

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS

Date: Tuesday, December 26, 2017

Trott 8E-10-1C Surface

Job Date: Sunday, December 10, 2017

Sincerely,

Bryce Hinsch

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Trott 8E-10-1C** 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 25 bbls of cement were brought 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 [Fort Lupton]

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Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 369404		Ship To #: 3833886		Quote #:		Sales Order #: 0904492415				
Customer: EXTRACTION OIL & GAS -				Customer Rep: Sean Macentire						
Well Name: TROTT		Well #: 8E-10-1C		API/UWI #: 05-123-45716-00						
Field: WATTENBERG		City (SAP): MEAD		County/Parish: WELD		State: COLORADO				
Legal Description: NE SE-7-4N-68W-1549FSL-1038FEL										
Contractor:				Rig/Platform Name/Num: Cartel 41						
Job BOM: 7521 7521										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199				Srv Supervisor: Ryan Stevens						
Job										
Formation Name										
Formation Depth (MD)		Top	0	Bottom						
Form Type				BHST						
Job depth MD		1533ft		Job Depth TVD		1533				
Water Depth				Wk Ht Above Floor		5				
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	new	9.625	8.921	36	8 RD	J-55	0	1533	0	1533
Open Hole Section			13.5				0	1533	0	1533
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	9.625	1	N/A	1533		Top Plug	9.625	1	HES	
Float Shoe	9.625					Bottom Plug				
Float Collar	9.625	1	N/A	1491		SSR plug set				
Insert Float	9.625					Plug Container	9.625	1	HES	
Stage Tool	9.625					Centralizers				
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	Red Dye Spacer	Red Dye Spacer	10	bbl	8.33		42	5	420	
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	Fresh water	spacer	10	bbl	8.33		42	5	420	

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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
3	SwiftCem	SWIFTCM (TM) SYSTEM	525	sack	13.5	1.74	9.2	5	4,830
9.20 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	Fresh Water	Fresh Water	115	bbl	8.33		42	8	4,830
Cement Left In Pipe		Amount	42 ft		Reason			Shoe Joint	
Mix Water:		pH 7	Mix Water Chloride:		200 ppm		Mix Water Temperature:		
Cement Temperature:			Plug Displaced by:		8.34 Lb/Bbl		Disp. Temperature:		
Plug Bumped?		Yes	Bump Pressure:		1,048		Floats Held?		Yes/
Cement Returns:		26 bbl	Returns Density:		13.5 lb/gal		Returns Temperature:		
Comment 25 BBLS of cement 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	Downhole Density (ppg)	Pass-Side Pump Pressure (psi)	Pass-Side Pump Rate (bbl/min)	Comments
Event	1	Crew Leave Location	Crew Leave Location	12/9/2017	01:15:00	USER				CREW LEAVE LOCATION, THANKS RYAN STEVENS AND CREW
Event	2	Call Out	Call Out	12/9/2017	18:00:00	USER				CREW CALLED OUT AT 18:00 REQUESTED ON LOCATION 23:00.
Event	3	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	12/9/2017	20:00:00	USER				CREW DISCUSSED HAZARDS ALONG ROUTTE OF TRAVEL
Event	4	Crew Leave Yard	Crew Leave Yard	12/9/2017	20:15:00	USER				START JOURNEY MANAGEMENT
Event	5	Arrive At Loc	Arrive At Loc	12/9/2017	21:00:00	USER				CREW ARRIVED AT LOCATION. MEET WITH CO-MAN AND DISCUSED JOB PROCEDURE. TD 1533, TP 1533 FC 1492, FRESH WATER DISPLACEMENT. JOURNEY MANAGEMENT WAS ENDED
Event	6	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	12/9/2017	21:30:00	USER				CREW DISCUSED HAZARDS ALONG WITH RIG UP
Event	7	Rig-Up Equipment	Rig-Up Equipment	12/9/2017	22:00:00	USER				CREW RIGGED UP EQUIPMENT AND BULK TRUCKS TO PERFORM JOB
Event	8	Rig-Up Completed	Rig-Up Completed	12/9/2017	22:57:21	USER				EQUIPMENT RIGGED UP AND READY TO PERFORM JOB
Event	9	Pre-Job Safety Meeting	Pre-Job Safety Meeting	12/9/2017	23:30:00	USER				HAD SAFETY MEETING WITH HALLIBURTON PERSONNEL TO DISCUSS HAZARDS WITH

JOB AND JOB PROCEDURE.										
Event	10	Start Job	Start Job	12/10/2017	01:44:04	COM4	8.38	2.00	0.00	START RECORDING JOB DATA
Event	11	Pump Spacer 1	Pump Spacer 1	12/10/2017	01:58:25	COM4	1.26	-5.00	0.00	PUMP 10 BBLS OF FRESH WATER SPACER
Event	12	Pump Spacer 2	Pump Spacer 2	12/10/2017	02:05:50	COM4	8.26	132.00	2.90	PUMP 10 BBLS OF FRESH WATER SPACER PLUS DYE
Event	13	Check Weight	Check weight	12/10/2017	02:10:48	COM4	8.23	88.00	0.00	CHECK CEMENT WEIGHT WITHPRESSURIZED MUD SCALE
Event	14	Pump Cement	Pump Cement	12/10/2017	02:14:18	COM4	8.21	83.00	0.00	PUMP 525 SKS OF SWIFTCEM @ 13.5 LB/GAL, 1.74 FT3/SK, 9.2 GAL/SK 162 BBLS. 25 BBLS OF CEMENT BACK TO SURFACE. DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	15	Drop Top Plug	Drop Top Plug	12/10/2017	02:49:43	COM4	20.69	45.00	0.00	DROP TOP PLUG
Event	16	Pump Displacement	Pump Displacement	12/10/2017	02:51:03	COM4	10.55	161.00	6.40	PUMP 115 BBLS OF FRESH WATER DISPLACEMENT, 25 BBLS OF CEMENT BACK TO SURFACE
Event	17	Bump Plug	Bump Plug	12/10/2017	03:12:15	COM4	8.41	1590.00	0.00	PLUG BUMPED AT CALCULATED DISPLACEMENT. PRESSURED 500 PSI OVER BUMP TO 1048 PSI. BRING PRESURE UP TO 1,540 PSI FOR CASING TEST
Event	18	End Job	End Job	12/10/2017	03:18:11	COM4				STOP RECORDING JOB DATA
Event	19	Check Floats	Check Floats	12/10/2017	03:25:00	USER	8.32	18.00	2.10	CHECK FLOATS 1 BBL BACK, FLOATS HELD

Event	20	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	12/10/2017	03:30:00	USER	0.00	-6.00	0.00	CREW DISCUSSED HAZARDS WITH RIGGING DOWN
Event	21	Rig-Down Equipment	Rig-Down Equipment	12/10/2017	03:35:00	USER	0.00	-5.00	0.00	CREW RIGGED DOWN PUMP AND BULK EQUIPMENT.
Event	22	Crew Leave Location	Crew Leave Location	12/10/2017	03:47:02	USER				START JOURNEY MANAGEMENT. THANKS RYAN AND CREW.

3.0 Attachments

3.1 Extraction Trott 8E-10-1C Surface Job Chart

