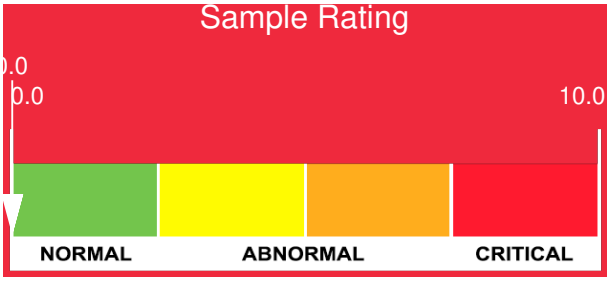
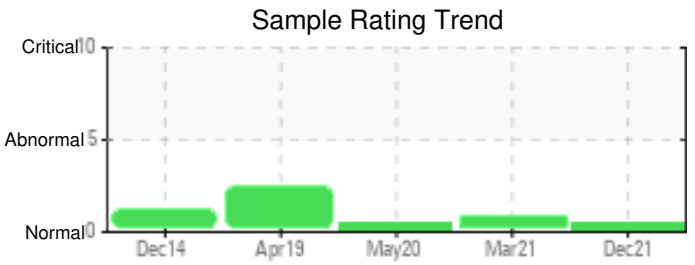




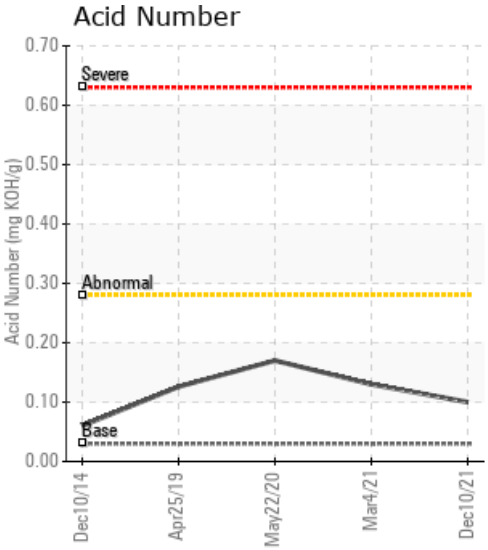
RFO3 MANIFOLD SPIN BOILER #2

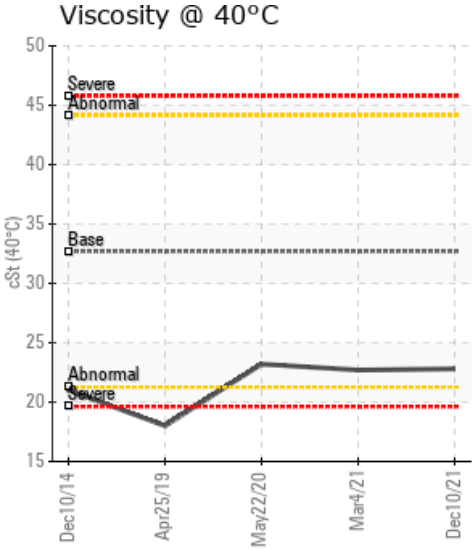
Customer: PTRHTF10057	System Information	Sample Information
PROPEX RINGGOLD PLANT 428 ROLLINS INDUSTRIAL BLVD RINGGOLD, GA 30736 USA Attn: STEWART DOMAINGUE Tel: (423)553-3843 E-Mail: stewart.domaingue@propexglobal.com	System Volume: 30 gal Bulk Operating Temp: 400F / 204C Heating Source: Blanket: Fluid: PETRO CANADA CALFLO AF Make:	Lab No: 02463460 Analyst: Jake Finn Sample Date: 12/10/21 Received Date: 12/21/21 Completed: 12/28/21 Jake Finn jake.finn@hollyfrontier.com

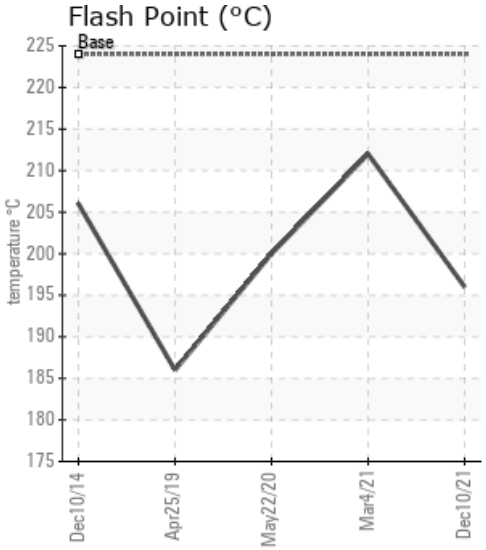
Recommendation: Sample indicates no signs of wear, contamination or fluid degradation. This fluid is suitable for continued use, please resample and submit for testing in 12 months.

Comments: Very lite debris was noted by lab.

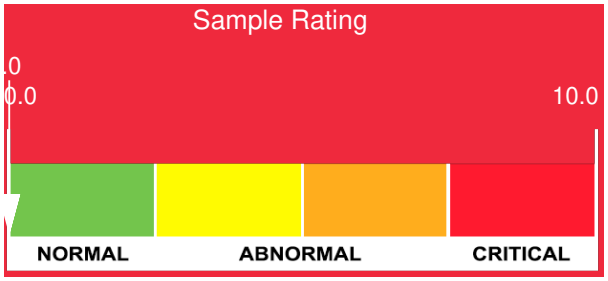
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
12/10/21	12/21/21	0.0h		385 / 196	16.8	22.8	0.10	0.009	698 / 370	798 / 425	899 / 482	3.99
03/04/21	03/16/21	0.0h		414 / 212	44.0	22.7	0.13	0.078	698 / 370	796 / 425	909 / 487	3.18
05/22/20	06/09/20	0.0h		392 / 200	28.9	23.2	0.17	0.180	698 / 370	793 / 423	893 / 478	3.12
04/25/19	05/14/19	0.0h		367 / 186	56.5	18.0	0.126	0.047	711 / 377	802 / 428	911 / 488	1.78
12/10/14	01/07/15	0.0h		403 / 206	58.6	21.0	0.06	0.097	726 / 386	819 / 437	912 / 489	2.29
Baseline Data				435 / 224		32.7	0.03		693 / 367	790 / 421	887 / 475	2.5

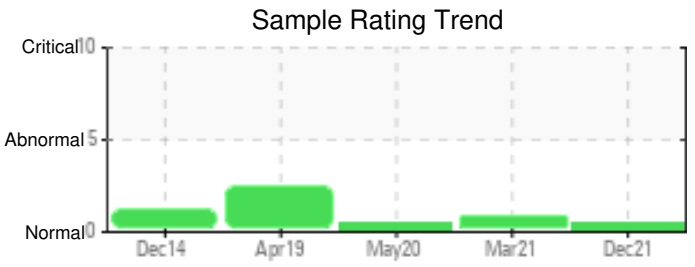






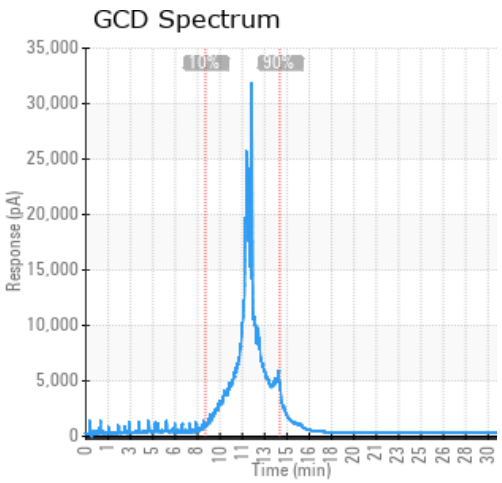
PETRO-CANADA LUBRICANTS

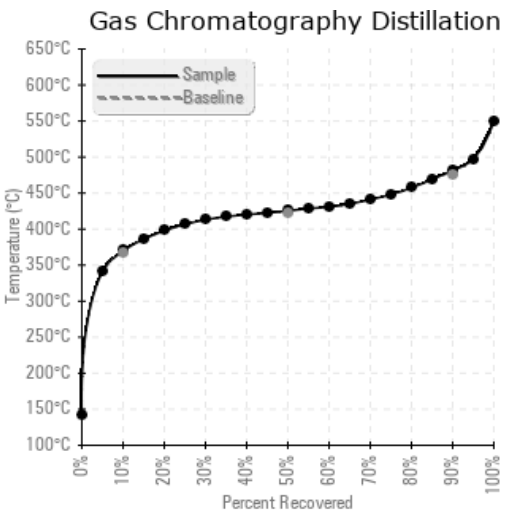


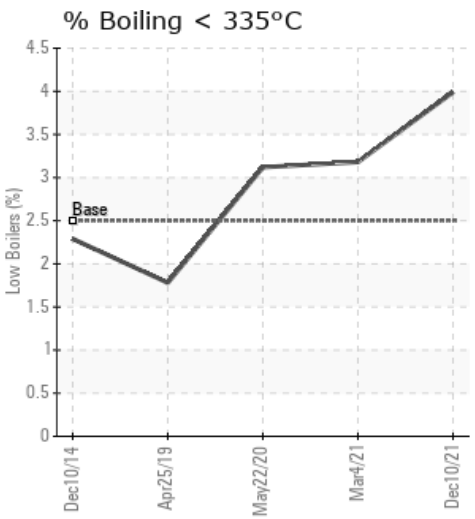


Sample Date	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
12/10/21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0
03/04/21	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0
05/22/20	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	0
04/25/19	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	0
12/10/14	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0
Baseline Data			0	0						0			0	0					0				270	

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







Historical Comments

03/04/21	Lab indicated very light traces of white metal and debris and the GCD 90% distillation point is marginally high, but otherwise the results indicate the fluid is suitable for continued use. Please resubmit a new sample for testing in one year.(GCD) 90% Distillation Point is marginally high.
05/22/20	Viscosity of fluid has significantly improved since last sampling. Fluid is suitable for continued use, please resubmit in one yearLight sand/dirt noted by lab.
04/25/19	Oil is suitable for continued use. Visc @ 40°C is severely low, please consider changing the system fluid due to viscosity being more than a viscosity grade lower than expected. Venting the system may assist in increasing the COC flash point. Changing any system filters or kidney-loop filtering the fluid during any shutdown periods will remove any 'light debris' as seen by the lab. Please remember to include hours of use on oil and age of hot oil system when submitting samples for testing.Visc @ 40°C is severely low. (GCD) 90% Distillation Point is marginally high. COC Flash Point is marginally low. Light Debris is noted in lab comments. Visc @ 40°C is severely low. (GCD) 90% Distillation Point is marginally high. COC Flash Point is marginally low.
12/10/14	Visc @ 40°C is abnormally low - Approximately 1 grade below the oil's design specs. (GCD) 10% Distillation Point is marginally high. (GCD) 50% Distillation Point is marginally high. (GCD) 90% Distillation Point is marginally high. Is there another lower viscosity heat trasnfer fluid on-site that might be used here as make-up? Please send next sample during the scheduled interval.