

The Road to Excellence Starts with Safety

Sold To #: 375989		Ship To #: 3899636		Quote #:		Sales Order #: 0905778292				
Customer: CONFLUENCE DJ LLC-EBUS					Customer Rep: Josh Kliesen					
Well Name: 70 RANCH			Well #: 10-4-4L			API/UWI #: 05-123-47592-00				
Field: WATTENBERG		City (SAP): KERSEY		County/Parish: WELD			State: COLORADO			
Legal Description: SW SW-3-4N-63W-260FSL-1286FWL										
Contractor: ENSIGN DRLG					Rig/Platform Name/Num: ENSIGN 140					
Job BOM: 7523 7523										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199					Srv Supervisor: Nikolaus Kornafel					
Job										
Formation Name										
Formation Depth (MD)		Top			Bottom					
Form Type					BHST					
Job depth MD		16600ft			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	1574		
Casing		5.5	4.778	20			0	16667		
Open Hole Section			13.5				1574	1574		
Open Hole Section			8.5				1574	16676		6541
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	5.5	1		16667		Top Plug	5.5	1		
Float Shoe	5.5					Bottom Plug	5.5	1		
Float Collar	5.5	1		16663						
Insert Float	5.5					Plug Container	5.5	1	HES	
Stage Tool	5.5					Centralizers	5.5			
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	DIESEL	DIESEL	40	bbl	6.9				
2	Spacer	SBM FDP-C1337-18 CEMENT SPACER SYS	100	bbl	12	3.25	20	5	3,455
3	ElastiCem	ELASTICEM (TM) SYSTEM	2005	sack	14.4	1.7	7.3	8	14,637
4	MMCR Displacement	MMCR Displacement	30	bbl	8.34				
5	Displacement	Displacement	320	bbl	8.34				

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	
Cement Left In Pipe		Amount	0 ft		Reason			Wet Shoe		
Mix Water:		pH 7	Mix Water Chloride:		0 ppm		Mix Water Temperature:			69 °F
Cement Temperature:		N/A	Plug Displaced by:		8.33 lb/gal		Disp. Temperature:			69 °F
Plug Bumped?		Yes	Bump Pressure:		2600 psi		Floats Held?			Yes
Cement Returns:		0 bbl	Returns Density:		N/A		Returns Temperature:			N/A

Comment THE RIG PUMPED 40 BBLS OF DIESEL SPACER BEFORE THE JOB. HALLIBURTON THEN PUMPED 100 BBLS OF FDP SPACER FOLLOWED BY 607 BBLS OF PRIMARY CEMENT. WASHED OUR PUMPS AND LINES AND THEN DROPPED THE BOTTOM PLUG FOLLOWED BY 5 BBLS OF MICRO MATRIX CEMENT RETARTED WATER. THEN DROPPED THE TOP PLUG AND DISPLACED WITH 350 BBLS OF WATER WITH MMCR IN THE FIRST 30 BBLS FOLLOWING THE TOP PLUG AND CLA WEB THROUGHOUT THE REST OF DISPLACEMENT. FLOATS HELD. 4.5 BBLS BACK. 15 BBLS OF SPACER TO SURFACE

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	DS Pump Press <i>(psi)</i>	Comments
Event	1	Call Out	Call Out	6/22/2019	05:00:00	USER				CREW CALLED OUT AT 05:00, REQUESTED ON LOCATION 10:15. CREW PICKED UP CEMENT, CHEMICALS, AND PLUG CONTAINER FROM FT. LUPTON, CO. BULK 660 10866493, AND PUMP 11360070.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	6/22/2019	07:45:00	USER				CREW DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
Event	3	Crew Leave Yard	Crew Leave Yard	6/22/2019	08:00:00	USER				STARTED JOURNEY MANAGEMENT.
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	6/22/2019	09:00:00	USER				END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING- 9.625" 36 LB/FT @ 1,574, 5.5" CASING: 20 LB/FT TOTAL 16,667', 8.5" HOLE, TD 16,662', SHOE TRAC- 5', TVD- 6,541'. PUMP FRESH WATER DISPLACEMENT 370 BBLs. CASING LANDED @ 14:00 06/22/2019. RIG CIRCULATED BOTTOMS UP.
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	6/22/2019	09:15:00	USER				HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP, AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	6/22/2019	09:30:00	USER				CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON AND WATER HOSES TO PERFORM JOB.
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	6/22/2019	17:30:00	USER	8.45	0.00	70.00	SAFETY MEETING WITH HALLIBURTON, AND RIG PERSONNEL. CREW COMMUNICATED POTENTIAL SAFETY HAZARDS, AND JOB DETAILS.
Event	8	Start Job	Start Job	6/22/2019	17:48:05	COM5	8.45	0.00	-7.00	BEGIN RECORDING JOB DATA.
Event	9	Test Lines	Test Lines	6/22/2019	17:55:13	COM5	8.35	0.00	220.00	PRESSURE TESTED IRON TO 6,000 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 900 PSI, 5TH GEAR STALL OUT @ 2,100 PSI.

Event	10	Pump Spacer 1	Pump Spacer 1	6/22/2019	18:02:49	COM5	8.36	0.00	246.00	PUMP 100 BBLS OF FDP SPACER @ 12.0 LB/GAL, 3.25 FT3/SK, 20.0 GAL/SK 10 GALLONS D-AIR. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 5 BBLS/MIN @ 940 PSI.
Event	11	Check Weight	Check Weight	6/22/2019	18:06:41	COM5	11.98	5.70	612.00	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	12	Pump Cement	Pump Cement	6/22/2019	18:17:47	COM5	12.22	7.00	323.00	PUMPED 2005 SKS OF ELASTICEM @ 14.4 LB/GAL, 1.7 FT3/SK, 7.3 GAL/SK. 607.05 BBLS, HOC @ 14,878.68' TOC @ 1785.32'. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 8 BBLS/MIN @ 880 PSI.
Event	13	Check Weight	Check Weight	6/22/2019	18:18:55	COM5	13.94	7.00	587.00	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	14	Check Weight	Check Weight	6/22/2019	18:26:56	COM5	14.39	8.00	988.00	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	15	Check Weight	Check Weight	6/22/2019	18:58:34	COM5	14.32	8.10	995.00	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	16	Check Weight	Check Weight	6/22/2019	19:20:34	COM5	14.42	8.00	985.00	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	17	Shutdown	Shutdown	6/22/2019	19:44:15	COM5	8.36	0.00	128.00	SHUTDOWN TO WASH PUMPS AND LINES
Event	18	Pump Displacement	Pump Displacement	6/22/2019	19:56:02	COM5	7.84	0.00	-9.00	DROPPED BOTTOM PLUG AND THEN PUMPED 5 BBLS OF WATER WITH CEMENT RETARDER IN IT AND THEN SHUTDOWN TO DROP TOP PLUG.
Event	19	Drop Top Plug	Drop Top Plug	6/22/2019	19:59:24	COM5	2.85	0.00	-4.00	TOP PLUG LEFT THE PLUG CONTAINER, VERIFIED BY COMPANY MAN
Event	20	Pump Displacement	Pump Displacement	6/22/2019	19:59:30	COM5	0.99	0.00	-10.00	BEGIN TO DISPLACE 370 BBLS OF FRESH WATER
Event	21	Bump Plug	Bump Plug	6/22/2019	21:01:11	COM5	8.36	0.00	2910.00	BUMPED PLUG AT 350 BBLS AWAY. FINAL CIRCULATING PRESSURE 2600 PSI. BUMPED PLUG AND PRESSURE ROSE TO 2950 PSI
Event	22	Pressure Up Well	Pressure Up Well	6/22/2019	21:06:26	COM5	8.38	0.00	3385.00	PRESSURED UP TO 4038 PSI TO OPEN THE BOTTOM PLUG AND PUMPED A 5 BBL WET SHOE
Event	23	Other	Other	6/22/2019	21:11:08	COM5	8.37	0.00	3468.00	RELEASED PRESSURE TO CHECK FLOATS AND GOT 4.5 BBLS BACK TO THE TRUCK. FLOATS HELD
Event	24	End Job	End Job	6/22/2019	21:13:57	COM5	8.27	0.00	-3.00	STOP RECORDING JOB DATA
Event	25	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	6/22/2019	21:20:00	USER	8.25	0.00	-6.00	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.

Event	26	Rig-Down Completed	Rig-Down Completed	6/22/2019	23:00:00	USER	ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL, AND LOCATION WAS CLEAN.
Event	27	Safety Meeting - Departing Location	Safety Meeting - Departing Location	6/22/2019	23:00:00	USER	CREW DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW. THANK YOU FOR USING HALLIBURTON – NICK KORNAFEL AND CREW.

3.0 Attachments

3.1 70 Ranch 10-4-4L Production – Job Chart

