

The Road to Excellence Starts with Safety

Sold To #: 300466		Ship To #: 0003959504		Quote #: 0022626486		Sales Order #: 0905971958				
Customer: ANADARKO PETROLEUM CORP-EBUS					Customer Rep: SAM ANTRIM					
Well Name: SARCHET			Well #: 21-2HZ			API/UWI #: 05-123-50072-00				
Field: WATTENBERG		City (SAP): PLATTEVILLE		County/Parish: WELD			State: COLORADO			
Legal Description: SW SW-21-3N-66W-625FSL-341FWL										
Contractor: PRECISION DRLG					Rig/Platform Name/Num: PRECISION 464					
Job BOM: 7523 7523										
Well Type: HORIZONTAL GAS										
Sales Person: HALAMERICA\HX41066					Srv Supervisor: Nikolaus Kornafel					
Job										
Formation Name										
Formation Depth (MD)		Top			Bottom					
Form Type					BHST					
Job depth MD		18365ft			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		J-55	0	1861	0	0
Casing		5.5	4.892	17	LTC	HCP110	0	18365	0	0
Open Hole Section			7.875				1861	18376	0	0
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	5.5	1		18365		Top Plug	5.5	1		
Float Shoe	5.5					Bottom Plug	5.5	1		
Float Collar	5.5	1		18356						
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 ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	SPACER	TUNED PRIME CEMENT SPACER SYS	115	bbl	10.5	6.17	39.6	6	4,144

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	LATEX LEAD CEMENT	GASSTOP (TM) SYSTEM	640	sack	13.2	1.56	7.61	8	4,870

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	TAIL CEMENT	ECONOCEM (TM) SYSTEM	1120	sack	13.5	1.69	8.07	8	9,038

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
5	Water and MMCR	Water and MMCR	20	bbl	8.34			10	
0.50 gal/bbl		MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)							

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
6	Biocide Water	Biocide Water	405	bbl	8.34			8	

Cement Left In Pipe	Amount	Reason	Shoe Joint
Mix Water:	pH 7	Mix Water Chloride: 0 ppm	Mix Water Temperature: 64 °F
Cement Temperature:	N/A	Plug Displaced by: 8.33 lb/gal	Disp. Temperature: 64 °F
Plug Bumped?	Yes	Bump Pressure: 2,318 psi	Floats Held? Yes
Cement Returns:	0 bbl	Returns Density: N/A	Returns Temperature: N/A

Comment: PUMPED 115 BBLs OF SPACER THEN DROPPED THE BOTTOM PLUG THEN PUMPED 178 BBLs OF LATEX LEAD CEMENT FOLLOWED BY 337 BBLs OF TAIL CEMENT. DROPPED THE TOP PLUG THEN PUMPED 426 BBLs OF FRESH WATER DISPLACEMENT. BUMPED THE PLUG AT 2,318 PSI. BROUGHT PRESSURE TO 3,000 PSI FOR A 15 MIN CASING TEST AND THEN PRESSURED UP TO 4,818 PSI TO SHIFT THE WET SHOE SUB AND PUMPED A 3 BBL WET SHOE, CHECKED FLOATS 3 BBLs BACK TO THE TRUCK, FLOATS HELD. 20 BBLs OF SPACER BACK TO SURFACE.

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DS 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	Call Out	Call Out	9/15/2019	00:00:01	USER					CREW CALLED OUT AT 00:00, REQUESTED ON LOCATION 06:00. CREW PICKED UP CEMENT, CHEMICALS, AND PLUG CONTAINER FROM FT. LUPTON, CO. BULK 660 10679720, BULK 660 10866497, SOFTSIDE 12051678 AND PUMP 11368474.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	9/15/2019	03:45:00	USER					CREW DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
Event	3	Crew Leave Yard	Crew Leave Yard	9/15/2019	04:00:00	USER					STARTED JOURNEY MANAGEMENT.

Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	9/15/2019	04:30:00	USER					END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING- 9.625" 36 LB/FT @ 1,861, 5.5" CASING: 17 LB/FT TOTAL 18,365', 7.875 OH HOLE 18,376' SHOE TRAC- 9', TVD- 7,375'. PUMP FRESH WATER DISPLACEMENT 426 BBLS. CASING LANDED @ 0800 09/15/2019. RIG CIRCULATED BOTTOMS UP. AT 417GPM AT 2012 PSI
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	9/15/2019	05:00:00	USER					HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP, AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	9/15/2019	05:30:00	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	9/15/2019	10:00:00	USER	-3.00	8.42	0.00	8.90	SAFETY MEETING WITH HALLIBURTON, AND RIG PERSONNEL. CREW COMMUNICATED POTENTIAL SAFETY HAZARDS, AND JOB DETAILS.
Event	8	Start Job	Start Job	9/15/2019	10:23:37	COM11	3.00	7.09	0.00	0.00	BEGIN RECORDING JOB DATA.
Event	9	Test Lines	Test Lines	9/15/2019	10:25:16	COM11	346.00	8.27	0.00	3.10	PRESSURE TESTED IRON TO 6,500 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 900 PSI, 5TH GEAR STALL OUT @ 2,100 PSI.

Event	10	Pump Spacer 1	Pump Spacer 1	9/15/2019	10:29:13	COM11	110.00	8.27	0.00	0.00	PUMP 115 BBLS OF FDP SPACER @ 10.5 LB/GAL, 6.17 FT3/SK, 39.6 GAL/SK 10 GALLONS D-AIR. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 6 BBLS/MIN @ 840 PSI.
Event	11	Check Weight	Check Weight	9/15/2019	10:43:39	COM11	749.00	10.57	6.00	65.40	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	12	Pump Lead Cement	Pump Lead Cement	9/15/2019	10:50:40	COM11	668.00	10.53	5.90	0.00	PUMPED 640 SKS OF GASSTOP LEAD CEMENT @ 13.2 LB/GAL, 1.56 FT3/SK, 7.61 GAL/SK. 178 BBLS, TOL @ 1757.45'. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 8 BBLS/MIN @ 880 PSI.
Event	13	Drop Bottom Plug	Drop Bottom Plug	9/15/2019	10:50:43	COM11	658.00	10.53	5.90	0.30	BOTTOM PLUG DROPPED BY HES SUPERVISOR.
Event	14	Check Weight	Check Weight	9/15/2019	10:53:06	COM11	684.00	13.42	7.90	15.70	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	15	Pump Tail Cement	Pump Tail Cement	9/15/2019	11:16:13	COM11	544.00	13.10	7.90	0.10	PUMPED 1,120 SKS OF ECONOCEM TAIL CEMENT @ 13.5 LB/GAL, 1.69 FT3/SK, 8.07 GAL/SK 338, BBLS. TOT CALCULATED @ 7,455.29. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 8 BBLS/MIN @ 750 PSI.
Event	16	Check Weight	Check Weight	9/15/2019	11:17:34	COM11	663.00	13.50	7.90	10.80	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.

Event	17	Check Weight	Check Weight	9/15/2019	11:26:02	COM11	616.00	13.44	8.00	77.70	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	18	Check Weight	Check Weight	9/15/2019	11:33:12	COM11	645.00	13.51	8.00	135.30	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	19	Check Weight	Check Weight	9/15/2019	11:33:18	COM11	635.00	13.50	8.00	136.10	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	20	Check Weight	Check Weight	9/15/2019	11:36:45	COM11	596.00	13.37	8.00	163.80	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	21	Shutdown	Shutdown	9/15/2019	12:00:45	COM11	113.00	12.26	0.00	339.30	SHUTDOWN TO WASH LINES.
Event	22	Drop Top Plug	Drop Top Plug	9/15/2019	12:09:53	COM11	32.00	5.89	0.00	353.90	PLUG LEFT CONTAINER, VERIFIED BY CO. MAN.
Event	23	Pump Displacement	Pump Displacement	9/15/2019	12:09:57	COM11	38.00	7.99	0.00	353.90	BEGIN CALCULATED DISPLACEMENT OF 426 BBLS WITH FRESH WATER. 10 GAL OF MMCR IN THE FIRST 20 BBLS AND 5 GAL OF BIOCIDES THROUGHOUT THE REST.
Event	24	Displ Reached Cement	Displ Reached Cement	9/15/2019	12:15:05	COM11	793.00	8.27	10.70	43.80	CAUGHT CEMENT @ 50 BBLS INTO DISPLACEMENT.
Event	25	Bump Plug	Bump Plug	9/15/2019	13:08:13	COM11	2988.00	8.36	0.00	435.90	PLUG BUMPED AT CALCULATED DISPLACEMENT. 2,318 PSI PRESSURED UP TO 3,000 PSI AND HELD FOR A 15 MINUTE TEST 20 BBLS OF SPACER RETURNED TO SURFACE.
Event	26	Pressure Up Well	Pressure Up Well	9/15/2019	13:22:53	COM11	3290.00	8.39	0.00	435.90	PRESSURED UP TO 4,818 PSI TO SHIFT THE WET SHOE SUB AND PUMPED A 3 BBL WET SHOE.
Event	27	Other	Other	9/15/2019	13:25:25	COM11	2220.00	8.30	0.00	441.20	RELEASED PRESSURE, FLOATS HELD, 3 BBLS BACK.

Event	28	End Job	End Job	9/15/2019	13:26:49	COM11	STOP RECORDING JOB DATA.
Event	29	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	9/15/2019	13:30:00	USER	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	30	Rig-Down Completed	Rig-Down Completed	9/15/2019	15:00:00	USER	ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL, AND LOCATION WAS CLEAN.
Event	31	Safety Meeting - Departing Location	Safety Meeting - Departing Location	9/15/2019	15:15:00	USER	CREW DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.
Event	32	Crew Leave Location	Crew Leave Location	9/15/2019	15:30:00	USER	THANK YOU FOR USING HALLIBURTON – NICK KORNAFEL AND CREW.

3.0 Attachments

3.1 ANADARKO SARCHET 21-2HZ PRODUCTION-Custom Results.png

