

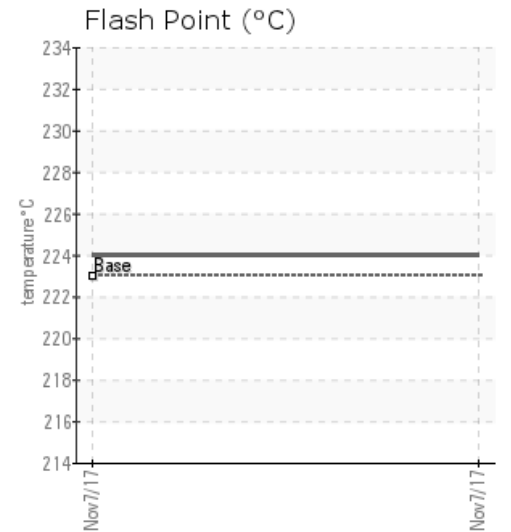
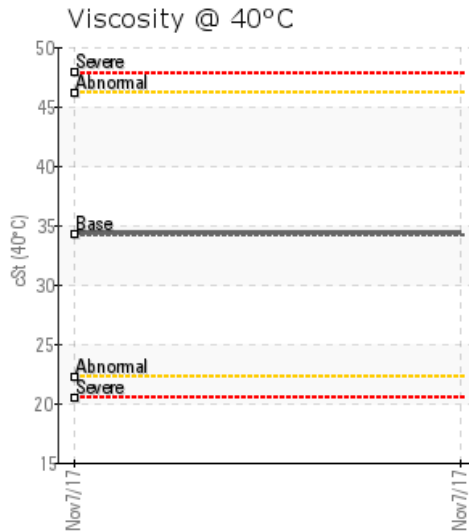
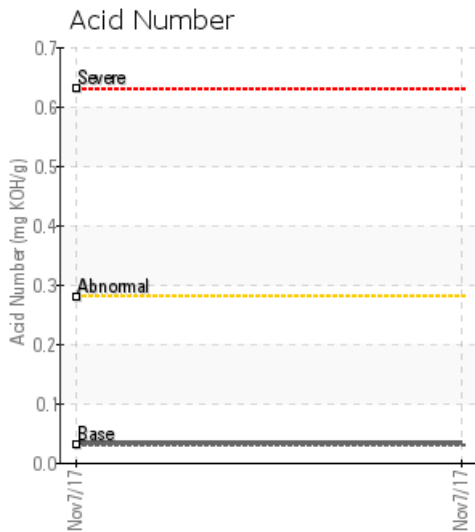
## HOT OIL HEATER 6-31-32-24W4

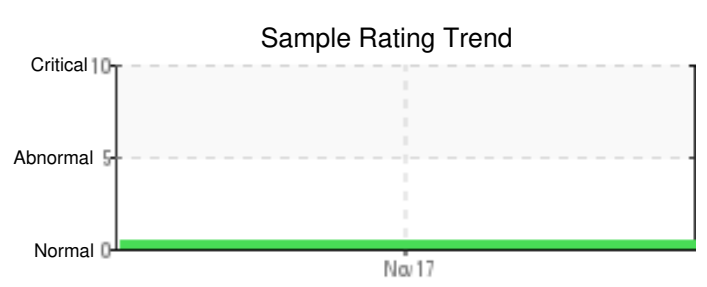
Customer: PTRHTF20154	System Information	Sample Information
CANADIAN NATURAL RESOURCES #17, 1741 EDGAR INDUSTRIAL PARK RED DEER, AB T4P 3Z5 Canada Attn: Mark Lane Tel: (403)357-6381 E-Mail: mark.lane@cnrl.com	System Volume: 1640 ltr Bulk Operating Temp: 392F / 200C Heating Source: Blanket: Fluid: PETRO CANADA PETRO-THERM Make: ALCO	Lab No: 02184412 Analyst: Kevin McDermott Sample Date: 11/07/17 Received Date: 11/28/17 Completed: 11/30/17 To discuss this report contact Kevin McDermott at (403)215-7052

Recommendation: Fluid is in excellent condition. Suggest annual sampling to proactively manage fluid condition.

Comments:

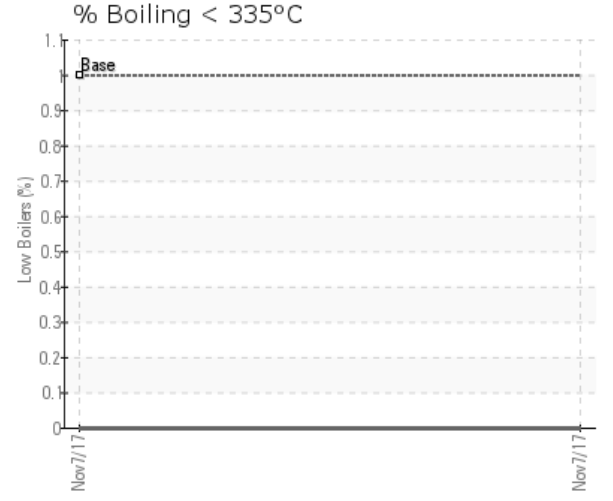
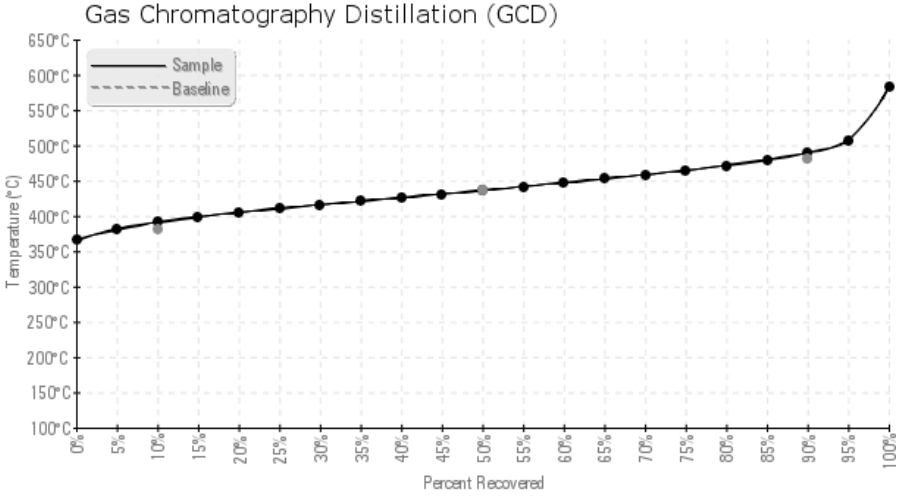
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
11/07/17	11/28/17	46k		435 / 224	0.00	34.4	0.034	0.047	736 / 391	817 / 436	913 / 489	0.00
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
11/07/17	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	2	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


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