

# HALLIBURTON

iCem<sup>®</sup> Service

**EXTRACTION OIL & GAS**

**INTERCHANGE B N35-20-2C Surface**

Sincerely,  
**Meghan Jacobs**

## Legal Notice

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### Disclaimer:

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## 1.0 Cementing Job Summary

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### 1.1 Executive Summary

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Halliburton appreciates the opportunity to perform the cementing services on the **Interchange B N35-20-2C** 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 20 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 #: 3954713		Quote #:		Sales Order #: 0905578246					
Customer: EXTRACTION OIL & GAS -				Customer Rep: JUSTIN							
Well Name: INTERCHANGE B			Well #: N35-20-2C			API/UWI #: 05-014-20846-00					
Field: WATTENBERG		City (SAP): BROOMFIELD		County/Parish: BROOMFIELD			State: COLORADO				
Legal Description: NE SW-10-1S-68W-2479FSL-1567FWL											
Contractor:				Rig/Platform Name/Num: Cartel 15							
Job BOM: 7521 7521											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HX38199				Srcv Supervisor: Nicholas Ralston							
<b>Job</b>											
<b>Formation Name</b>											
<b>Formation Depth (MD)</b>		<b>Top</b>			<b>Bottom</b>						
<b>Form Type</b>											
BHST											
<b>Job depth MD</b>		1642ft			<b>Job Depth TVD</b>						
<b>Water Depth</b>											
Wk Ht Above Floor											
<b>Perforation Depth (MD)</b>		<b>From</b>			<b>To</b>						
<b>Well Data</b>											
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											
1591											
0											
0											
Open Hole Section											
<b>Tools and Accessories</b>											
Type											
Size in											
Qty											
Make											
Depth ft											
Type											
Size in											
Qty											
Make											
Guide Shoe											
9.625											
0											
Top Plug											
9.625											
1											
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											
1											
HES											
Stage Tool											
9.625											
Centralizers											
9.625											
HES											
<b>Fluid Data</b>											
Stage/Plug #: 1											
Fluid #											
Stage Type											
Fluid Name											
Qty											
Qty UoM											
Mixing Density lbm/gal											
Yield ft <sup>3</sup> /sack											
Mix Fluid Gal											
Rate bbl/min											
Total Mix Fluid Gal											
1											
Red Dye Spacer											
Red Dye Spacer											
10											
bbl											
8.33											
5											

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
2	SwiftCem	SWIFTCEM (TM) SYSTEM	550	sack	13.5	1.74		8	9.2
3	Fresh Water	Fresh Water	120.4	bbl	8.33			8.5	
<b>Cement Left In Pipe</b>									
<b>Amount</b>		43 ft			<b>Reason</b>			<b>Shoe Joint</b>	
Mix Water:		<b>Mix Water Chloride:</b>			Mix Water Temperature:				
Cement Temperature:		<b>Plug Displaced by:</b> FRESH WATER			Disp. Temperature:				
Plug Bumped?		YES			<b>Bump Pressure:</b> 626 TO 1275 PSI			<b>Floats Held?</b> YES	
Cement Returns:		20 BBLS			<b>Returns Density:</b>			Returns Temperature:	
<b>Comment</b>									

## 2.0 Real-Time Job Summary

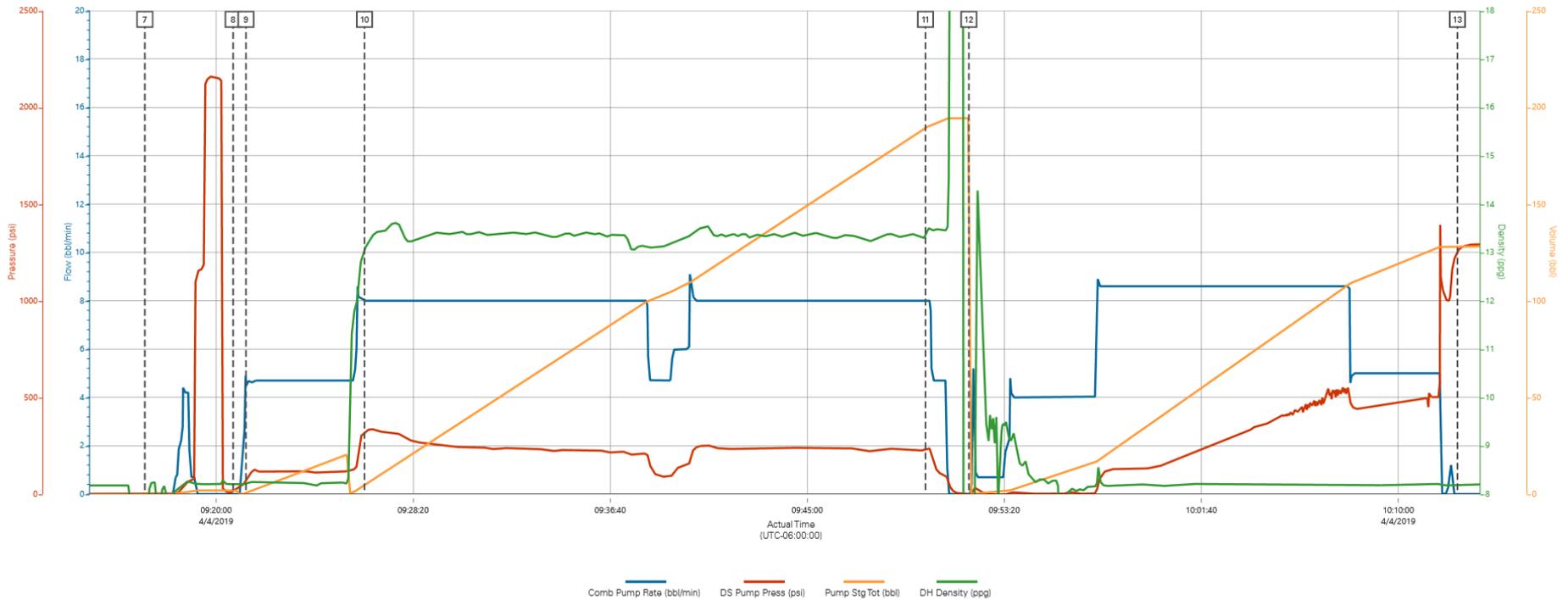
### 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comb Pump Rate <i>(bbl/min)</i>	DS Pump Press <i>(psi)</i>	DH Density <i>(ppg)</i>	Comments
Event	1	Call Out	Call Out	4/4/2019	04:00:00	USER				GOT CALL OUT FOR EXTRACTION SURFACE N35-20-2C ON LOCATION AT 0800
Event	2	Other	Other	4/4/2019	04:30:00	USER				HAVE ALL EQUIPMENT FOR CEMENT JOB
Event	3	Arrive At Loc	Arrive At Loc	4/4/2019	08:00:00	USER				GOT NEW NUMBER WITH COMPANY MAN TD 1642 TP 1651 SJ 43 MW 8.6 OH 13 1/2 WATER TESTED GOOD
Event	4	Other	Other	4/4/2019	08:36:40	USER	0.00	40.00	-0.01	RIG STILL RUNNING CASING
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	4/4/2019	08:36:42	USER	0.00	40.00	-0.01	HELD PRE -JOB SAFETY MEETING WITH CREW
Event	6	Rig-Up Equipment	Rig-Up Equipment	4/4/2019	08:36:45	USER	0.00	40.00	-0.01	RIG UP ALL IRON AND HOSES TO RIG AND RIG UP CEMENT HEAD
Event	7	Start Job	Start Job	4/4/2019	09:16:59	COM5	0.00	1.00	1.55	STARTED EXTRACTION N35-20-2C SURFACE CEMENT JOB
Event	8	Test Lines	Test Lines	4/4/2019	09:20:43	COM5	0.00	5.00	8.20	TEST KO TO 500 PSI TO 2000 PSI BOTH TESTED GOOD
Event	9	Pump Spacer 1	Pump Spacer 1	4/4/2019	09:21:15	COM5	4.90	74.00	8.21	PUMP 10 BBLS OF FRESH WATER WITH RED DYE AT 5 BPM 116 PSI
Event	10	Pump Cement	Pump Cement	4/4/2019	09:26:17	COM5	8.00	316.00	13.07	PUMP CEMENT 170 BBLS 550 SACKS AT 8 BPM 333 PSI AT 13.5
Event	11	Drop Top Plug	Drop Top Plug	4/4/2019	09:50:00	USER	8.00	233.00	13.36	DROP TOP PLUG
Event	12	Pump Displacement	Pump Displacement	4/4/2019	09:51:50	COM5	0.00	-1.00	-1.67	PUMP 120 BBLS OF FRESH WATER AT 8.5 BPM 100 PSI
Event	13	Bump Plug	Bump Plug	4/4/2019	10:12:30	COM5	0.00	1257.00	8.19	BUMP PLUG AT 626 PSI TO 1275 PSI CHECK FLOATS WITH 1/2 BBLS BACK 20 BBLS OF CEMENT TO SURFACE
Event	14	Crew Leave Location	Crew Leave Location	4/4/2019	10:47:49	USER				CREW STAYING ON LOCATION FOR NEXT WELL

## 3.0 Attachments

### 3.1 Interchange B N35-20-2C Surface – Job Chart with Events

Interchange B N35-20-2C Surface



Comb Pump Rate (bbl/min) DS Pump Press (psi) Pump Stg Tot (bbl) DH Density (ppg)

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Created: 2019-04-04 08:30:45, (UTC-06:00), Version: 5.1.78.0 [Edit](#)

Customer: EXTRACTION OIL & GAS  
 Representative:

Job Date: 4/4/2019  
 Sales Order #:

Well: INTERCHANGE B