

[ATHABASCA OIL CORP / 14-22-078-10W4M] L2 (PAD B) LIESMER

Customer: PTRHTF20133
 ATHABASCA OIL CORP.
 LEISMER DEMONSTRATION PLANT
 LSD2-79-10-W4M
 NEAR CONKLIN, AB Canada
 Attn: George Ball
 Tel: (587)233-1312
 E-Mail: gball@atha.com

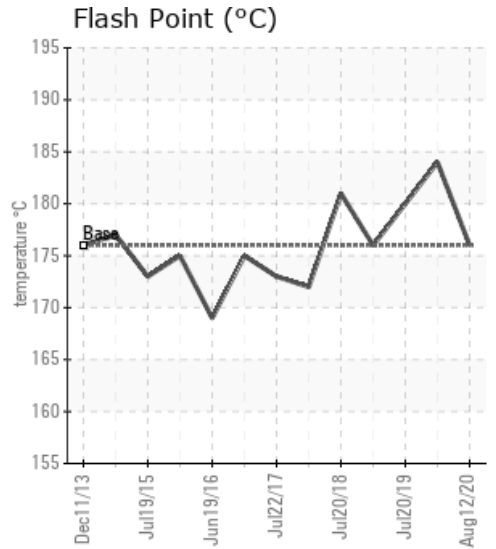
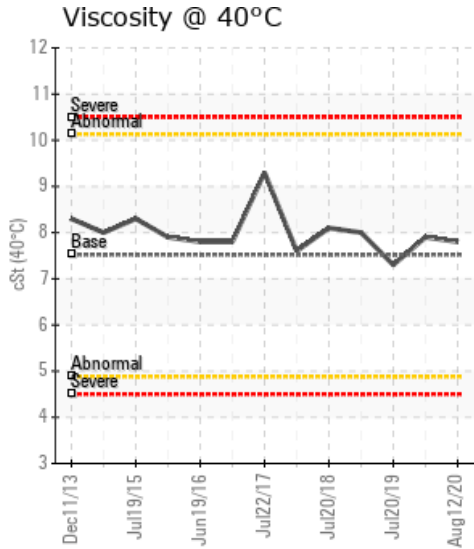
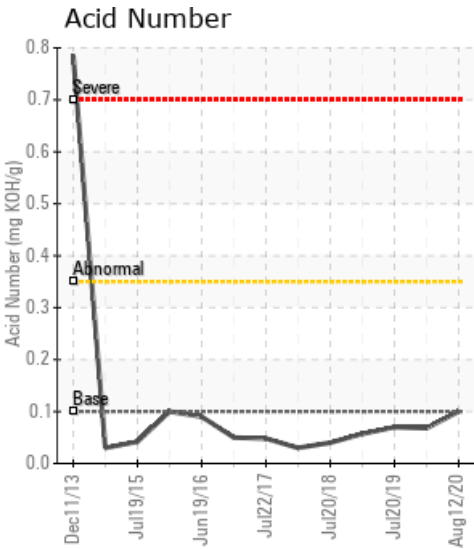
System Information
 System Volume: 8000 ltr
 Bulk Operating Temp: 212F / 100C
 Heating Source:
 Blanket:
 Fluid: PETRO CANADA CALFLO LT
 Make: TORNADO TECHNOLOGIES

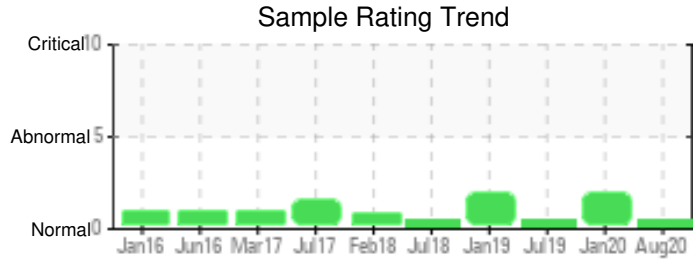
Sample Information
 Lab No: 02373237
 Analyst: Benjamin Latorre
 Sample Date: 08/12/20
 Received Date: 08/31/20
 Completed: 09/19/20
 Benjamin Latorre
 benjamin.latorre@petrocanadalsp.com

Recommendation: Results Normal. No action needed at this time. Resample at next scheduled date.

Comments:

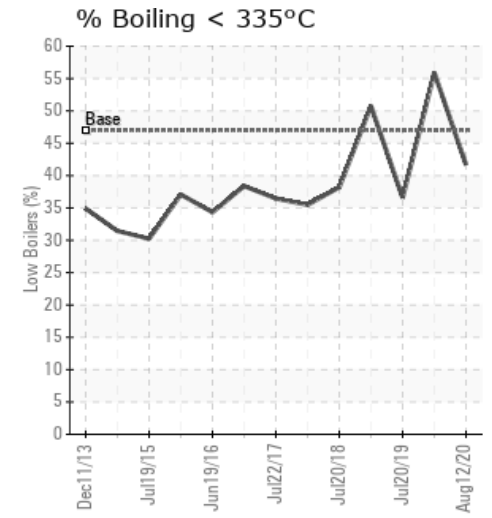
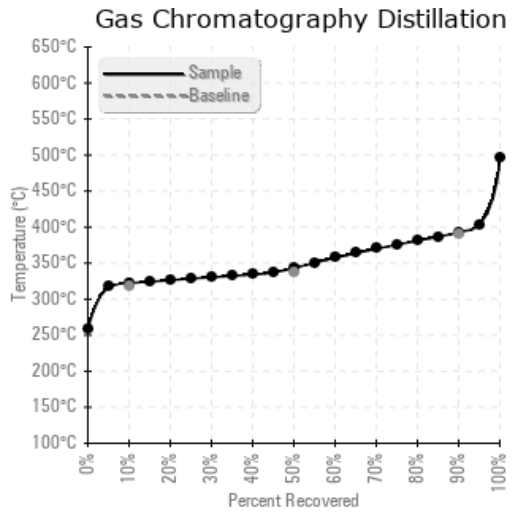
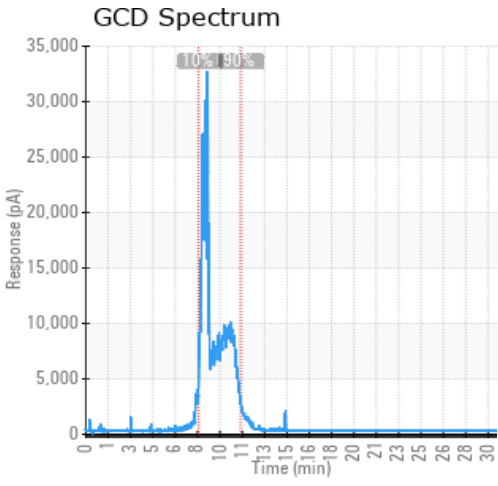
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
08/12/20	08/31/20	0y	PT0285	349 / 176	107.9	7.8	0.10	0.047	612 / 322	650 / 343	739 / 393	41.69
01/16/20	02/10/20	0y	HORM-12B-0009-001	363 / 184	19.3	7.9	0.068	0.084	583 / 306	621 / 327	704 / 373	55.91
07/20/19	08/09/19	0y		356 / 180	4.6	7.3	0.070	0.095	611 / 322	651 / 344	738 / 392	36.59
01/20/19	02/08/19	0y		349 / 176	7.9	8.0	0.057	0.014	591 / 311	632 / 333	720 / 382	50.77
07/20/18	08/10/18	3y	+/- 100M FROM HEATER	358 / 181	0.00	8.1	0.04	0.010	613 / 323	651 / 344	737 / 391	38.19
Baseline Data				349 / 176		7.52	0.1		604 / 318	640 / 338	734 / 390	47.0





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
08/12/20	8	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	188	0
01/16/20	8	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	184	0
07/20/19	2	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	184	0
01/20/19	3	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	180	0
07/20/18	5	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	190	0
Baseline Data			0	0						0			0	0				0	0				270	

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



Historical Comments	
01/16/20	Consider venting of system tank to reduce water and low boilers. Resample after venting. Wear metals low. Contaminants & Free Water levels are low. Emulsified water at 2000 ppm. (GCD) 90% Distillation Point is abnormally low. (GCD) % < 335°C is marginally high.
07/20/19	Test results are normal. No immediate action required. Resample at the next interval.
01/20/19	Results normal. Resample at next interval. Wear levels low/normal. Contamination low/normal. (GCD) % < 335 C is marginally high.
07/20/18	The fluid is in good condition and suitable for further use. The low boiler vapor content shows a minor increase from 35.48% to 38.19%. Therefore venting of these vapors to atmosphere on a regular basis is recommended. Please re-sample in 6 months.

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