

# 11-13-043-13 W5M

**Customer: PTRHTF20271**  
 Peyto Exploration & Development Cor...  
 Aurora, AB CA  
 Attn: Matt Hodgson  
 Tel: (780)517-9967  
 E-Mail: mhodgson@peyto.com

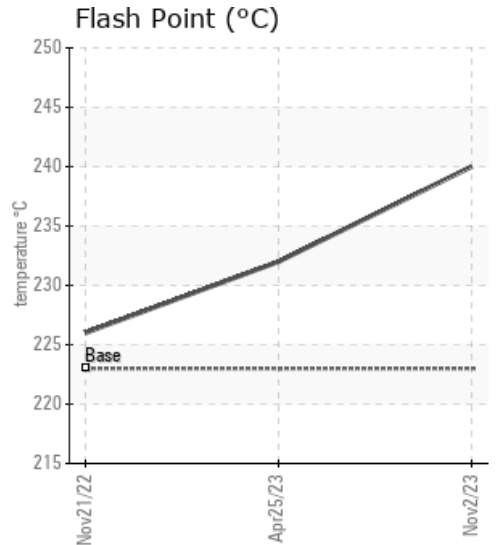
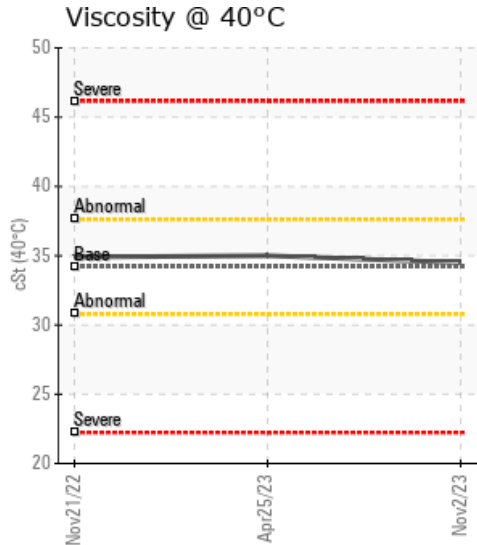
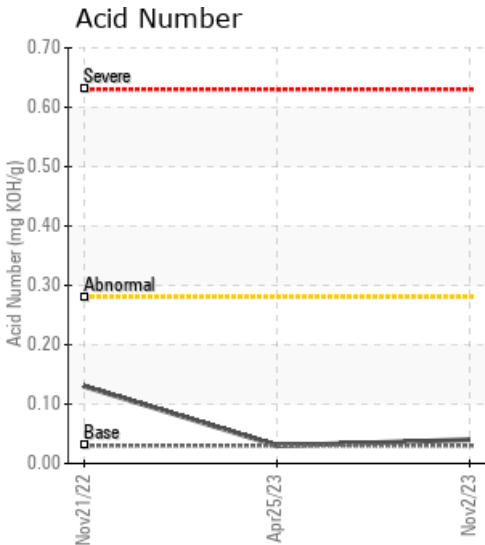
**System Information**  
 System Volume: 20230 ltr  
 Bulk Operating Temp: 932F / 500C  
 Heating Source:  
 Blanket:  
 Fluid: PETRO CANADA PETRO-THERM  
 Make: RUSHTON

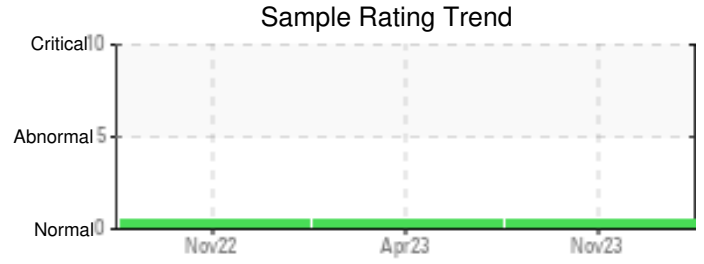
**Sample Information**  
 Lab No: 02594406  
 Analyst: Lyle Dach  
 Sample Date: 11/02/23  
 Received Date: 11/06/23  
 Completed: 11/09/23  
 Lyle Dach  
 lyle.dach@HFSinclair.com

Recommendation: Sample results indicate that the fluid is in suitable condition for continued service. Resample in 12 months.

Comments:

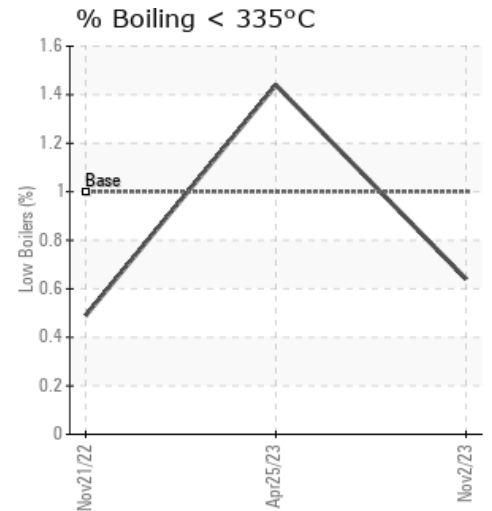
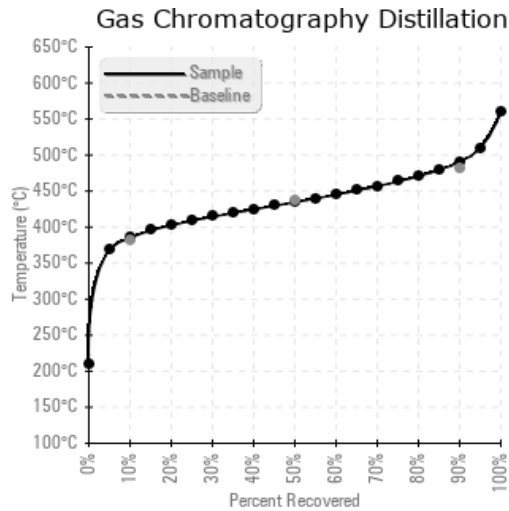
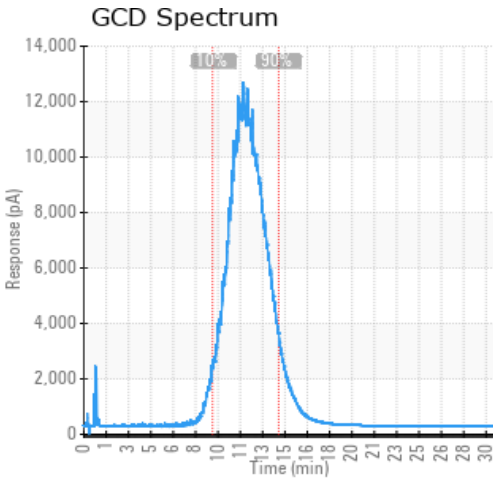
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
11/02/23	11/06/23	5.5y	suction to pump	464 / 240	4.0	34.5	0.04	0.018	725 / 385	814 / 435	915 / 491	0.64
04/25/23	04/27/23	5.0y	suction to pump	450 / 232	6.0	35.0	0.03	0.085	721 / 383	812 / 434	909 / 487	1.44
11/21/22	11/28/22	4.5y		439 / 226	21.3	34.9	0.13	0.031	728 / 387	815 / 435	915 / 491	0.49
Baseline Data				433 / 223		34.2	0.03		720 / 382	817 / 436	900 / 482	1.00





Sample Date	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
11/02/23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/25/23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/21/22	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Baseline Data</b>			0	0						0		0	0					0				0		

Elemental analysis results (above) in parts per million (ppm). [10,000 ppm = 1.0%]



### Historical Comments

04/25/23	Sample results indicate that the fluid is in suitable condition for continued service. Resample in 12 months.
11/21/22	Sample results indicate that the fluid is in suitable condition for continued service. Resample in 12 months.

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