

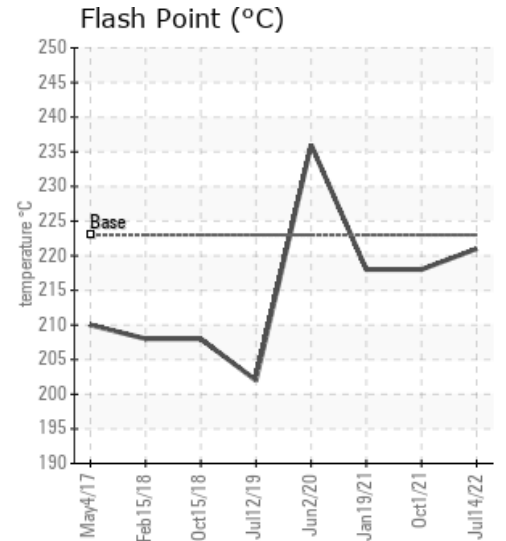
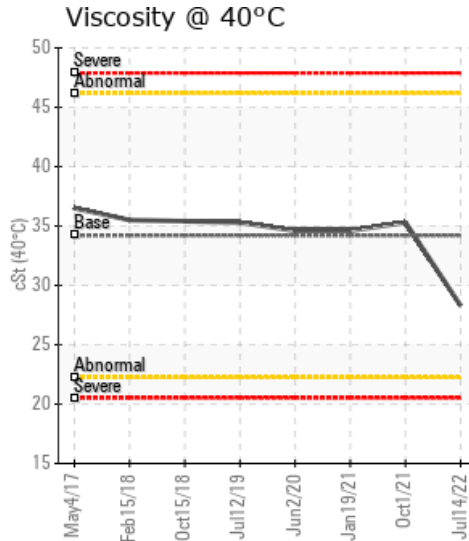
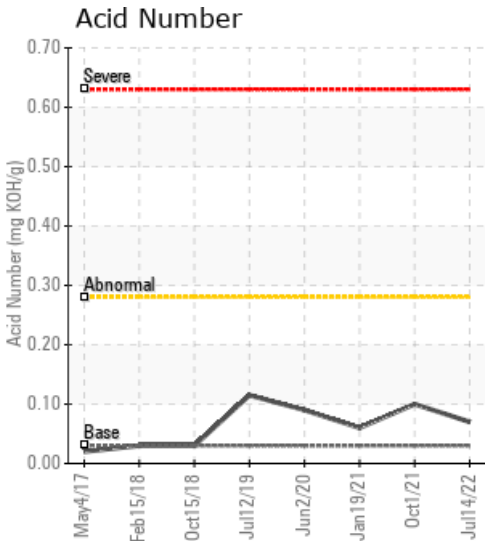
VAPOR POWER

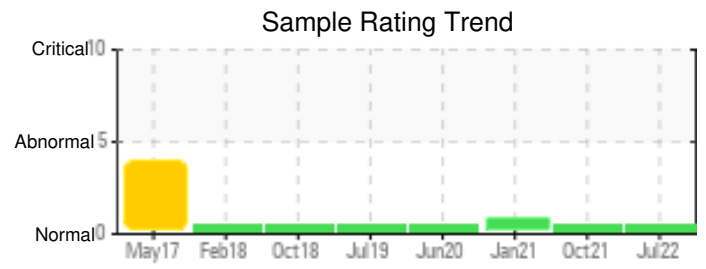
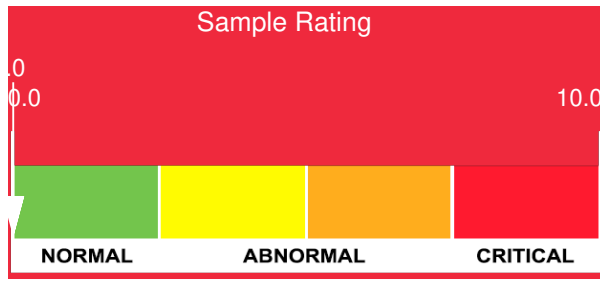
Customer: PTRHTF30020	System Information	Sample Information
IKO INDUSTRIES HAWKESBURY 1451 SPENCE ROAD HI-PARTS-HAWK YARD HAWKESBURY, ON K6A 3T4 Canada Attn: Adam Aubry Tel: E-Mail: adam.aubry@iko.com	System Volume: 600 gal Bulk Operating Temp: 500F / 260C Heating Source: Blanket: Fluid: PETRO CANADA PETRO-THERM Make: VAPOR POWER	Lab No: 02501221 Analyst: Yen Garcia Sample Date: 07/14/22 Received Date: 07/21/22 Completed: 07/25/22 Yen Garcia yen.garcia@hollyfrontier.com

Recommendation: No wear, no contamination are present in sample. Viscosity and AN (acid number) are correct. COC flash point is good. GCD 10% is to report with severity 2 (yellow flag) and GCD 90% is good. Pentanes insolubles are good. The oil condition is good, very small indication of oil brake-down, which is minimal. Please keep monitoring the oil.

Comments:

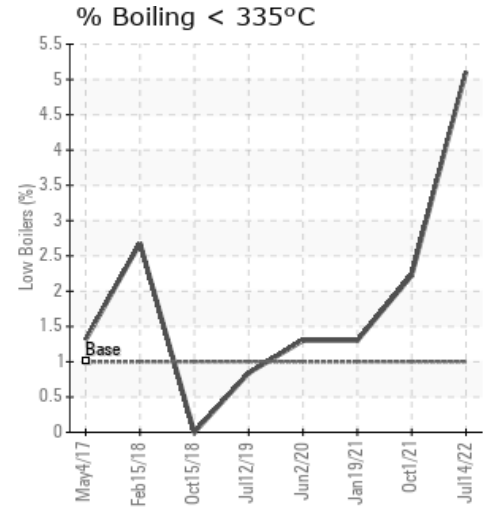
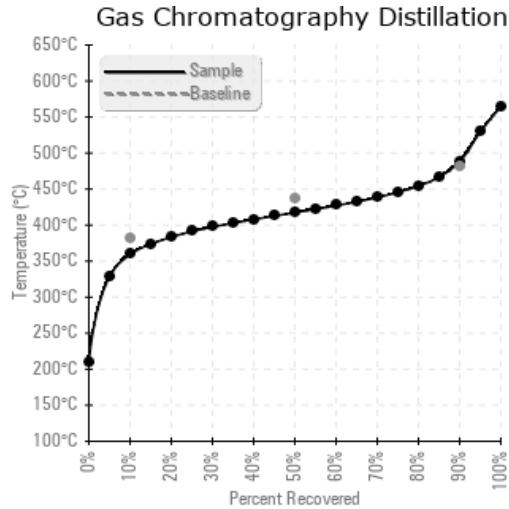
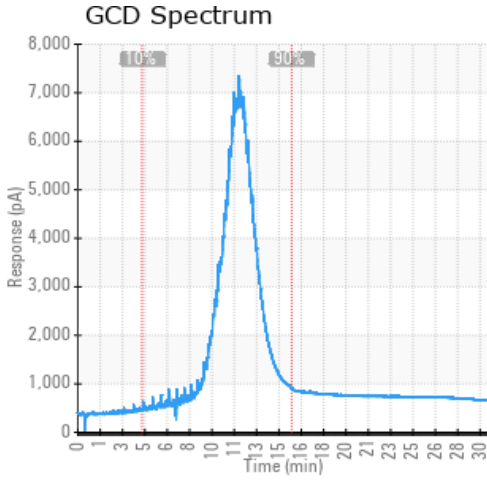
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
07/14/22	07/21/22	0.0y		430 / 221	29.5	28.3	0.07	0.080	680 / 360	783 / 417	910 / 488	5.11
10/01/21	10/20/21	1.0y		424 / 218	17.0	35.3	0.10	0.045	718 / 381	815 / 435	918 / 492	2.22
01/19/21	01/22/21	3.0y		424 / 218	8.8	34.6	0.06	0.145	723 / 384	816 / 436	918 / 492	1.30
06/02/20	06/11/20	3.0y	HOT OIL BOILER	457 / 236	12.3	34.6	0.09	0.119	723 / 384	816 / 436	915 / 491	1.30
07/12/19	07/18/19	1.0y		396 / 202	23.2	35.3	0.115	0.164	707 / 375	804 / 429	915 / 491	0.84
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
07/14/22	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0
10/01/21	3	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	20	0	0	0
01/19/21	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
06/02/20	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0
07/12/19	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	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%]



Historical Comments

10/01/21	The oil condition is good, very small indication of oil brake-down which is minimal. please keep monitoring the oil
01/19/21	The High Boilers (GCD @90%) are marginally high. These could deposit in elbows and small lines.The Heat transfer oil is OK, for continuous use. (GCD) 90% Distillation Point is marginally high.
06/02/20	Ok for continuous use
07/12/19	You have some carbon buildup (GCD @90%) is high.

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