

HALLIBURTON

iCem[®] Service

CONFLUENCE DJ LLC-EBUS

Ft. Lupton District, COLORADO

SILVERTON 5-7-3L

Job Date: Wednesday, March 04, 2020

Sincerely,

Andrew McIntosh

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 **Silverton 5-7-3L** 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 40 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 #: 375989	Ship To #: 3917473	Quote #:	Sales Order #: 0906357234
Customer: CONFLUENCE DJ LLC-EBUS		Customer Rep: BRYAN	
Well Name: SILVERTON		Well #: 5-7-3L	API/UWI #: 05-123-48435-00
Field: WATTENBERG	City (SAP): KERSEY	County/Parish: WELD	State: COLORADO
Legal Description: NW SW-4-4N-63W-2698FSL-255FWL			
Contractor: ENSIGN DRLG		Rig/Platform Name/Num: ENSIGN 122	
Job BOM: 7521 7521			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA/H171328		Srvc Supervisor: Lance Carpenter	

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type			BHST
Job depth MD	1580		Job Depth TVD 1580
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		9.625	8.921	36			0	1580	0	
Open Hole Section			13.5				0	1590		

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	9.625			1580	Top Plug	9.625	1	HES
Float Shoe	9.625				Bottom Plug	9.625		HES
Float Collar	9.625			1536	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 ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	Mud Flush III (Powder)	Mud Flush III	40	bbl	8.4			8		
42 gal/bbl		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	
2	12.5# SwiftCem	SWIFTCEM (TM) SYSTEM	275	sack	12.5	2.16		8	12.28	
12.28 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	13.5# SwiftCem	SWIFTCEM (TM) SYSTEM	195	sack	13.5	1.74		8	9.16	
9.16 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	
4	Displacement fluid		119	bbl	8.3			8		
Cement Left In Pipe		Amount	40 ft			Reason		Shoe Joint		
Mix Water:		pH 7	Mix Water Chloride: 500 ppm			Mix Water Temperature:		58 °F		
Cement Temperature:		## °F °C	Plug Displaced by: 8.34 lb/gal Water			Disp. Temperature:		## °F °C		
Plug Bumped?		Yes	Bump Pressure: 484 psi			Floats Held?		Yes		
Cement Returns:		20 bbl	Returns Density: ## lb/gal kg/m3			Returns Temperature:		## °F °C		
Comment										
<p>JOB PERFORMED AS DESIGNED. NO ACCIDENT, INJURY OR SPILL. MUD FLUSH SPACER PUMPED FIRST. CEMENT SLURRY VOLUMES VERIFIED WITH MIX WATER GALLONS AND DENSITY VERIFIED WITH PRESSURIZED MUD BALANCE. DROPPED TOP PLUG BEFORE DISPLACEMENT. ALL SPACER TO SURFACE AND 20 BBL CEMENT. BUMPED PLUG AT 3 BPM WITH 484 PSI. TOOK TO 1154 PSI AND HELD FOR A FEW MINUTES. FLOATS HELD WITH 1 BBL BACK.</p> <p>TOP OF TAIL – 925'</p> <p>TOP OF LEAD – SURFACE WITH 20 BBL BACK</p> <p>SPACER – ALL 40 BBL TO SURFACE</p>										

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	PS Pump Press <i>(psi)</i>	DH Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	Pump Stg Tot <i>(bbl)</i>	Comments
Event	1	Check Floats	Call Out	3/3/2020	23:00:00	USER					CALLOUT. CREW STAYED ON LOCATION FROM PREVIOUS JOB. ON LOCATION TIME 0500
Event	2	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	3/4/2020	04:30:00	USER					CREW HAS PRE RIG UP SAFETY MEETING DISCUSSING RIG OPERATIONS, LIGHTING, COLD WEATHER, SLIPS TRIPS FALLS, LINE OF FIRE, PINCH POINTS, COMMUNICATION AND BEGIN SPOTTING EQUIPMENT AND RIGGING UP LINES
Event	3	Casing on Bottom	Casing on Bottom	3/4/2020	06:30:00	USER	3.00	8.38	0.00	61.80	CASING ON BOTTOM. CREW FINISHES RIGGING UP LINES AND RIG BEGINS CIRCULATING
Event	4	Pre-Job Safety Meeting	Pre-Job Safety Meeting	3/4/2020	06:40:00	USER	4.00	8.33	0.00	61.80	CREW, RIG CREW AND CUSTOMER REP HAVE PRE JOB SAFETY MEETING DISCUSSING MUSTER AREAS, CONTIGENCIES, EMERGENCY PROCEEDURES, ROLES, RED ZONES, STOP WORK AUTHORITY, LINE OF FIRE, TUGGER OPERATIONS, PINCH POINTS, 3 POINTS OF CONTACT AND THE JOB PROCEEDURE

Event	5	Start Job	Start Job	3/4/2020	07:09:48	COM4	1.00	8.20	0.00	61.80	START JOB
Event	6	Test Lines	Test Lines	3/4/2020	07:14:49	COM4	2654.00	8.61	0.00	64.90	FILL LINES WITH 3 BBL WATER. PRESSURE TEST HES LINES TO 2500 PSI. TEST GOOD
Event	7	Pump Spacer 1	Pump Spacer 1	3/4/2020	07:18:48	COM4	88.00	8.36	3.00	0.00	PUMP 40 BBL MUD FLUSH SPACER WITH RED DYE AND D-AIR
Event	8	Pump Lead Cement	Pump Lead Cement	3/4/2020	07:32:51	COM4	70.00	8.94	3.00	42.60	PUMP 106 BBL SWIFTCEM LEAD 12.5# 2.16 YIELD 12.28 GAL 275 SACKS
Event	9	Pump Tail Cement	Pump Tail Cement	3/4/2020	07:49:15	COM4	183.00	12.48	6.30	0.10	PUMP 61 BBL SWIFTCEM TAIL 13.5# 1.74 YIELD 9.16 GAL 195 SACKS
Event	10	Comment	Comment	3/4/2020	08:00:01	USER	185.00	13.36	2.90	68.20	SHUTDOWN
Event	11	Drop Top Plug	Drop Top Plug	3/4/2020	08:05:29	COM4	10.00	33.47	0.00	68.20	DROP TOP PLUG
Event	12	Pump Displacement	Pump Displacement	3/4/2020	08:05:32	COM4	10.00	33.18	0.00	0.00	PUMP 119 BBL WATER DISPLACEMENT WASHING UP ON TOP OF THE PLUG
Event	13	Bump Plug	Bump Plug	3/4/2020	08:26:24	COM4	1158.00	8.21	0.00	121.30	BUMP PLUG AT 3 BPM WITH 484 PSI. TOOK TO 1154 PSI AND HELD FOR A FEW MINUTES
Event	14	Check Floats	Check Floats	3/4/2020	08:28:12	USER	1157.00	8.21	0.00	121.30	CHECK FLOATS. FLOATS HELD WITH 1 BBL BACK
Event	15	Post-Job Safety Meeting (Pre Rig-Down)	Post-Job Safety Meeting (Pre Rig-Down)	3/4/2020	08:30:00	USER					CREW HAS PRE RIG DOWN SAFETY MEETING DISCUSSING TEAM LIFTING, RIG OPERATIONS, LINE OF FIRE, PINCH POINTS, SLIPS TRIPS FALLS, COMMUNICATION AND BEGIN RIGGING DOWN

Event	16	Depart Location	Depart Location	3/4/2020	10:30:00	USER
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CREW IS RIGGED DOWN
AND READY TO DEPART

3.0 Attachments

3.1 CONFLUENCE SILVERTON 5-7-3L SURFACE-Custom Results.png

