



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
AMR-St Joe
Machine Id
115441 LIEBHERR LH50 115441
Component
Front Left Planetary
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		DJJ0018508	DJJ0018481	DJJ0018531
Sample Date		Client Info		18 Jun 2024	10 Jan 2024	30 May 2023
Machine Age	hrs	Client Info		1999	1496	998
Oil Age	hrs	Client Info		0	500	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>500	34	42	57
Chromium	ppm	ASTM D5185m	>10	0	<1	0
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>25	<1	2	0
Lead	ppm	ASTM D5185m	>25	<1	0	0
Copper	ppm	ASTM D5185m	>75	11	14	22
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

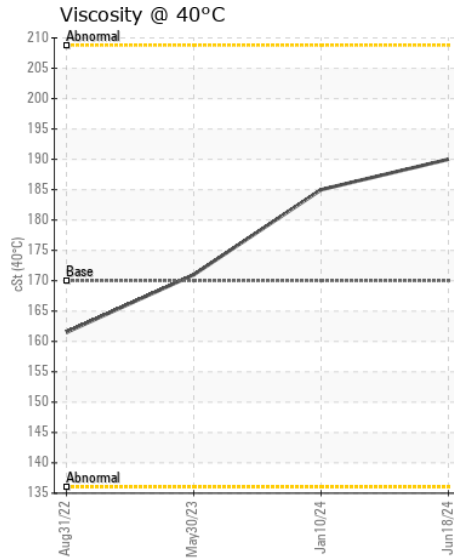
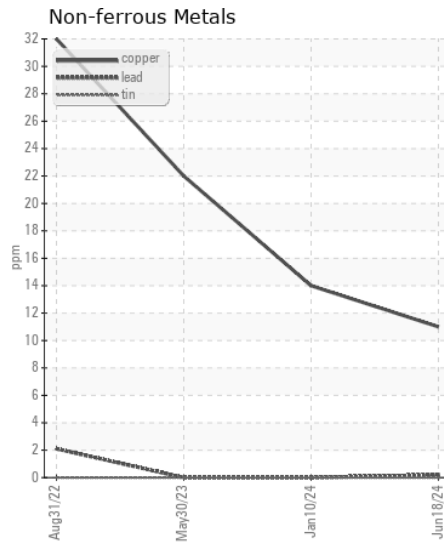
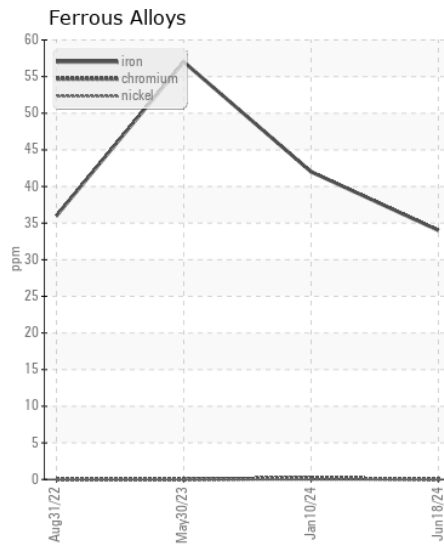
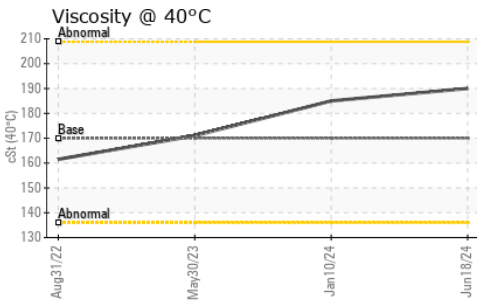
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	5	5	15
Potassium	ppm	ASTM D5185m	>20	<1	3	0
Water		WC Method	>0.2	NEG	NEG	NEG
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	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		16	12	14
Boron	ppm	ASTM D5185m	0	1	1	0
Barium	ppm	ASTM D5185m	0	<1	10	0
Molybdenum	ppm	ASTM D5185m	0	0	<1	<1
Manganese	ppm	ASTM D5185m	0	1	<1	2
Magnesium	ppm	ASTM D5185m	<1	0	<1	0
Calcium	ppm	ASTM D5185m	<1	35	55	121
Phosphorus	ppm	ASTM D5185m	2143	2286	2218	2007
Zinc	ppm	ASTM D5185m	<1	34	0	24
Sulfur	ppm	ASTM D5185m	23468	28168	31110	25056
Visc @ 40°C	cSt	ASTM D445	170	190	185	171



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DJJ0018508
Lab Number : 06222913
Unique Number : 11101110
Test Package : CONST

Received : 27 Jun 2024
Tested : 28 Jun 2024
Diagnosed : 28 Jun 2024 - Wes Davis

ADVANTAGE METALS RECYCLING - ST JOSEPH
 750 S 4TH ST
 ST JOSEPH, MO
 US 64501

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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)