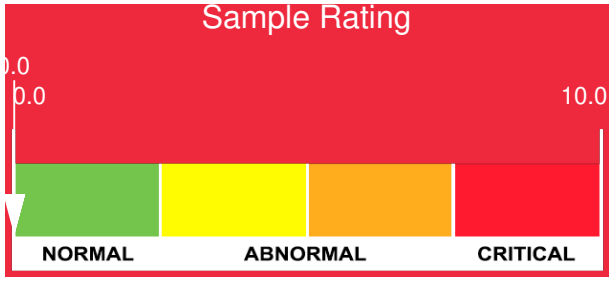
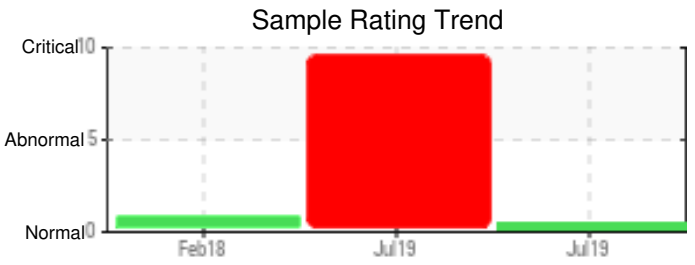




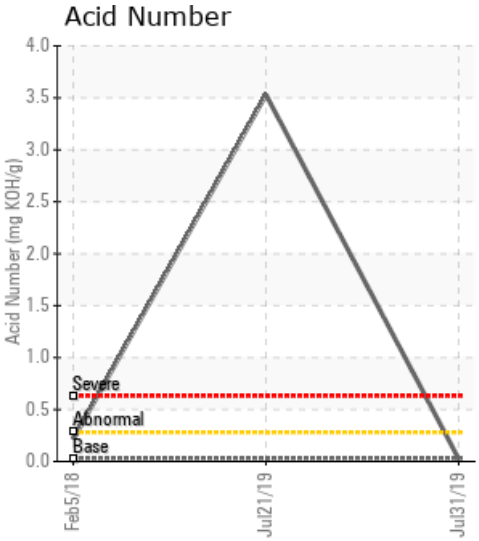
[DAIBER A-54-C/94-B-16] STABILIZER REBOILER

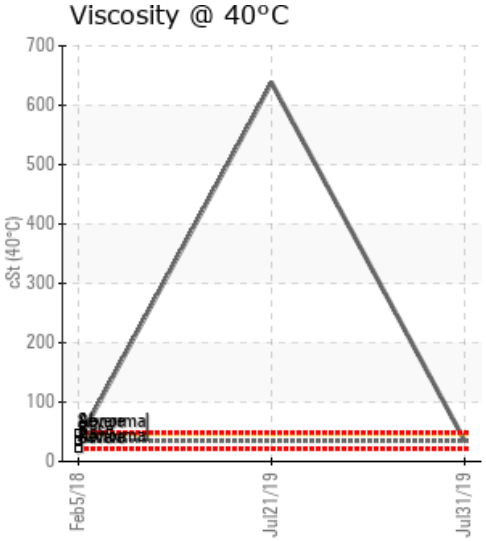
Customer: PTRHTF20194	System Information	Sample Information
KANATA ENERGY GROUP DAIBER GAS PLANT A-54-C/94-B-16 FORT ST. JOHN, BC V1J 0H8 Canada Attn: Jason Carew Tel: (250)261-9197 E-Mail: jason.carew@kanataenergy.com	System Volume: 5580 ltr Bulk Operating Temp: 293F / 145C Heating Source: Blanket: Fluid: PETRO CANADA PETRO-THERM Make: ALCO GAS & OIL	Lab No: 02302352 Analyst: Clinton Buhler Sample Date: 07/31/19 Received Date: 08/13/19 Completed: 08/14/19

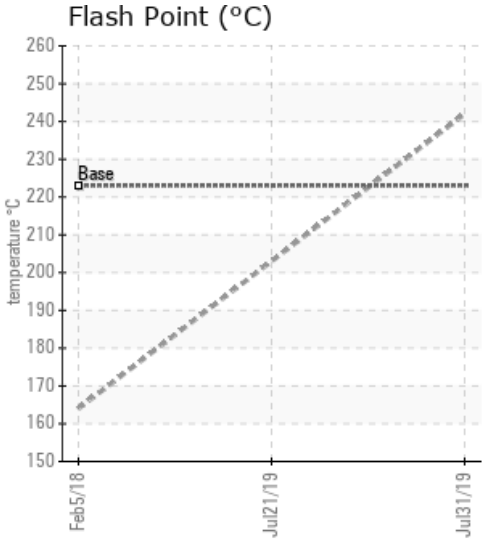
Recommendation: Sample results indicate that the heat transfer fluid is suitable for continued service. It was prudent that the fluid was re-sampled after the July 21, 2019 results as these new results show the fluid to be very healthy and free of contaminants.Please re-sample in 12 months

Comments:

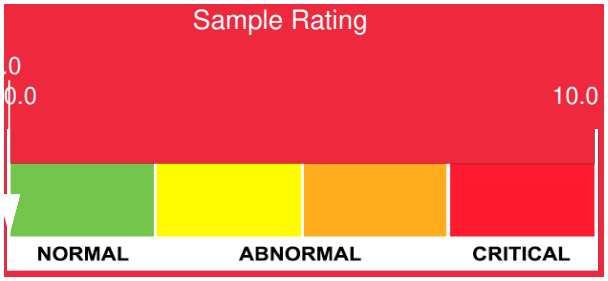
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
07/31/19	08/13/19	6m	SITE GLASS	468 / 242	29.8	34.9	0.026	0.084	717 / 380	786 / 419	886 / 475	0.00
07/21/19	07/22/19	6m	BOTTOM DRAIN		900000	638	3.53					
02/05/18	02/26/18	3m		327 / 164	159.7	34.8	0.214	0.263	707 / 375	808 / 431	912 / 489	2.37
Baseline Data				433 / 223		34.2	0.03		720 / 382	817 / 436	900 / 482	1.00

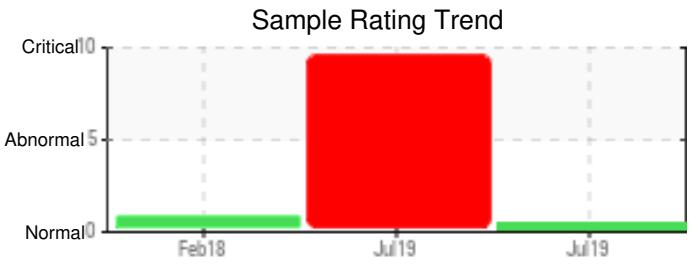






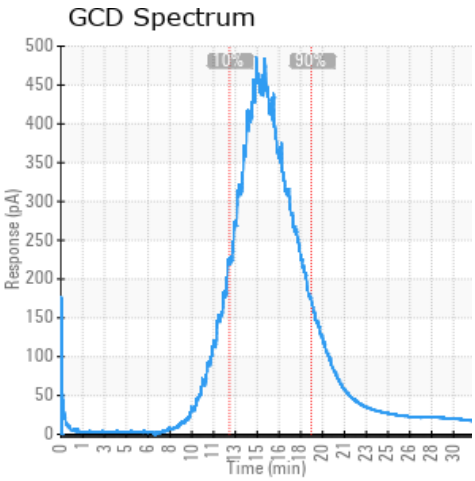
PETRO-CANADA LUBRICANTS

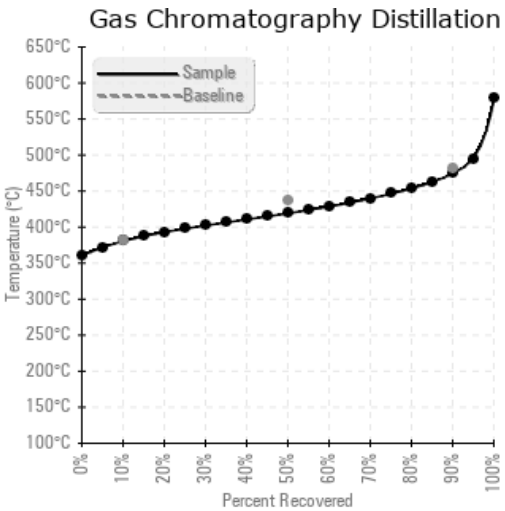


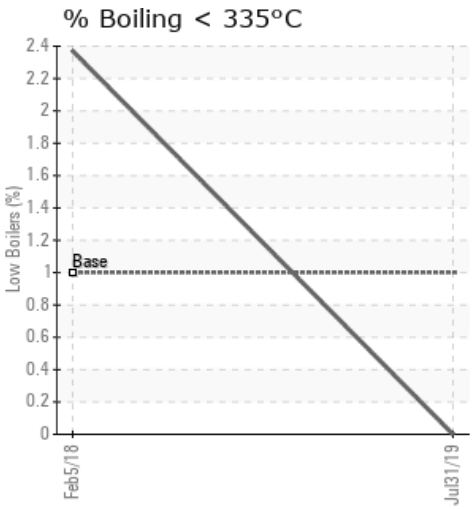


Sample Date	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
07/31/19	3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0
07/21/19																								
02/05/18	7	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
Baseline Data			0	0						0			0	0					0				0	

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







Historical Comments

07/21/19	*** Diagnostician`s Note: This sample is mostly water. Suggest the client drain off the water from the reservoir, then take a more representative sample. ***An immediate re-sample is required!Excess water in system. Please note that the fluid's acidity and viscosity is excessive and may not be representative.Please re-sample immediately. Please draw sample from most representative area of the heater vessel as possible. First drain all free water from system. Follow this by a purge of at least 20 liters of fluid until the fluid coming out is hot per normal operating temperatures. Collect sample and submit to the lab for analysis and Petro-Canada Technical Services will review and provide recommendations Water contamination levels are severely high. Water contamination levels are severely high.. ppm Water contamination levels are severely high. Acid Number (AN) is severely high. Visc @ 40°C is severely high.
02/05/18	sample results indicate that the fluid is suitable for continued service.However, the reduced flash point, and slightly increased GCD % < 335°C can be indications of thermal degradation (cracking of the fluid molecules creating light ends).To help bring the flash point closer to new spec, perform a venting regime of the expansion tank. During venting, turn off the blanket gas to allow the light end vapors to escape. Re-sample in 6 months. Please ensure sample point is from a fluid zone most representative of system condition and that a thorough purge precedes the sample. COC Flash Point is abnormally low.