7 BBLS OF H2O PER CUSTOMER REQUEST
Event	19	End Job	End Job	3/21/2016	18:40:39	COM5				

Custom Results



Comb Pump Rate (bbl/min)		DH Density (ppg)		PS Pump Press (psi)	
① Call Out n/a;n/a;n/a	④ Rig-Up Equipment n/a;n/a;n/a	⑦ Start Job 0;8.38;75	⑩ Pump Lead Cement 0;5.15;5	⑬ Drop Top Plug 0;13.51;4	⑯ Bump Plug 0;8.31;3215
② Crew Leave Yard n/a;n/a;n/a	⑤ Other n/a;n/a;n/a	⑧ Test Lines 0;8.35;114	⑪ Pump Tail Cement 74;13.3;1043	⑭ Other 0;8.1;-4	⑰ Other 0;8.27;1728
③ Arrive At Loc n/a;n/a;n/a	⑥ Pre-Job Safety Meeting 0;0.08;74	⑨ Pump Spacer 1;1.3;8.38;41	⑫ Shutdown 0;11.71;29	⑮ Pump Displacement 0;8.24;-7	⑱ Other 1.8;8.23;269
				⑲ End Job 0;8.31;-7	

Custom Results

