

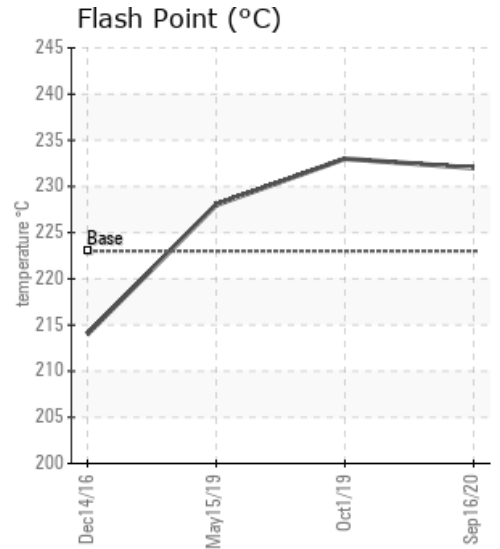
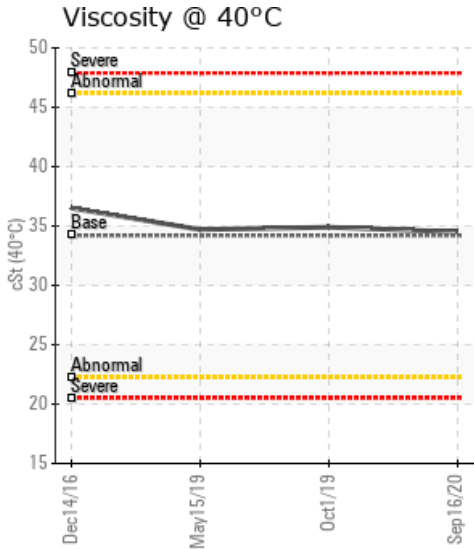
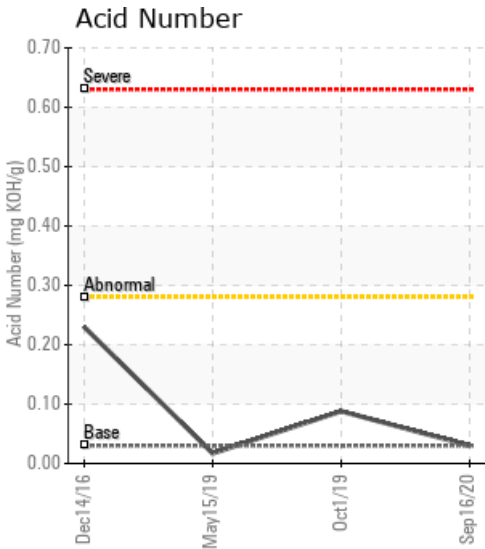
[12-31-53-19W5] H-810

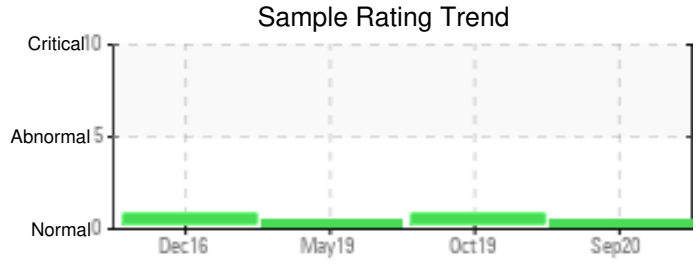
Customer: PTRHTF20229	System Information	Sample Information
PEYTO EXPLORATION Box 7198 EDSON, AB T7E 1V4 CA Attn: Steve Warren Tel: (780)712-5616 E-Mail: swarren@peyto.com	System Volume: 10000 ltr Bulk Operating Temp: 392F / 200C Heating Source: Blanket: Fluid: PETRO CANADA PETRO-THERM Make: HEATTEC	Lab No: 02376881 Analyst: Terry Veenstra Sample Date: 09/16/20 Received Date: 09/21/20 Completed: 10/06/20 Terry Veenstra terry.veenstra@HFSinclair.com

Recommendation: Fluid appears to be in good condition. Continue to operate and resample in 6 months.

Comments:

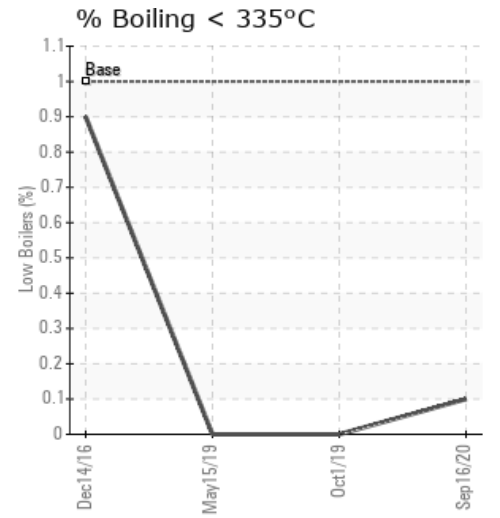
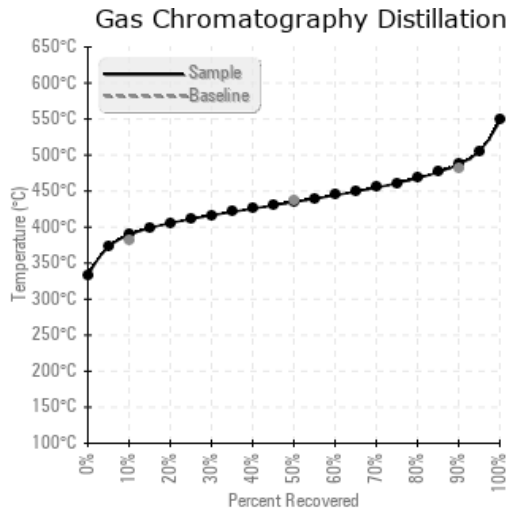
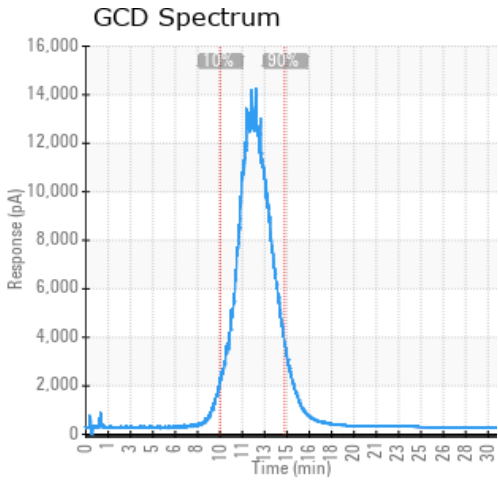
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
09/16/20	09/21/20	0.0y		450 / 232	3.3	34.5	0.03	0.106	732 / 389	815 / 435	909 / 487	0.10
10/01/19	10/07/19	4.0y		451 / 233	0.00	34.9	0.088	0.091	743 / 395	830 / 444	930 / 499	0.00
05/15/19	05/22/19	4.0y		442 / 228	3.3	34.7	0.017	0.058	723 / 384	809 / 431	906 / 486	0.00
12/14/16	12/19/16	6.0y	REBOILER BOTTOM	417 / 214	4.3	36.5	0.230	0.140	719 / 381	815 / 435	919 / 493	0.90
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
09/16/20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/01/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/15/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12/14/16	3	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0
Baseline Data			0	0						0			0	0					0				0	

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



Historical Comments	
10/01/19	The fluid is in good condition and suitable for further use. The 90% GCD temperature is high but this will not affect the performance of the fluid. Please re-sample in 6 months. (GCD) 90% Distillation Point is abnormally high.
05/15/19	The fluid is in good condition and suitable for further use. Please re-sample in 6 months.
12/14/16	The fluid is in good condition and suitable for further use. The 90% GCD temperature has increased as a result of fluid oxidation. The level of oxidation is normal for a fluid that has 6 years of service life. Ensure blanket gas is in place to prevent contact between the hot fluid and outside air. Please re-sample in 12 months. (GCD) 90% Distillation Point is marginally high.

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