

FERROLI RLIKOIL 400

Customer: PTRHTF40108
 WILTHAGEN VLEESWAREN
 ENERGIE WEG 1
 THOLEN, 4691SE Netherlands
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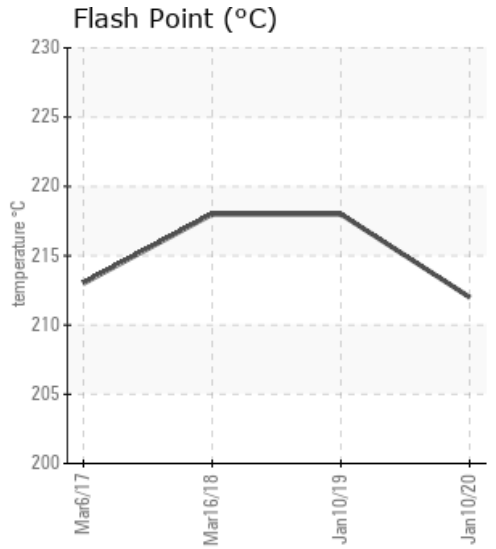
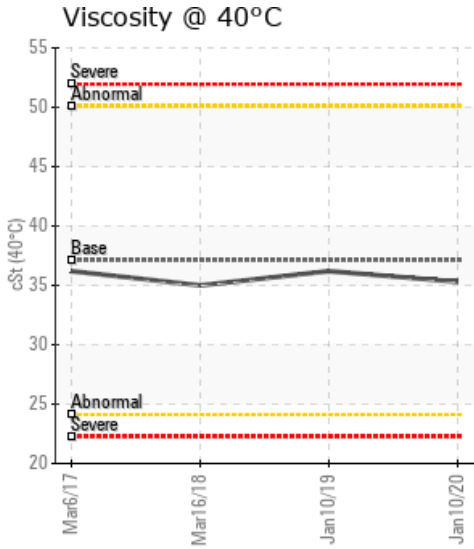
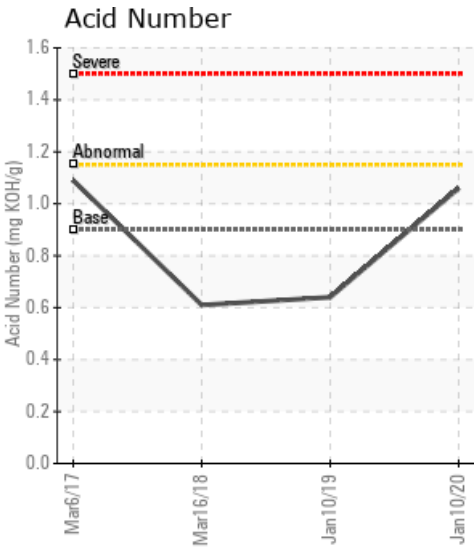
System Information
 System Volume: 600 ltr
 Bulk Operating Temp: 475F / 246C
 Heating Source:
 Blanket:
 Fluid: PETRO CANADA PURITY FG HEAT TRANSFER FLUID
 Make: FERROLI

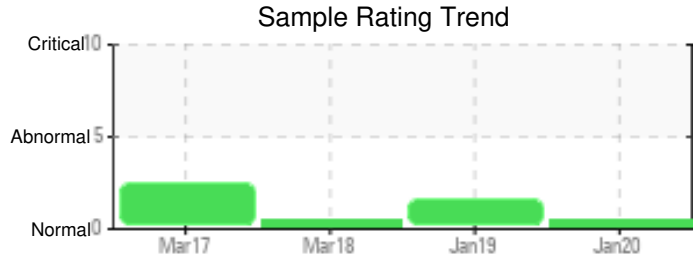
Sample Information
 Lab No: 02332805
 Analyst: Philip Riley
 Sample Date: 01/10/20
 Received Date: 01/20/20
 Completed: 01/28/20
 Philip Riley
 philip.riley@petrocanadalsp.com

Recommendation: All tests within normal range. Fluid looks to have been recovered from previous sample. Fit for further use and please re-sample in 12 months.

Comments:

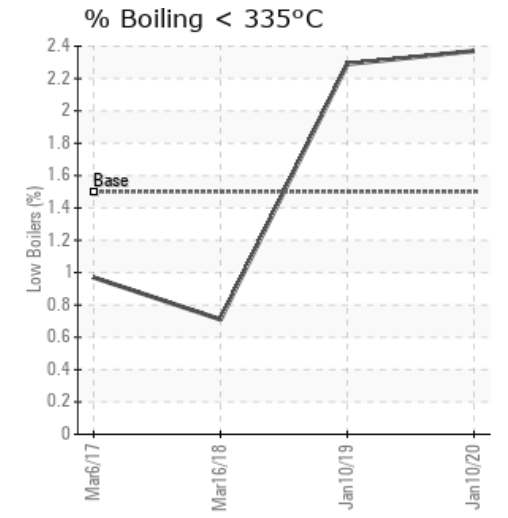
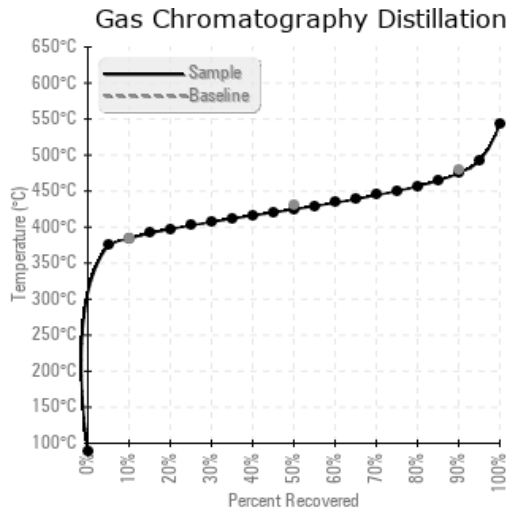
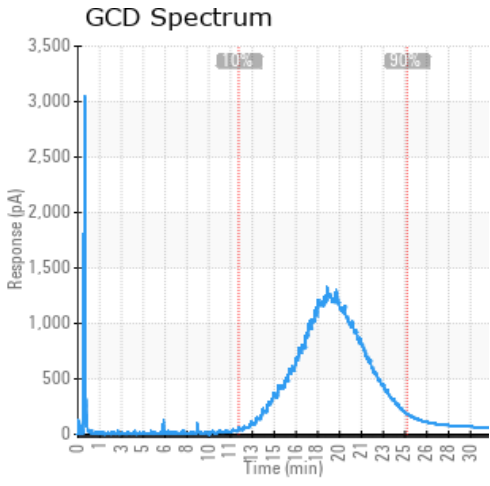
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
01/10/20	01/20/20	4y		414 / 212	24.0	35.3	1.06	0.254	723 / 384	796 / 425	887 / 475	2.37
01/10/19	01/15/19	3y		424 / 218	58.3	36.2	0.64	0.878	686 / 363	782 / 417	880 / 471	2.29
03/16/18	03/22/18	2y		424 / 218	19.3	35.0	0.61	0.341	723 / 384	821 / 438	906 / 486	0.71
03/06/17	03/10/17	1y		415 / 213	52.8	36.2	1.09	1.02	716 / 380	812 / 433	921 / 494	0.97
Baseline Data				459 / 237		37.12	0.90		721 / 383	807 / 431	892 / 478	1.5





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
01/10/20	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0
01/10/19	71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43	0
03/16/18	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	0
03/06/17	86	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	68	2
Baseline Data			0	0						0			0	0					0				230	

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



Historical Comments

01/10/19	Recommend to conduct some form of removal of insoluble if this can be done safely. All other parameters meet specification, and from historic data it looks like the system has been high in insoluble before therefore can be resolved. Pentane Insolubles levels are severely high.
03/16/18	Fluid is in good conditions, resample at you normal sampling interval.
03/06/17	Oil has higher than expected levels of debris - possibly last exchange was not completely cleansed. In this case the oil appears to be satisfactory for further use and a sample should be taken after 6 months for further analysis. Pentane Insolubles levels are severely high. (GCD) 90% Distillation Point is abnormally high.

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