



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
TMR-Riviera Beach
Machine Id
231160 LIEBHERR LH40M 1202-75762
Component
Rear Differential
Fluid
AMALIE 85W140 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DJJ0023195	DJJ0021110	DJJ0007666
Sample Date		Client Info		09 Jul 2024	13 Oct 2023	29 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	0
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

Bearing and/or bushing wear is indicated. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	47	62	25
Chromium	ppm	ASTM D5185m	>5	<1	0	<1
Nickel	ppm	ASTM D5185m	>10	<1	0	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>5	2	<1	0
Lead	ppm	ASTM D5185m	>5	<1	2	<1
Copper	ppm	ASTM D5185m	>125	▲ 233	▲ 215	113
Tin	ppm	ASTM D5185m	>5	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

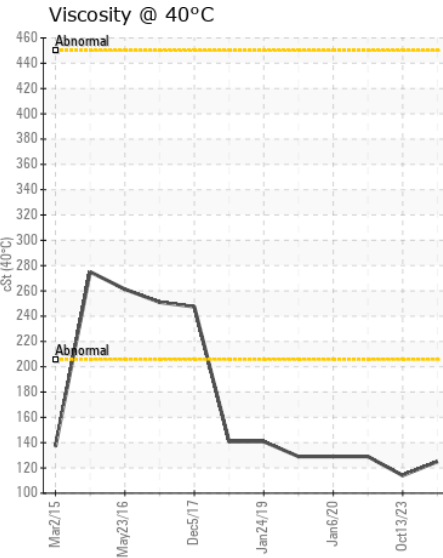
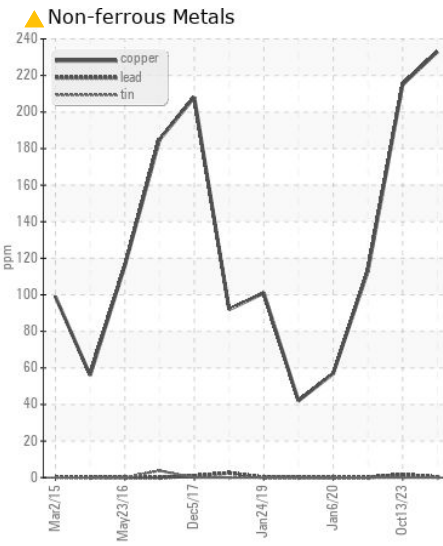
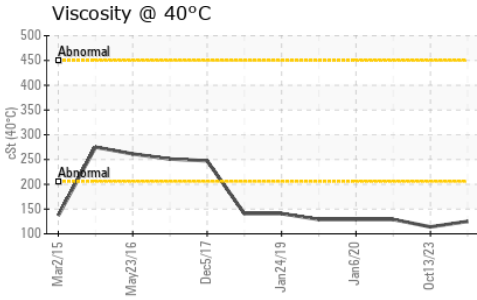
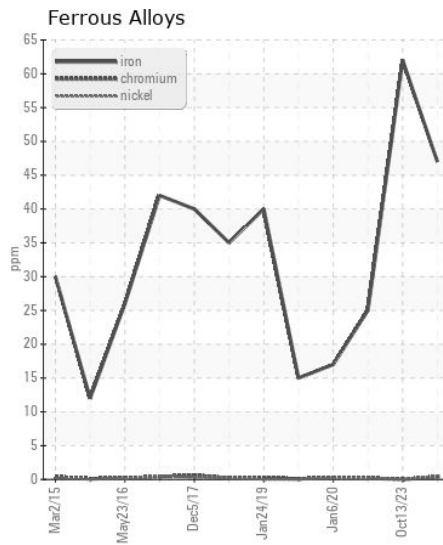
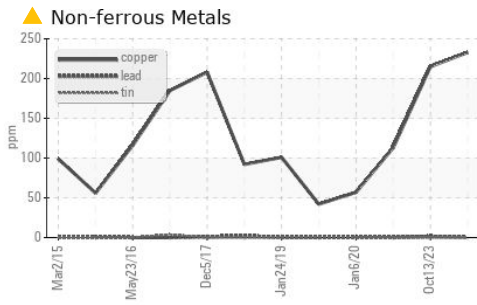
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	6	5	2
Potassium	ppm	ASTM D5185m	>20	1	<1	2
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	VLITE
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	>0.2	NEG	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		2	3	2
Boron	ppm	ASTM D5185m		77	79	98
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		4	1	2
Manganese	ppm	ASTM D5185m		2	1	<1
Magnesium	ppm	ASTM D5185m		15	3	4
Calcium	ppm	ASTM D5185m		37	25	11
Phosphorus	ppm	ASTM D5185m		802	860	799
Zinc	ppm	ASTM D5185m		104	110	36
Sulfur	ppm	ASTM D5185m		16242	18984	16127
Visc @ 40°C	cSt	ASTM D445		125	114	129



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DJJ0023195
Lab Number : 06236512
Unique Number : 11125346
Test Package : CONST

Received : 15 Jul 2024
Tested : 16 Jul 2024
Diagnosed : 17 Jul 2024 - Sean Felton

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)

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