

HALLIBURTON

iCem[®] Service

Verdad Oil & Gas

United States of America, COLORADO

Date: Tuesday, May 08, 2018

Jackson 33-7H Production

Job Date: Saturday, April 07, 2018

Sincerely,

Tyler Hill

Legal Notice

Disclaimer:

All information in this report is provided subject to the terms and conditions which govern the services provided by Halliburton. Halliburton personnel use their best efforts in gathering information and their best judgment in interpreting it, but any interpretation, research, analysis or recommendation furnished by Halliburton are opinions based upon inferences from measurements and empirical relationships and assumptions, which inferences and empirical relationships and assumptions are not infallible, and with respect to which professionals in the industry may differ. iCem 3D Displacement results are used to understand how fluids intermix during a cement job. Simulation and 3D displacement results are not intended as and should not be used as a replacement for bond logs in determining top of cement. Current 3D model calculations are known to model more volume than the input volume for standard cases due to known calculation improvements required. For rotational cases, the modeled volume will be impacted by the same calculations impacting the standard cases, as well as additional constraints imposed to make the calculation time required operationally feasible. Therefore, until further notice, 3D displacement results should not be used for replacement of a bond log, or used as an identifier of top of cement. HALLIBURTON IS UNABLE TO GUARANTEE THE ACCURACY OF ANY CHART INTERPRETATION, RESEARCH ANALYSIS, OR JOB RECOMMENDATION and any interpretation or recommendation is not for use of or reliance upon by any third party. The customer has full responsibility for any of its decisions which are based on the information provided in this report.

Table of Contents

1.0 Cementing Job Summary 4

 1.1 Executive Summary4

2.0 Real-Time Job Summary 7

 2.1 Job Event Log7

3.0 Attachments..... 10

 3.1 Verdad Jackson 33-7H Production.png10

1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Jackson 33-7H** 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 19.5 BBL's of cement 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

The Road to Excellence Starts with Safety

Sold To #: 380688		Ship To #: 3866278		Quote #:		Sales Order #: 0904762276					
Customer: VERDAD RESOURCES LLC						Customer Rep: Jason					
Well Name: JACKSON				Well #: 33-7H		API/UWI #: 05-123-46497-00					
Field: WATTENBERG		City (SAP): KEENESBURG		County/Parish: WELD			State: COLORADO				
Legal Description: NW NW-33-2N-64W-290FNL-1100FWL											
Contractor: XTREME DRLG					Rig/Platform Name/Num: XTREME 24						
Job BOM: 7523 7523											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HX38199					Srv Supervisor: Matthew Kutzner						
Job											
Formation Name											
Formation Depth (MD)		Top				Bottom					
Form Type					BHST						
Job depth MD		13000ft			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	LTC	J-55	0	1721	0	1721	
Casing	3	5.5	4.778	20	TXP-BTC	P-110	0	13000	0	7214	
Open Hole Section			8.5				1721	13010		7214	
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe	5.5			13000		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			40	bbl	11.5	3.79			
147.42 lbm/bbl		BARITE, BULK (100003681)									

36.09 gal/bbl		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
2	ElastiCem	ELASTICEM (TM) SYSTEM	1030	sack	13.2	1.57		4	7.55
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	NeoCem	NeoCem TM	765	sack	13.2	2.04		4	9.75
9.71 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 Fluid	Displacement Fluid	279.5	bbl	8.4				
0.10 gal/bbl		MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)							
Cement Left In Pipe	Amount	154 ft			Reason			Shoe Joint	
Mix Water:	pH 6.8	Mix Water Chloride:	0 ppm			Mix Water Temperature:	44 °F		
Cement Temperature:	44°F	Plug Displaced by:	8.33 lbs/gal			Disp. Temperature:	44 °F		
Plug Bumped?	Yes	Bump Pressure:	2405psi			Floats Held?	Yes		
Cement Returns:	19.5 bbl	Returns Density:	N/A			Returns Temperature:	NA		
Comment Good returns 19.5bbls of lead 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)	Comb Pump Rate (bbl/min)	DS Pump Press (psi)	Comments
Event	1	Call Out	Call Out	4/7/2018	09:30:00	USER				
Event	2	Safety Meeting - Service Center or other Site	Safety Meeting - Service Center or other Site	4/7/2018	11:45:00	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	4/7/2018	12:05:00	USER				
Event	4	Arrive At Loc	Arrive At Loc	4/7/2018	12:30:00	USER				
Event	5	Safety Meeting - Assessment of Location	Safety Meeting - Assessment of Location	4/7/2018	12:35:00	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	4/7/2018	16:15:00	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	4/7/2018	16:20:00	USER				
Event	8	Safety Meeting - Pre Job	Safety Meeting - Pre Job	4/7/2018	17:00:00	USER	8.61	0.00	2.00	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	4/7/2018	17:05:00	COM5	8.59	0.00	2.00	

Event	10	Pump Water	Pump Water	4/7/2018	17:06:00	USER	8.39	0.80	23.00	Fill lines with 2bbl of water
Event	11	Pump Spacer	Pump Spacer	4/7/2018	17:17:40	USER	11.93	4.30	424.00	Pump 40bbl of Spacer 11.5#
Event	12	Drop Bottom Plug	Drop Bottom Plug	4/7/2018	17:23:24	USER	11.37	2.90	256.00	Drop Weatherford bottom plug on the fly at end of Spacer
Event	13	Pump Lead Cement	Pump Lead Cement	4/7/2018	17:36:48	USER	13.20	6.10	254.00	Pump 288 bbls of 13.2# cement yield 1.57 7.55 gals/sk take weight check at 20bbls away.
Event	14	Pump Tail Cement	Pump Tail Cement	4/7/2018	18:09:56	USER	13.16	4.30	171.00	Pump 280 bbls of 13.2 Tail cement yield 2.04 9.75 gals/sk
Event	15	Shutdown	Shutdown	4/7/2018	18:50:04	USER	13.17	3.50	130.00	
Event	16	Clean Lines	Clean Lines	4/7/2018	18:59:05	USER	8.43	5.40	53.00	Wash pumps and lines load top plug
Event	17	Drop Top Plug	Drop Top Plug	4/7/2018	19:01:17	USER	8.18	4.70	56.00	Drop Top Weatherford plug verified away by HES.
Event	18	Pump Displacement	Pump Displacement	4/7/2018	19:03:12	USER	8.23	8.00	200.00	Pump 279.5 bbls of fresh water, good returns 40 bbls of spacer and 19.5 bbls of lead cement to surface.
Event	19	Bump Plug	Bump Plug	4/7/2018	19:47:46	USER	8.37	0.10	2711.00	bump plug @ 2405 psi pressure up to 2930psi hold for 2 min
Event	20	Open Valve Downhole	Open Valve Downhole	4/7/2018	19:52:19	USER	8.38	3.90	2154.00	burst disc to pump wet shoe @ 4200 psi
Event	21	Check Floats	Check Floats	4/7/2018	19:53:50	USER	8.35	0.00	1891.00	floats hold 2bbls back
Event	22	End Job	End Job	4/7/2018	19:54:47	COM5				
Event	23	Safety Meeting - Pre Rig-Down	Safety Meeting - Pre Rig-Down	4/7/2018	20:15:00	USER	8.29	0.00	0.00	DISCUSS RIG-DOWN HAZARDS WITH HES CREW. FOOTING, COMMUNICATION, PINCH POINTS, LINE-OF-FIRE,

										HEAVY LOADS, SUSPENDED LOADS, RED-ZONE AWARENESS.
Event	24	Rig-Down Equipment	Rig-Down Equipment	4/7/2018	20:20:00	USER	8.51	6.70	280.00	
Event	25	Safety Meeting - Departing Location	Safety Meeting - Departing Location	4/7/2018	21:45:00	USER				PRE-JOURNEY: DISCUSS TRAVEL HAZARDS, DRIVING AT NIGHT, WILDLIFE, OTHER DRIVERS, FIT-FOR-DUTY.
Event	26	Depart Location	Depart Location	4/7/2018	22:00:00	USER				

3.0 Attachments

3.1 Verdad Jackson 33-7H Production.png

