

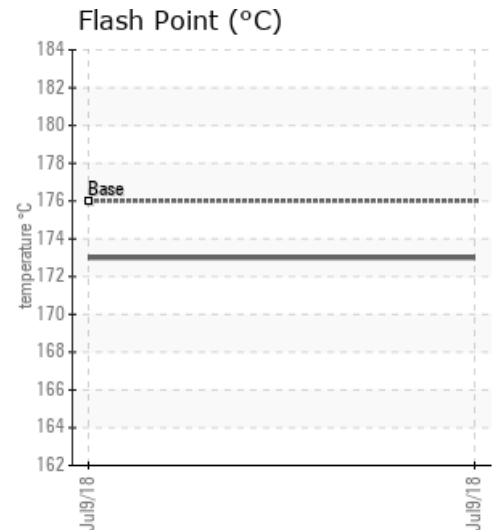
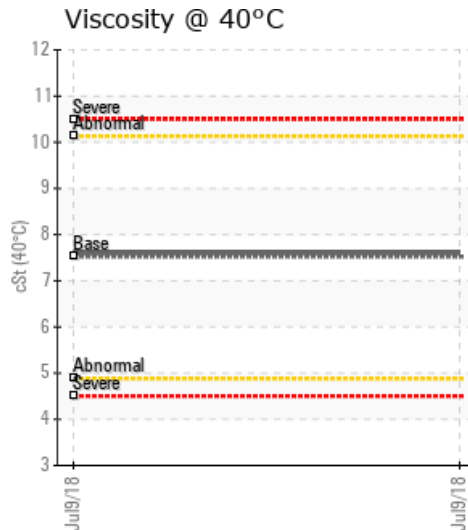
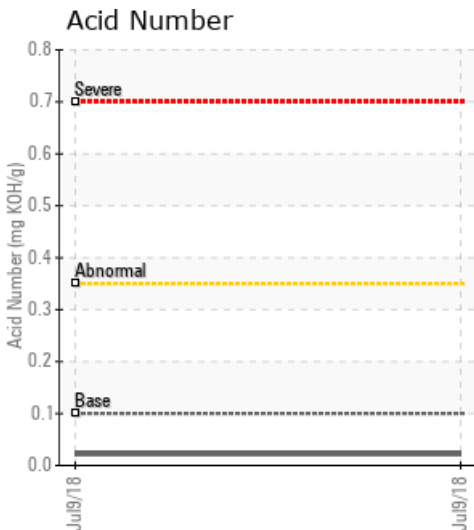
[ENCANA Q-810 PROCESS HEAT MEDIUM] Encana Q-810 Process Heat Medium –

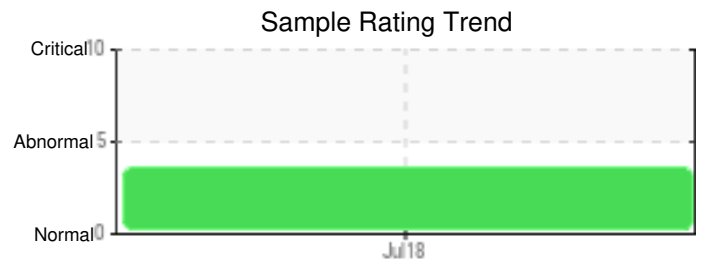
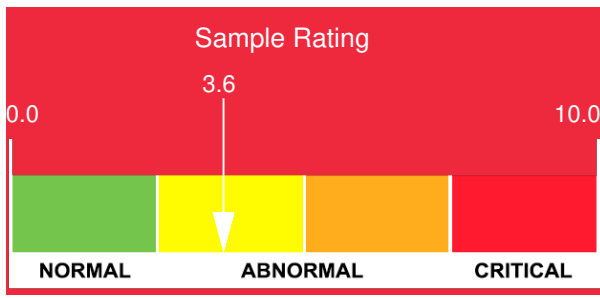
Customer: PTRHTF20046	System Information	Sample Information
QUADRA CHEMICALS 12925 146TH STREET EDMONTON, AB T5L 2H6 CANADA Attn: Quadra Samples Tel: E-Mail: quadra_samples@quadra.ca	System Volume: 50000 ltr Bulk Operating Temp: 450F / 232C Heating Source: Blanket: Fluid: PETRO CANADA CALFLO LT Make:	Lab No: 02231627 Analyst: Clinton Buhler Sample Date: 07/09/18 Received Date: 08/01/18 Completed: 11/06/18

Recommendation: This fill of Calflo LT is reported as having 21 days of service life. (new system/fill start-up ?) The watercontent is elevated. It is recommended to boil-off the water by venting to atmosphere. The low boiler vapor content (% <335C).jis high with 43%. (fresh = 35%) This can be influenced by the water content of the fluid.Please boil-off the water until thesteaming stops and re-sample after doing that.

Comments: Water contamination levels are marginally high. Water contamination levels are marginally high.. ppm Water contamination levels are marginally high. (GCD) % < 335°C is marginally high.

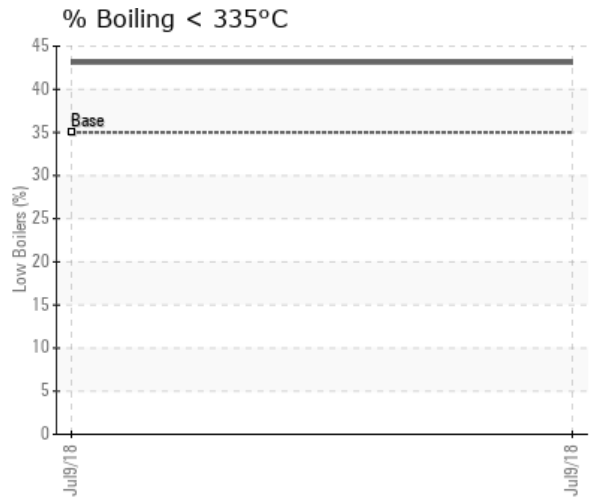
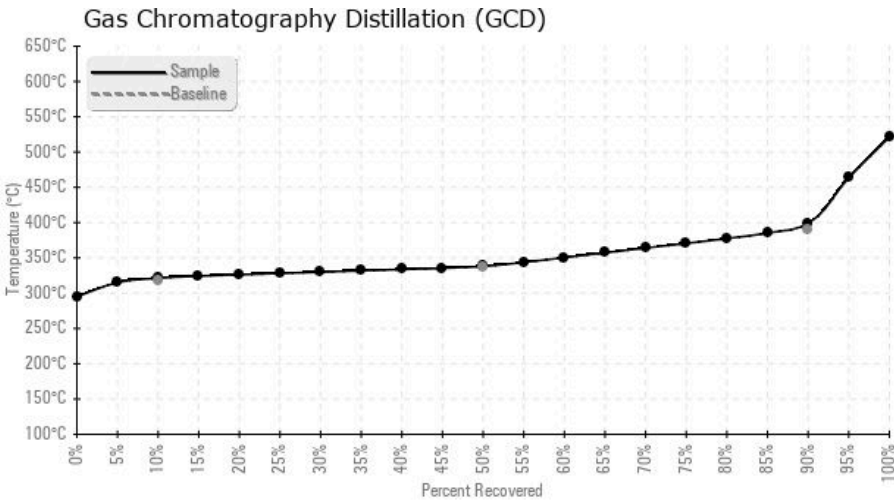
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
07/09/18	08/01/18	1m	U-813 FILLER	343 / 173	481.6	7.6	0.022	0.017	610 / 321	641 / 338	750 / 399	43.11
Baseline Data				349 / 176		7.52	0.1		604 / 318	640 / 338	734 / 390	35.0





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	
07/09/18	13	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	1	0	4	0	1	0	248	0	
Baseline Data			0	0						0			0	0					0					270	

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



Historical Comments	