

[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

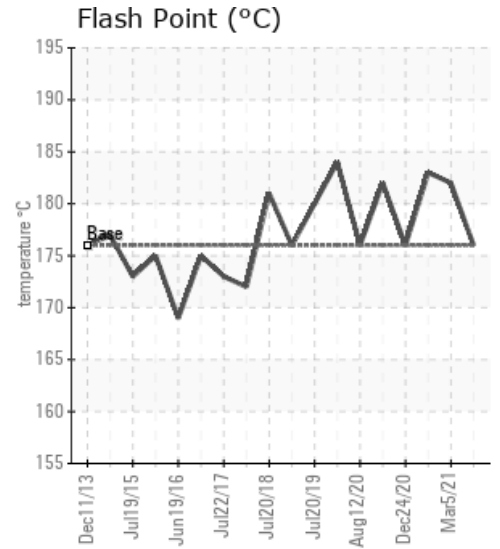
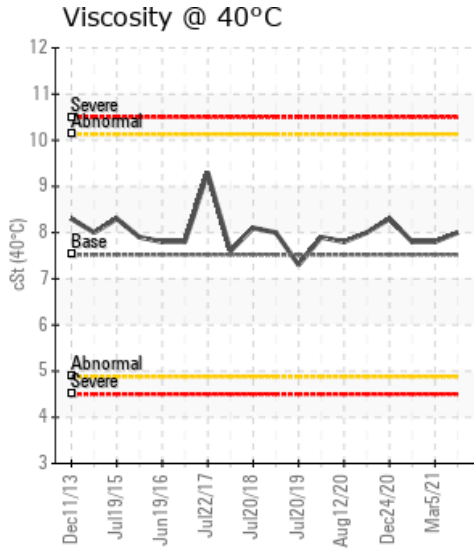
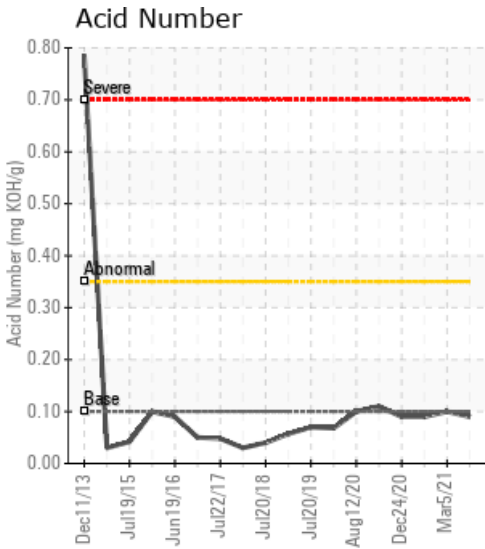
System Information
 System Volume: 8000 ltr
 Bulk Operating Temp: 212F / 100C
 Heating Source:
 Blanket:
 Fluid: PETRO CANADA CALFLO LT
 Make: TORNADO TECHNOLOGIES

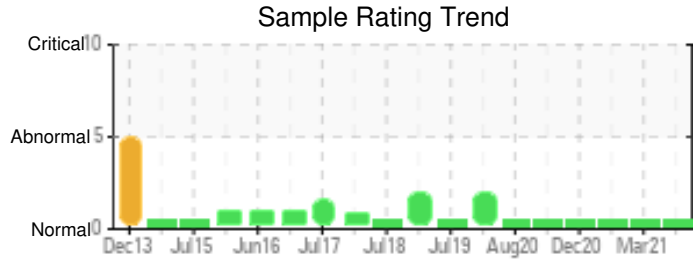
Sample Information
 Lab No: 02437749
 Analyst: Terry Veenstra
 Sample Date: 07/29/21
 Received Date: 08/10/21
 Completed: 08/16/21
 Terry Veenstra
 terry.veenstra@hollyfrontier.com

Recommendation: Fluid is in good condition and is suitable for continued use. Resample in 6 months.

Comments:

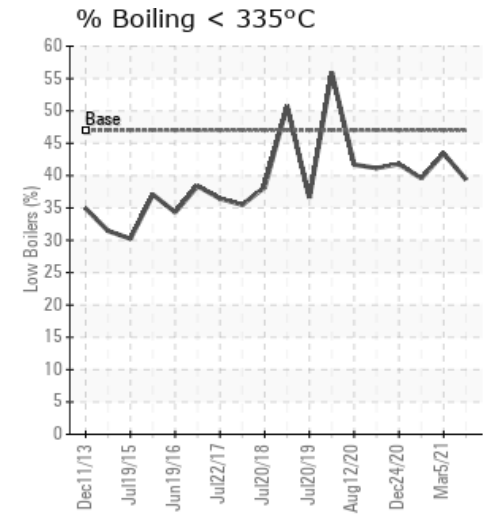
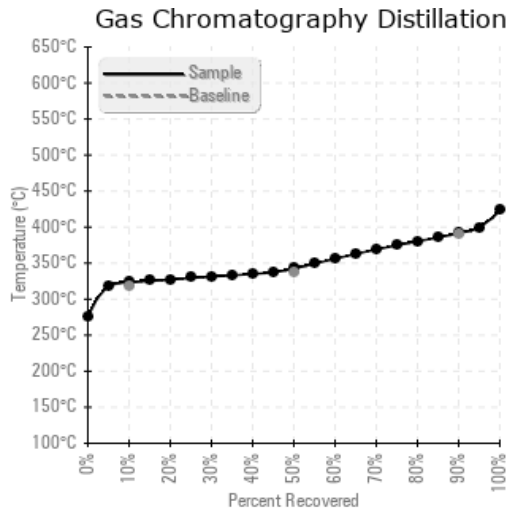
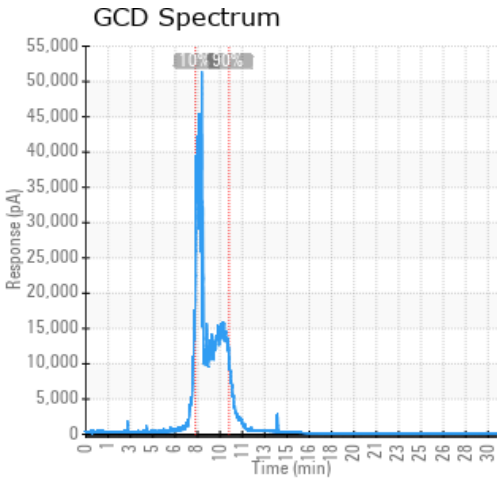
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
07/29/21	08/10/21	0.0y	12B pit 0285	349 / 176	14.4	8	0.09	0.038	614 / 323	648 / 342	737 / 392	39.38
03/05/21	03/16/21	0.0y		360 / 182	0.00	7.8	0.10	0.045	609 / 321	647 / 342	739 / 393	43.41
02/03/21	02/24/21	0.0y	Bott. of tracer tree	361 / 183	111.0	7.8	0.09	0.046	612 / 322	651 / 344	740 / 393	39.59
12/24/20	01/04/21	0.0y		349 / 176	41.5	8.3	0.09	0.037	611 / 322	649 / 343	740 / 393	41.77
12/24/20	01/04/21	0.0y	Return tree	360 / 182	12.0	8.0	0.11	0.038	612 / 322	649 / 343	739 / 393	41.15
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	
07/29/21	5	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	185	0	
03/05/21	5	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	171	0
02/03/21	5	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	172	0
12/24/20	8	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	180	0
12/24/20	8	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	181	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

03/05/21	This oil appears to be in very good condition. GCD's all look normal, Pentane Insolubles are low. Flash point is at new oil spec.
02/03/21	Fluid is in good condition and good for continued use. Resample in 6 months
12/24/20	Fluid in very good condition. This is the second of two samples that were taken December 24 and therefore has almost identical results compared to the first one.
12/24/20	Fluid is in very good condition. No change since the previous sample in August 2020. Chlorine content 4.7 ppm

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