

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS-EBUS

Date: Thursday, February 08, 2018

Trott 8E-10-17N Production

Job Date: Wednesday, January 10, 2018

Sincerely,

Justin Lansdale

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Table of Contents

1.0 Cementing Job Summary 4

 1.1 Executive Summary4

2.0 Real-Time Job Summary 8

 2.1 Job Event Log8

3.0 Attachments..... 10

 3.1 Job Chart.....10

1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Trott 8E-10-17N** 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.

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]

The Road to Excellence Starts with Safety

Sold To #: 369404		Ship To #: 3833931		Quote #:		Sales Order #: 0904557374				
Customer: EXTRACTION OIL & GAS				Customer Rep: Todd Stephens						
Well Name: TROTT			Well #: 8E-10-17N		API/UWI #: 05-123-45728-00					
Field: WATTENBERG		City (SAP): MEAD		County/Parish: WELD		State: COLORADO				
Legal Description: NE SE-7-4N-68W-1550FSL-1092FEL										
Contractor: PATTERSON-UTI ENERGY				Rig/Platform Name/Num: PATTERSON 346						
Job BOM: 7523 7523										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199				Srv Supervisor: Matthew Schaefer						
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST						
Job depth MD		10955ft		Job Depth TVD						
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	0	9.625	8.921	36		J-55	0	1550	0	1550
Casing	0	5.5	4.778	20		P-110	0	10955	0	6108
Open Hole Section			8.5				1550	10965	1550	6108
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	5.5			10955		Top Plug	5.5		HES	
Float Shoe	5.5					Bottom Plug	5.5		HES	
Float Collar	5.5					SSR plug set	5.5		HES	
Insert Float	5.5					Plug Container	5.5		HES	
Stage Tool	5.5					Centralizers	5.5		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	11.5 lb/gal Tuned Spacer III	Tuned Spacer III	50	bbl	11.5	3.73		6		
149.34 lbm/bbl		BARITE, BULK (100003681)								
35 gal/bbl		FRESH WATER								

0.50 gal/bbl		MUSOL A, 330 GAL TOTE - (790828)							
0.50 gal/bbl		DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)							
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	ELASTICEM (TM) SYSTEM	1823	sack	13.2	1.57		5	7.53
0.45 %		SCR-100 (100003749)							
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/min	Total Mix Fluid Gal
3	Displacement	Displacement	242	bbl	8.34				
Cement Left In Pipe		Amount	3 ft			Reason		Shoe Joint	
Mix Water:		pH 7.6	Mix Water Chloride:			58 ppm		Mix Water Temperature:	
								80 F	
Cement Temperature:		## °F °C	Plug Displaced by:			8.35 lb/gal		Disp. Temperature:	
								## °F °C	
Plug Bumped?		Yes	Bump Pressure:			2100 psi		Floats Held?	
								Yes	
Cement Returns:		50 bbl	Returns Density:			## lb/gal kg/m3		Returns Temperature:	
								## °F °C	
Comment PUMPED 50BBL SPACER @ 11.5PPG, 510BBL CEMENT @ 13.2PPG, 242BBL H2O DISPLACEMENT. 50BBL SPACER TO SURFACE; 50BBL CEMENT TO SURFACE									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comments
Event	1	Call Out	Call Out	1/10/2018	08:00:00	USER	
Event	2	Safety Meeting - Service Center or other Site	Safety Meeting - Service Center or other Site	1/10/2018	12:30:00	USER	PRE-JOURNEY: DISCUSS TRAVEL HAZARDS, DRIVING AT NIGHT, WILDLIFE, OTHER DRIVERS, FIT-FOR-DUTY.
Event	3	Depart from Service Center or Other Site	Depart from Service Center or Other Site	1/10/2018	12:35:00	USER	
Event	4	Arrive At Loc	Arrive At Loc	1/10/2018	13:45:00	USER	
Event	5	Safety Meeting - Assessment of Location	Safety Meeting - Assessment of Location	1/10/2018	13:50:00	USER	ASSESS LOCATION FOR HAZARDS, ESTABLISH RIG-UP PLAN, GET WELL INFO FROM COMPANY REP.
Event	6	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	1/10/2018	14:00:00	USER	DISCUSS RIG-UP HAZARDS WITH HES CREW. FOOTING, COMMUNICATION, PINCH POINTS, LINE-OF-FIRE, HEAVY LOADS, SUSPENDED LOADS, RED-ZONE AWARENESS.
Event	7	Rig-Up Equipment	Rig-Up Equipment	1/10/2018	14:30:00	USER	
Event	8	Safety Meeting - Pre Job	Safety Meeting - Pre Job	1/10/2018	18:00:00	USER	DISCUSS HAZARDS WITH HES/RIG CREW. HIGH PRESSURE IRON, V-DOOR, LOW-PRESSURE VESSELS, TRIPPING HAZARDS, FIRE PLAN, ESCAPE PLAN (MUSTER AREA), FIRST AID, EMERGENCY PLAN.
Event	9	Start Job	Start Job	1/10/2018	18:25:00	COM4	
Event	10	Pressure Test	Pressure Test	1/10/2018	18:28:55	USER	TEST LINES 5000PSI
Event	11	Pump Spacer	Pump Spacer	1/10/2018	18:41:29	USER	50BBL TUNED SPACER @ 11.5PPG
Event	12	Pump Cement	Pump Cement	1/10/2018	18:50:57	USER	510BBL CEMENT @ 13.2PPG; 1823SX, 1.57FT/SK, 7.53G/SK

Event	13	Shutdown	Shutdown	1/10/2018	20:00:10	USER	RAN OUT OF WATER IN ONE TANK, SWAPPED TO OTHER WATER SOURCE
Event	14	Shutdown	Shutdown	1/10/2018	20:09:20	USER	END OF CEMENT
Event	15	Clean Lines	Clean Lines	1/10/2018	20:10:15	USER	WASH PUMPS/LINES
Event	16	Drop Plug	Drop Plug	1/10/2018	20:12:40	USER	PLUG WENT.
Event	17	Pump Displacement	Pump Displacement	1/10/2018	20:13:18	USER	242BBL H2O DISPLACEMENT
Event	18	Bump Plug	Bump Plug	1/10/2018	20:49:18	USER	BUMPED PLUG @ 2100PSI
Event	19	Other	Other	1/10/2018	20:50:37	USER	BURST DISC FOR WET-SHOE -- BURST AT 3200PSI, PUMPED 5BBL WET SHOE
Event	20	End Job	End Job	1/10/2018	20:52:00	COM4	
Event	21	Safety Meeting - Pre Rig-Down	Safety Meeting - Pre Rig-Down	1/10/2018	20:55:00	USER	DISCUSS RIG-DOWN HAZARDS WITH HES CREW. FOOTING, COMMUNICATION, PINCH POINTS, LINE-OF-FIRE, HEAVY LOADS, SUSPENDED LOADS, RED-ZONE AWARENESS.
Event	22	Rig-Down Equipment	Rig-Down Equipment	1/10/2018	21:00:00	USER	
Event	23	Safety Meeting - Departing Location	Safety Meeting - Departing Location	1/10/2018	22:20:00	USER	PRE-JOURNEY: DISCUSS TRAVEL HAZARDS, DRIVING AT NIGHT, WILDLIFE, OTHER DRIVERS, FIT-FOR-DUTY.
Event	24	Depart Location	Depart Location	1/10/2018	22:30:00	USER	

3.0 Attachments

3.1 Job Chart



