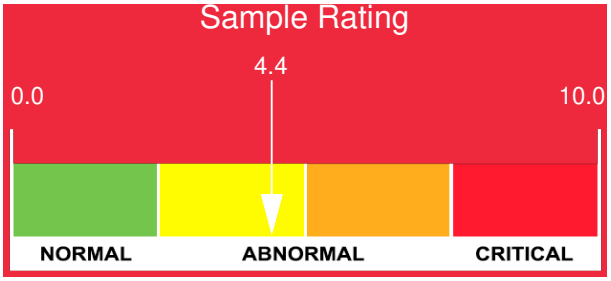
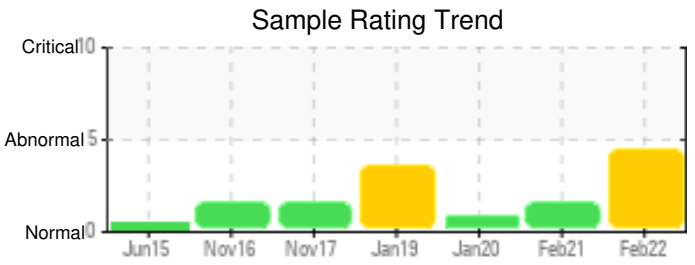




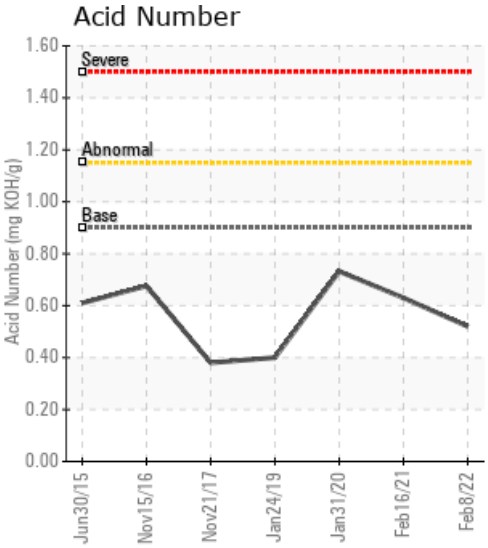
WANSON 600LNE

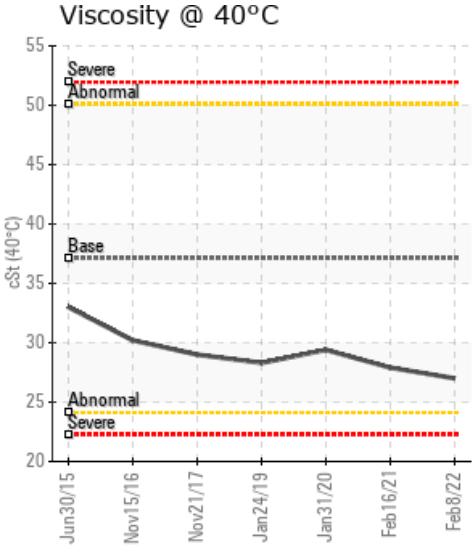
Customer: PTRHTF40017	System Information	Sample Information
INTERSNACK BV HAVENSTRAAT 62 GELDERLAND DOETINCHEM, GEL NETHERLANDS Attn: Maintenance Manager Tel: E-Mail:	System Volume: 2600 ltr Bulk Operating Temp: Not Specified Heating Source: Blanket: Fluid: PETRO CANADA PURITY FG HEAT TRANSFER FLUID Make: WANSON	Lab No: 02471935 Analyst: Bill Quesnel CLS,OMA II,MLA-III,LLA-I Sample Date: 02/08/22 Received Date: 02/14/22 Completed: 02/24/22 Bill Quesnel CLS,OMA II,MLA-III,LLA-I

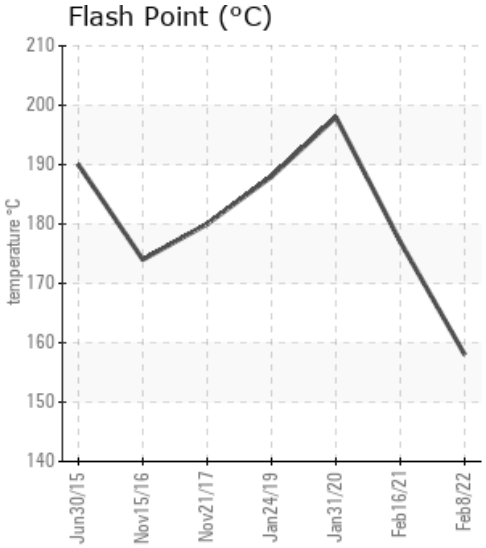
Recommendation: All parameters within acceptable limits except for the COC Flash Point. Ne details on system temperature so please provide these. The fluid has been successfully recovered in recent months, recommend this is attempted by venting if it can be done safely. The GCD curve shows evidence of thermal cracking and the viscosity loss (although not critical) supports this is some way. Recommend system is vented and system temperatures are loaded into the oil analysis program.

Comments: COC Flash Point is severely low. (GCD) % < 335°C is marginally high. (GCD) 10% Distillation Point is marginally low.

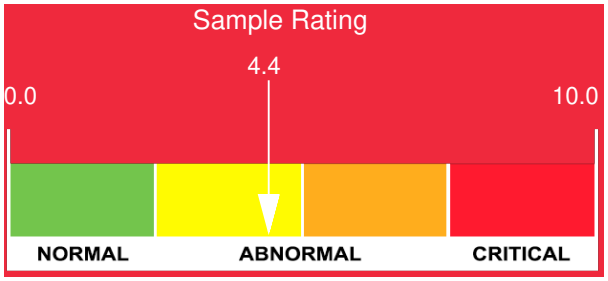
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
02/08/22	02/14/22	8.0y		316 / 158	24.5	27.0	0.52	0.090	654 / 346	799 / 426	904 / 484	8.27
02/16/21	02/22/21	7.0y		351 / 177	51.9	27.9	0.63	0.141	670 / 355	801 / 427	906 / 485	7.04
01/31/20	02/11/20	6.0y		388 / 198	56.7	29.4	0.732	0.068	738 / 392	816 / 435	914 / 490	0.00
01/24/19	02/04/19	5.0y		370 / 188	35.1	28.3	0.400	0.050	644 / 340	776 / 414	885 / 474	8.61
11/21/17	11/27/17	4.0y		356 / 180	12.3	29.0	0.38	0.075	669 / 354	776 / 413	865 / 463	5.86
Baseline Data				459 / 237		37.12	0.90		721 / 383	807 / 431	892 / 478	1.5

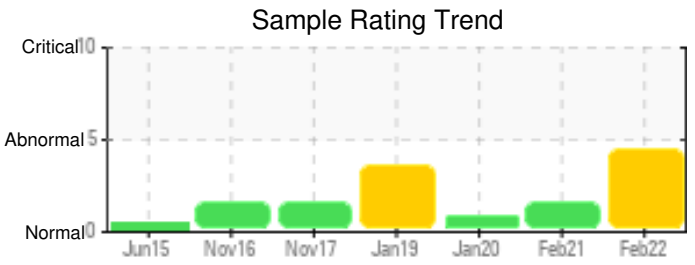






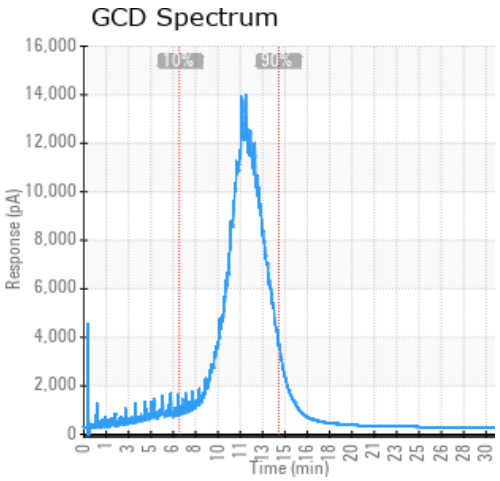
PETRO-CANADA LUBRICANTS

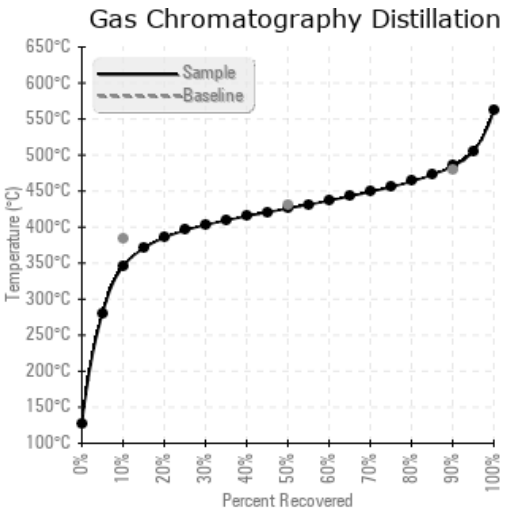


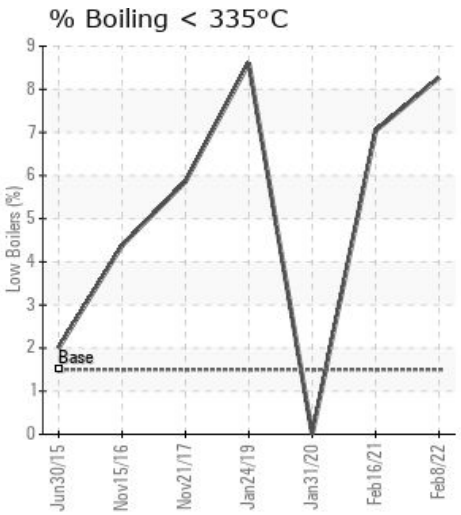


Sample Date	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
02/08/22	10	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0
02/16/21	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	0
01/31/20	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33	0
01/24/19	17	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1
11/21/17	12	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
Baseline Data			0	0						0			0	0				0	0				230	

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







Historical Comments

02/16/21	All parameters within acceptable limits except for the COC Flash Point. Ne details on system temperature so please provide these. The fluid has been successfully recovered in recent months, recommend this is attempted by venting if it can be done safely. The GCD curve shows evidence of thermal cracking and the viscosity loss (although not critical) supports this is some way. Recommend system is vented and system temperatures are loaded into the oil analysis program. COC Flash Point is severely low.
01/31/20	Fluid improved/recovered from previous analysis results. Please resample at normal frequency, oil fit for further use (GCD) 90% Distillation Point is abnormally low. COC Flash Point is marginally low. (GCD) % < 335°C measurement of 0.00% too low, but will have been decreased as Flash Point has increased.
01/24/19	COC low but improved from previous samples, was some form of venting done. 10% Dist point also marginally low. If can be done safely attempt to do further venting and raise both values. Viscosity trending downwards but within limits. Sample condition worsening showing signs of aging. Fit for further use and sample again at normal frequency COC Flash Point is abnormally low. (GCD) 10% Distillation Point is abnormally low. (GCD) % < 335°C is marginally high.
11/21/17	Light molecules increased substantially over the 3 samples, may be worth de-gassing if possible to remove. Flash point consistently low but marginally improved on previous sample, but lower than expected. Syuspect the fluid may have been partially changed (?) to increase the flash point. Suggest to monitor closely and if the flash point cannot be recovered look to change at next convenient point COC Flash Point is abnormally low. (GCD) 90% Distillation Point is abnormally low.