

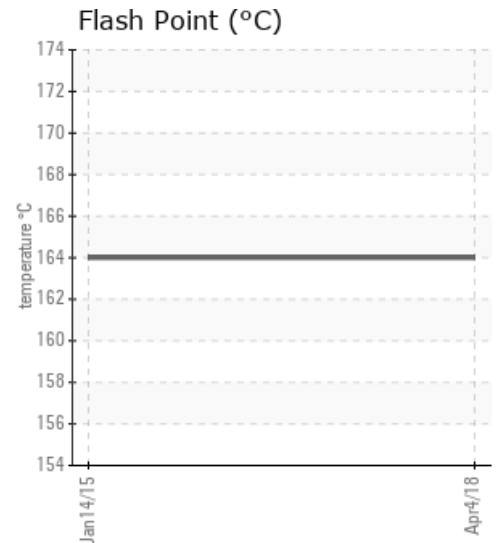
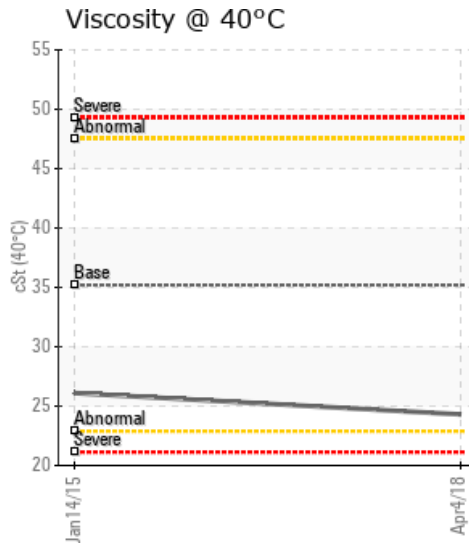
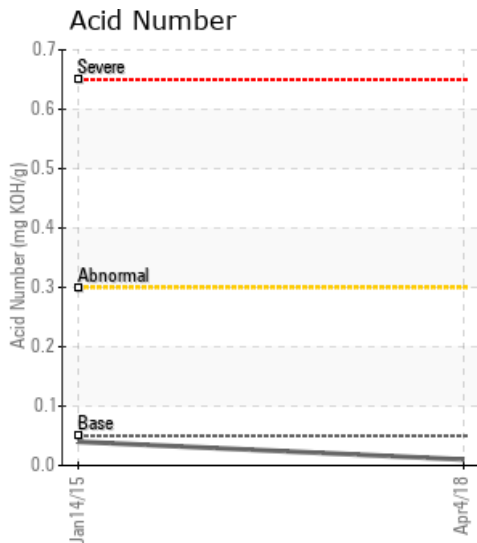
VASOESPANSIONE

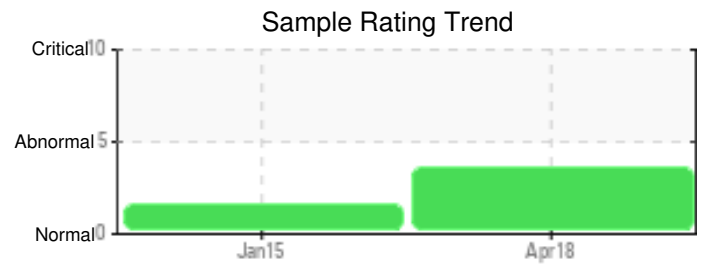
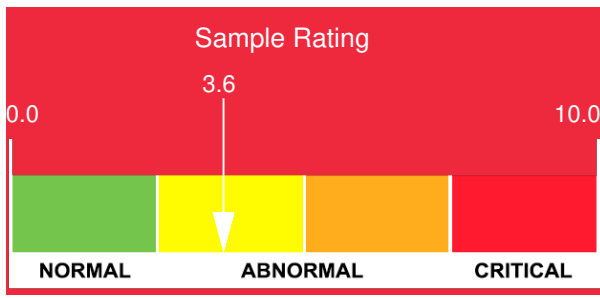
Customer: PTRHTF40117	System Information	Sample Information
REAL BEEF SRL LOCALITA TIERZI ZONA IND. FLUMERI AV, 83040 Italy Attn: Marco Munafo Tel: E-Mail: m.munafo@mascherpa.it	System Volume: 15000 ltr Bulk Operating Temp: 500F / 260C Heating Source: Blanket: Fluid: SHELL THERMIA B Make: BABCOCK MON INCDEO	Lab No: 02211568 Analyst: Alexander Panov Sample Date: 04/04/18 Received Date: 04/23/18 Completed: 07/03/18 To discuss this report contact Alexander Panov at (496)214-4586269

Recommendation: Fluid shows clear signs of Thermal Cracking. Consider venting the system to remove low boilers and examine the system for deposits. If necessary change fluid. COC Flash Point is abnormally low. (GCD) 10% Distillation Point is abnormally low. (GCD) % < 335°C is marginally high.

Comments: COC Flash Point is abnormally low. (GCD) 10% Distillation Point is abnormally low. (GCD) % < 335°C is marginally high.

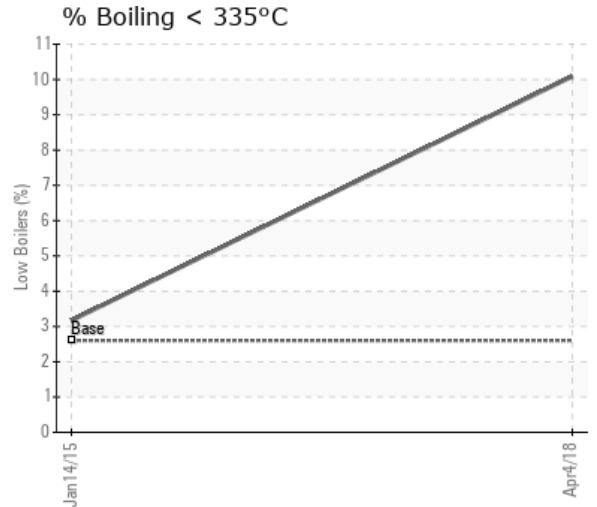
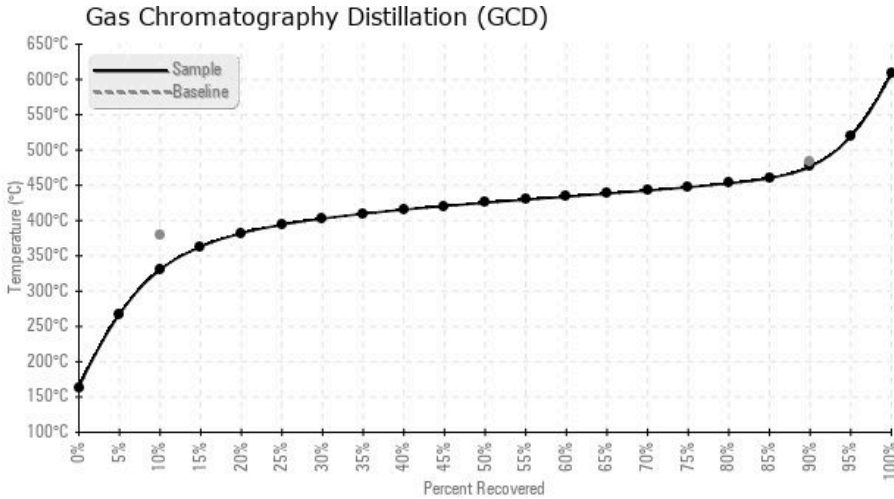
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
04/04/18	04/23/18	9y		327 / 164	21.6	24.3	0.01	0.285	626 / 330	797 / 425	889 / 476	10.09
01/14/15	02/23/15	6y	VASO SPANSIONE	327 / 164	11.9	26.1	0.04	0.037	723 / 384	821 / 438	879 / 471	3.17
Baseline Data				428 / 220		35.2	0.05		714 / 379		903 / 484	2.60





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
04/04/18	46	0	0	0	0	0	0	6	0	0	1	0	0	0	0	0	1	0	3	0	6	0	9	2
01/14/15	1	0	0	0	0	0	2	1	0	0	0	1	0	0	0	0	0	0	0	0	1	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

01/14/15	Sample shows signs of Low Boilers present. Strip low boilers if possible. Oil is fit for further service, sample at next scheduled maintenance interval. COC Flash Point is abnormally low. (GCD) 90% Distillation Point is marginally low.
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