

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS

Date: Friday, December 01, 2017

Alma 1S-66-2524 20CDH Surface

Job Date: Monday, November 13, 2017

Sincerely,

Bryce Hinsch

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Alma 1S-66-2524 20CDH** 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.

Plug did not land.

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 #: 3791363	Quote #:	Sales Order #: 0904435606
Customer: EXTRACTION OIL & GAS -		Customer Rep: JOSE TORRES	
Well Name: ALMA 1S-66-2524	Well #: 20CDH	API/UWI #: 05-001-10027-00	
Field: WATTENBERG	City (SAP): IRONDALE	County/Parish: ADAMS	State: COLORADO
Legal Description: SW SE-25-1S-66W-287FSL-1979FEL			
Contractor:		Rig/Platform Name/Num: Cyclone 37	
Job BOM: 7521 7521			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HX38199		Srvc Supervisor: Jason Welton	

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type	BHST		
Job depth MD	1675ft	Job Depth TVD	1675
Water Depth		Wk Ht Above Floor	5
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	1675	0	0
Open Hole Section			13.5				0	1690	0	1690

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	9.625			1675	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		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					

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	575	sack	13.5	1.74		5	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	126	bbl	8.33					
Cement Left In Pipe		Amount	44 ft		Reason			Shoe Joint		
Mix Water:		pH ##	Mix Water Chloride:## ppm			Mix Water Temperature:## °F °C				
Cement Temperature:## °F °C		Plug Displaced by:## lb/gal kg/m3 XXXX				Disp. Temperature:## °F °C				
Plug Bumped?		Yes/No	Bump Pressure:#### psi MPa			Floats Held?Yes/No				
Cement Returns:## bbl m3		Returns Density:## lb/gal kg/m3			Returns Temperature:## °F °C					
Comment JOB WENT AS PER DESIGN										

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DS Pump Press (psi)	DH Density (ppg)	Comb Pump Rate (bbl/min)	Comments
Event	1	Arrive At Loc	Arrive At Loc	11/13/2017	01:00:00	USER				CREW CALLED OUT AT 2300/REQUESTED ON LOCATION AT 0300/RIG TOO H W/DP
Event	2	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	11/13/2017	01:15:00	USER				SPOT IN HES EQUIPMENT/TEST WATER
Event	3	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	11/13/2017	01:25:00	USER				LINE OF FIRE/SUSPENDEED LOADS
Event	4	Rig-Up Equipment	Rig-Up Equipment	11/13/2017	01:30:00	USER				
Event	5	Rig-Up Completed	Rig-Up Completed	11/13/2017	02:15:00	USER				HES READY
Event	6	Wait on Customer or Customer Sub-Contractor Equip - Start Time	Wait on Customer or Customer Sub-Contractor Equip - Start Time	11/13/2017	02:20:00	USER				RIG FINISH TOO H/RUN CASING/CONDITION WELL
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	11/13/2017	04:29:12	USER	-13.00	8.35	0.00	REVIEW JOB AND SAFETY PROCEDURES
Event	8	Start Job	Start Job	11/13/2017	07:08:46	COM4	-14.00	8.40	0.00	
Event	9	Test Lines	Test Lines	11/13/2017	07:10:23	COM4	-18.00	8.35	0.00	500PSI LOW/2500PSI HIGH/TESTS GOOD
Event	10	Pump Spacer 1	Pump Spacer 1	11/13/2017	07:14:42	COM4	19.00	8.51	1.20	10BBLS FRESHWATER/BREAK CIRCULATION
Event	11	Pump Spacer 2	Pump Spacer 2	11/13/2017	07:17:50	COM4	149.00	8.45	3.00	10BBLS FRESHWATER w/RED DYE/3BPM/250PSI

Event	12	Pump Cement	Pump Cement	11/13/2017	07:21:55	COM4	262.00	11.75	4.50	575SKS/178BBLS @ 13.5PPG/6BPM/392PSI
Event	13	Shutdown	Shutdown	11/13/2017	07:53:31	COM4	59.00	13.55	0.00	
Event	14	Drop Plug	Drop Plug	11/13/2017	07:53:59	COM4				HES TOP PLUG
Event	15	Pump Displacement	Pump Displacement	11/13/2017	07:54:00	COM4	13.00	13.45	0.00	126BBLS FRESHWATER/7BPM/300PSI
Event	16	Shutdown	Shutdown	11/13/2017	08:21:29	COM4				DID NOT LAND PLUG
Event	17	Other	Other	11/13/2017	08:21:34	COM4				PUMPED ADDITIONAL 2BBLS FRESHWATER PER CUSTOMER/DID NOT LAND PLUG/CHECKED FLOATS/HELD/0.5BBL BACK
Event	18	End Job	End Job	11/13/2017	08:22:37	COM4	4.00	8.32	0.00	
Event	19	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	11/13/2017	08:30:00	USER	1.00	8.31	0.00	
Event	20	Rig-Down Equipment	Rig-Down Equipment	11/13/2017	08:35:00	USER				
Event	21	Rig-Down Completed	Rig-Down Completed	11/13/2017	09:00:00	USER				
Event	22	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	11/13/2017	09:05:00	USER				
Event	23	Depart Location	Depart Location	11/13/2017	09:30:00	USER				THANK YOU

3.0 Attachments

3.1 Extraction Alma 1S-66-2524 20CDH Surface Job Chart

