

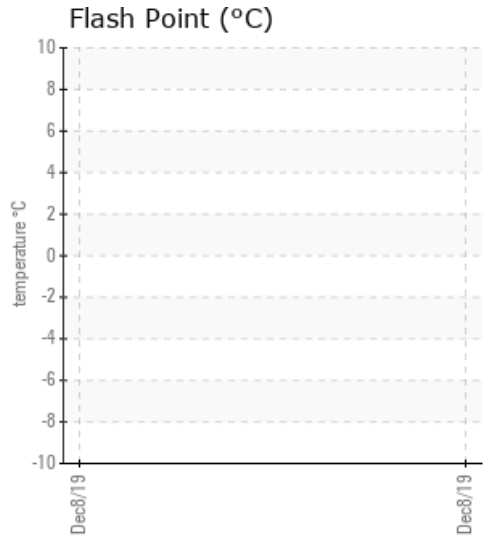
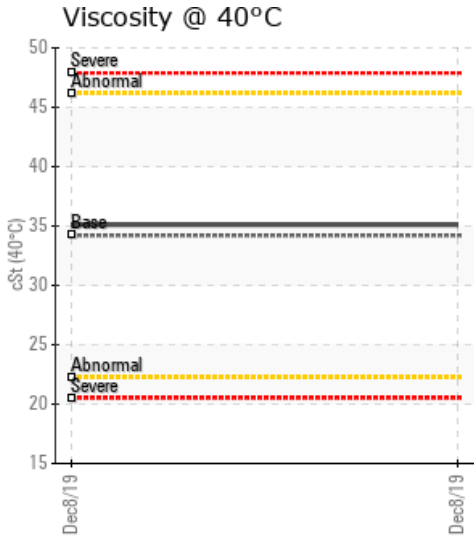
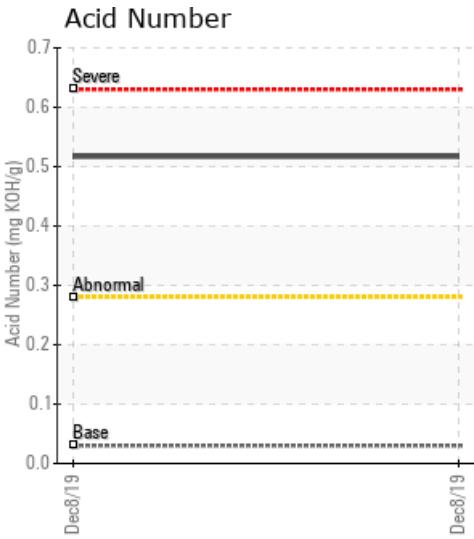
## PECO LSD 8-11-47-16W5

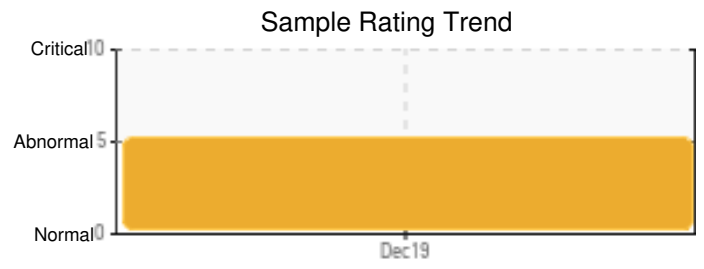
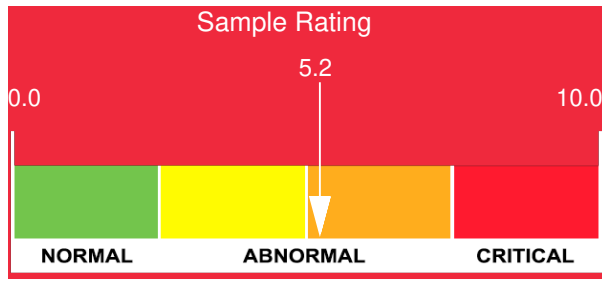
Customer: PTRHTF20233	System Information	Sample Information
CANLIN ENERGY 8-11-47-16W5 EDSON, AB Canada Attn: Dana Erickson Tel: (780)517-7585 E-Mail: dana.erickson@canlinenergy.com	System Volume: 7000 ltr Bulk Operating Temp: 401F / 205C Heating Source: Blanket: Fluid: PETRO CANADA PETRO-THERM Make: ALCO	Lab No: 02327612 Analyst: Terry Veenstra Sample Date: 12/08/19 Received Date: 12/17/19 Completed: 01/07/20

**Recommendation:** Sample contains a significant amount of water. Please ensure the sample is taken from a circulated area and that the sample line has been purged sufficiently. Too much water in the system can be a safety concern due to risk of boiler over. Results indicate that the sample may not be representative. Please resample and resubmit ASAP.

**Comments:** Water contamination levels are severely high. ppm Water contamination levels are severely high. ppm Water contamination levels are severely high.. Pentane Insolubles levels are abnormally high. Acid Number (AN) is abnormally high.

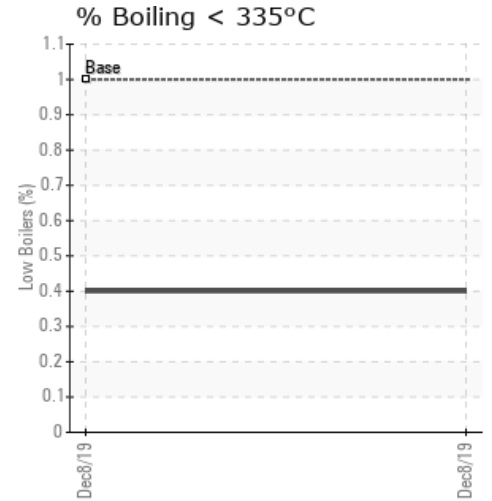
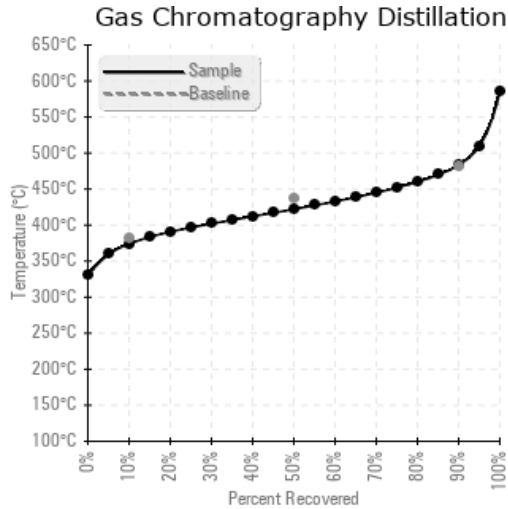
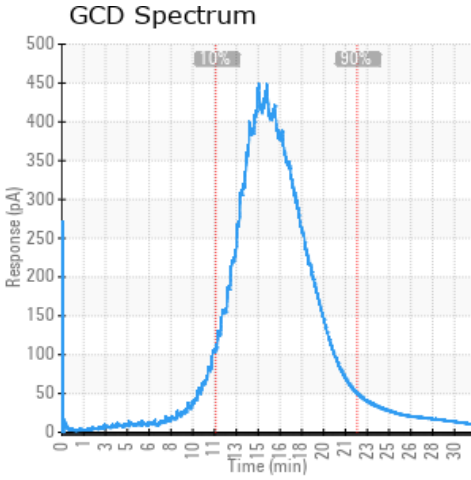
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
12/08/19	12/17/19	2y			1063.9	35.1	0.517	0.429	705 / 374	792 / 422	902 / 483	0.40
Baseline 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
12/08/19	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Baseline Data</b>			0	0						0			0	0					0				0	

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



### Historical Comments


Petro-Canada makes no representation or warranty of any kind, either express or implied, as to the accuracy or completeness of the analysis and assumes no responsibility and shall have no liability whatsoever with respect to such analysis, or a party's use of it. Petro-Canada is a division of HollyFrontier Corporation.