



LIEBHERR

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR R934 025778-918
Component
Splitter Box
Fluid
GEAR OIL LS 80W90 (--- GAL)

RECOMMENDATION

The oil 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		LH0273807	LH0190479	LHMC34847
Sample Date		Client Info		12 Apr 2024	09 Apr 2021	02 Sep 2011
Machine Age	hrs	Client Info		4594	3853	572
Oil Age	hrs	Client Info		0	0	572
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				ABNORMAL	NORMAL	NORMAL

WEAR

The aluminum level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>330	105	52	33
Chromium	ppm	ASTM D5185m	>10	2	1	2
Nickel	ppm	ASTM D5185m	>2	<1	<1	<1
Titanium	ppm	ASTM D5185m	>4	<1	0	0
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>10	▲ 40	7	3
Lead	ppm	ASTM D5185m	>4	<1	2	0
Copper	ppm	ASTM D5185m	>30	4	3	1
Tin	ppm	ASTM D5185m	>5	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	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.

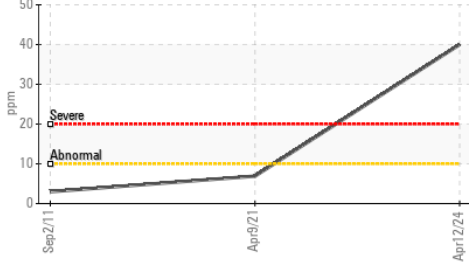
Silicon	ppm	ASTM D5185m	>35	15	5	4
Potassium	ppm	ASTM D5185m	>20	19	11	19
Water		WC Method	>0.1	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG

FLUID CONDITION

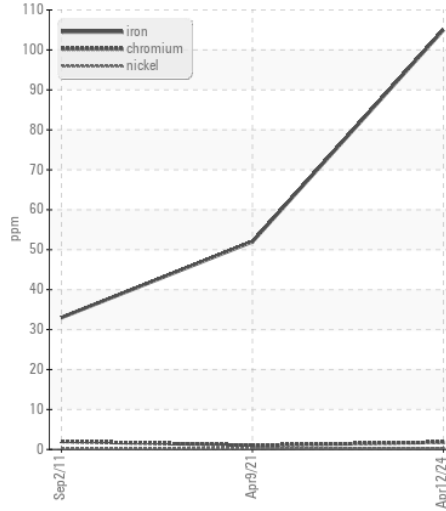
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>25	<1	1	2
Boron	ppm	ASTM D5185m	150	32	21	5
Barium	ppm	ASTM D5185m		33	76	138
Molybdenum	ppm	ASTM D5185m		2	0	<1
Manganese	ppm	ASTM D5185m		2	2	2
Magnesium	ppm	ASTM D5185m	10	17	3	4
Calcium	ppm	ASTM D5185m	70	114	11	14
Phosphorus	ppm	ASTM D5185m	2000	936	978	1008
Zinc	ppm	ASTM D5185m	50	210	105	62
Sulfur	ppm	ASTM D5185m	20000	19391	18719	22267
Visc @ 40°C	cSt	ASTM D445	140	134	151	154.8

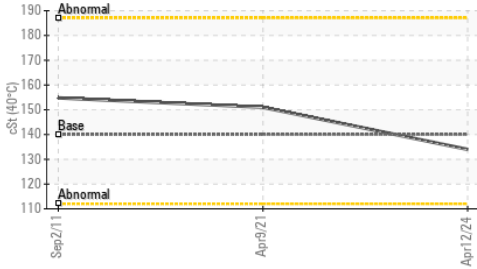
▲ Aluminum (ppm)



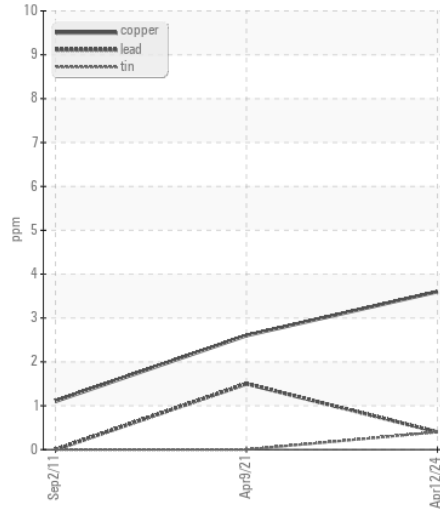
Ferrous Alloys



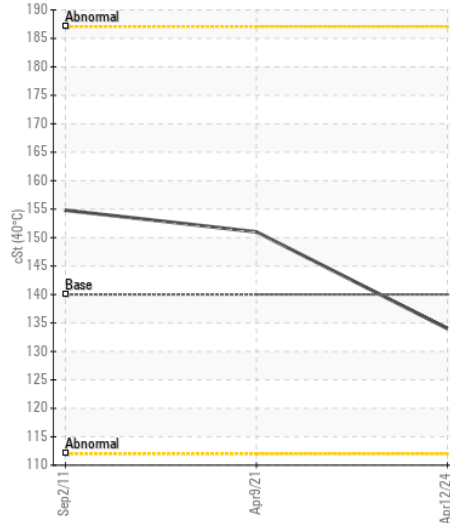
Viscosity @ 40°C



Non-ferrous Metals



Viscosity @ 40°C



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LH0273807
Lab Number : 06153847
Unique Number : 10989270
Test Package : CONST

Received : 18 Apr 2024
Tested : 24 Apr 2024
Diagnosed : 24 Apr 2024 - Jonathan Hester

AMERICAN STATE EQUIPMENT CO.
 2400 NORTH 14TH AVENUE
 WAUSAU, WI
 US 54401

Contact: CHRIS BARTNIK
 cbartnik@amstate.com

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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