



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
TMR-Riviera Beach
Machine Id
231160 LIEBHERR LH40M 1202-75762
Component
Hydraulic System
Fluid
AMALIE 68W (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DJJ0023198	DJJ0021107	DJJ0007670
Sample Date		Client Info		09 Jul 2024	13 Oct 2023	25 Mar 2021
Machine Age	hrs	Client Info		15282	14181	9701
Oil Age	hrs	Client Info		500	0	500
Filter Age	hrs	Client Info		500	0	500
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	N/A	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>60	11	8	5
Chromium	ppm	ASTM D5185m	>40	1	<1	<1
Nickel	ppm	ASTM D5185m	>10	<1	0	<1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>5	2	<1	<1
Lead	ppm	ASTM D5185m	>5	<1	0	<1
Copper	ppm	ASTM D5185m	>15	2	1	<1
Tin	ppm	ASTM D5185m	>5	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

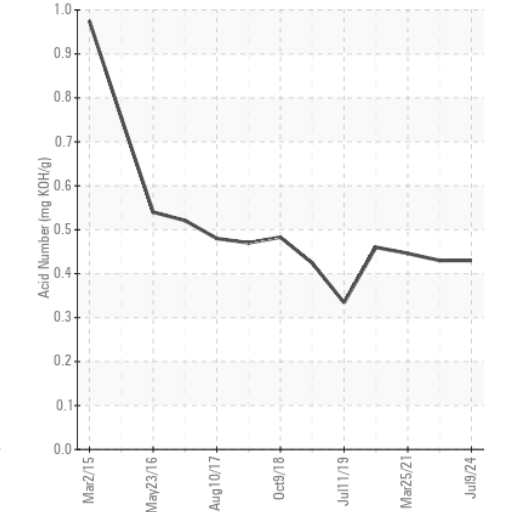
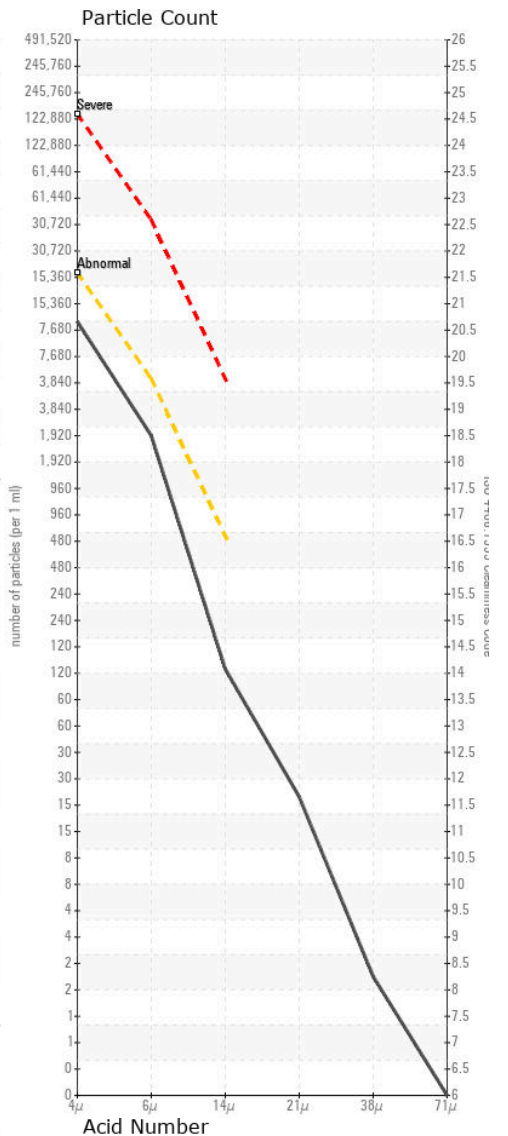
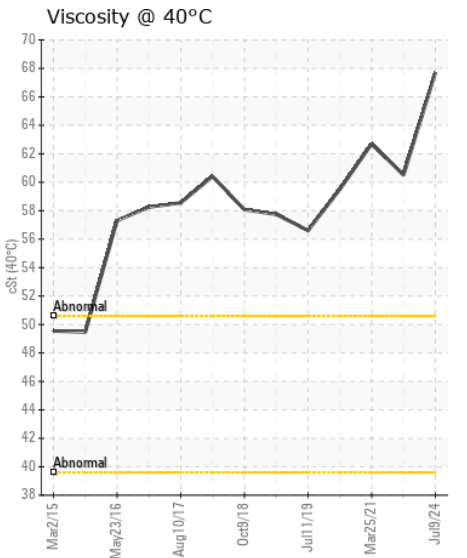
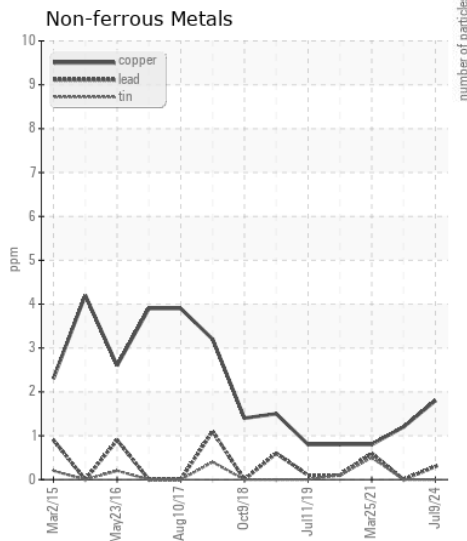
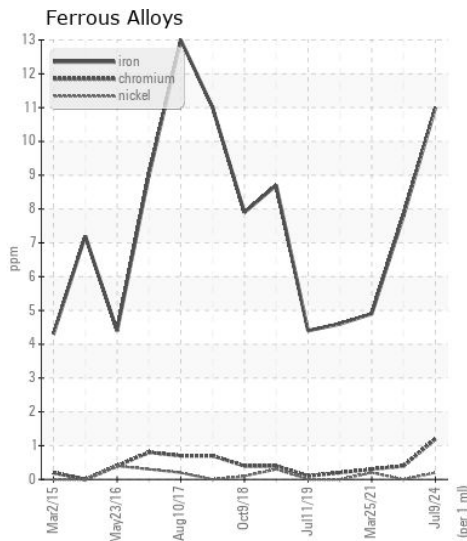
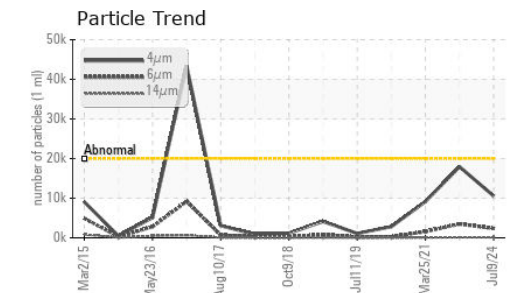
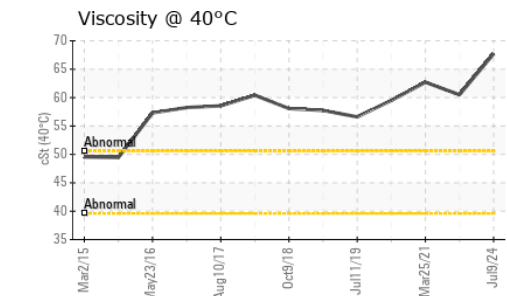
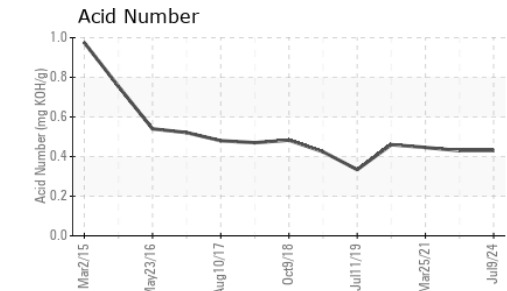
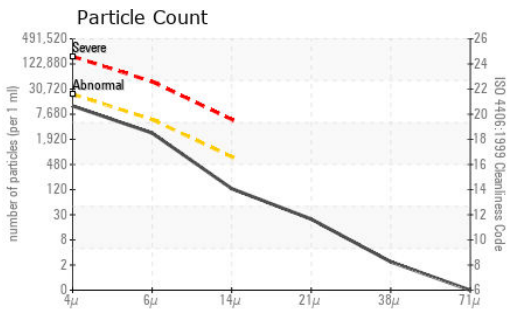
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>15	2	<1	0
Potassium	ppm	ASTM D5185m	>20	2	0	12
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>20000	10567	17936	9152
Particles >6µm		ASTM D7647	>5000	2373	3497	1553
Particles >14µm		ASTM D7647	>640	112	142	69
Particles >21µm		ASTM D7647	>160	21	39	11
Particles >38µm		ASTM D7647	>40	2	3	0
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	21/18/14	21/19/14	20/18/13
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<1	1	5
Boron	ppm	ASTM D5185m		8	8	16
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		5	5	8
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m		30	30	30
Calcium	ppm	ASTM D5185m		197	176	220
Phosphorus	ppm	ASTM D5185m		357	372	356
Zinc	ppm	ASTM D5185m		459	450	413
Sulfur	ppm	ASTM D5185m		995	1111	1104
Acid Number (AN)	mg KOH/g	ASTM D8045		0.43	0.43	0.446
Visc @ 40°C	cSt	ASTM D445		67.7	60.5	62.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DJJ0023198
Lab Number : 06235860
Unique Number : 11124694
Test Package : CONST

Received : 15 Jul 2024
Tested : 16 Jul 2024
Diagnosed : 16 Jul 2024 - Don Baldrige

TRADEMARK METALS RECYCLING - RIVIERA BEACH
 4661 DYER BLVD
 WEST PALM BEACH, FL
 US 33407
 Contact: RYAN BOWDEN

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T:
 F: (561)842-9526