HALLIBURTON

iCem® Service

EXTRACTION OIL & GAS-EBUS

Date: Thursday, November 16, 2017

Jesser 3E-10-15N Surface

Job Date: Monday, November 06, 2017

Sincerely,

Justin Lansdale

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1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Jesser 3E-10-15N** 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.

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 #:** 3830579	**Quote #:**	**Sales Order #:** 0904417428
Customer: EXTRACTION OIL & GAS -		**Customer Rep:** Larry Siegel	
Well Name: JESSER	**Well #:** 3E-10-15N		**API/UWI #:** 05-123-45669-00
Field: WATTENBERG	**City (SAP):** BERTHOUD	**County/Parish:** WELD	**State:** COLORADO
Legal Description: NW SW-3-4N-68W-2314FSL-636FWL			
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	1556ft		**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	1556	0	0
Open Hole Section			13.5				0	1615	0	1615

Tools and Accessories

Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make
Guide Shoe	9.625			1556		**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 Red dye to surface at 75bbls away cement to surface at 90bbls away, bringing 30bbls of 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	11/6/2017	07:30:00	USER	Job called out with and on location time of 14:30
Event	2	Arrive At Loc	Arrive At Loc	11/6/2017	13:00:00	USER	Arrived on location, rig still drilling.
Event	3	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	11/6/2017	13:30:00	USER	JSA and hazard hunt with HES crew.
Event	4	Rig-Up Equipment	Rig-Up Equipment	11/6/2017	14:30:00	USER	Rigged up HES lines and equipment.
Event	5	Pre-Job Safety Meeting	Pre-Job Safety Meeting	11/6/2017	16:00:00	USER	JSA with HES and rig crew on job procedure.
Event	6	Start Job	Start Job	11/6/2017	16:18:42	COM4	TD 1615' TP 1597' FC 1556' 9 5/8" 36# surface casing, 13 1/2" open hole.
Event	7	Other	Other	11/6/2017	16:20:28	COM4	Fill lines with 3bbls of H2O at 2bbl/min.
Event	8	Test Lines	Test Lines	11/6/2017	16:23:11	COM4	Set kick outs to 500psi and do kick out test.
Event	9	Test Lines	Test Lines	11/6/2017	16:24:35	COM4	Bring pressure up to 3000psi and hold.
Event	10	Pump Spacer 1	Pump Spacer 1	11/6/2017	16:26:19	COM4	Break circulation. After 16bbls pumped we achieved circulation.
Event	11	Pump Spacer 2	Pump Spacer 2	11/6/2017	16:29:59	COM4	Pump 10bbls of Red Dye. Pumped at 5.5bbl/min 120psi
Event	12	Pump Cement	Pump Cement	11/6/2017	16:32:09	COM4	Pump 170bbls (550sks) of 13.2ppg 1.74yield cement. Pumped at 6bbl/min 371psi.
Event	13	Check Weight	Check weight	11/6/2017	16:33:29	COM4	Weight verified by pressurized scales.
Event	14	Shutdown	Shutdown	11/6/2017	17:02:08	COM4	Shutdown

Event	15	Drop Top Plug	Drop Top Plug	11/6/2017	17:04:49	COM4	Plug pre loaded into HES head. Plug dropped and and loaded in front of company rep.
Event	16	Pump Displacement	Pump Displacement	11/6/2017	17:05:21	COM4	Pump 120bbls of H2O. Pumped at 8bbl/min and slowed rate with pressure increase. Red dye to surface at 75bbls away, cement to surface at 90bbls away bringing 30bbls of cement to surface.
Event	17	Bump Plug	Bump Plug	11/6/2017	17:24:05	COM4	Bumped plug at 120bbls away, final lifting pressure was 523psi took pressure 500psi over and held .
Event	18	Check Floats	Check Floats	11/6/2017	17:24:21	USER	Opened release line and after 1bbl back floats held.
Event	19	End Job	End Job	11/6/2017	17:25:35	COM4	Thank you Steve Markovich and crew.

3.0 Attachments

3.1 Jesser 3E-10-15N-Custom Results.png