

## WANSON 5000 BH

**Customer: PTRHTF40051**  
 Onion Specialties International B.V...  
 Nisseweg 8  
 Kruiningen, 4416PK NL  
 Attn: WILBERT SNIJERS  
 Tel:  
 E-Mail: w.snijers@klt.nl

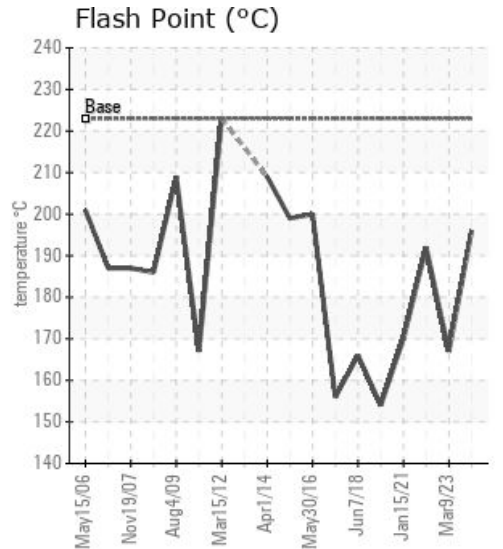
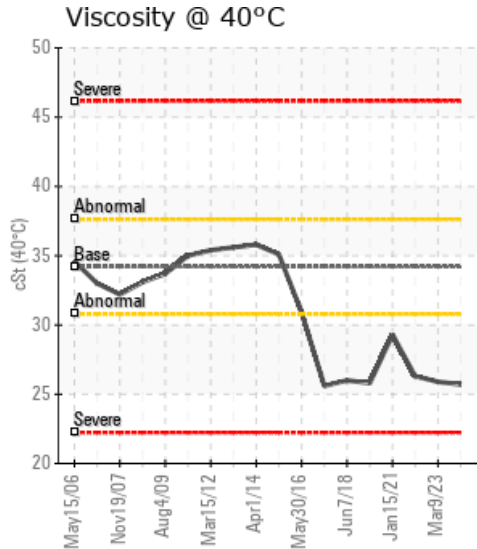
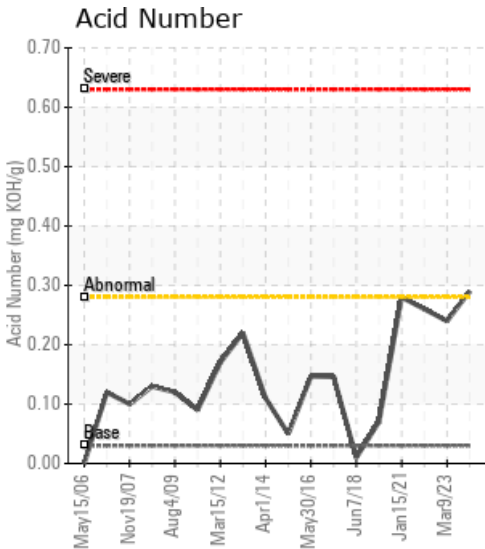
**System Information**  
 System Volume: 7000 ltr  
 Bulk Operating Temp: 290F / 143C  
 Heating Source:  
 Blanket:  
 Fluid: PETRO CANADA PETRO-THERM  
 Make: WANSON

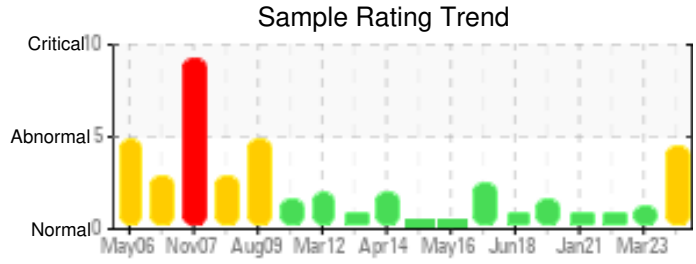
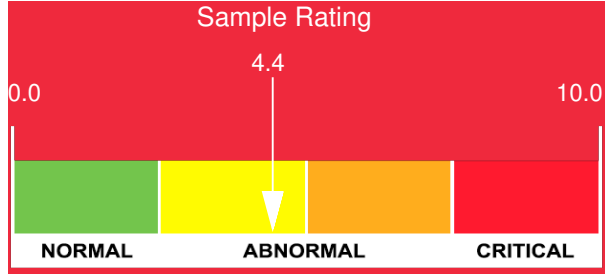
**Sample Information**  
 Lab No: 02594408  
 Analyst: Bill Quesnel CLS,OMA II,MLA-III,LLA-I  
 Sample Date: 10/31/23  
 Received Date: 11/06/23  
 Completed: 11/10/23  
 Bill Quesnel CLS,OMA II,MLA-III,LLA-I

Recommendation: The fluid is suitable for further service. Resample at the next service interval to monitor.

Comments:

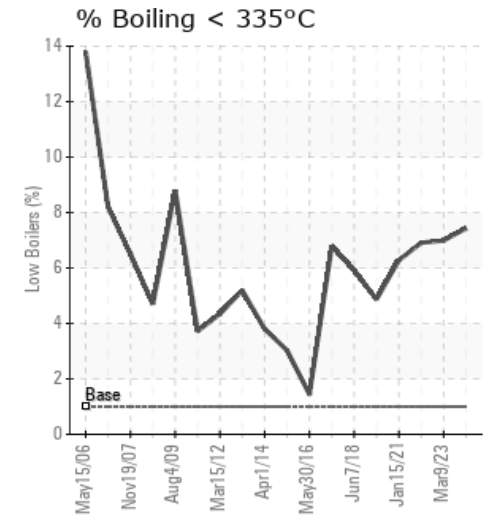
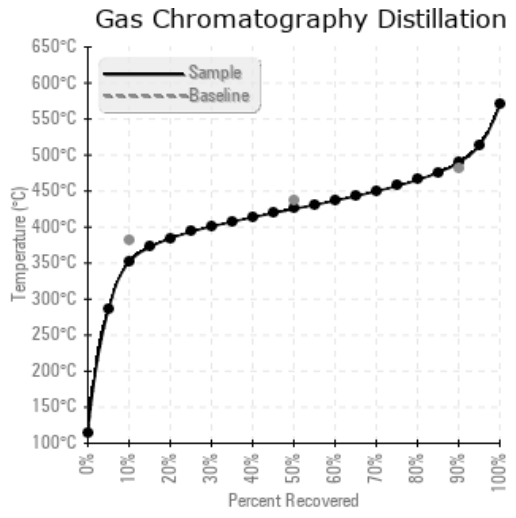
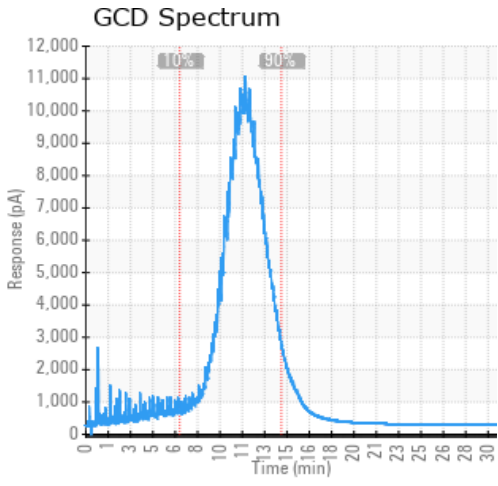
| Sample Date   | Received Date | Fluid Age | Sample Location | Flash Point (COC) | Water (KF) | Viscosity (40°C) | Acid Number | Solids | GCD 10%   | GCD 50%   | GCD 90%   | GCD % < 335°C |
|---------------|---------------|-----------|-----------------|-------------------|------------|------------------|-------------|--------|-----------|-----------|-----------|---------------|
|               | mm/dd/yy      |           |                 | °F/°C             | ppm        | cSt              | mg/KOH/g    | %wt    | °F/°C     | °F/°C     | °F/°C     | %             |
| 10/31/23      | 11/06/23      | 10.5y     |                 | 385 / 196         | 18.4       | 25.7             | 0.29        | 0.077  | 665 / 352 | 797 / 425 | 913 / 489 | 7.43          |
| 03/09/23      | 03/17/23      | 9.0y      |                 | 333 / 167         | 0.00       | 25.9             | 0.24        | 0.060  | 672 / 356 | 799 / 426 | 915 / 490 | 6.99          |
| 10/12/21      | 10/20/21      | 7.5y      |                 | 378 / 192         | 32.2       | 26.3             | 0.26        | 0.054  | 672 / 356 | 798 / 425 | 910 / 488 | 6.91          |
| 01/15/21      | 01/22/21      | 6.5y      |                 | 338 / 170         | 26.9       | 29.3             | 0.28        | 0.127  | 678 / 359 | 800 / 426 | 913 / 490 | 6.28          |
| 04/16/19      | 04/24/19      | 0.0y      |                 | 309 / 154         | 24.3       | 25.8             | 0.07        | 0.108  | 684 / 362 | 796 / 425 | 907 / 486 | 4.87          |
| 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 |
|---------------|------|----------|--------|----------|--------|------|-----|---------|--------|----------|---------|--------|-----------|----------|------------|----------|-----------|---------|-------|-----------|---------|--------|------------|------|
| 10/31/23      | 2    | 0        | 0      | 0        | 0      | 0    | 0   | 0       | 0      | 0        | 1       | 0      | 0         | 0        | 0          | 0        | 0         | 0       | 0     | 0         | 0       | 0      | 4          | 0    |
| 03/09/23      | 2    | 0        | 0      | 0        | 0      | 0    | 0   | 0       | 0      | 0        | 0       | 0      | 0         | 0        | 0          | 0        | 0         | 0       | 0     | 0         | 0       | 0      | 3          | 0    |
| 10/12/21      | 3    | 0        | 0      | 0        | 0      | 0    | 0   | 0       | 0      | 0        | 0       | 0      | 0         | 0        | 0          | 0        | 0         | 0       | 0     | 0         | 0       | 0      | 4          | 0    |
| 01/15/21      | 7    | 0        | 0      | 0        | 0      | 0    | 0   | 0       | 0      | 0        | 0       | 0      | 0         | 0        | 0          | 0        | 0         | 0       | 0     | 0         | 0       | 0      | 5          | 0    |
| 04/16/19      | 10   | 0        | 0      | 0        | 0      | 0    | 0   | 0       | 0      | 0        | 0       | 0      | 0         | 0        | 0          | 0        | 0         | 0       | 0     | 0         | 0       | 0      | 6          | 0    |
| Baseline Data |      |          | 0      | 0        |        |      |     |         |        | 0        |         |        | 0         | 0        |            |          |           |         | 0     |           |         |        | 0          |      |

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



### Historical Comments

|          |  |
|----------|--|
| 03/09/23 | We recommend that you vent the expansion tank to remove low boilers which assists in restoring the flash point of the fluid. We recommend an early resample to monitor this condition. COC Flash Point is abnormally low.  |
| 10/12/21 | Fluid fit for further use. Please send in next sample at next service interval. COC Flash Point is abnormally low.   |
| 01/15/21 | Fluid fit for further use. Please send in next sample at next service interval. COC Flash Point is abnormally low.   |
| 04/16/19 | Looks to have less light end molecules than last sample, yet flash point still drops. Try to (further) vent the system if safe and check if can recover flash point. A;; other parameters seem within limits. If flash point cannot be recovered recommend a change out including a flush and clean COC Flash Point is severely low. |

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.