

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS-EBUS

Interchange B N35-20-1N Surface

Job Date: Friday, April 05, 2019

Sincerely,
Ryan Keeran

Legal Notice

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Interchange B N35-20-1N** 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 10 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 #: 369404	Quote #:	Sales Order #: 0905578249
Customer: EXTRACTION OIL & GAS -		Customer Rep: JUSTIN	
Well Name: INTERCHANGE B		Well #: N35-20-1N	API/UWI #: 05-014-20845-00
Field: WATTENBERG	City (SAP): BROOMFIELD	County/Parish: BROOMFIELD	State: COLORADO
Legal Description: NE SW-10-1S-68W-2474FSL-1550FWL			
Contractor:		Rig/Platform Name/Num: Cartel 41	
Job BOM: 7521 7521			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA/HX38199		Srvc Supervisor: Nicholas Ralston	

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type			BHST
Job depth MD	1642ft		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	8 RD	J-55	0	1642	0	0
Open Hole Section			13.5				0	1642	0	0

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	9.625			1642	Top Plug	9.625	1	HES
Float Shoe	9.625				Bottom Plug	9.625		HES
Float Collar	9.625			1599	SSR plug set	9.625		HES
Insert Float	9.625				Plug Container	9.625	1	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			6	

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /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
9.20 Gal		FRESH WATER							

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	Fresh Water	Fresh Water	120.4	bbl	8.33			8	

Cement Left In Pipe		Amount	43 ft	Reason		Shoe Joint		
Mix Water:		Mix Water Chloride:		Mix Water Temperature:				
Cement Temperature:		Plug Displaced by:	FRESH WATER	Disp. Temperature:				
Plug Bumped?	YES	Bump Pressure:	543-1112 PSI	Floats Held?	YES			
Cement Returns:	10 BBL	Returns Density:		Returns Temperature:				
Comment								

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Recirc Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	DS Pump Press <i>(psi)</i>	Pump Stg Tot <i>(bbl)</i>	DH Density <i>(ppg)</i>	Comments
Event	1	Call Out	Call Out	4/4/2019	20:00:00	USER						CALL OUT FIR EXTRACTION INTERCHANGE B SURFACE N35-201N ON LOCATION MIDNITE
Event	2	Other	Other	4/4/2019	20:30:00	USER						HAVE ALL EQUIPMENT FOR THE JOB
Event	3	Arrive At Loc	Arrive At Loc	4/5/2019	00:00:00	USER						GOT NEW NUMBER FROM COMPANY MAN TD1648 TP 1651 MW 8.6 SJ 43 OH 13 1/2 WATER TESTED GOOD W 36# G J-55
Event	4	Other	Other	4/5/2019	00:30:00	USER						RIG STILL RUNNING CASING
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	4/5/2019	03:20:09	USER	12.97	3.00	104.00	3.70	8.22	HELD JSA MEETING WITH THE CREW
Event	6	Rig-Up Equipment	Rig-Up Equipment	4/5/2019	03:20:11	USER	12.99	3.00	104.00	3.80	8.22	RIG ALL IRON AND WATER HOSES TO THE RIG AND RIG UP CEMENT HEAD
Event	7	Start Job	Start Job	4/5/2019	03:20:30	COM5	13.39	4.50	112.00	4.80	8.21	START N35-20-1N 9 5/8 SURFACE
Event	8	Test Lines	Test Lines	4/5/2019	03:21:00	COM5	13.42	6.30	194.00	7.90	8.22	TESTED KO 500 PSI TO HIGH 2000 PSI BOTH TESTED GOOD
Event	9	Pump Spacer 1	Pump Spacer 1	4/5/2019	03:22:00	USER	13.40	6.30	192.00	14.20	8.22	PUMP 10 BBLS OF FRESH WATER WITH DYE AT 6 BPM 189 PSI

Event	10	Pump Cement	Pump Cement	4/5/2019	03:23:13	COM5	13.47	8.40	336.00	22.20	12.80	PUMP CEMENT 170 BBLS 550 SACKS AT 8 BPM 379PSI @ 13.5 PPG
Event	11	Drop Top Plug	Drop Top Plug	4/5/2019	03:43:50	COM5	-0.07	0.20	104.00	165.00	11.64	DROP TOP PLUG
Event	12	Pump Displacement	Pump Displacement	4/5/2019	03:44:36	COM5	7.10	0.10	10.00	165.20	0.00	PUMP 120 BBLS OF FRESH WATER AT 8 BPM 140 PSI
Event	13	End Job	End Job	4/5/2019	04:09:43	COM5	-0.22	0.70	1.00	131.50	8.13	BUMP PLUG AT 543 PSI TO 1112 PSI 10 BBLS OF CEMENT TO SURFACE AND CHECK FLOATS 1/2 BBLS BACK
Event	14	Crew Leave Location	Crew Leave Location	4/5/2019	05:30:00	USER						THANK YOU FOR USING HALLIBURTON NICK AND CREW

3.0 Job Chart

3.1 Job Chart

