

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS

Date: Wednesday, November 29, 2017

Jesser 3E-10-7N Surface

Job Date: Friday, November 03, 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 **Jesser 3E-10-7N** 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 30 bbls 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 [Fort Lupton]

The Road to Excellence Starts with Safety

Sold To #: 369404		Ship To #: 3830618		Quote #:		Sales Order #: 0904415173					
Customer: EXTRACTION OIL & GAS -				Customer Rep: Larry Siegel							
Well Name: JESSER			Well #: 3E-10-7N		API/UWI #: 05-123-45662-00						
Field: WATTENBERG		City (SAP): BERTHOUD		County/Parish: WELD		State: COLORADO					
Legal Description: NW SW-3-4N-68W-2314FSL-476FWL											
Contractor: PATTERSON-UTI ENERGY				Rig/Platform Name/Num: PATTERSON 341							
Job BOM: 7521 7521											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HX38199				Srvc Supervisor: Steven Markovich							
Job											
Formation Name											
Formation Depth (MD)		Top		Bottom							
Form Type					BHST						
Job depth MD		1601ft			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	8 RD	J-55	0	1601	0	1601	
Open Hole Section			13.5				0	1615	0	0	
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe	9.625			1601		Top Plug	9.625		HES		
Float Shoe	9.625					Bottom Plug	9.625		HES		
Float Collar	9.625					SSR plug set	9.625		HES		
Insert Float	9.625					Plug Container	9.625		HES		
Stage Tool	9.625					Centralizers	9.625		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	Red Dye Spacer	Red Dye Spacer			10	bbl	8.33				

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	SwiftCem	SWIFTCEM (TM) SYSTEM	550	sack	13.5	1.74		5	9.2
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
3	Fresh Water	Fresh Water	120	bbl	8.33				
Cement Left In Pipe		Amount	44 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 Cement to surface at 190bbbls away brining 30bbbls of cement to surface.									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	DS Pump Press (psi)	Comb Pump Rate (bbl/min)	Comments
Event	1	Call Out	Call Out	11/3/2017	03:00:00	USER				Job called out with an on location time of 09:00
Event	2	Arrive At Loc	Arrive At Loc	11/3/2017	08:00:00	USER				Arrived o location, rig still drilling.
Event	3	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	11/3/2017	08:15:00	USER				JSA and Hazard hunt with HES crew.
Event	4	Rig-Up Equipment	Rig-Up Equipment	11/3/2017	08:30:00	USER				Rigged up HES lines and equipment.
Event	5	Pre-Job Safety Meeting	Pre-Job Safety Meeting	11/3/2017	12:15:00	USER	8.51	2526.00	0.00	JSA with HES and rig crew on job procedure.
Event	6	Start Job	Start Job	11/3/2017	12:29:21	COM4	8.44	15.00	0.00	TD 1615' TP 1601' FC 1560' 9 5/8" 36# surface casing 13 1/2" openhole.
Event	7	Test Lines	Test Lines	11/3/2017	12:31:36	COM4	8.51	35.00	0.00	Set kick outs to 500psi and do kick out test, then bring pressure up to 2500psi and hold.
Event	8	Pump Spacer 1	Pump Spacer 1	11/3/2017	12:37:02	COM4	8.48	30.00	0.00	Pump H2O to break circulation. Circulation was achieved at 40bbbls away.
Event	9	Pump Spacer 2	Pump Spacer 2	11/3/2017	12:47:33	COM4	8.49	194.00	4.50	Pump 10bbbls of Red Dye. Pumped at 5bbl/min 260psi
Event	10	Pump Cement	Pump Cement	11/3/2017	12:50:27	COM4	8.47	129.00	3.80	Pump 170.4bbbls (550sks) of 13.5ppg 1.74yield Cement. Pumped at 7bbl/min 460psi.
Event	11	Check Weight	Check weight	11/3/2017	12:54:38	COM4	13.53	437.00	7.00	Weight verified by pressurized scales.

Event	12	Shutdown	Shutdown	11/3/2017	13:14:48	COM4	13.51	104.00	0.00	Shutdown.
Event	13	Drop Top Plug	Drop Top Plug	11/3/2017	13:16:39	COM4	13.96	29.00	0.00	Plug pre loaded into HES head. Plug loaded and dropped in front of company rep.
Event	14	Pump Displacement	Pump Displacement	11/3/2017	13:16:42	COM4	13.97	28.00	0.00	Pump 120bbls of H2O. Pumped at 8bbl/min and slowed rate with pressure increase. Red Dye to surface at 78bbls away, cement to surface at 90bbls away bringing 30bbls of cement to surface.
Event	15	Bump Plug	Bump Plug	11/3/2017	13:39:27	COM4	8.34	511.00	2.90	Bumped plug at 120bbls away, final lifting pressure was 511psi. Brought pressure 500psi over and held.
Event	16	Check Floats	Check Floats	11/3/2017	13:39:59	USER	8.39	1262.00	0.00	Pressure was at 1262psi right before we checked floats, opened release line and after .5bbl back floats held.
Event	17	End Job	End Job	11/3/2017	13:40:53	COM4	8.32	16.00	0.00	Thank you Steve Markovich and crew.

3.0 Attachments

3.1 Extraction Jesser 3E-10-7N Surface Job Chart

