

The Road to Excellence Starts with Safety

Sold To #: 300466		Ship To #: 3959442		Quote #: 0022627570		Sales Order #: 0905978937				
Customer: ANADARKO PETROLEUM CORP-EBUS				Customer Rep: Carlton Cooley						
Well Name: SARCHET			Well #: 21-1HZ			API/UWI #: 05-123-50074-00				
Field: WATTENBERG		City (SAP): PLATTEVILLE		County/Parish: WELD		State: COLORADO				
Legal Description: SW SW-21-3N-66W-640FSL-341FWL										
Contractor: PRECISION DRLG				Rig/Platform Name/Num: PRECISION 464						
Job BOM: 7523 7523										
Well Type: HORIZONTAL GAS										
Sales Person: HALAMERICA\HX41066				Srvc Supervisor: Thomas Haas						
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST						
Job depth MD		18317ft		Job Depth TVD		7240				
Water Depth				Wk Ht Above Floor		6				
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		J-55	0	1864	0	1864
Casing	0	5.5	4.892	17	LTC	HCP110	0	18317	0	1864
Open Hole Section			7.875				1865	18324	1864	7240
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
						Top Plug	5.5	1	W.F.	
Float Shoe	5.5	1	W.F.	18317		Bottom Plug	5.5	1	W.F.	
Wet Shoe Sub	5.5	1	W.F.	18302		Plug Container	5.5	1	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	Tuned Prime	TUNED PRIME CEMENT SPACER SYS	60	bbl	10.5	6.17	39.6	5	2162
2	Tuned Prime (No Surfactants)	TUNED PRIME CEMENT SPACER SYS	55	bbl	10.5	6.19	41.4	6	2070
3	Gasstop B1	GASSTOP (TM) SYSTEM	640	sack	13.2	1.56	7.61	8	4870
4	EconoCem	ECONOCEM (TM) SYSTEM	1110	sack	13.5	1.69	8.07	8	8958
5	Biocide Water and MMCR	Biocide Water and MMCR	20	bbl	8.34				
0.50 gal/bbl		MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)							
6	Biocide Water	Biocide Water	405	bbl	8.34				
Cement Left In Pipe		Amount	None			Reason			Shoe Joint
Mix Water:		pH 7	Mix Water Chloride: <300 ppm			Mix Water Temperature: 161°F			
Cement Temperature:		N/A	Plug Displaced by: 8.33 lb/gal F.W.			Disp. Temperature: 61 °F			
Plug Bumped?		Yes	Bump Pressure: 2150 psi			Floats Held? Yes			
Cement Returns:		N/A	Returns Density: N/A			Returns Temperature: N/A			
Comment Plug bumped at calculated displacement, final circulating pressure of 2150 psi, held 15 min casing test at 3000 psi, floats held, 2.5 bbl back. 25 bbl 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 (ppg)	Comb Pump Rate (bbl/min)	DS Pump Press (psi)	Comments
Event	1	Call Out	Call Out	9/19/2019	23:00:00	USER				CREW CALLED OUT AT 23:00 09/19/2019, REQUESTED ON LOCATION 04:00 9/20/2019. CREW PICKED UP CEMENT, CHEMICALS (45GAL MUSOL, 45 GAL DUAL SPACER B, 30 GAL D-AIR, 10 GAL MMCR), 100 LBS SUGAR, AND PLUG CONTAINER FROM FORT LUPTON,CO. BULK 660: 110954129/10025027 Bulk 660: 112350112/10866493 PUMP ELITE: 11897034/11645460 SOFT SIDE: 12240040/12051659.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	9/20/2019	01:45:00	USER				DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW
Event	3	Crew Leave Yard	Crew Leave Yard	9/20/2019	02:00:00	USER				STARTED JOURNEY MANAGEMENT.
Event	4	Arrive At Loc	Arrive At Loc	9/20/2019	03:00:00	USER				END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING: 9.625" 36# @ 1890', CASING: 5.5" 17# @ 18317', 15' SHOE JOINT, 7.875" OPEN HOLE, TVD @ 7240', 9.5 PPG WELL FLUID, FRESH WATER DISPLACEMENT.
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	9/20/2019	03:10:00	USER				HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	9/20/2019	03:20:00	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	9/20/2019	05:00:00	USER	8.42	0.00	-5.00	MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS.
Event	8	Start Job	Start Job	9/20/2019	06:34:49	COM4	8.42	0.00	-6.00	START JOB DATA RECORDING.
Event	9	Test Lines	Test Lines	9/20/2019	06:40:28	COM4	8.59	0.00	206.00	PRESSURE TESTED IRON TO 6500 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 560 PSI, 5TH GEAR STALL OUT @ 2200 PSI.

Event	10	Pump Spacer 1	Pump Spacer 1	9/20/2019	06:44:45	COM4	8.56	0.00	33.00	PUMP 60 BBLs OF SPACER @ 10.5 LB/GAL, ADDED 45 GAL MUSOL A, 45 GAL DUAL SPACER B, 5 GAL D-AIR, DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	11	Pump Spacer 2	Pump Spacer 2	9/20/2019	06:57:28	COM4	10.45	5.00	828.00	PUMP 55 BBLs OF TUNED SPACER @ 10.5 LB/GAL, ADDED .8 GAL BIOCIDES, DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	12	Drop Bottom Plug	Drop Bottom Plug	9/20/2019	07:01:01	COM4	10.54	6.10	892.00	PLUG LEFT PLUG CONTAINER, VERIFIED BY COMPANY MAN.
Event	13	Pump Lead Cement	Pump Lead Cement	9/20/2019	07:06:29	COM4	12.45	6.10	1022.00	PUMP 640 SKS OF GASSTOP @ 13.2 LB/GAL, 1.56 YIELD, 7.61 GAL/SK, 177.8 BBLs, CALCULATED TOL @ 1791', MIX WATER MIXED WITH 1600 GAL OF LATEX AND 20 GAL D-AIR, DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	14	Pump Tail Cement	Pump Tail Cement	9/20/2019	07:29:53	COM4	13.35	8.30	534.00	PUMP 1110 SKS OF ECONOCEM @ 13.5 LB/GAL, 1.69 YIELD, 8.08 GAL/SK, 334.1 BBLs, CALCULATED TOT @ 7505', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	15	Shutdown	Shutdown	9/20/2019	08:12:30	COM4	13.64	0.00	144.00	SHUTDOWN TO CLEAN PUMPS/LINES AND DROP TOP PLUG.
Event	16	Drop Top Plug	Drop Top Plug	9/20/2019	08:20:34	COM4	8.55	0.00	-11.00	TOP PLUG LEFT PLUG CONTAINER, VERIFIED BY COMPANY MAN.
Event	17	Pump Displacement	Pump Displacement	9/20/2019	08:20:37	COM4	8.55	0.00	-11.00	BEGIN PUMPING 425 BBL OF FRESH WATER DISPLACEMENT, FIRST 20 BBL WITH 10 GAL MMCR, 5 GAL OF BIOCIDES THROUGH OUT.
Event	18	Bump Plug	Bump Plug	9/20/2019	09:16:20	COM4	8.43	0.00	2515.00	PLUG BUMPED AT CALCULATED DISPLACEMENT, 25 BBL OF SPACER TO SURFACE.
Event	19	Other	Casing Test	9/20/2019	09:18:14	COM4	8.46	0.00	3023.00	15 MIN CASING TEST AT 3000 PSI.
Event	20	Other	Shift Tool	9/20/2019	09:31:48	USER	8.48	0.00	3273.00	PRESSURE UP TO SHIFT WET SHOE SUB, TOOL SHIFTED AT 4525 PSI.
Event	21	Other	Wet Shoe	9/20/2019	09:33:07	USER	8.51	1.90	3389.00	PUMP A 3 BBL WET SHOE.
Event	22	Check Floats	Check Floats	9/20/2019	09:34:50	USER	8.46	0.00	1503.00	RELEASED PRESSURE BACK TO THE TRUCK, FLOATS HELD, 2.5 BBL BACK.
Event	23	End Job	End Job	9/20/2019	09:36:18	COM4	8.46	0.00	-8.00	END JOB DATA RECORDING.

Event	24	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	9/20/2019	09:40:00	USER	8.17	0.00	-9.00	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	25	Rig-Down Completed	Rig-Down Completed	9/20/2019	10:30:00	USER				ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL.
Event	26	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	9/20/2019	10:40:00	USER				DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.
Event	27	Crew Leave Location	Crew Leave Location	9/20/2019	11:00:00	USER				THANK YOU FOR USING HALLIBURTON - THOMAS HAAS AND CREW.

3.0 Attachments

3.1 Sarchet 21-1HZ Production – Job Chart

