

[SYNLUBE (THAILAND)] CARGILL MEAT (KORAT) FP3

Customer: PTRHTF60010
 SYNLUBE INTERNATIONAL CO LTD
 76/1 MOO.7 THACHIN
 MUANG SAMUTSAKHON, 74000
 THAILAND
 Attn: CHERNPORN CHOBKUI
 Tel: 034421290
 E-Mail: chernporn@synlube.co.th

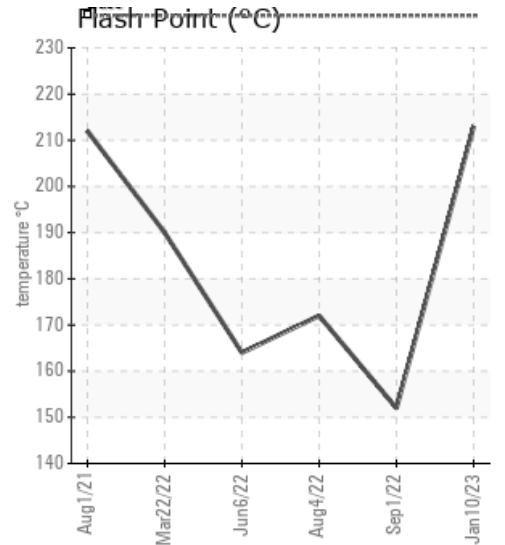
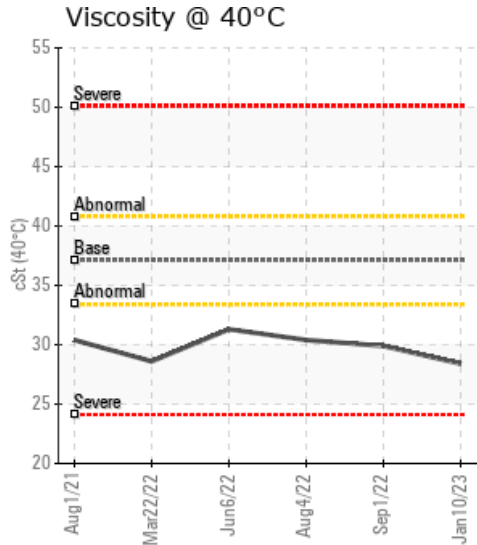
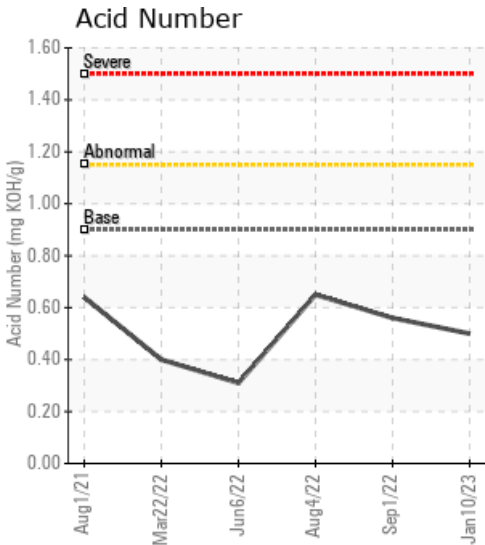
System Information
 System Volume: 9026 ltr
 Bulk Operating Temp: 545F / 285C
 Heating Source:
 Blanket:
 Fluid: PETRO CANADA PURITY FG HEAT TRANSFER FLUID
 Make: GETABAC

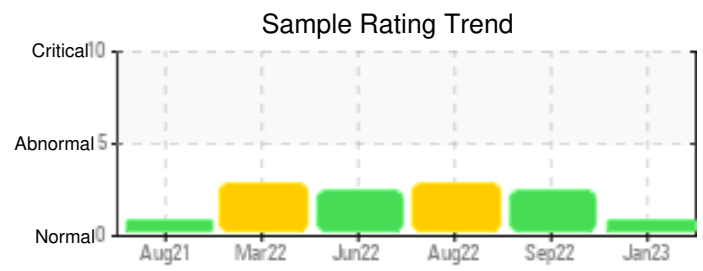
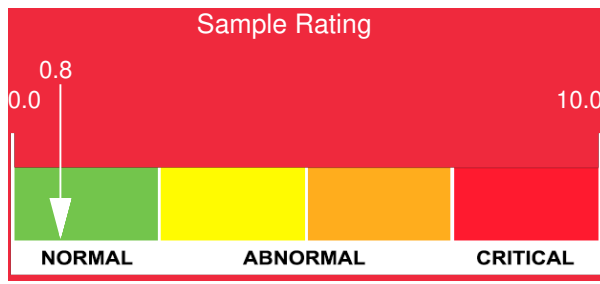
Sample Information
 Lab No: 02541891
 Analyst: Bill Quesnel CLS,OMA II,MLA-III,LLA-I
 Sample Date: 01/10/23
 Received Date: 02/27/23
 Completed: 03/09/23
 Bill Quesnel CLS,OMA II,MLA-III,LLA-I

Recommendation: The flash point has been restored. If you were venting the expansion tank, continue to do so every month to reduce the amount of light ends present in the thermal fluid. The fluid is suitable for further service. Resample at the next service interval to monitor.

Comments: (GCD) 90% Distillation Point is marginally high.

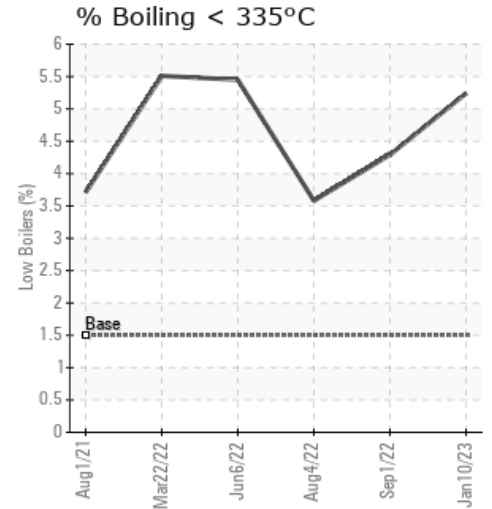
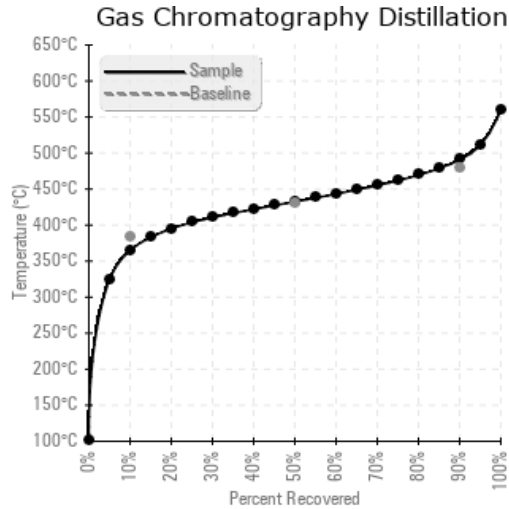
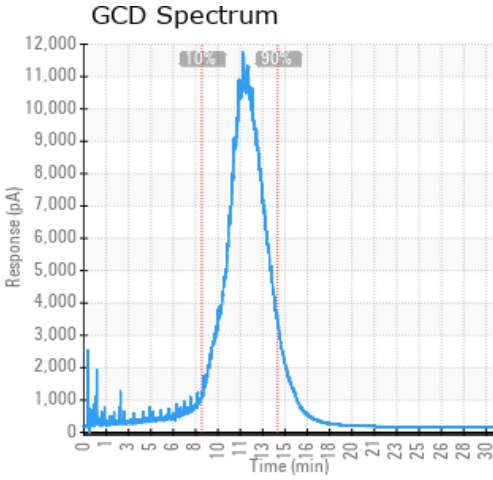
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
01/10/23	02/27/23	29.0m		415 / 213	0.00	28.4	0.50	0.035	689 / 365	811 / 433	915 / 491	5.24
09/01/22	09/09/22	25.0m		306 / 152	16.1	29.9	0.56	0.067	698 / 370	812 / 433	915 / 491	4.29
08/04/22	08/22/22	24.0m	FIRER NO8 SUPPLY RTN	342 / 172	12.7	30.4	0.65	0.042	703 / 373	813 / 434	917 / 491	3.58
06/06/22	06/28/22	22.0m	Firer No. 8	327 / 164	16.8	31.3	0.31	0.049	693 / 367	813 / 434	914 / 490	5.45
03/22/22	04/05/22	19.0m	Firer No. 8	374 / 190	272.0	28.6	0.40	0.058	693 / 367	813 / 434	912 / 489	5.51
Baseline Data				459 / 237		37.12	0.90		721 / 383	807 / 431	892 / 478	1.5





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	
01/10/23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	
09/01/22	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0
08/04/22	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0
06/06/22	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0
03/22/22	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	0
Baseline Data			0	0						0			0	0				0	0					230	

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



Historical Comments

09/01/22	If venting was carried out, the flash point has not been restored. Site was visited 14th June and oil change recommended including a clean and flush of the system. Continue to vent the expansion tank until an oil change is carried out. Resample to monitor in 3 months time. COC Flash Point is severely low. (GCD) 90% Distillation Point is marginally high.
08/04/22	If venting was carried out, the flash point has not been restored. Site was visited 14th June and oil change recommended including a clean and flush of the system. Continue to vent the expansion tank until an oil change is carried out. Resample to monitor in 3 months time. COC Flash Point is severely low. (GCD) 90% Distillation Point is marginally high.
06/06/22	Sharp decline in flash point in a short period of time. Site visited 14th June and oil change recommended including a clean and flush of the system. COC Flash Point is severely low. (GCD) 90% Distillation Point is marginally high.
03/22/22	Recommend vent the expansion tank to attempt to remove low boilers that are reducing the flash point. Resample at next normal interval to monitor. COC Flash Point is abnormally low. (GCD) 90% Distillation Point is marginally high.

Petro-Canada makes no representation or warranty of any kind, either express or implied, as to the accuracy or completeness of the analysis and assumes no responsibility and shall have no liability whatsoever with respect to such analysis, or a party's use of it. Petro-Canada is a division of HollyFrontier Corporation.