

CENTRAL WASHINGTON ASPHALT

Customer: PTRHTF10240
 CONNELL OIL CO
 1015 N OREGON AVE
 PASCO, WA 99301 US
 Attn: DAVID BYRNES
 Tel: (509)547-3326
 E-Mail: david@connelloil.com

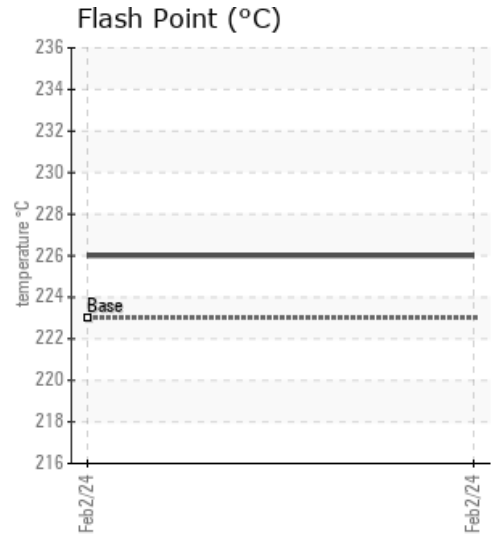
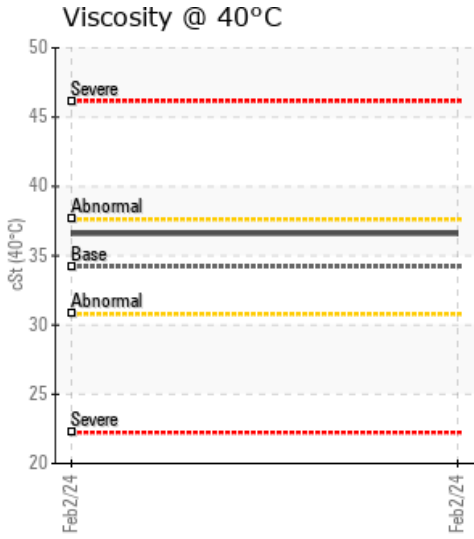
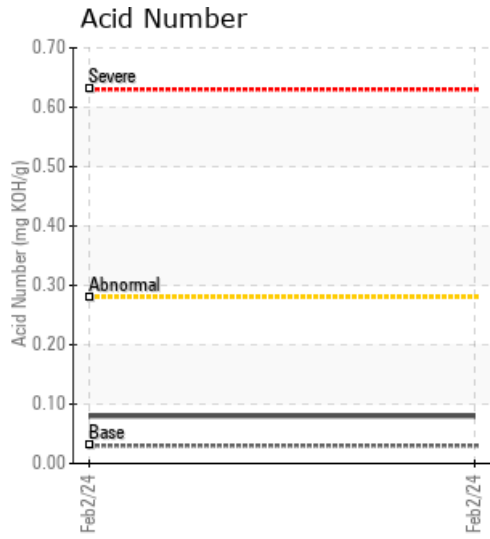
System Information
 System Volume: 300 ltr
 Bulk Operating Temp: 650F / 343C
 Heating Source:
 Blanket:
 Fluid: PETRO CANADA PETRO-THERM
 Make: CANAL BOILER WORKS

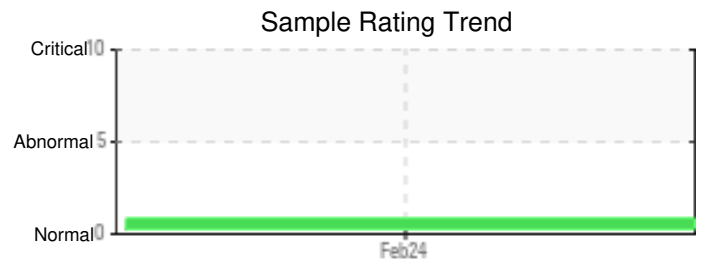
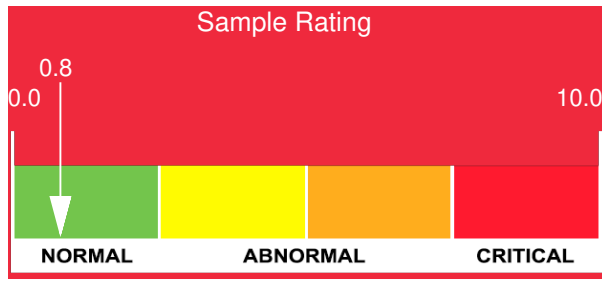
Sample Information
 Lab No: 02619435
 Analyst: Ron LeBlanc
 Sample Date: 02/02/24
 Received Date: 03/01/24
 Completed: 03/06/24
 Ron LeBlanc
 Ronald.LeBlancSr@HFSinclair.com

Recommendation: The (GCD) 90% distillation point is elevated which can indicate oxidation thickening. The Pentane Insolubles indicate some possible sludge formation as a side effect of the oxidation. The TAN is not elevated significantly. If a sock filter or strainer is available the system should be filtered for a week and sampled again. The system shows signs of heavier sludge in the future if the system is not filtered. New oil can be added to the system to bring down the 90% distillation point. 10% new oil can make a significant difference.

Comments: (GCD) 90% Distillation Point is marginally high.

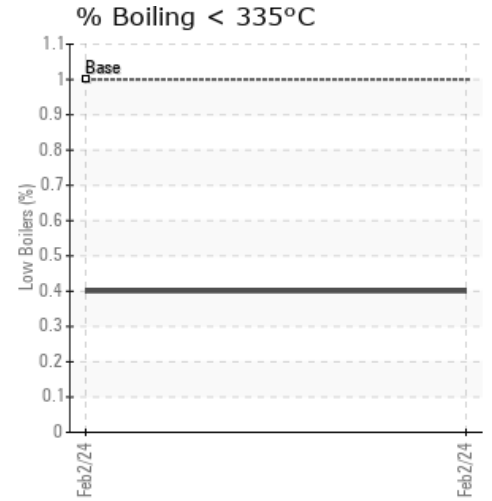
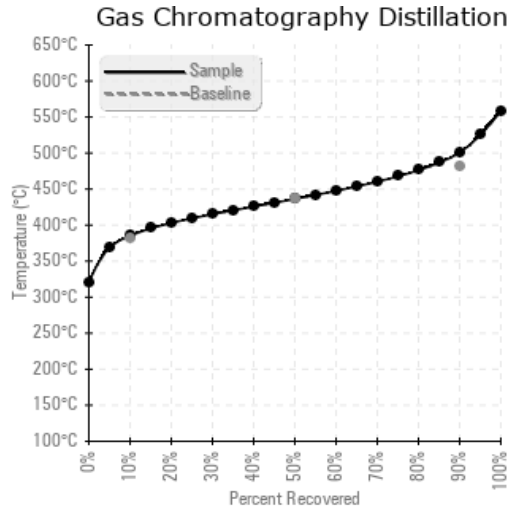
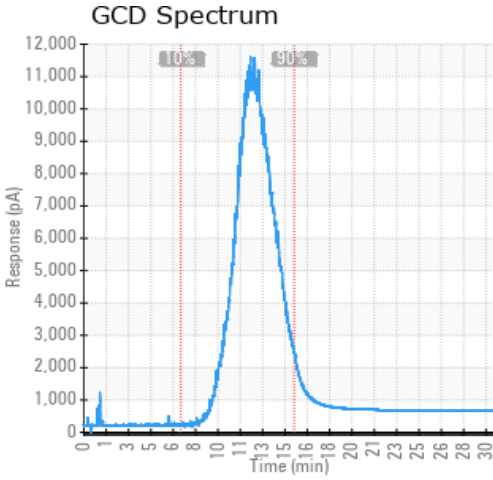
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
02/02/24	03/01/24	10.0y		439 / 226	19	36.6	0.08	0.038	725 / 385	817 / 436	933 / 501	0.40
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	
02/02/24	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
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

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.