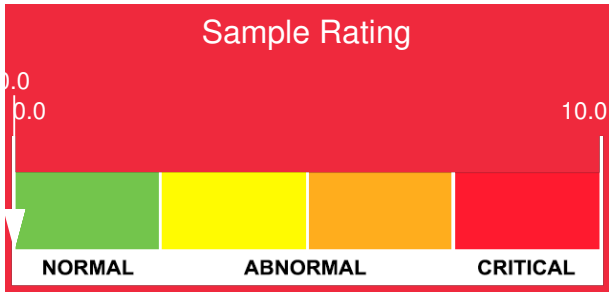
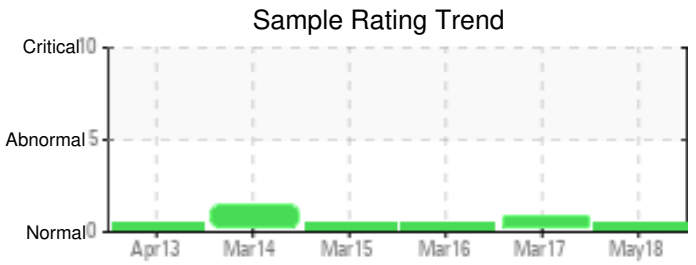




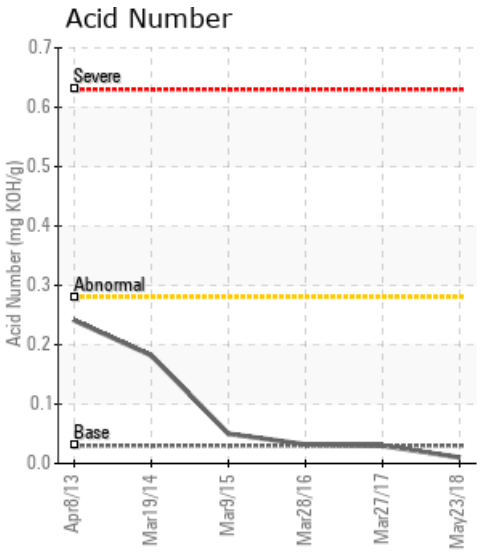
FULTON HOT OIL HEATER

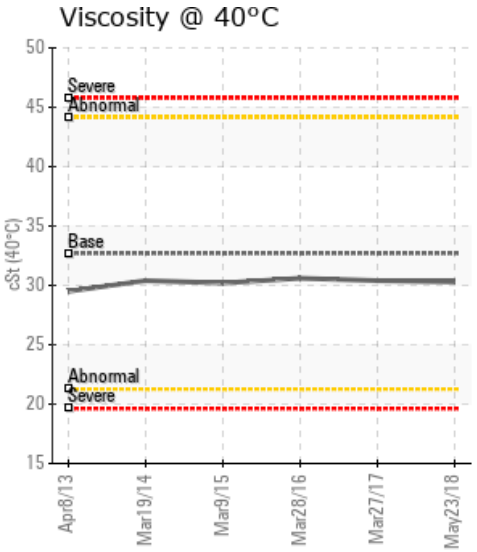
Customer: PTRHTF10039	System Information	Sample Information
Piedmont Chemical Industries 331 BURTON AVE. HIGH POINT, NC 27261 USA Attn: GEORGE WETTE Tel: (336)885-5131 E-Mail:	System Volume: 750 gal Bulk Operating Temp: 536F / 280C Heating Source: Blanket: Fluid: PETRO CANADA CALFLO AF Make: FULTON	Lab No: 02220414 Analyst: Manny Garcia Sample Date: 05/23/18 Received Date: 06/05/18 Completed: 06/08/18 To discuss this report contact Manny Garcia at 954-384-7259

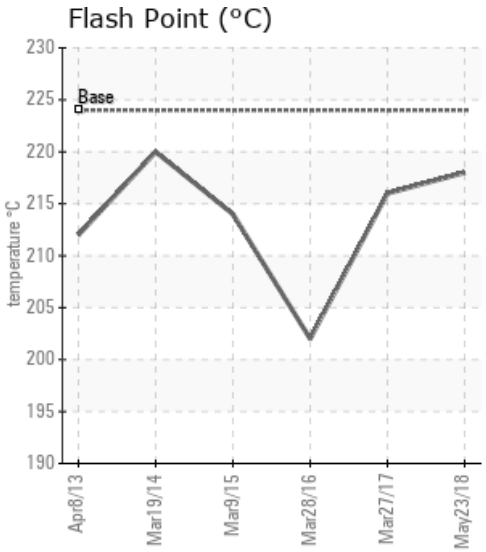
Recommendation: Oil is suitable for continued use. Please re-submit the next sample during May 2019

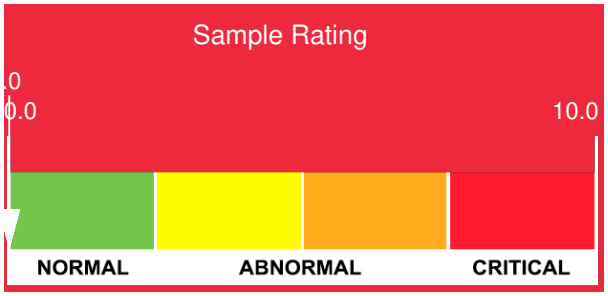
Comments:

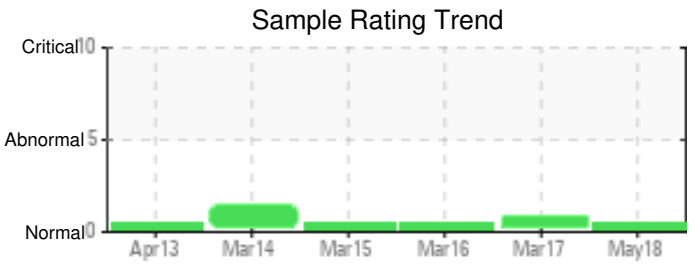
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
05/23/18	06/05/18	6y		424 / 218	9.8	30.3	0.01	0.033	716 / 380	793 / 423	891 / 477	0.00
03/27/17	03/30/17	5y	MAIN CIRC PUMP	421 / 216	4.0	30.4	0.03	0.156	708 / 375	808 / 431	920 / 493	0.92
03/28/16	04/01/16	4y	AT MAIN CIRCU. PUMP	396 / 202	0.00	30.6	0.032	0.033	694 / 368	795 / 424	893 / 479	1.54
03/09/15	03/16/15	3y	MAIN CIRCULATING PUM	417 / 214	9.8	30.2	0.05	0.124	702 / 372	799 / 426	892 / 478	1.06
03/19/14	03/28/14	22y	PUMP - 7:00AM	428 / 220	4.2	30.4	0.182	0.217	698 / 370	798 / 425	894 / 479	1.44
04/08/13	05/03/13	10y	INLET TO PUMP	414 / 212	9.6	29.5	0.241	0.071	704 / 374	798 / 425	896 / 480	0.56
Baseline Data				435 / 224		32.7	0.03		693 / 367	790 / 421	887 / 475	2.5





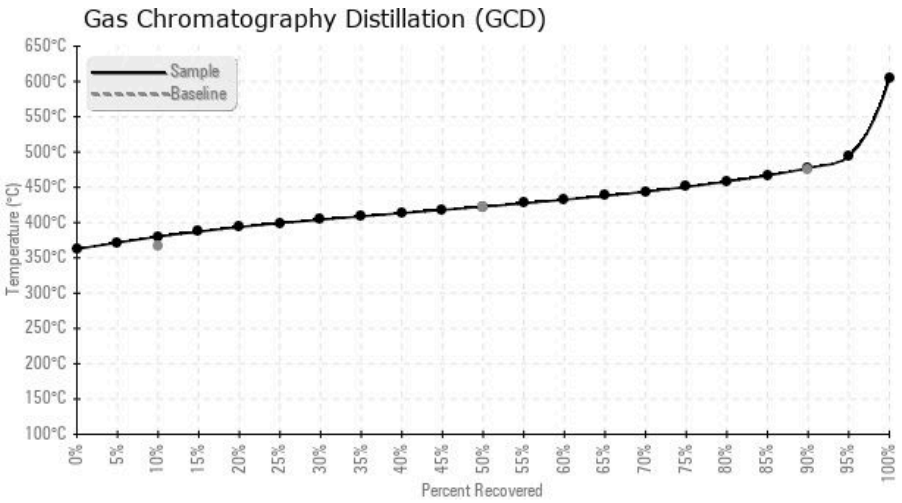


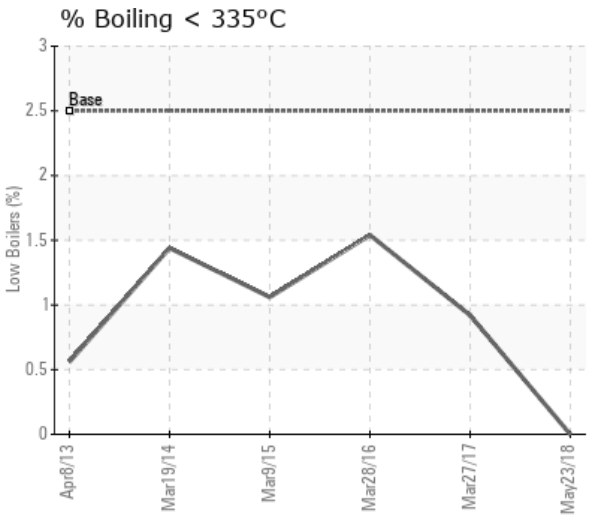




Sample Date	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
05/23/18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57	0
03/27/17	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	57	0
03/28/16	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	59	0
03/09/15	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	63	0
03/19/14	8	0	0	0	0	0	0	1	0	0	7	2	0	0	0	0	0	0	0	0	1	0	170	1
04/08/13	7	0	0	0	0	0	2	1	0	0	15	3	0	0	0	0	0	0	0	0	1	0	225	1
Baseline Data			0	0						0			0	0					0				270	

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





Historical Comments

03/27/17	Mitigation of the high 90% distillation point can be done by 'venting' the system. Please submit any new samples into the lab for verification of maintenance performed. Otherwise, submit annual sample to the lab as recommended.Wear Metals are low; Contaminant Levels are Low; Water contamination is satisfactory; Viscosity is acceptable; COC Flash Point is good; (GCD) 90% Distillation Point is abnormally high. Pentane insoluble are low; Very light white metal & debris noticed in sample visually;
03/28/16	Sample is in acceptable condition and suitable for continued use. Please re-submit sample during next scheduled interval.Wear metals low; contaminant levels low; additive levels good; water is low; Acid numbers are low; Flash Point is good; distillation curves are low; Pentane solids low; very light debris seen visually
03/09/15	Wear metals are extremely low; Contaminant level is low; Water is nil; Total Acid Number is low; Viscosity grade is normal; Flash Point is Normal; Distilation numbers are Normal; Pentane solids are low; Please sample system and submit oil analysis durng next scheduled interval.
03/19/14	Even though the oil is darker now, its condition appears to be still good. Viscosity is normal, acid number remains low, other properties are acceptable. Nothing concerning or abnormal to report on this one. Please try to sample once per year.
04/08/13	Oil is in good condition and suitable for further use. Please re-sample at regular interval.