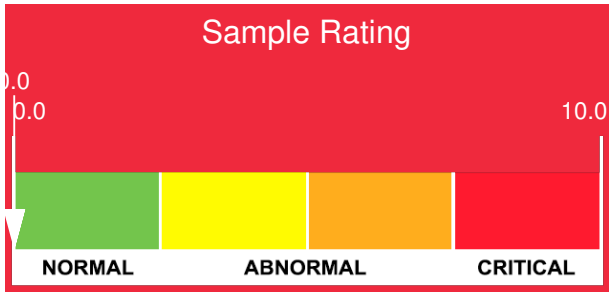
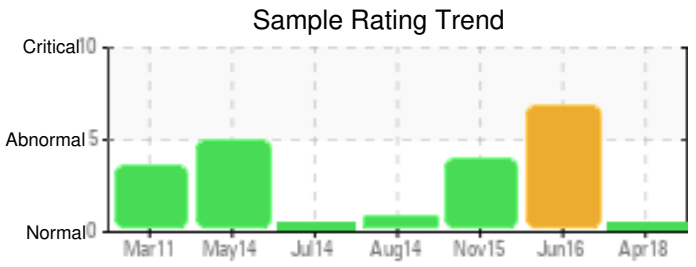




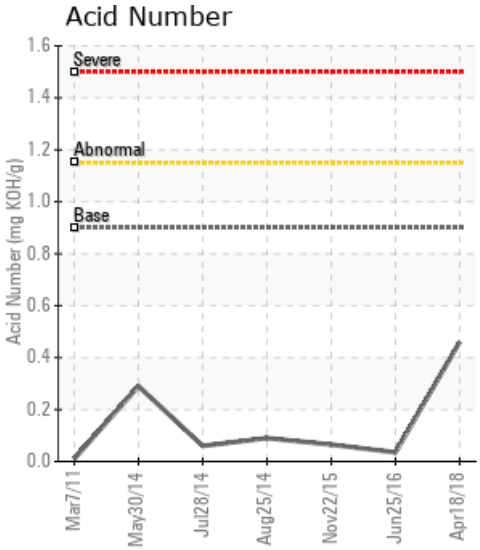
GFPT-FURTHER#1#2

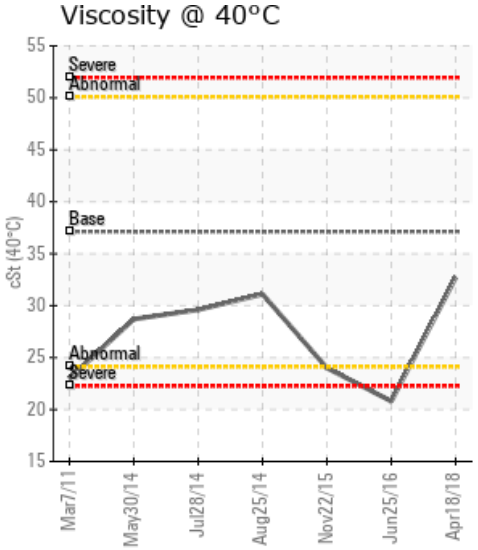
Customer: PTRHTF60010	System Information	Sample Information
SYNLUBE INTERNATIONAL CO LTD 76/1 MOO.7 THACHIN MUANG SAMUTSAKHON, 74000 THAILAND Attn: CHERNPORN CHOBKUI Tel: 034421290 E-Mail: chernporn@synlube.co.th	System Volume: 7000 ltr Bulk Operating Temp: 554F / 290C Heating Source: Blanket: Fluid: PETRO CANADA PURITY FG HEAT TRANSFER FLUID Make: WANSON	Lab No: 02221716 Analyst: Yutong Gao Sample Date: 04/18/18 Received Date: 06/12/18 Completed: 06/17/18 To discuss this report contact Yutong Gao at (403)873-1876

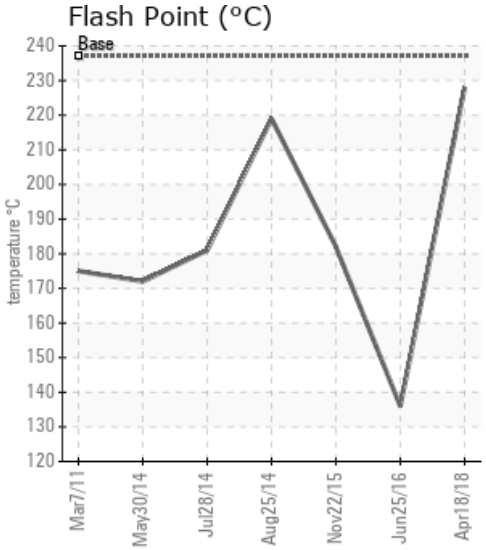
Recommendation: The fluid has adequate viscosity, flash point, distillation points. The acid number and solid content are all low. The oil is suitable for use, please take one sample in 12 months to monitor the fluid conditions.

Comments:

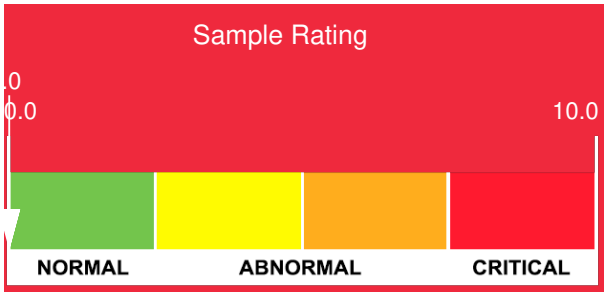
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
04/18/18	06/12/18	4m	SUPPLY RETURN	442 / 228	3.0	32.7	0.46	0.034	708 / 375	804 / 429	891 / 477	2.14
06/25/16	07/11/16	5m		277 / 136	9.6	20.8	0.035	0.087	628 / 331	795 / 424	916 / 491	10.04
11/22/15	11/30/15	60m		360 / 182	7.4	24.0	0.065	0.129	641 / 338	791 / 422	900 / 482	8.99
08/25/14	08/28/14	38m	SUPPLY/RETURN	426 / 219	0.00	31.1	0.09	0.104	726 / 385	791 / 422	880 / 471	0.00
07/28/14	08/05/14	37m	SUPPLY	358 / 181	15.0	29.6	0.06	0.039	687 / 364	802 / 428	902 / 484	4.42
05/30/14	06/18/14	34m	SUPPLY	342 / 172	13.7	28.7	0.29	0.015	648 / 342	791 / 422	886 / 475	8.37
Baseline Data				459 / 237		37.12	0.90		721 / 383	807 / 431	892 / 478	1.5

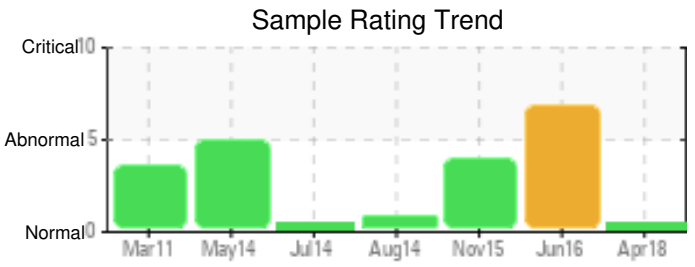






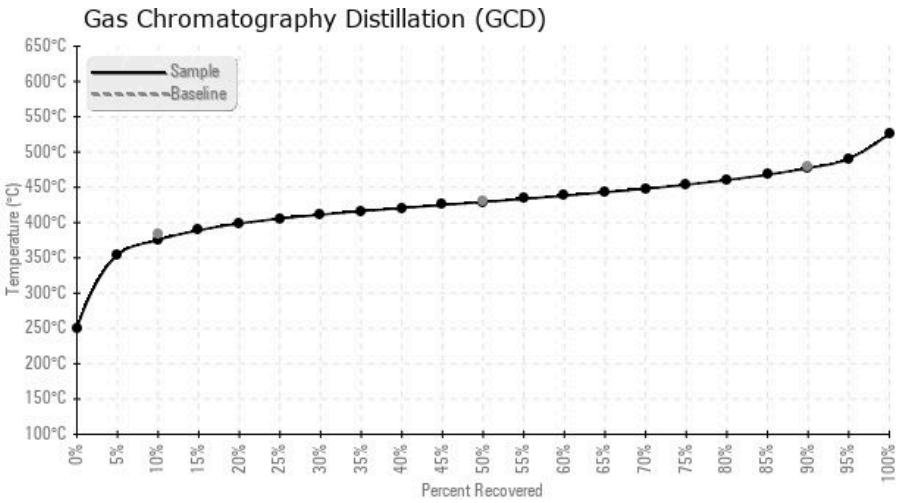
PETRO-CANADA

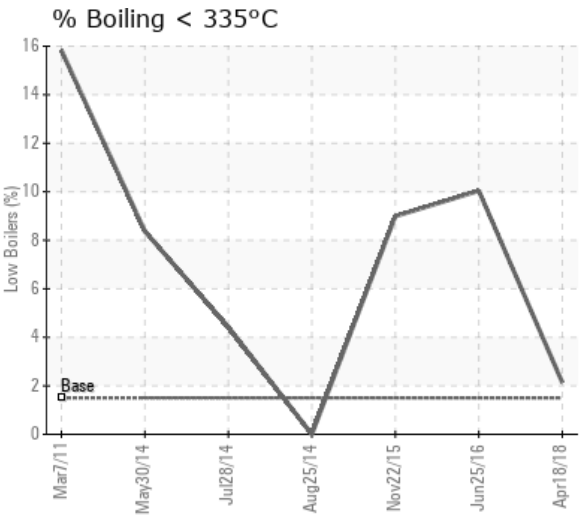




Sample Date	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
04/18/18	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	17	0
06/25/16	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29	0
11/22/15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	0
08/25/14	11	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	52	0
07/28/14	12	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	56	0
05/30/14	18	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	63	0
Baseline Data			0	0						0			0	0					0				230	

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





Historical Comments

06/25/16	(GCD) % < 335°C is abnormally high. COC Flash Point is abnormally low. (GCD) 10% Distillation Point is abnormally low. The current fluid has been thermal cracked. The high content of light boiler causes the low flash point. The system venting is required as soon as possible, otherwise the partial oil change is recommended. Please confirm the oil working hours to assist the oil analysis data interpretation.
11/22/15	The fluid experieced moderate thermal cracking, there are some light end of the fluid accumulated in the system. GCD%<335C data reading is high, the flash point is low. Please do the effective system venting as soon as possible. Please take one sample in 6~8 months to monitor the conditions. (GCD) 10% Distillation Point is low. (GCD) % < 335°C is marginally high.
08/25/14	The current fluid is in good conditions. Especially, the flash point has increased a lot comparing with the last two samples. Please take one sample in 3 months to monitor. (GCD) 90% Distillation Point is lower than the new fluid.
07/28/14	The current fluid has great improvement after the effective venting process (410 liters top up for the past 3 months). The fluid top up rate will be reduced in the future once the light end fluid has been bleed off. All of the properties return to the normal range. However, the S level seems high, please investigate the third party contamination.Keep on doing the current venting process, and take one sample in one month to monitor the condition and decide if the venting time can be cut back.
05/30/14	The current fluid has a lot of light end due to the severe thermal cracking effect at the high working temperature conditions. The immediate system venting is recommended. Please record and confirm the fluid top up rate to verify the venting effectiveness. Draw one sample in one month after the venting process to monitor. (GCD) 10% Distillation Point is abnormally low. (GCD) % < 335°C is marginally high. COC Flash Point is abnormally low. (GCD) 90% Distillation Point is marginally low.