

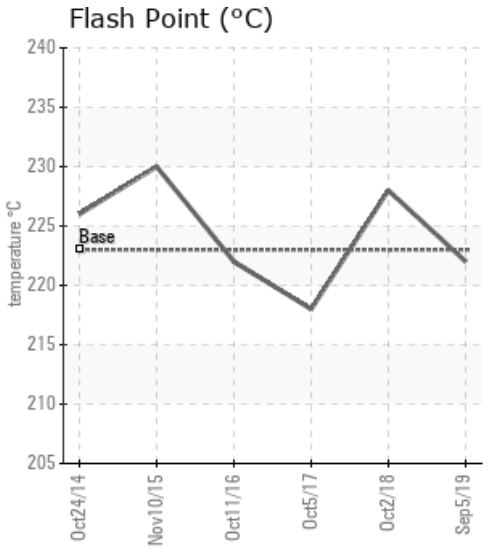
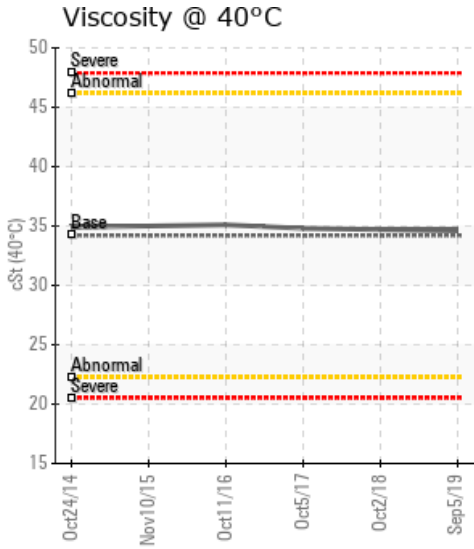
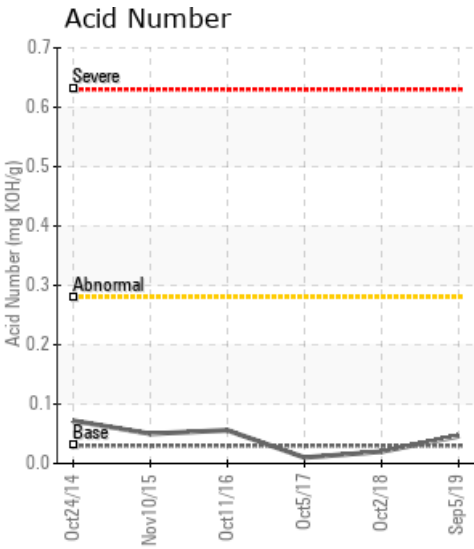
WANSON TPL800LNE

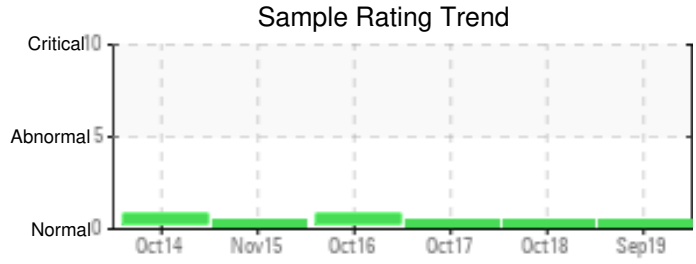
Customer: PTRHTF40114	System Information	Sample Information
DIFFUTHERM B.V. SMARAGDWEG 50 HAPERT, 5527 LB Netherlands Attn: Wilbert Snijers Tel: E-Mail: w.snijers@klt.nl	System Volume: 6000 ltr Bulk Operating Temp: 455F / 235C Heating Source: Blanket: Fluid: PETRO CANADA PETRO-THERM Make: WANSON	Lab No: 02307724 Analyst: Philip Riley Sample Date: 09/05/19 Received Date: 09/11/19 Completed: 09/15/19

Recommendation: Product in good condition within all fluid parameters. Re-sample at normal frequency, no action needed based on sample

Comments:

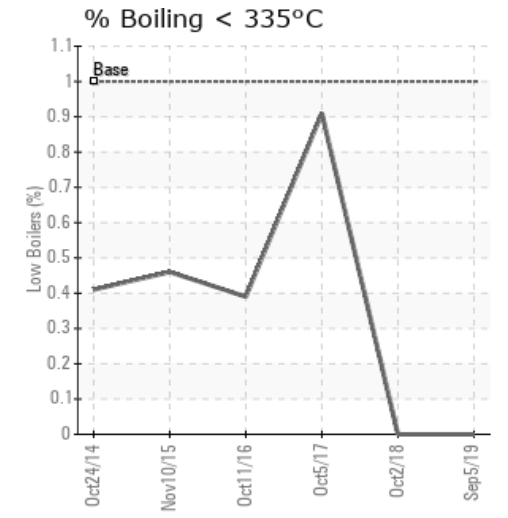
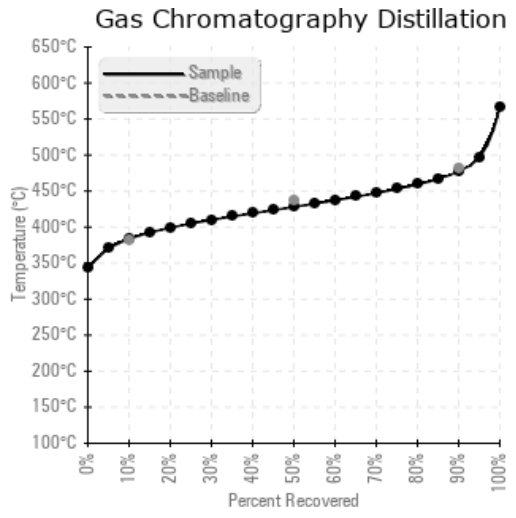
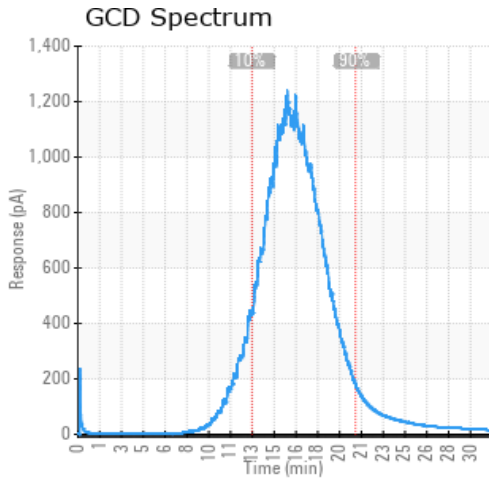
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
09/05/19	09/11/19	6y		432 / 222	33.7	34.6	0.046	0.075	722 / 383	803 / 428	892 / 478	0.00
10/02/18	10/10/18	0y		442 / 228	23.4	34.7	0.02	0.313	727 / 386	805 / 429	887 / 475	0.00
10/05/17	10/12/17	4y		424 / 218	28.6	34.8	0.010	0.067	721 / 383	812 / 433	912 / 489	0.91
10/11/16	10/24/16	3y	PTRHTF40114	432 / 222	29.1	35.1	0.056	0.089	723 / 384	814 / 435	917 / 491	0.39
11/10/15	11/23/15	2y	PTRHTF40114	446 / 230	46.2	35.0	0.05	0.368	721 / 383	809 / 432	908 / 487	0.46
10/24/14	10/30/14	0y		439 / 226	97.6	34.9	0.072	0.013	720 / 382	816 / 436	922 / 495	0.41
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
09/05/19	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/02/18	12	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/05/17	20	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10/11/16	6	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/10/15	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
10/24/14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	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

10/02/18	All parameters within acceptable limits. Fluid fit for further use
10/05/17	All parameters tested in line with expectations. Continued use based on oil analysis reviewed
10/11/16	Oil appears in good condition and fit for further service. Identify where levels of copper are originating from. Copper ppm levels are noted.
11/10/15	Oil appears to be in good condition and fit for further service. Suggest sample at next scheduled maintenance interval.
10/24/14	Oil appears to be in very good condition and fit for further service. Sample at next scheduled maintenance interval. (GCD) 90% Distillation Point is marginally high.

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