

**[12-31-53-19W5] H-431**

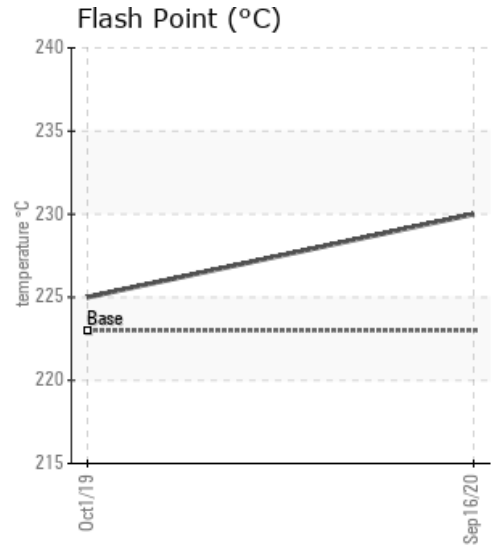
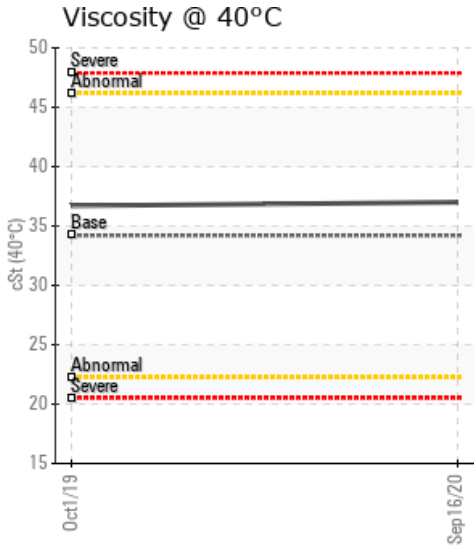
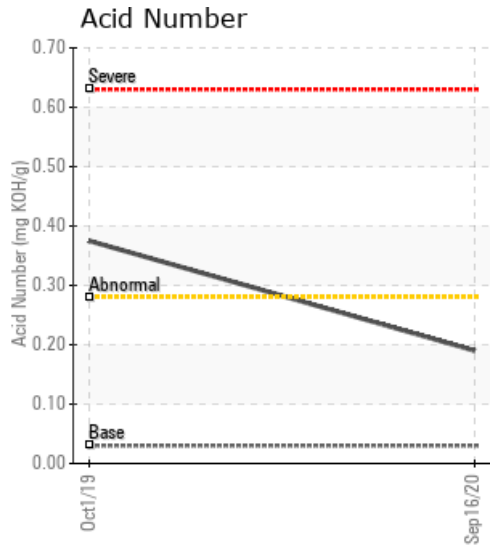
**Customer: PTRHTF20229**  
 PEYTO EXPLORATION  
 Box 7198  
 EDSON, AB T7E 1V4 CA  
 Attn: Steve Warren  
 Tel: (780)712-5616  
 E-Mail: swarren@peyto.com

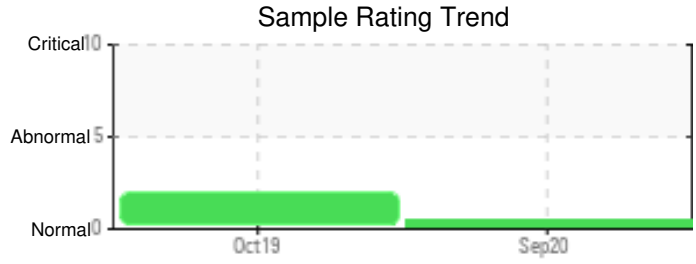
**System Information**  
 System Volume: 0 ltr  
 Bulk Operating Temp: Not Specified  
 Heating Source:  
 Blanket:  
 Fluid: PETRO CANADA PETRO-THERM  
 Make:

**Sample Information**  
 Lab No: 02376882  
 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:

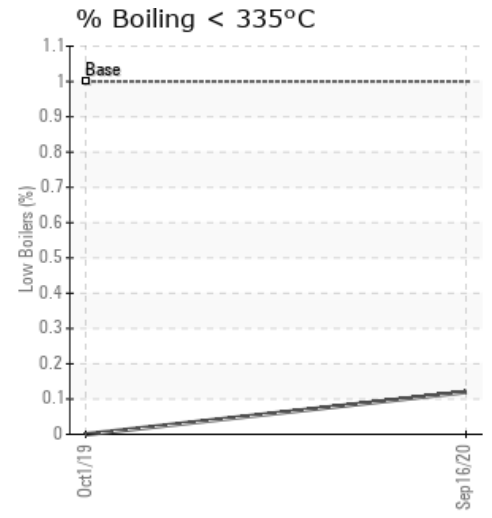
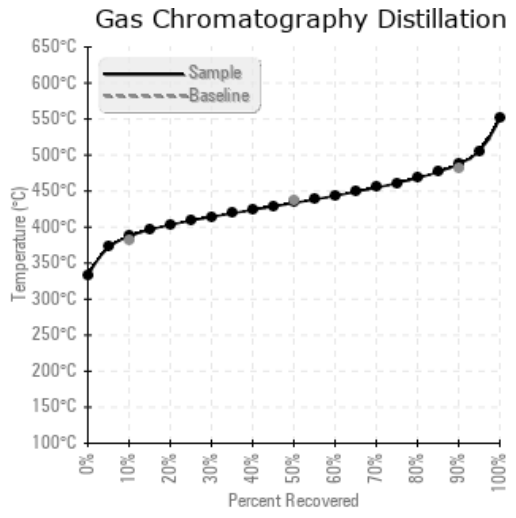
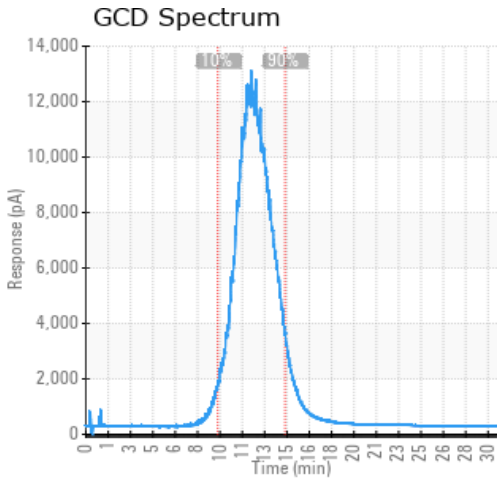
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
09/16/20	09/21/20	0.0y	Bottom/non ciruc	446 / 230	9.9	37.0	0.19	0.147	728 / 387	812 / 434	909 / 487	0.12
10/01/19	10/07/19	6.0y		437 / 225	5.3	36.7	0.375	0.421	737 / 392	812 / 433	898 / 481	0.00
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	2	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0
10/01/19	2	0	0	0	0	0	0	0	0	0	10	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 a fair condition and suitable for further use. AN is slightly elevated. This indicates some light fluid degradation. Pentane Insoluble (solids) content (0.42%) is getting close to the reportable limit of 0.5%. Filtration of the fluid is recommended. Please re-sample in 6 months. Pentane Insolubles levels are abnormally high. Acid Number (AN) is abnormally high.

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