

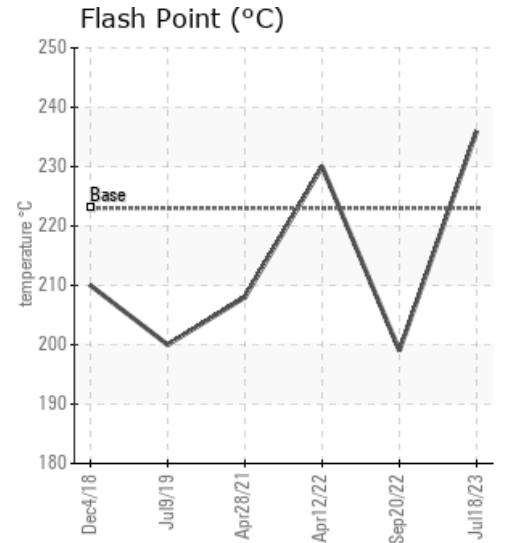
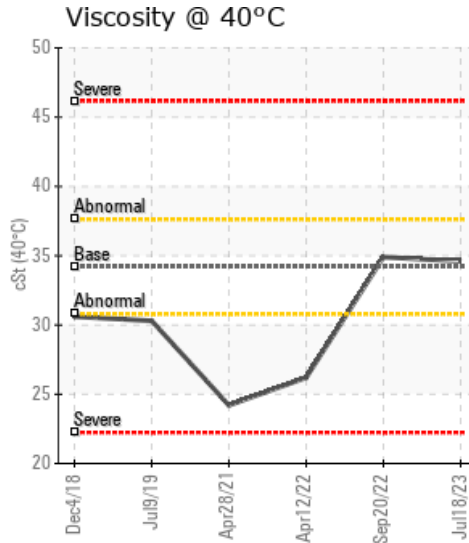
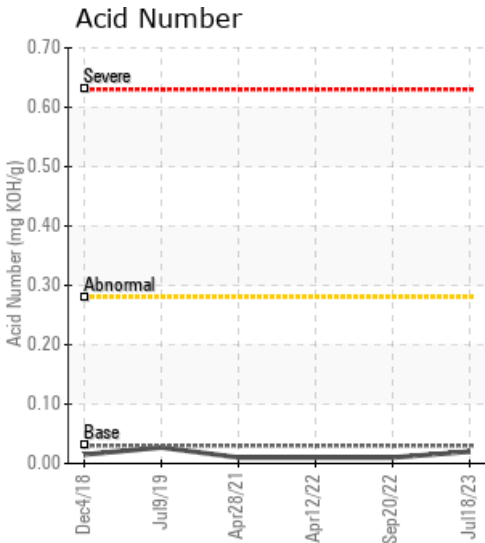
H-60

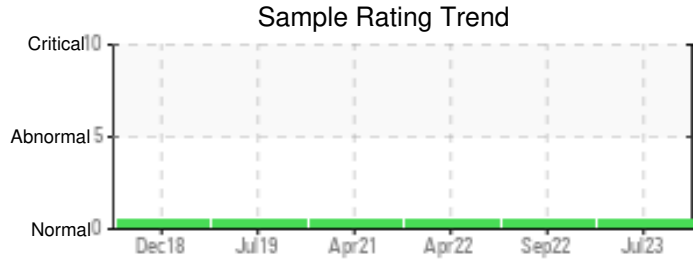
Customer: PTRHTF20208	System Information	Sample Information
Plains Midstream Canada PO Box 3210 Range Road 221 Fort Saskatchewan, AB T8L 2T2 CA Attn: Marlon Gonzalez Tel: (780)992-2724 E-Mail:	System Volume: 1000 ml Bulk Operating Temp: 482F / 250C Heating Source: Blanket: Fluid: PETRO CANADA PETRO-THERM Make:	Lab No: 02572801 Analyst: Terry Veenstra Sample Date: 07/18/23 Received Date: 07/27/23 Completed: 07/31/23 Terry Veenstra terry.veenstra@HFSinclair.com

Recommendation: Sample indicates that oil is in good condition and suitable for further use. Resample in 6 months.

Comments:

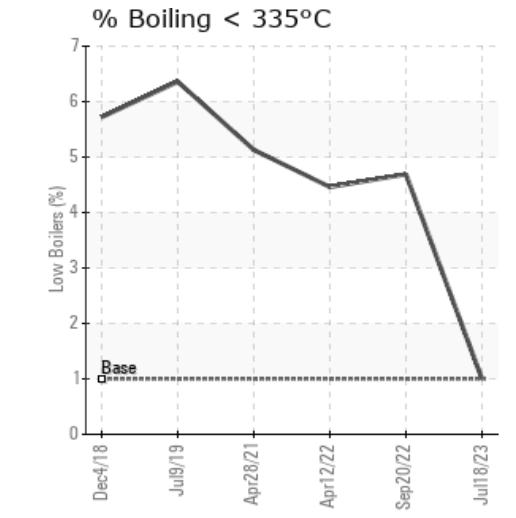
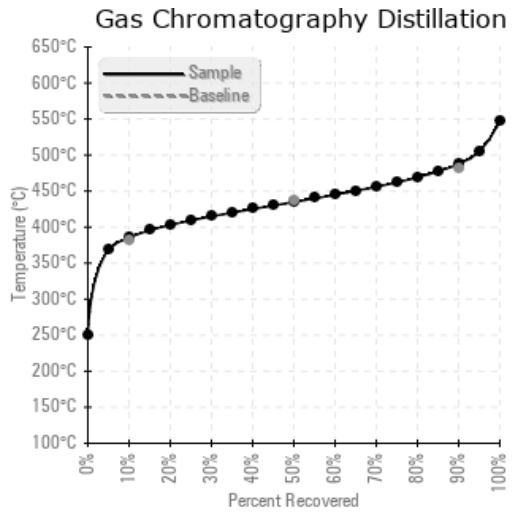
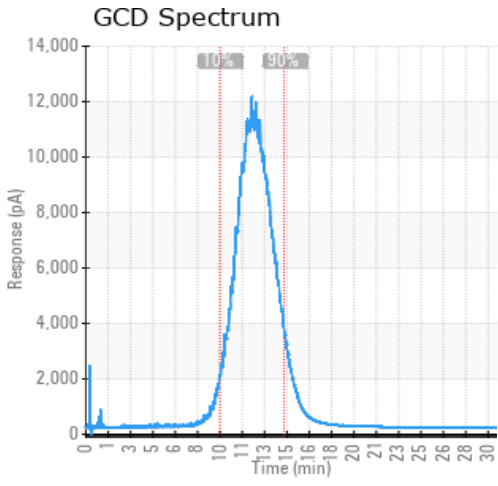
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
07/18/23	07/27/23	0.0y	after filtering syst	457 / 236	64.9	34.6	0.02	0.039	726 / 385	815 / 435	910 / 488	1.00
09/20/22	09/26/22	25.0y	AFTER FILTERING	390 / 199	17.5	34.9	0.01	0.037	668 / 353	792 / 422	880 / 471	4.69
04/12/22	04/18/22	25.0y	after filtering syst	446 / 230	10.6	26.2	0.01	0.071	669 / 354	793 / 423	882 / 472	4.46
04/28/21	05/05/21	22.0y	After filtering syst	406 / 208	11.2	24.2	0.01	0.029	663 / 351	785 / 418	878 / 470	5.13
07/09/19	07/12/19	20.0y		392 / 200	6.7	30.3	0.027	0.038	654 / 346	779 / 415	869 / 465	6.36
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	
07/18/23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
09/20/22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/12/22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/28/21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07/09/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	
09/20/22	This sample indicates that the oil is in good condition and suitable for continued use. Resample in 6 months.
04/12/22	This oil viscosity is 26.2 cSt @ 40°C so is a blend of Thermoil 32 and PetroTherm. The TAN is still quite low at 0.01mgKOH/g and the flash point is still good @ 230°C indicating the fluid is in pretty good shape. The Pentane Insolubles are at 0.071% which suitable for further use.
04/28/21	This oil viscosity is 30.6 cSt @ 40°C so is a blend of Thermoil 32 and PetroTherm. The TAN is still quite low at 0.01mgKOH/g and the flash point is still good @ 208°C indicating the fluid is in pretty good shape. The Pentane Insolubles are at 0.029% which suitable for further use.
07/09/19	This sample indicates that the oil is good condition and suitable for further use. Resample in 6 months

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