

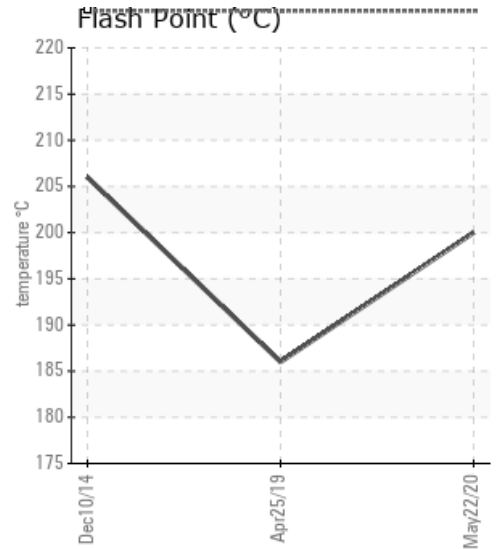
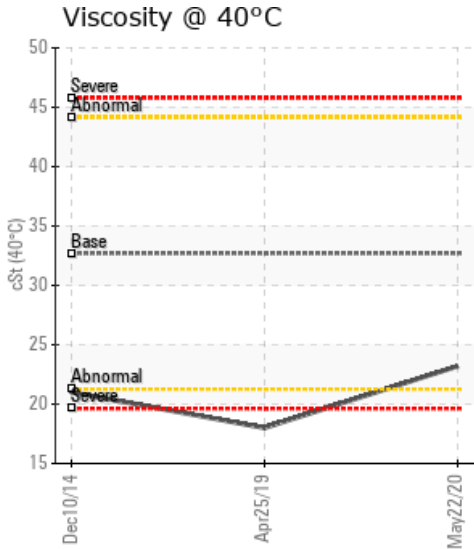
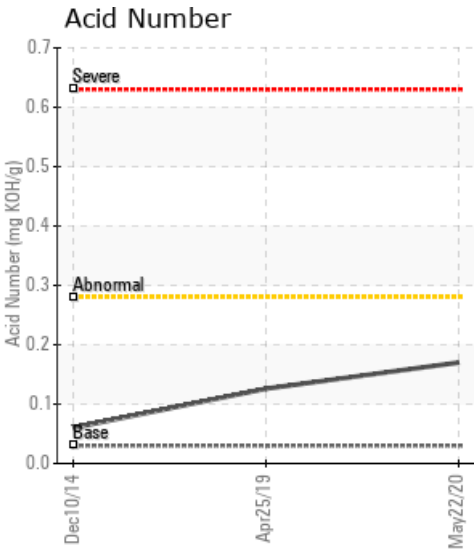
RFO3 MANIFOLD SPIN BOILER #2

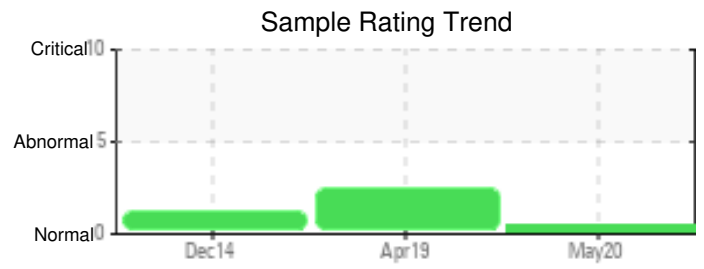
| Customer: PTRHTF10057 | System Information | Sample Information |
|--|--|--|
| PROPEX RINGGOLD PLANT 428 ROLLINS INDUSTRIAL BLVD RINGGOLD, GA 30736 USA Attn: STEWART DOMAINGUE Tel: (423)553-3843 E-Mail: stewart.domaingue@propexglobal.com | System Volume: 30 gal Bulk Operating Temp: 400F / 204C Heating Source: Blanket: Fluid: PETRO CANADA CALFLO AF Make: | Lab No: 02358522 Analyst: Jake Finn Sample Date: 05/22/20 Received Date: 06/09/20 Completed: 06/23/20 Jake Finn jake.finn@petrocanadalsp.com |

Recommendation: Viscosity of fluid has significantly improved since last sampling. Fluid is suitable for continued use, please resubmit in one year

Comments: Light sand/dirt noted by lab.

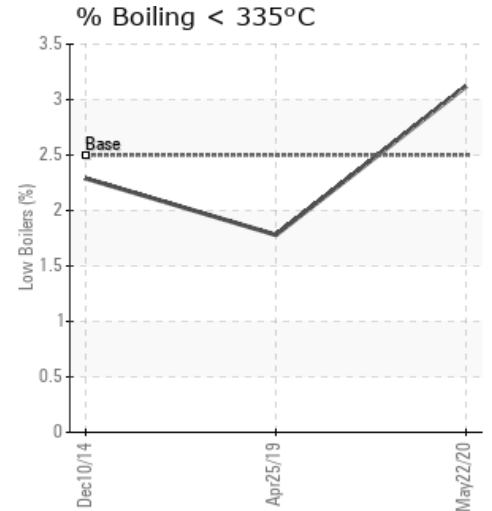
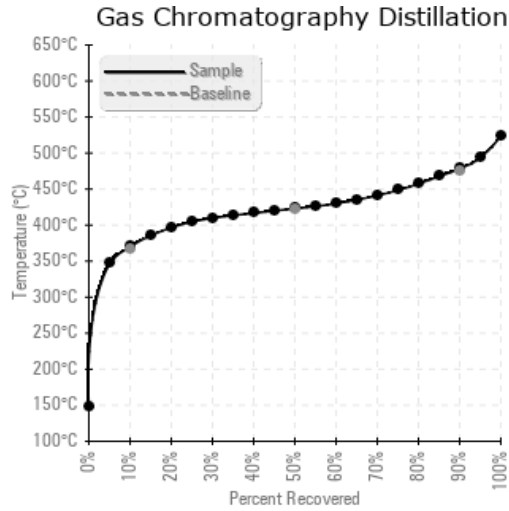
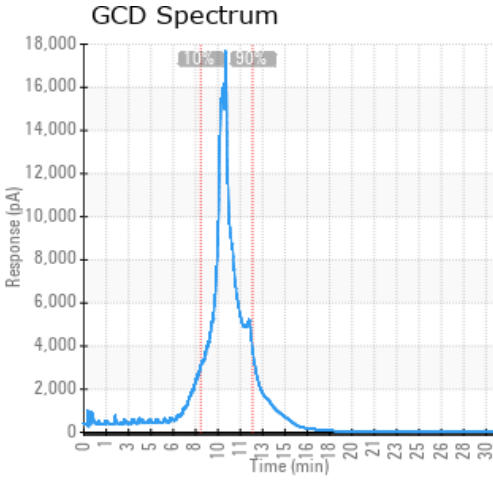
| Sample Date | Received Date | Fluid Age | Sample Location | Flash Point (COC) | Water (KF) | Viscosity (40°C) | Acid Number | Solids | GCD 10% | GCD 50% | GCD 90% | GCD % < 335°C |
|---------------|---------------|-----------|-----------------|-------------------|------------|------------------|-------------|--------|-----------|-----------|-----------|---------------|
| | mm/dd/yy | | | °F/°C | ppm | cSt | mg/KOH/g | %wt | °F/°C | °F/°C | °F/°C | % |
| 05/22/20 | 06/09/20 | 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 | 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 | 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 |





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



Historical Comments

| | |
|----------|---|
| 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 transfer fluid on-site that might be used here as make-up? Please send next sample during the scheduled interval. |

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.