

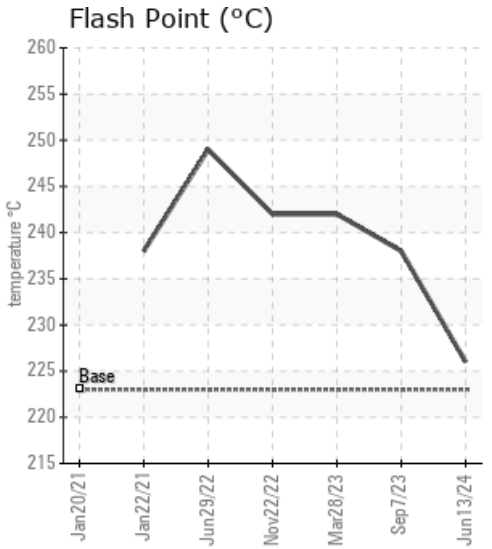
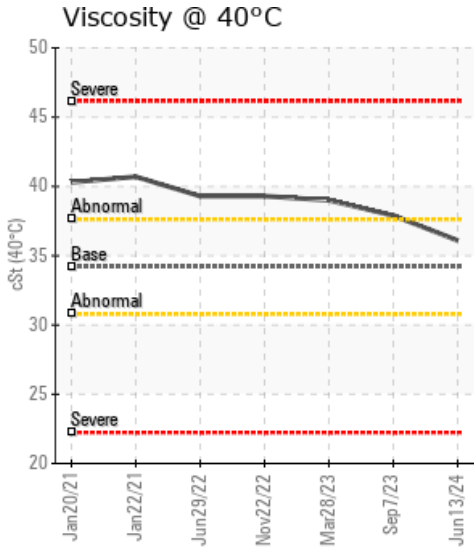
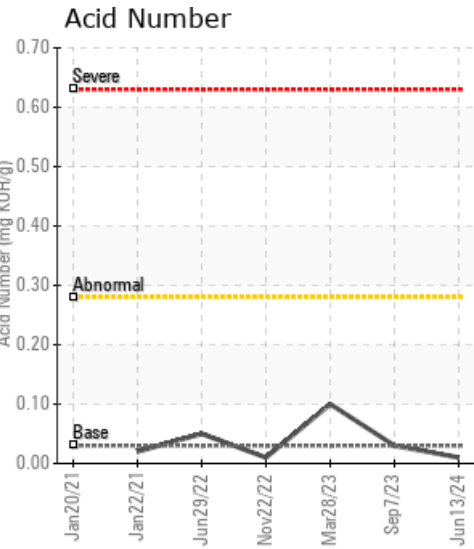
## [01-21-63-02W6] LATOR 1 HEAT MEDIUM

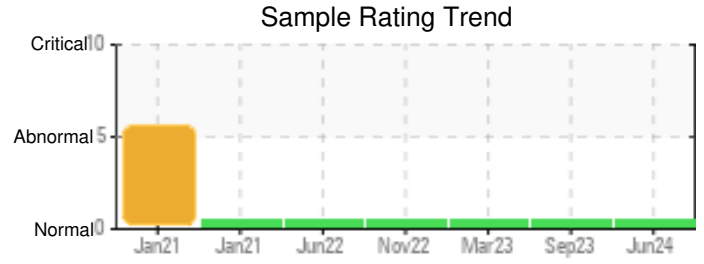
Customer: PTRHTF20207	System Information	Sample Information
Arc Resources	System Volume: 8000 ltr	Lab No: 02644074
Grande Prairie, AB T8V 8H7 CA	Bulk Operating Temp: 302F / 150C	Analyst: Clinton Buhler
Attn: Vernon Bonwick	Heating Source:	Sample Date: 06/13/24
Tel:	Blanket:	Received Date: 06/25/24
E-Mail: vbonwick@arcresources.com	Fluid: PETRO CANADA PETRO-THERM	Completed: 07/03/24
	Make: PETRO TECH	Clinton Buhler
		Clinton.Buhler@HFSinclair.com

Recommendation: Sample results indicate the mix of Chevron 46 and Petro-Therm is in suitable condition for continued service. Please re-sample in 12 months.

Comments:

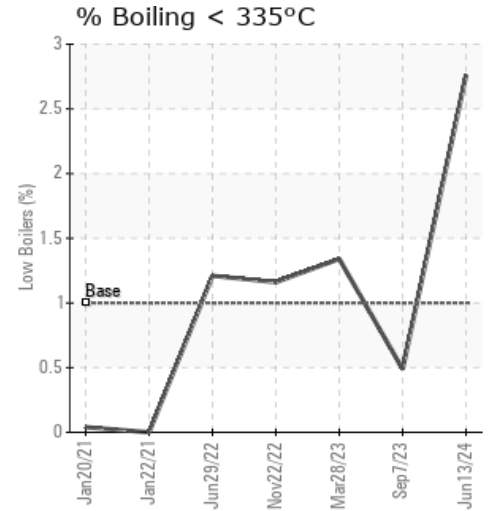
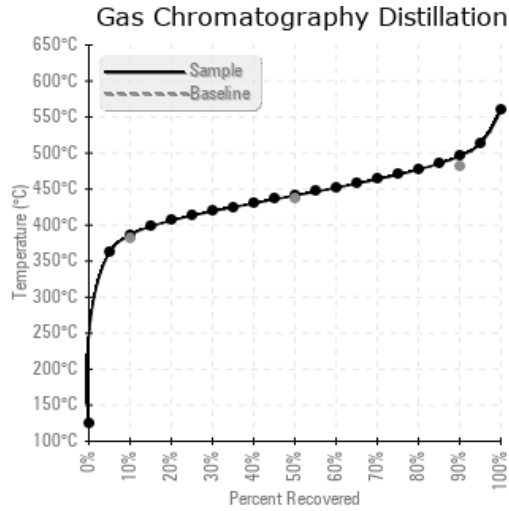
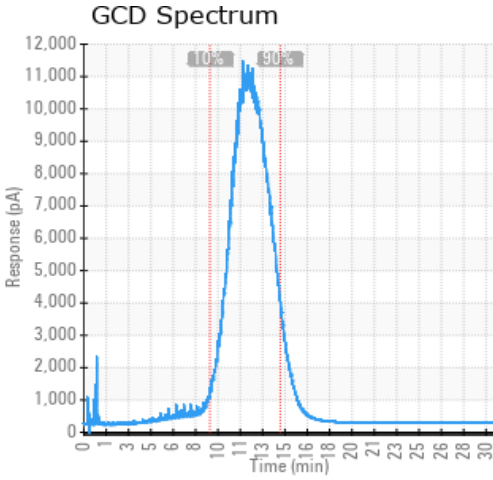
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
06/13/24	06/25/24	4.0y	D/S OF BOILER	439 / 226	49	36.1	0.01	0.048	728 / 387	826 / 441	924 / 496	2.76
09/07/23	09/22/23	4.0y	discharge pump	460 / 238	72.4	37.9	0.03	0.054	741 / 394	831 / 444	926 / 497	0.49
03/28/23	04/11/23	4.0y		468 / 242	50.2	39.0	0.10	0.039	749 / 398	840 / 449	930 / 499	1.34
11/22/22	12/02/22	3.0y	pump discharge	468 / 242	24.8	39.3	0.01	0.030	750 / 399	840 / 449	931 / 500	1.16
06/29/22	07/20/22	3.2y	Pump discharge	480 / 249	30.9	39.3	0.05	0.062	747 / 397	840 / 449	928 / 498	1.21
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
06/13/24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09/07/23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
03/28/23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/22/22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06/29/22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Baseline Data			0	0						0			0	0					0				0	

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



### Historical Comments

09/07/23	Sample results indicate this mix of Chevron 46 and Petro-Therm is in suitable condition for continued service. Please re-sample in 12 months.
03/28/23	Sample results indicate that the heat transfer fluid is in suitable condition for continued service. Please re-sample after 12 months.
11/22/22	Sample results indicate that the heat transfer fluid is in suitable condition for continued service. Please re-sample after 12 months.
06/29/22	Sample results indicate that the heat transfer fluid is in suitable condition for continued service. Please re-sample in 12 months.

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