

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS

Date: Friday, December 16, 2016

Hester Farms F-36HN Production

Job Date: December 5, 2016

Sincerely,

Julia Nichols

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Hester Farms F-36HN 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.

Approximately 34 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 #: 369404	Ship To #: 3694141	Quote #:	Sales Order #: 0903701829							
Customer: EXTRACTION OIL & GAS		Customer Rep: Jose Torres								
Well Name: HESTER FARMS	Well #: F-36HN	API/UWI #: 05-123-42001-00								
Field: WATTENBERG	City (SAP): EATON	County/Parish: WELD	State: COLORADO							
Legal Description: 31-7N-66W-1664FNL-202FWL										
Contractor: CYCLONE		Rig/Platform Name/Num: CYCLONE 37								
Job BOM: 7523										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199		Srvc Supervisor: Nicholas Roles								
Job										
Formation Name										
Formation Depth (MD)	Top	Bottom								
Form Type		BHST								
Job depth MD	11940ft	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		9.625	8.921	36			0	1563	0	1563
Casing		5.5	4.778	20			0	11940	0	7145
Open Hole Section			8.5				1563	11966	1563	7145
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make		
Guide Shoe	5.5				Top Plug	5.5		HES		
Float Shoe	5.5			11940	Bottom Plug	5.5		HES		
Float Collar	5.5				SSR plug set	5.5		HES		
Insert Float	5.5				Plug Container	5.5	1	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 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		5		
	0.30 gal/bbl	MUSOL A, 330 GAL TOTE - (790828)								
	36.09 gal/bbl	FRESH WATER								
	0.30 gal/bbl	DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)								

last updated on: 12/5/2016 5:51:27 PM

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Client Service

(v. 4.3.44)

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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 W/O CBL	ELASTICEM (TM) SYSTEM	150	sack	13.2	1.57		7	7.48
7.48 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	ELASTICEM (TM) SYSTEM	1750	sack	13.2	1.57		8	7.49
7.49 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	Displacement	Displacement	264	bbl	8.33			8	
Cement Left In Pipe		Amount		0	Reason			Wet shoe	
Comment Got 34bbbls cement back to pits									

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)	DS Pump Press (psi)	DH Density (ppg)	Comments
Event	1	Call Out	Call Out	12/5/2016	07:00:00	USER				Crew call out for o/i at 1300
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	12/5/2016	11:00:00	USER				all crew aware of hazards and directions. all fit to drive.
Event	3	Arrive at Location from Service Center	Arrive at Location from Service Center	12/5/2016	12:00:00	USER				Met with company man to discuss job details and procedure. Performed hazard hunt and site assessment. Rig had 10 joints left to run.
Event	4	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	12/5/2016	12:15:00	USER				All hse present. Discussed bulk and iron placement and all red zone areas. Caution taped high pressure zones.
Event	5	Other	Other	12/5/2016	12:30:00	USER				Water Test- PH-6 Chlo-0 Temp-60
Event	6	Start Job	Start Job	12/5/2016	13:50:06	COM2				TD-11966',TP-11940' 5.5" 20#, FC-11935', SURF-1563' 9.625" 36#, OH-8.5, MUD-9.1#
Event	7	Test Lines	Test Lines	12/5/2016	13:56:44	COM2	0.00	4829.00	8.68	Filled lines with 5bbls then shutdown to perform 500k/o function test. once tested brought pressure up to 5000psi held good and no leaks.
Event	8	Pump Spacer 1	Pump Spacer 1	12/5/2016	14:06:51	COM2	4.60	178.00	11.50	Pumped 50bbls 11.5ppg 3.74y 23.7g/s Tuned Spacer III at 5bpm 106psi. With 15G Dual Spacer B and 15G Musol A.
Event	9	Check Weight	Check Weight	12/5/2016	14:07:17	COM2	4.60	190.00	11.41	Weight verified by pressurized mud scales
Event	10	Pump Lead Cement	Pump Lead Cement	12/5/2016	14:15:51	COM2	5.00	160.00	13.24	Pumped 150sks or 42bbls 13.2ppg 1.57y 7.48g/s Elasticem at 7bpm 250psi
Event	11	Pump Tail Cement	Pump Tail Cement	12/5/2016	14:23:43	COM2	6.00	249.00	13.08	Pumped 1750sks or 489bbls 13.2ppg 1.57y 7.48g/s elasticem at 8bpm 450psi.
Event	12	Check Weight	Check Weight	12/5/2016	14:55:31	COM2				Weight verified with pressurized mud scales.
Event	13	Shutdown	Shutdown	12/5/2016	15:40:32	COM2				Blew iron down and washed up pump truck with 5bbls fresh water through all valves into wash pit.
Event	14	Drop Plug	Drop Plug	12/5/2016	15:52:13	COM2				Dropped by HSE supervisor witnessed by company rep and

tool hand.

Event	15	Pump Displacement	Pump Displacement	12/5/2016	15:52:21	COM2				Pumped 264bbls fresh water at 8bpm 1800psi.
Event	16	Bump Plug	Bump Plug	12/5/2016	16:36:36	COM2				final circulating pressure was 2326psi at 5bpm and bumped at 2960psi. Pressure was holding.
Event	17	Pressure Up Well	Pressure Up Well	12/5/2016	16:38:46	USER	1.70	3743.00	8.33	once plug looked like it was holding, pressured up to burst disc at 2bpm. disc burst at 3875psi.
Event	18	Standby - Other - see comments	Standby - Other - see comments	12/5/2016	16:41:42	USER				Pressure held and released psi and got 2bbls bck to truck.
Event	19	End Job	End Job	12/5/2016	16:42:39	COM2				Got 34bbls Cement to surface
Event	20	Safety Meeting - Pre Rig-Down	Safety Meeting - Pre Rig-Down	12/5/2016	16:45:02	USER				All HSE present. Discussed red zone areas and trapped pressure hazards. Watch for suspended loads and rig down procedures, including hand placement, lifting techniques, and swing radius.
Event	21	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	12/6/2016	18:45:00	USER				All HSE present and fit to drive. Aware of directions and hazards.
Event	22	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	12/6/2016	19:00:00	USER				Pre journey managment prior to departure.

3.0 Attachments

3.1 Custom Results – Job Chart with Events



3.2 Custom Results – Job Chart without Events

