

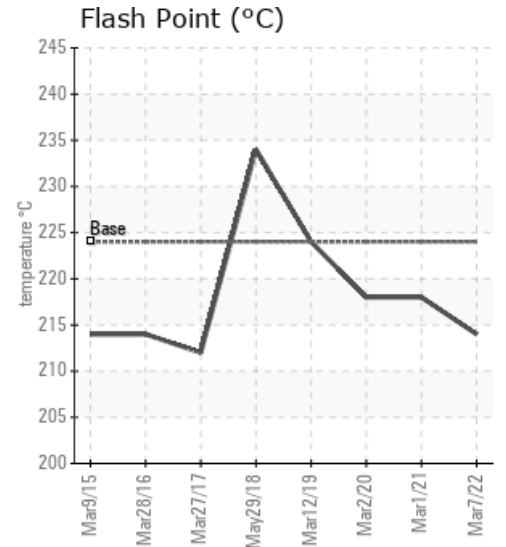
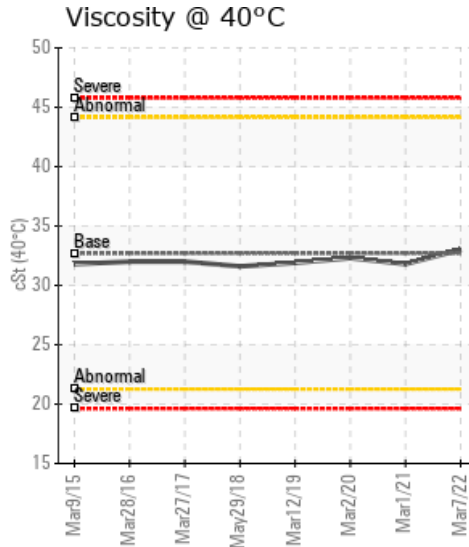
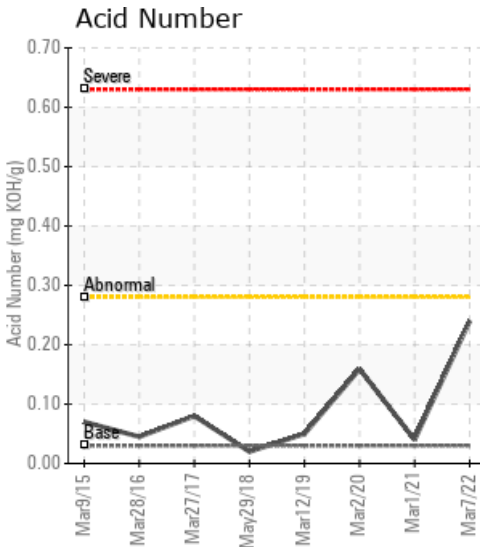
## VOLCANIC BOTTOM

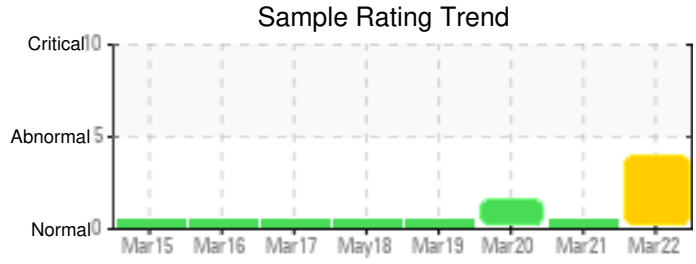
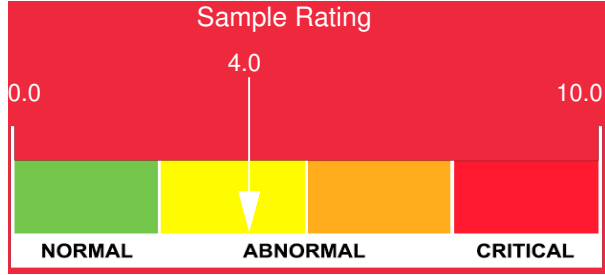
| Customer: PTRHTF10039  | System Information  | Sample Information  |
|--|---|---|
| Piedmont Chemical Industries<br>331 BURTON AVE.<br>HIGH POINT, NC 27261 USA<br>Attn: BOB BURGES<br>Tel: (336)885-5131<br>E-Mail: bburgess@piedmontchemical.com | System Volume: 1000 gal<br>Bulk Operating Temp: 536F / 280C<br>Heating Source:<br>Blanket:<br>Fluid: PETRO CANADA CALFLO AF<br>Make: VOLCANIC | Lab No: 02477907<br>Analyst: Manny Garcia<br>Sample Date: 03/07/22<br>Received Date: 03/17/22<br>Completed: 04/13/22<br>Manny Garcia<br>manuel.garcia@hollyfrontier.com |

Recommendation: Product has contamination in the fluid. Fluid formulation parameters are suitable for continued use. Please address the contamination ingress, clean up the fluid by changing any system filters and/or using a kidney loop system safely to clean up the oil.

Comments: Iron ppm levels are abnormal. Pentane In-solubles levels are severely high. Silicon ppm levels are abnormally high.

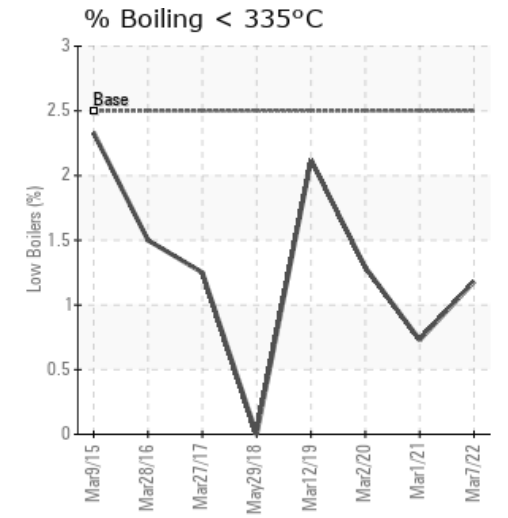
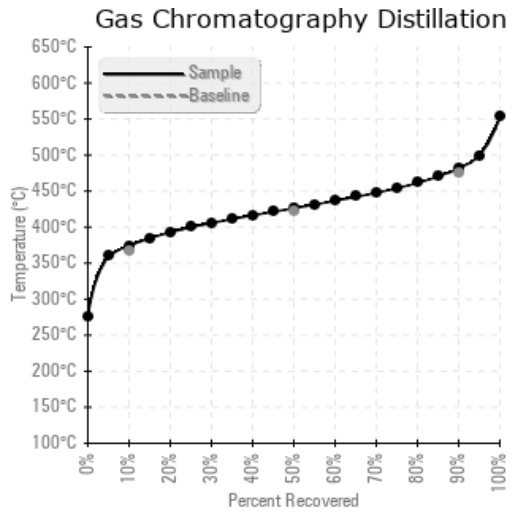
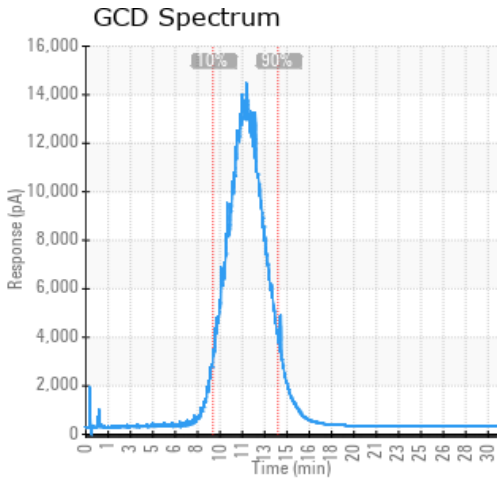
| Sample Date   | Received Date | Fluid Age | Sample Location     | Flash Point (COC) | Water (KF) | Viscosity (40°C) | Acid Number | Solids | GCD 10%   | GCD 50%   | GCD 90%   | GCD % < 335°C |
|---------------|---------------|-----------|---------------------|-------------------|------------|------------------|-------------|--------|-----------|-----------|-----------|---------------|
|               | mm/dd/yy      |           |                     | °F/°C             | ppm        | cSt              | mg/KOH/g    | %wt    | °F/°C     | °F/°C     | °F/°C     | %             |
| 03/07/22      | 03/17/22      | 24.0y     |                     | 417 / 214         | 16.7       | 33.0             | 0.24        | 1.08   | 705 / 374 | 799 / 426 | 899 / 482 | 1.18          |
| 03/01/21      | 03/04/21      | 24.0y     | bott. of reservoir  | 424 / 218         | 22.9       | 31.8             | 0.04        | 0.229  | 707 / 375 | 801 / 427 | 899 / 482 | 0.73          |
| 03/02/20      | 03/05/20      | 23.0y     | BOTTOM OF RESERVOIR | 424 / 218         | 3.9        | 32.3             | 0.159       | 0.475  | 704 / 373 | 814 / 434 | 915 / 491 | 1.29          |
| 03/12/19      | 03/20/19      | 22.0y     |                     | 435 / 224         | 9.2        | 31.9             | 0.05        | 0.321  | 693 / 367 | 791 / 422 | 888 / 476 | 2.12          |
| 05/29/18      | 06/05/18      | 21.0y     | BOTTOM OF RESERVOIR | 453 / 234         | 0.00       | 31.6             | 0.02        | 0.261  | 712 / 378 | 788 / 420 | 879 / 471 | 0.00          |
| 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 |
|---------------|------|----------|--------|----------|--------|------|-----|---------|--------|----------|---------|--------|-----------|----------|------------|----------|-----------|---------|-------|-----------|---------|--------|------------|------|
| 03/07/22      | 283  | 0        | 0      | 0        | 0      | 0    | 0   | 0       | 0      | 0        | 39      | 2      | 0         | 0        | 0          | 0        | 2         | 0       | 0     | 0         | 4       | 0      | 517        | 6    |
| 03/01/21      | 39   | 0        | 0      | 0        | 0      | 0    | 0   | 0       | 0      | 0        | 6       | 0      | 0         | 0        | 0          | 0        | 0         | 0       | 0     | 0         | 0       | 0      | 179        | 0    |
| 03/02/20      | 86   | 0        | 0      | 0        | 0      | 0    | 0   | 0       | 0      | 0        | 11      | 0      | 0         | 0        | 0          | 0        | 0         | 0       | 0     | 0         | 0       | 0      | 233        | 0    |
| 03/12/19      | 43   | 0        | 0      | 0        | 0      | 0    | 0   | 0       | 0      | 0        | 5       | 0      | 0         | 0        | 0          | 0        | 0         | 0       | 0     | 0         | 0       | 0      | 169        | 0    |
| 05/29/18      | 34   | 0        | 0      | 0        | 0      | 0    | 0   | 0       | 0      | 0        | 10      | 0      | 0         | 0        | 0          | 0        | 0         | 0       | 0     | 0         | 0       | 0      | 159        | 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 |   |
|---------------------|---|
| 03/01/21            | Fluid is suitable for continued use. Recommend another system sample in March 2022. Fluid has improved from the last sample analysis. Pentane Insolubles have improved & 90% Distillation point is back in line. Still some visible silt & debris, albeit very light so changing any system filters or kidney loop filtering the fluid during a down period & a safe manner would further assist in cleaning the 24 year old fluid -                                  |
| 03/02/20            | Oil is suitable for continued use after fluid filtration & any system filters changed. Please re-submit sample in March 2021. Pentane Insolubles levels are abnormally high. (GCD) 90% Distillation Point is abnormally high. Recommend vent the system to mitigate the 90% Distillation Point & re-submit sample for verification. Very Lite white metals & debris found in the fluid. During a safe time, recommend filter the fluid to mitigate and clean the oil. |
| 03/12/19            | Fluid is suitable for continued use. Please re-sample in March 2020. Wear metals are low. Viscosity is perfect at 31.9 Cst @ 40oC. Excellent looking fluid sample   |
| 05/29/18            | Filtering the system filters or filtering the oil with a kidney loop filtration system can mitigate this issue. Fluid is suitable for continued use. Please re-submit annual sample in May 2019. Very light silt noticed by the chemist.  |

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