

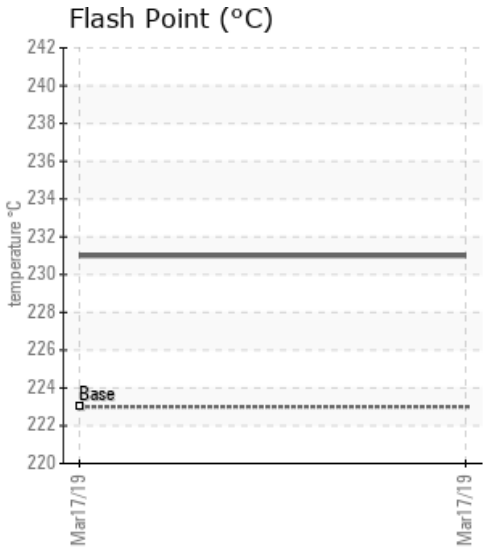
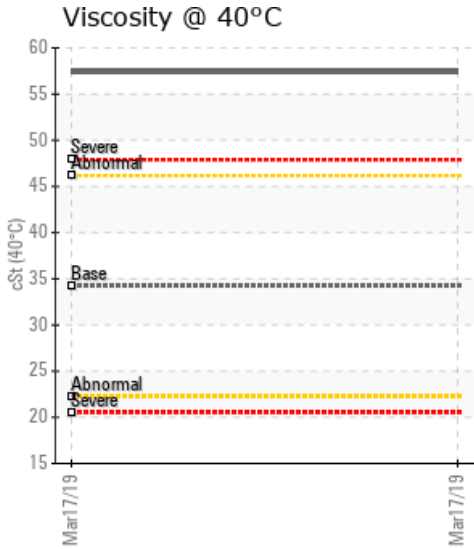
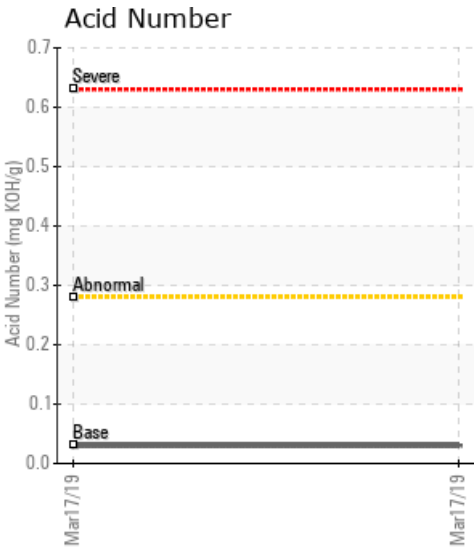
[11-21-55-20W5M] 11-21-55-20W5M H-802 PLANT 1

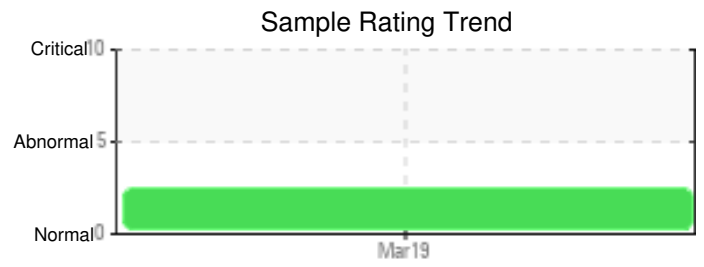
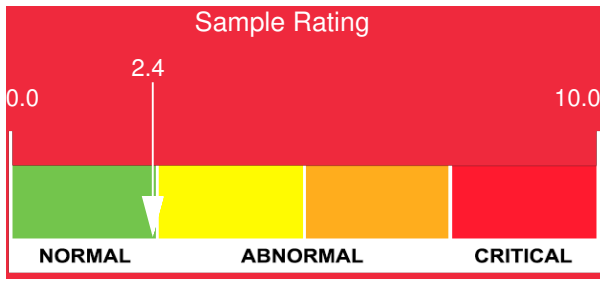
| Customer: PTRHTF20124 | System Information | Sample Information |
|---|--|---|
| PEYTO EXPLORATION 11-17-55-21W5 BOX 7198 EDSON, AB T7E 1V4 Canada Attn: Logan Pillage Tel: (780)712-9444 E-Mail: lpillage@peyto.com | System Volume: 26000 ltr Bulk Operating Temp: 370F / 188C Heating Source: Blanket: Fluid: PETRO CANADA PETRO-THERM Make: ALCO | Lab No: 02273671 Analyst: Peter Harteveld Sample Date: 03/17/19 Received Date: 03/18/19 Completed: 05/27/19 |

Recommendation: The viscosity and Pentane Insoluble (solids) content of the fluid are high. It is recommended to start filtration of the fluid and re-sample after filtration.

Comments: Pentane Insolubles levels are severely high. Visc @ 40°C is severely 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 | % |
| 03/17/19 | 03/18/19 | 0y | DISCHARGE OF THE PUM | 448 / 231 | 28.8 | 57.4 | 0.03 | 1.35 | 735 / 391 | 832 / 445 | 895 / 479 | 0.73 |
| Baseline Data | | | | 433 / 223 | | 34.2 | 0.03 | | 720 / 382 | 817 / 436 | 900 / 482 | 1.00 |

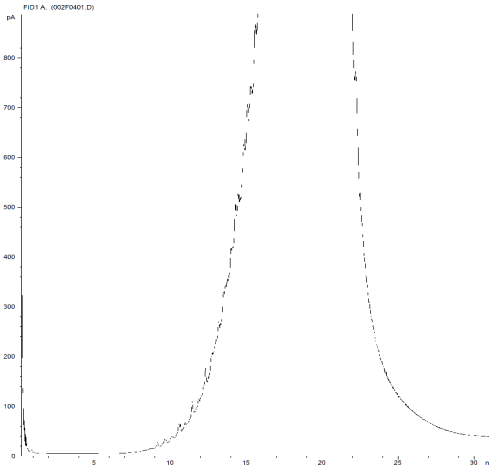




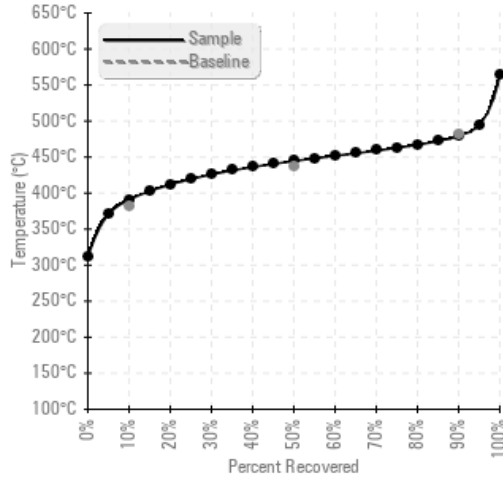
| Sample Date | Iron | Chromium | Nickel | Aluminum | Copper | Lead | Tin | Cadmium | Silver | Vanadium | Silicon | Sodium | Potassium | Titanium | Molybdenum | Antimony | Manganese | Lithium | Boron | Magnesium | Calcium | Barium | Phosphorus | Zinc |
|---------------|------|----------|--------|----------|--------|------|-----|---------|--------|----------|---------|--------|-----------|----------|------------|----------|-----------|---------|-------|-----------|---------|--------|------------|------|
| 03/17/19 | 68 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Baseline Data | | | 0 | 0 | | | | | | 0 | | | 0 | 0 | | | | | 0 | | | | 0 | |

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

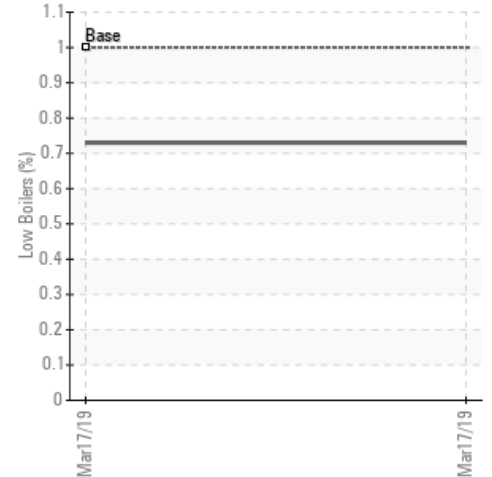
GCD Spectrum



Gas Chromatography Distillation



% Boiling < 335°C



Historical Comments

| |
|--|
| |
| |
| |
| |
| |

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.