

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS-EBUS

Interchange B N35-20-3N Surface

Job Date: Wednesday, April 03, 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 N35-20-3N 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 #: 3954849		Quote #:		Sales Order #: 0905578244				
Customer: EXTRACTION OIL & GAS -				Customer Rep: JUSTIN						
Well Name: INTERCHANGE B			Well #: N35-20-3N		API/UWI #: 05-014-20843-00					
Field: WATTENBERG		City (SAP): BROOMFIELD		County/Parish: BROOMFIELD		State: COLORADO				
Legal Description: NE SW-10-1S-68W-2483FSL-1585FWL										
Contractor:				Rig/Platform Name/Num: Cartel 41						
Job BOM: 7521 7521										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199				Srv Supervisor: Nicholas Ralston						
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST						
Job depth MD		1636ft		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	0	9.625	8.921	36	8 RD	J-55	0	1636	0	0
Open Hole Section			13.5				0	1636	0	0
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	9.625			1636		Top Plug	9.625	1	HES	
Float Shoe	9.625					Bottom Plug	9.625		HES	
Float Collar	9.625			1593		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			5		

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		8	9.2
9.20 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
3	Fresh Water	Fresh Water	120.4	bbl	8.33			9	
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:		562 PSI TO 1264		Floats Held?		YES
Cement Returns:		20 BBLS	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 (ppg)	Comb Pump Rate (bbl/min)	DS Pump Press (psi)	Pump Stg Tot (bbl)	DH Density (ppg)	Comments
Event	1	Call Out	Call Out	4/3/2019	04:00:00	USER						call out for extraction interchange 8 n35-20-3n 9 5/8 surface on location at 0800
Event	2	Other	Other	4/3/2019	04:10:00	USER						have all equipment for the job
Event	3	Arrive At Loc	Arrive At Loc	4/3/2019	08:00:00	USER	8.81	0.00	42.00	0.00	-0.01	GOT NEW NUMBER FROM COMPANY MAN TD 1648 TP 1651 SJ 43 MV 8.6 OH 13 1/2 WATER STILL TESTED GOOD
Event	4	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	4/3/2019	08:20:00	USER	8.81	0.00	42.00	0.00	-0.01	HELD JSA MEETING WITH CREW
Event	5	Rig-Up Equipment	Rig-Up Equipment	4/3/2019	08:30:00	USER	8.82	0.00	44.00	0.00	-0.01	RIG UP ALL IRON AND WATER HOSES TO THE RIG
Event	6	Other	Other	4/3/2019	09:00:00	USER	8.81	0.00	42.00	0.00	-0.01	RIG STILL RUNNING CASING
Event	7	Start Job	Start Job	4/3/2019	10:59:55	COM5	2.97	0.00	-1.00	0.00	0.00	RIG UP HEAD ON FLOOR AND STARTED CEMENT JOB
Event	8	Test Lines	Test Lines	4/3/2019	11:01:13	COM5	2.98	0.00	10.00	1.80	8.32	TEST LINES KO TO 500 PSI HIGH OF 2143 PSI BOTH TEST GOOD
Event	9	Pump Spacer 1	Pump Spacer 1	4/3/2019	11:03:28	COM5	2.99	0.00	22.00	0.00	8.31	PUMP 10 BBLS OF FRESH WATER WITH DYE AT 5 BPM 100 PSI
Event	10	Pump Cement	Pump Cement	4/3/2019	11:07:41	COM5	13.50	4.80	95.00	0.00	8.31	PUMP 170 BBLS 550 SACKS OF CEMENT AT 8 BPM 240 PSI AT 13.5 PPG

Event	11	Drop Top Plug	Drop Top Plug	4/3/2019	11:34:43	COM5	9.13	0.00	61.00	193.10	14.41	DROP TOP PLUG
Event	12	Pump Displacement	Pump Displacement	4/3/2019	11:35:27	COM5	0.10	0.00	4.00	193.10	17.56	PUMP 120 BBLS OF FRESH WATER AT 9 BPM 120 PSI
Event	13	Bump Plug	Bump Plug	4/3/2019	11:54:36	COM5	8.50	0.00	1263.00	128.40	8.30	BUMP PLUG AT 562 PSI TO 1264 PSI HELD FOR 1 MIN CHECK FLOATS WITH 1/2 BBLS BACK 20 BBLS OF CEMENT TO SURFACE
Event	14	End Job	End Job	4/3/2019	12:01:47	COM5	8.50	1.50	-4.00	128.80	8.32	FINISH EXTRACTION SURFACE CEMENT JOB
Event	15	Crew Leave Location	Crew Leave Location	4/3/2019	12:34:48	USER						CREW IS STAYING ON LOCATION FOR NEXT WELL

3.0 Job Chart

3.1 Job Chart

