



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
RMR-Somerset
Machine Id
18892 LIEBHERR A934B 028807-935
Component
Swing Drive
Fluid
LIEBHERR GEAR BASIC 90 LS (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DJJ0021702	DJJ0017733	DJJ0011943
Sample Date		Client Info		16 Apr 2024	28 Aug 2023	02 Nov 2021
Machine Age	hrs	Client Info		19831	19131	16982
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>1450	406	61	152
Chromium	ppm	ASTM D5185m	>11	3	<1	1
Nickel	ppm	ASTM D5185m	>3	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>4	0	2	2
Lead	ppm	ASTM D5185m	>4	0	0	<1
Copper	ppm	ASTM D5185m	>542	68	85	52
Tin	ppm	ASTM D5185m	>38	2	2	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

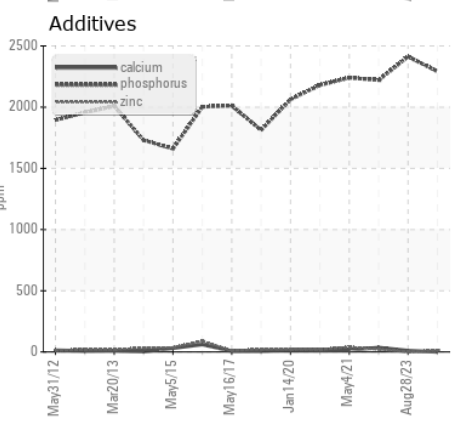
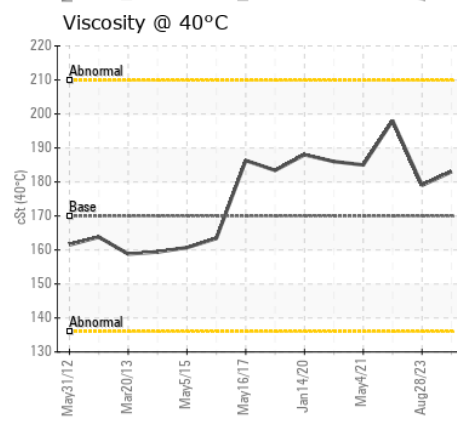
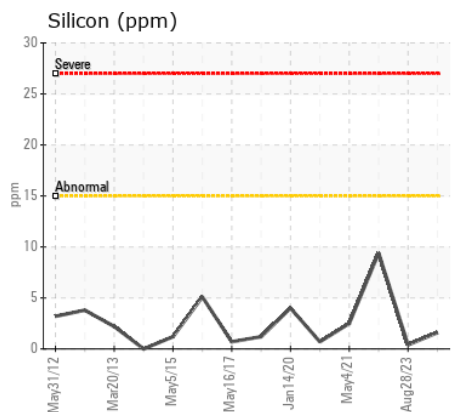
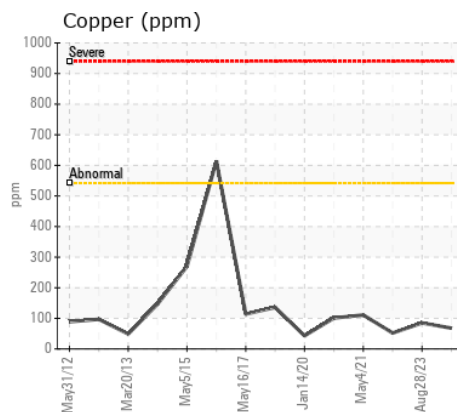
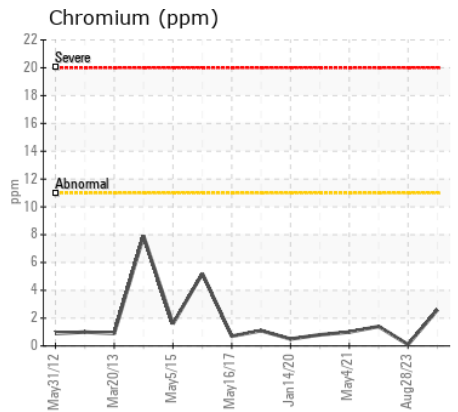
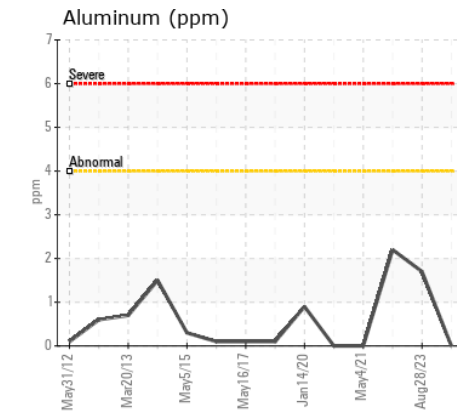
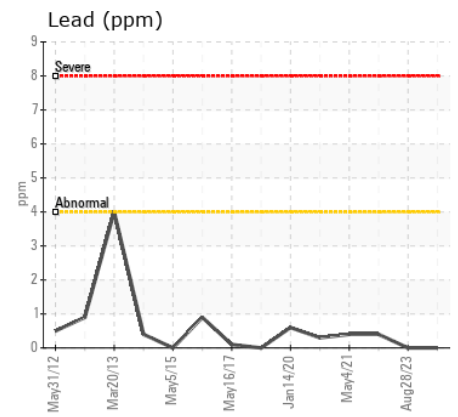
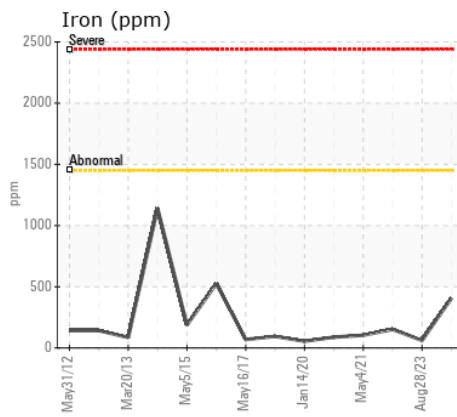
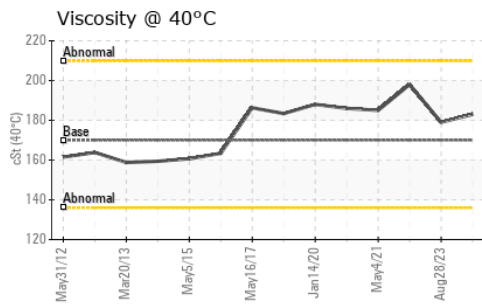
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>15	2	<1	9
Potassium	ppm	ASTM D5185m	>20	<1	0	<1
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	LIGHT	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	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		2	1	0
Boron	ppm	ASTM D5185m	0	<1	0	10
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0	<1
Manganese	ppm	ASTM D5185m	0	4	<1	1
Magnesium	ppm	ASTM D5185m	<1	0	0	2
Calcium	ppm	ASTM D5185m	<1	0	11	36
Phosphorus	ppm	ASTM D5185m	2143	2292	2413	2221
Zinc	ppm	ASTM D5185m	<1	12	0	21
Sulfur	ppm	ASTM D5185m	23468	33765	34895	23054
Visc @ 40°C	cSt	ASTM D445	170	183	179	198



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DJJ0021702
Lab Number : 06154955
Unique Number : 10990378
Test Package : MOBCE
Received : 19 Apr 2024
Tested : 22 Apr 2024
Diagnosed : 22 Apr 2024 - Wes Davis

RIVER METALS RECYCLING - SOMERSET
 905 CRANE ROAD
 SOMERSET, KY
 US 42501
 Contact: RYAN BOWDEN

Certificate L2367
 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)