

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS

For: Ty Entenmann

Date: Saturday, February 20, 2016

Johnson Trust #9

Production

Job Date: Monday, February 15, 2016

Sincerely,

Derek Trier

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Johnson Trust 9** 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.

Note: Throughout job, return rates were less than pumping rates by approximately 2bbl/min. No cement or spacer returns to surface. Minor losses expected. Plug bumped at calculated displacement volume.

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]

Job Times

	Date	Time	Time Zone
Called Out Time:	2/14/2016	1800	MTN
Arrived On Location At:		2300	
Job Started At:	2/15/2016	0528	
Job Completed At:		0835	
Departed Location At:		1000	

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*Cementing Job Summary**The Road to Excellence Starts with Safety*

Sold To #: 369404	Ship To #: 3699381	Quote #:	Sales Order #: 0903113283							
Customer: EXTRACTION OIL & GAS		Customer Rep: HUGH MCGRAW								
Well Name: JOHNSON TRUST	Well #: 9	API/UWI #: 05-123-42313-00								
Field: WATTENBERG	City (SAP): LONGMONT	County/Parish: WELD	State: COLORADO							
Legal Description: NW SW-13-2N-68W-2041FSL-388FWL										
Contractor: PATTERSON-UTI ENERGY		Rig/Platform Name/Num: PATTERSON 346								
Job BOM: 7523										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199		Srv Supervisor: Christopher Pickell								
Job										
Formation Name										
Formation Depth (MD)	Top	Bottom								
Form Type	BHST									
Job depth MD	12343ft	Job Depth TVD	7540ft							
Water Depth		Wk Ht Above Floor	4ft							
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	1576	0	0
Casing		5.5	4.778	20			0	12343	0	7540
Open Hole Section			7.875				1560	12343	0	7540
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make		
Guide Shoe	5.5				Top Plug	5.5				
Float Shoe	5.5	KLX	1	12343	Bottom Plug	5.5	1	KLX		
Float Collar	5.5	KLX	1	12337	SSR plug set	5.5				
Insert Float	5.5				Plug Container	5.5	1	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	7.53	5		
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	
2	ElastiCem Lead	ELASTICEM (TM) SYSTEM	150	sack	13.2	1.6	23.8	6		

last updated on 2/15/2016 9:54:29 AM

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(v. 4.2.393)

Created: Saturday, February 20, 2016

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Cementing Job Summary

7.53 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
3	ElastiCem Tail Cement	ELASTICEM (TM) SYSTEM	1500	sack	13.2	1.6	7.53	6	
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/mi n	Total Mix Fluid Gal
4	Displacement	Displacement	272.7	bbl	8.33			8-2.5	
Cement Left In Pipe		Amount	ft		Reason			Shoe Joint	
Comment All cement scaled within range. Returns were less than what was being pumped throughout the entire job.									

2.0 Real-Time Job Summary

2.1 Job Event Log

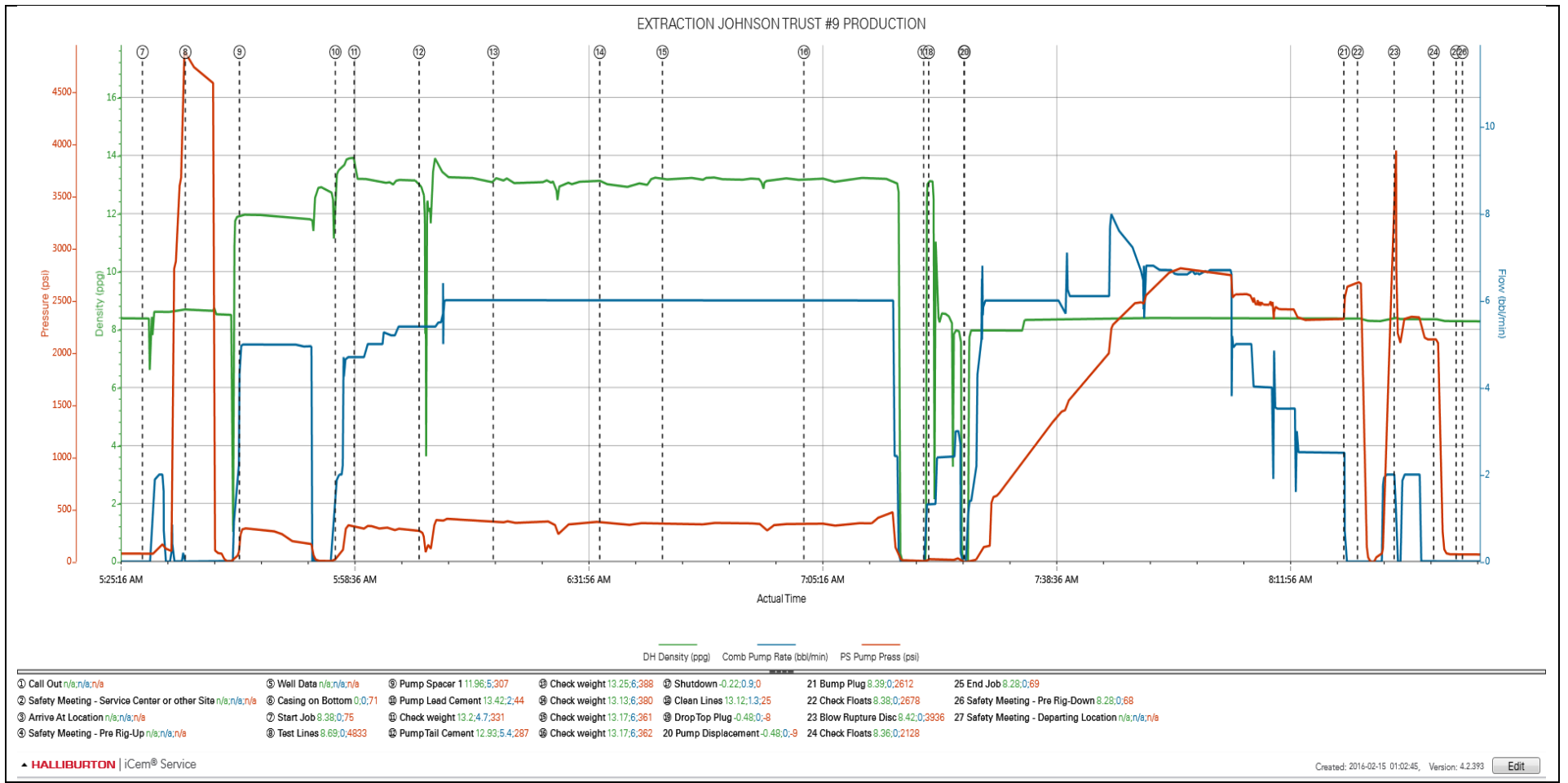
Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Pass-Side Pump Pressure (psi)	Comments
Event	1	Call Out	Call Out	2/14/2016	18:00:00	USER				Crew called out at 18:00 to be on location at 00:00. Crew was Chris Pickell, Nick Roles, Joe Scileppi, Brian Leone, Roger Condon, Jesse Zegraski, Justin Lansdale
Event	2	Safety Meeting - Service Center or other Site	Safety Meeting - Service Center or other Site	2/14/2016	22:00:00	USER				Safety meeting held for journey, equipment double checked. Left the yard for location
Event	3	Arrive At Loc	Arrive At Location	2/14/2016	23:00:00	USER				Arrive on location 1 hour early. Rig had 5000 ft of casing left to run
Event	4	Safety Meeting - Pre Rig-Up	Safety Meeting - Pre Rig-Up	2/14/2016	23:15:00	USER				Safety meeting held for rig up. Hazard hunt performed. Rig up planned and executed
Event	5	Other	Well Data	2/14/2016	23:20:00	USER				TD 12343'. TP 12342' 5.5" 20#. LC 12337'. OH 7 7/8". SURFACE 1560' 9 5/8" 36#. WF 11.5 PPG. TVD 7540'. Rig had lost nearly 500 bbl of mud while drilling up to running casing
Event	6	Casing on Bottom	Casing on Bottom	2/15/2016	03:30:00	USER				Casing on bottom at 03:30. Rig began slowly circulating a bottoms up
Event	7	Start Job	Start Job	2/15/2016	05:28:36	COM6				
Event	8	Test Lines	Test Lines	2/15/2016	05:34:41	COM6	8.69	0.00	4833.00	Pressure test lines to 5000 psi. Checked for visible leaks and pressure loss
Event	9	Pump Spacer 1	Pump Spacer 1	2/15/2016	05:42:24	COM6	11.96	5.00	307.00	Pump 50 bbl of tuned spacer 11.5 ppg 3.74 yield 23.8 gal/sk. Musol and Dual spacer B added in
Event	10	Pump Lead Cement	Pump Lead Cement	2/15/2016	05:56:04	COM6	13.42	2.00	44.00	Pump 150 sks 43 bbl of Lead Elasticem 13.2 ppg 1.6 yield 7.53 gal/sk
Event	11	Check Weight	Check weight	2/15/2016	05:58:46	COM6	13.20	4.70	331.00	Cement scaled at 13.2 ppg
Event	12	Pump Tail Cement	Pump Tail Cement	2/15/2016	06:08:01	COM6	12.93	5.40	287.00	Pump 1500 sks 428 bbl of Tail Elasticem 13.2 ppg 1.6 yield 7.53 gal/sk. On the second to last pod rig took

returns through the gas buster as they were getting 6000 units of gas at surface

Event	13	Check Weight	Check weight	2/15/2016	06:18:35	COM6	13.25	6.00	388.00	Cement scaled at 13.2 ppg
Event	14	Check Weight	Check weight	2/15/2016	06:33:45	COM6	13.13	6.00	380.00	Cement scaled at 13.4 ppg
Event	15	Check Weight	Check weight	2/15/2016	06:42:42	COM6	13.17	6.00	361.00	Cement scaled at 13.3 ppg
Event	16	Check Weight	Check weight	2/15/2016	07:02:51	COM6	13.17	6.00	362.00	Cement scaled at 13.2 ppg
Event	17	Shutdown	Shutdown	2/15/2016	07:19:55	COM6				Slower returns than rate pumped throughout cement, maybe 1 bbl/min less than what was actually being pumped
Event	18	Clean Lines	Clean Lines	2/15/2016	07:20:38	USER				Lines blown down from cement head to wash up tank. Then washed up from pump truck to wash up tank
Event	19	Drop Top Plug	Drop Top Plug	2/15/2016	07:25:40	COM6				Top rupture plug dropped by KLX tool hand while shutdown
Event	20	Pump Displacement	Pump Displacement	2/15/2016	07:25:44	COM6	8.33	6.00	2000.00	Pump displacement using water. Returns were about 2 bbl/min less than the actual rate pumped throughout all of displacement. There was a steady psi climb until around 160 bbl away where it leveled off. Did not return any spacer or cement to surface
Event	21	Bump Plug	Bump Plug	2/15/2016	08:19:48	COM6	8.39	0.00	2612.00	Plug landed at calculated of 272.7. Plug landed with 2350 psi shutting down with 2649 psi
Event	22	Other	Check Floats	2/15/2016	08:21:45	COM6	8.38	0.00	2678.00	Pressure was held for 2 minutes then released. Floats held. 3 bbl back to tanks
Event	23	Other	Blow Rupture Disc	2/15/2016	08:26:57	COM6	8.42	0.00	3936.00	Blow rupture disc on plug with 2920 psi with 3.2 bbl away then pumped 5 bbl of water for and intentional wet shoe.
Event	24	Other	Check Floats	2/15/2016	08:32:36	COM6	8.36	0.00	2128.00	Check floats again. Floats held. 2 bbl back to tanks
Event	25	End Job	End Job	2/15/2016	08:35:48	COM6				
Event	26	Safety Meeting - Pre Rig-Down	Safety Meeting - Pre Rig-Down	2/15/2016	08:36:41	USER				Safety meeting held for rig down. Rigged down all equipment
Event	27	Safety Meeting - Departing Location	Safety Meeting - Departing Location	2/15/2016	10:00:00	USER				Safety meeting held for journey. Left location for the yard

3.0 Attachments

3.1 JOHNSON TRUST #9-Custom Results.png



3.2 JOHNSON TRUST #9-Custom Results (1).png

