

HALLIBURTON

iCem[®] Service

ENDURING RESOURCES LLC

For:

Date: Thursday, October 04, 2018

ENDURING RESOURCES

Job Date: Thursday, October 04, 2018

Sincerely,

John Keane

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.

© 2018 Halliburton. All rights reserved.



Customer: ENDURING RESOURCES LLC
Job: 905186421
Case: ENDURING RESOURCES | SO#: 905186421

Table of Contents

Real-Time Job Summary
 Job Event Log.....
Attachments.....
 ENDURING RESOURCES-Custom Results.png.....

HALLIBURTON

Customer: ENDURING RESOURCES LLC

Job: 905186421

Case: ENDURING RESOURCES | SO#: 905186421

1.0 Real-Time Job Summary

1.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	PS Pump Press (psi)	PS Pump Rate (bbl/min)	DH Density (ppg)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	Call Out	10/3/2018	11:00:00	USER					REQUESTED ON LOCATION TIME 17:00
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	10/3/2018	11:30:00	USER					WITH HES, 1 F-450, 1 RED TIGER CEMENTING UNIT, 3 660 BULK TRUCK, JSA COMPLETED
Event	3	Arrive At Loc	Arrive At Loc	10/3/2018	16:00:00	USER					RIG RUNNING CASING, UPON HES ARRIVAL
Event	4	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	10/3/2018	16:20:00	USER					WITH HES, JSA COMPLETED, SDS OFFERED FOR ALL HES MATERIALS
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	10/3/2018	16:30:00	USER					WITH HES, JSA COMPLETED
Event	6	Other	Water Test	10/3/2018	17:20:00	USER					WATER TEST: TEMP 68 DEG F, CHLOR 0, PH 7.0
Event	7	Other	Other	10/3/2018	17:30:00	USER					TD 7400 FT, TP 7390 FT, CSG 7390 FT 7 IN 26 LB/FT J-55, HOLE 8.75 IN, SHOE 89 FT, SURFACE SET AT 350 FT, 13.375 IN 54.4 LB/FT J-55
Event	8	Other	Other	10/3/2018	17:45:00	USER					RIG CIRCULATION, 940 BBL, 8 BBL/MIN, 770 PSI, PIPE WAS STATIC, RAT HOLE LENGTH 10 FT, MWT 9.2 LB/GAL, PV/YP 10/12 WBM
Event	9	Rig-Up Equipment	Rig-Up Equipment	10/3/2018	17:50:00	USER					1 LINE RAN TO THE FLOOR, 1 LINE RAN TO THE PIT, 1, 7 IN. QUICK-LATCH PLUG CONTAINER

iCem® Service

(v. 4.5.139)

Created: Thursday, October 04, 2018

HALLIBURTON

Customer: ENDURING RESOURCES LLC

Job: 905186421

Case: ENDURING RESOURCES | SO#: 905186421

Event	10	Pre-Job Safety Meeting	Pre-Job Safety Meeting	10/3/2018	18:30:00	USER	4.00	0.00	8.32	3.30	WITH HES, ENDURING , AND AZTEC 920, JSA COMPLETED
Event	11	Start Job	Start Job	10/3/2018	18:46:33	COM4	6.00	0.00	8.32	3.30	
Event	12	Prime Pumps	Fill Lines	10/3/2018	18:50:00	USER	532.00	2.90	8.31	1.40	4 BBL FRESH WATER, RETURNS AT 1 BBL AWAY
Event	13	Test Lines	Test Lines	10/3/2018	18:52:26	USER	6145.00	0.00	8.50	2.20	LOW TEST AT 380 PSI, HIGH TEST AT 6240 PSI, PRESSURE HOLDING
Event	14	Check Weight	Check Weight	10/3/2018	18:56:32	COM4	5914.00	0.00	8.49	2.20	
Event	15	Pump Spacer 2	Pump Tuned Spacer III	10/3/2018	18:59:41	USER	642.00	4.80	10.73	5.30	MIXED AT 10.5 LB/GAL, 80 BBL, 6.79 FT3/SK, 41.2 GAL/SK, DENSITY VERIFIED USING PRESSURIZED MUD SCALES
Event	16	Pump Cement	Pump Lead Cement	10/3/2018	19:12:30	USER	680.00	6.10	12.27	1.70	MIXED AT 12.3 LB/GAL, 525 SKS, 1.97 FT3/SK, 10.26GAL/SK
Event	17	Check Weight	Check Weight	10/3/2018	19:26:07	COM4	584.00	7.20	12.47	90.20	
Event	18	Pump Tail Cement	Pump Tail Cement	10/3/2018	19:40:54	USER	305.00	7.10	13.43	9.00	MIXED AT 13.3 LB/GAL, 420 SKS, 1.36FT3/SK, 6.01 GAL/SK
Event	19	Shutdown	Shutdown	10/3/2018	19:54:37	USER	367.00	7.90	13.55	107.70	
Event	20	Clean Lines	Clean Lines	10/3/2018	19:57:23	USER	18.00	3.80	8.32	0.60	WASHED PUMPS AND LINES TO THE RESERVE PIT
Event	21	Drop Top Plug	Drop Top Plug	10/3/2018	20:01:09	USER	36.00	2.50	8.16	6.30	PLUG LAUNCHED, CUSTOMER WITNESSED
Event	22	Pump Displacement	Pump Displacement	10/3/2018	20:03:29	USER	88.00	7.00	8.18	11.50	FRESH WATER
Event	23	Slow Rate	Slow Rate	10/3/2018	20:36:16	USER	2509.00	6.10	8.27	241.60	SLOWED AT 240 BBL AWAY TO 5 BBL/MIN
Event	24	Slow Rate	Slow Rate	10/3/2018	20:42:59	USER	2316.00	2.70	8.26	279.50	SLOWED AT 260 BBL AWAY TO 2.7 BBL/MIN

iCem® Service

(v. 4.5.139)

Created: Thursday, October 04, 2018

HALLIBURTON

Customer: ENDURING RESOURCES LLC

Job: 905186421

Case: ENDURING RESOURCES | SO#: 905186421

Event	25	Bump Plug	Bump Plug	10/3/2018	20:47:39	USER	2243.00	2.70	8.26	292.00	PLUG BUMPED AT CALCULATED DISPLACEMENT, 280 BBL 2225 PSI
Event	26	Check Floats	Check Floats	10/3/2018	20:58:19	USER	3330.00	0.00	8.27	294.50	FLOATS HOLDING 3302 PSI, 2 BBL RETURNED TO THE TRUCK
Event	27	End Job	End Job	10/3/2018	21:00:07	COM4	-4.00	0.00	8.16	0.00	GOOD CIRCULATION, NO- ADD HOURS, RIG USED 200 LBS SUGAR
Event	28	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	10/3/2018	21:05:00	USER	17.00	0.00	8.15	0.00	WITH HES, JSA COMPLETED
Event	29	Rig Down Lines	Rig Down Lines	10/3/2018	21:10:00	USER					
Event	30	Other	Other	10/3/2018	21:15:00	USER					SPACER TUNED SPACER III 80 BBL LEAD CEMENT 184 BBL, TAIL CEMENT 102 BBL, FINAL DISPLACEMENT 280 BBL, 40 BBL CEMENT CIRCULATED TO SURFACE, TOP OF TAIL CEMENT 4352 FT
Event	31	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	10/3/2018	21:40:00	USER					WITH HES, JSA COMPLETED
Event	32	Crew Leave Location	Crew Leave Location	10/3/2018	21:50:00	USER					THANKS FOR USING HALLIBURTON, JOHN KEANE AND CREW

HALLIBURTON

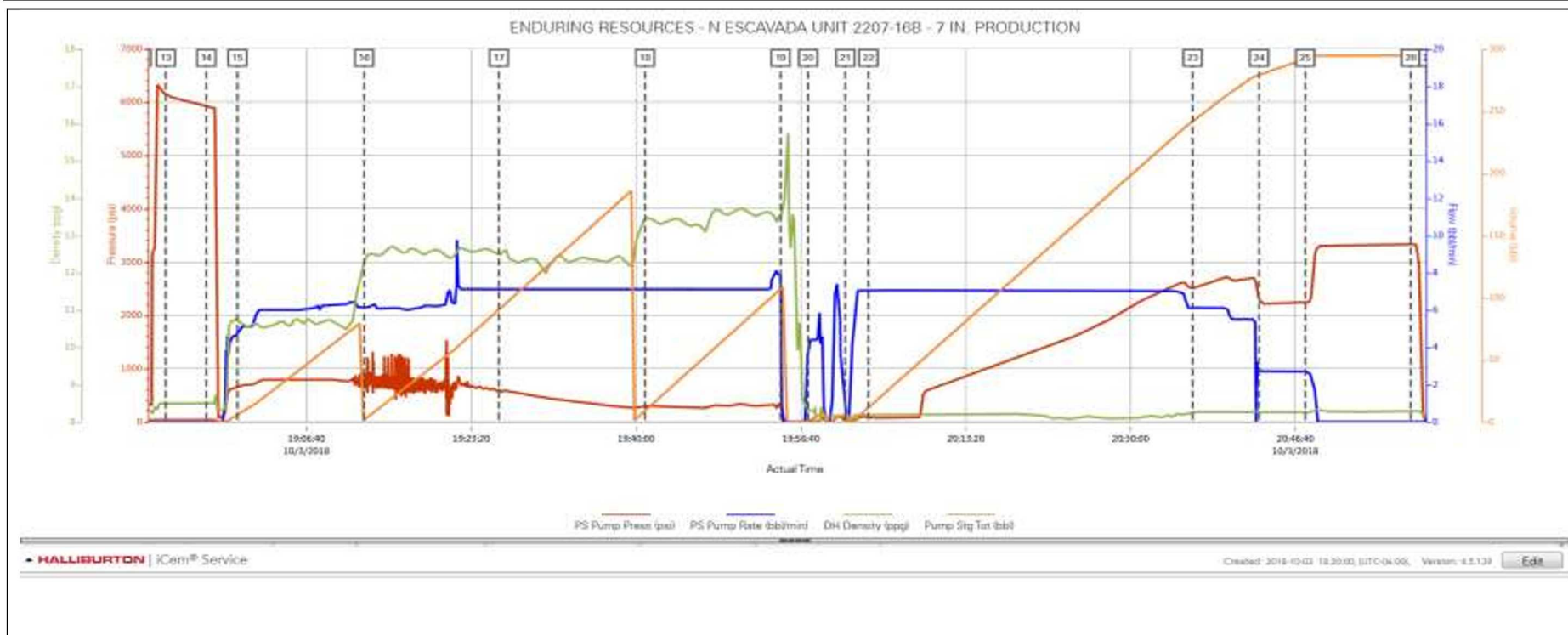
Customer: ENDURING RESOURCES LLC

Job: 905186421

Case: ENDURING RESOURCES | SO#: 905186421

2.0 Attachments

2.1 ENDURING RESOURCES-Custom Results.png



District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 300686

CONDITIONS

Operator: NEW MEXICO ENERGY MINERALS & NATURAL RESOURCE 1220 S St Francis Dr Santa Fe , NM 87504	OGRID: 264235
	Action Number: 300686
	Action Type: [IM-SD] Well File Support Doc (ENG) (IM-AWF)

CONDITIONS

Created By	Condition	Condition Date
pgoetze	None	1/7/2024