

HALLIBURTON

iCem® Service

EXTRACTION OIL & GAS-EBUS

United States of America, COLORADO

United B S16-20-15N

Surface Casing

Sincerely,

Thomas Haas and Crew

Legal Notice

Disclaimer:

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the United B S16-20-15N surface casing. 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 25 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 #: 3909279		Quote #:		Sales Order #: 0906524762					
Customer: EXTRACTION OIL & GAS-EBUS				Customer Rep: Manny Parra							
Well Name: UNITED -B-			Well #: S16-20-15N			API/UWI #: 05-014-20816-00					
Field: WATTENBERG		City (SAP): BROOMFIELD		County/Parish: BROOMFIELD		State: COLORADO					
Legal Description: NE NE-9-1S-68W-471FNL-924FEL											
Contractor: ENSIGN DRLG				Rig/Platform Name/Num: ENSIGN 147							
Job BOM: 7521 7521											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HX41066				Srv Supervisor: Thomas Haas							
Job											
Formation Name											
Formation Depth (MD)		Top		Bottom							
Form Type				BHST							
Job depth MD		1629ft		Job Depth TVD		1629					
Water Depth				Wk Ht Above Floor		4					
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			0	1629	0	1629	
Open Hole Section			13.5				0	1635	0	1635	
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
						Top Plug	9.625	1	HES		
Float Shoe	9.625	1	TOPCO	1629							
Float Collar	9.625	1	TOPCO	1585							
						Plug Container	9.625	1	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	Water with dye	Water with dye			10	bbl	8.34			4	

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	9.17	8	5032
9.17 Gal		FRESH WATER							
0.1250 lbm		POLY-E-FLAKE (101216940)							
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	Displacement	Displacement	123	bbl	8.34			10	
Cement Left In Pipe		Amount	44 ft		Reason			Shoe Joint	
Mix Water:		pH 7	Mix Water Chloride:		<300 ppm		Mix Water Temperature:		71 °F
Cement Temperature:			Plug Displaced by:		8.33 lb/gal Fresh Water		Disp. Temperature:		71 °F
Plug Bumped?		Yes	Bump Pressure:		550 psi		Floats Held?		Yes
Cement Returns:		25 bbl	Returns Density:				Returns Temperature:		
Comment Plug bumped at calculated displacement, final circulating pressure of 550 psi, floats held, .5 bbl back. 25 bbl cement to surface.									

2.0 Real-Time Job Summary

2.1 Job Event Log

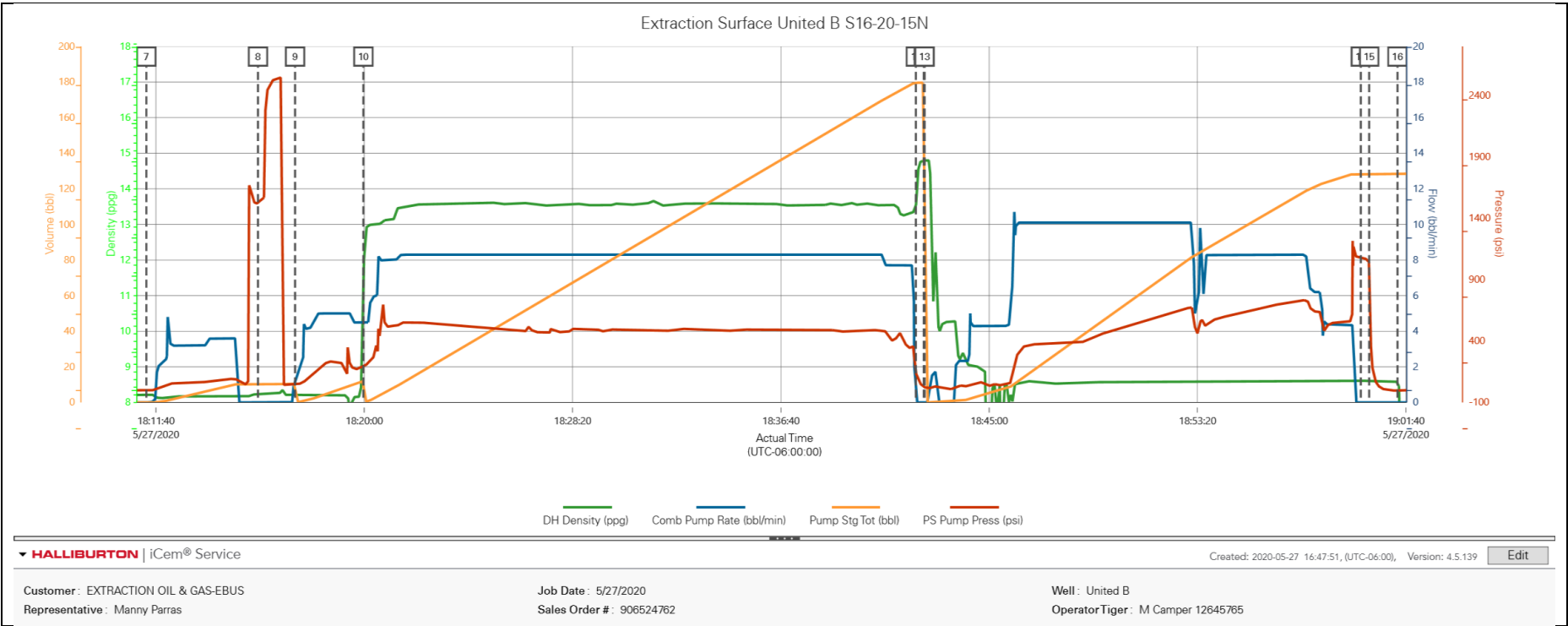
Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	Pump Stg Tot (bbl)	PS Pump Press (psi)	Comments
Event	1	Call Out	Call Out	5/27/2020	12:30:00	USER					CREW CALLED OUT AT 12:30 5/27/2020, REQUESTED ON LOCATION 6:30 5/27/2020. CREW PICKED UP CEMENT, 100 LBS SUGAR, AND PLUG CONTAINER FROM FORT LUPTON, CO. BULK 660: 11562546/11633848 PUMP RED TIGER: 12645765.
Event	2	Arrive At Loc	Arrive At Loc	5/27/2020	16:00:00	USER					CREW HAULED CEMENT IN BETWEEN JOBS. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING: 9.625" 36# @ 1629', 44' SHOE TRACK, OH 13.5", 8.7 PPG WELL FLUID, FRESH WATER DISPLACEMENT.
Event	3	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	5/27/2020	18:00:00	USER	8.21	0.00	0.00	-1.00	HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER.
Event	4	Pre-Job Safety Meeting	Pre-Job Safety Meeting	5/27/2020	18:00:00	USER	8.21	0.00	0.00	-1.00	MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS.

Event	5	Start Job	Start Job	5/27/2020	18:04:59	COM10	8.21	0.00	0.00	-2.00	START JOB DATA RECORDING.
Event	6	Rig-Up Equipment	Rig-Up Equipment	5/27/2020	18:10:00	USER	8.21	0.00	0.00	-1.00	CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON, AND WATER HOSES TO PERFORM JOB.
Event	7	Start Job	Start Job	5/27/2020	18:11:17	COM10	8.22	0.00	0.00	-1.00	START JOB DATA RECORDING.
Event	8	Test Lines	Test Lines	5/27/2020	18:15:45	COM10	8.23	0.00	10.30	1539.00	PRESSURE TESTED IRON TO 2500 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 1280 PSI, 5TH GEAR STALL OUT @1650 PSI.
Event	9	Pump Spacer 1	Pump Spacer 1	5/27/2020	18:17:14	COM10	8.21	1.20	10.40	45.00	PUMP 10 BBL OF RED DYE SPACER.
Event	10	Pump Lead Cement	Pump Lead Cement	5/27/2020	18:19:58	COM10	11.62	4.50	12.00	187.00	PUMP 550 SKS OF SWIFTCEM @ 13.5 LB/GAL, 1.74 YIELD, 9.17 GAL/SK, 170 BBLS, TOL @ SURFACE, DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	11	Shutdown	Shutdown	5/27/2020	18:42:04	COM10	13.51	0.00	179.60	137.00	SHUTDOWN TO DROP TOP PLUG.
Event	12	Drop Top Plug	Drop Top Plug	5/27/2020	18:42:23	COM10	14.80	0.00	179.60	26.00	PLUG LEFT PLUG CONTAINER, VERIFIED BY COMPANY MAN.
Event	13	Pump Displacement	Pump Displacement	5/27/2020	18:42:25	COM10	14.80	0.00	179.60	23.00	BEGIN PUMPING 123 BBL OF FRESH WATER DISPLACEMENT.

Event	14	Bump Plug	Bump Plug	5/27/2020	18:59:52	COM10	8.60	0.00	128.50	1074.00	PLUG BUMPED AT CALCULATED DISPLACEMENT, FINAL CIRCULATING PRESSURE OF 550 PSI. 25 BBL OF CEMENT BACK TO SURFACE.
Event	15	Check Floats	Check Floats	5/27/2020	19:00:12	USER	8.61	0.00	128.50	1025.00	RELEASED PRESSURE BACK TO THE TRUCK, FLOATS HELD, .5 BB BACK.
Event	16	End Job	End Job	5/27/2020	19:01:20	COM10	8.59	0.00	128.50	-4.00	END JOB DATA RECORDING.
Event	17	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	5/27/2020	19:05:00	USER	8.59	3.00	12.80	28.00	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	18	Rig-Down Completed	Rig-Down Completed	5/27/2020	19:30:00	USER					ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL.

3.0 Attachments

3.1 Extraction Surface United B S16-20-15N-Custom Results.png



3.2 Extraction Surface United B S16-20-15N-Custom Results (1).png

Extraction Surface United B S16-20-15N						
Description	Actual Time (UTC-06:00:00)	DH Density (ppg)	Comb Pump Rate (bbl/min)	Pump Stg Tot (bbl)	PS Pump Press (psi)	
7 Start Job	18:11:17	8.22	0.00	0.00	-1.00	
8 Test Lines	18:15:45	8.23	0.00	10.30	1539.00	
9 Pump Spacer 1	18:17:14	8.21	1.20	10.40	45.00	
10 Pump Lead Cement	18:19:58	11.62	4.50	12.00	187.00	
11 Shutdown	18:42:04	13.51	0.00	179.60	137.00	
12 Drop Top Plug	18:42:23	14.80	0.00	179.60	26.00	
13 Pump Displacement	18:42:25	14.80	0.00	179.60	23.00	
14 Bump Plug	18:59:52	8.60	0.00	128.50	1074.00	
15 Check Floats	19:00:12	8.61	0.00	128.50	1025.00	
16 End Job	19:01:20	8.59	0.00	128.50	-4.00	

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Created: 2020-05-27 16:47:51, (UTC-06:00), Version: 4.5.139

Edit

Customer: EXTRACTION OIL & GAS-EBUS
Representative: Manny Parras

Job Date: 5/27/2020
Sales Order #: 906524762

Well: United B
OperatorTiger: M Camper 12645765