HALLIBURTON

iCem® Service

CONFLUENCE DJ LLC-EBUS

Ft. Lupton District, CO

Silverton 5-1-4L

Job Date: Saturday, February 29, 2020

Sincerely,

James Bunnell

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 5-1-4L** cement **Job 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 #:** 3917415	**Quote #:** 0022678007	**Sales Order #:** 0906327216
Customer: CONFLUENCE DJ LLC-EBUS		**Customer Rep:** Red Benge	
Well Name: SILVERTON	**Well #:** 5-1-4L		**API/UWI #:** 05-123-48443-00
Field: WATTENBERG	**City (SAP):** KERSEY	**County/Parish:** WELD	**State:** COLORADO
Legal Description: SW NW-4-4N-63W-2559FNL-255FWL			
Contractor: ENSIGN DRLG	**Rig/Platform Name/Num:** ENSIGN 122		
Job BOM: 7521			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\H171328	**Srvc Supervisor:** James Bunnell		

Job

Formation Name				
Formation Depth (MD)	**Top**		**Bottom**	
Form Type			**BHST**	
Job depth MD	1582ft		**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			0	1582	0	
Open Hole Section			13.5				0	1592		

Tools and Accessories

Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make
Guide Shoe	9.625			1582		**Top Plug**	9.625		HES
Float Shoe	9.625					**Bottom Plug**	9.625		HES
Float Collar	9.625			1537		**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	Mud Flush III (Powder)	Mud Flush III	40	bbl	8.4			8	

With red die in first 10

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	12.5# SwiftCem	SWIFTCEM (TM) SYSTEM	310	sack	12.5	2.16	12.28	8	3806

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	13.5# SwiftCem	SWIFTCEM (TM) SYSTEM	195	sack	13.5	1.74	9.16	8	1786

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
4	Displacement fluid	Fresh water	118	bbl	8.3			8	

Cement Left In Pipe	**Amount**	45 ft	Reason		**Shoe Joint**
Mix Water:	pH 7	**Mix Water Chloride:**	300 ppm	Mix Water Temperature:	**68 °F °C**
Cement Temperature:	## °F °C	**Plug Displaced by:**	8.33 lb/gal	Disp. Temperature:	**## °F °C**
Plug Bumped?	Yes	**Bump Pressure:**	psi MPa	Floats Held?	**Yes**
Cement Returns:	40 bbl m3	**Returns Density:**	## lb/gal kg/m3	Returns Temperature:	**## °F °C**

Comment Halliburton pumped 40bbls mudflush spacer with red die in the first 10bbls followed by 119bbls lead cement, 60bbls tail cement, and 118bbls fresh water displacement bumped plug 500psi over final circulating psi checked floats 1 bbl back floats held 40bbls cement returns to surface.

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	PS Pump Press (psi)	Comb Pump Rate (bbl/min)	Pump Stg Tot (bbl)	Recirc Density (ppg)	Comments
Event	1	Call Out	Call Out	2/28/2020	14:00:00	USER					For on location after Dechant.
Event	2	Depart from Service Center or Other Site	Depart from Service Center or Other Site	2/28/2020	15:00:00	USER					Journey management meeting held to discuss journey.
Event	3	Arrive at Location from Service Center	Arrive at Location from Service Center	2/28/2020	16:30:00	USER					With all equipment and materials.
Event	4	Other	Other	2/28/2020	16:35:00	USER					9 5/8 36# casing in 13.5in OH @1582' FC @1537' TD 1592' 40bbls cmt to surface. Water tested good PH 7 Chlorides less than 400
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	2/28/2020	17:00:00	USER					To discuss hazards of rig up.
Event	6	Rig-Up Completed	Rig-Up Completed	2/28/2020	18:00:00	USER					With no incidents.
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	2/28/2020	19:30:00	USER	-76.00	0.00	13.80	6.20	With all site personnel to discuss job procedure.
Event	8	Start Job	Start Job	2/28/2020	19:54:11	COM4	-73.00	0.00	13.80	8.56	Start recording data.
Event	9	Test Lines	Test Lines	2/28/2020	19:55:50	COM4	-41.00	0.00	16.70	8.56	Tested to 2500psi
Event	10	Pump Spacer 1	Pump Spacer 1	2/28/2020	20:01:06	COM4	-63.00	0.00	0.00	8.56	40bbls mud flush red die in first 10bbls.
Event	11	Check Weight	Check Weight	2/28/2020	20:04:42	COM4	-28.00	2.00	6.70	12.64	
Event	12	Pump Lead Cement	Pump Lead Cement	2/28/2020	20:16:31	COM4	-3.00	3.10	40.70	12.24	310sks 119bbls 12.5ppg 2.16yd 12.28gl/sk verified

											with pressurized scales. TOC 10' 40bbls to surface.
Event	13	Check Weight	Check Weight	2/28/2020	20:18:55	COM4	52.00	3.90	8.90	12.49	
Event	14	Pump Tail Cement	Pump Tail Cement	2/28/2020	20:35:59	COM4	39.00	5.90	44.20	12.46	195sks 60bbls 13.5ppg 1.74yd 9.16gl/sk verfied with pressurized scales. TOT 932'
Event	15	Check Weight	Check Weight	2/28/2020	20:40:29	COM4	60.00	5.90	26.50	13.53	
Event	16	Drop Top Plug	Drop Top Plug	2/28/2020	20:52:12	COM4	-60.00	2.10	76.00	8.18	
Event	17	Pump Displacement	Pump Displacement	2/28/2020	20:52:16	COM4	-65.00	2.10	76.10	8.17	118bbls fresh water.
Event	18	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	2/28/2020	20:55:00	USER	-81.00	2.50	6.70	8.18	To discuss hazards of rig down.
Event	19	Bump Plug	Bump Plug	2/28/2020	21:19:00	USER	351.00	3.00	117.70	8.18	Bumped plug 500psi over final circulating pressure. checked floats 1bbl back.
Event	20	End Job	End Job	2/28/2020	21:25:00	USER	-77.00	0.00	119.10	8.18	Stop recording data.
Event	21	Rig-Down Completed	Rig-Down Completed	2/28/2020	23:00:00	USER					With no incidents.
Event	22	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	2/28/2020	23:10:00	USER					Journey management meeting held to discuss journey.
Event	23	Other	Other	2/28/2020	23:15:00	USER					Thank you from Halliburton and crew.

3.0 Attachments

3.1 Case 2-Custom Results.png