



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL



Area
(353864)
Machine Id
LIEBHERR L546 062410-1755
Component
Hydraulic System
Fluid
LIEBHERR HYDRAULIC PLUS (95 LTR)

RECOMMENDATION

We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH	LH0260964	LH0260922
Sample Date		Client Info		25 Mar 2024	23 Jun 2023	21 Apr 2023
Machine Age	hrs	Client Info		3420	2406	2044
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Not Changd	Not Changd
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ATTENTION	ATTENTION	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>20	19	15	16
Chromium	ppm	ASTM D5185(m)	>10	4	2	2
Nickel	ppm	ASTM D5185(m)	>10	0	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>10	2	1	2
Lead	ppm	ASTM D5185(m)	>10	10	10	9
Copper	ppm	ASTM D5185(m)	>75	7	7	7
Tin	ppm	ASTM D5185(m)	>10	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

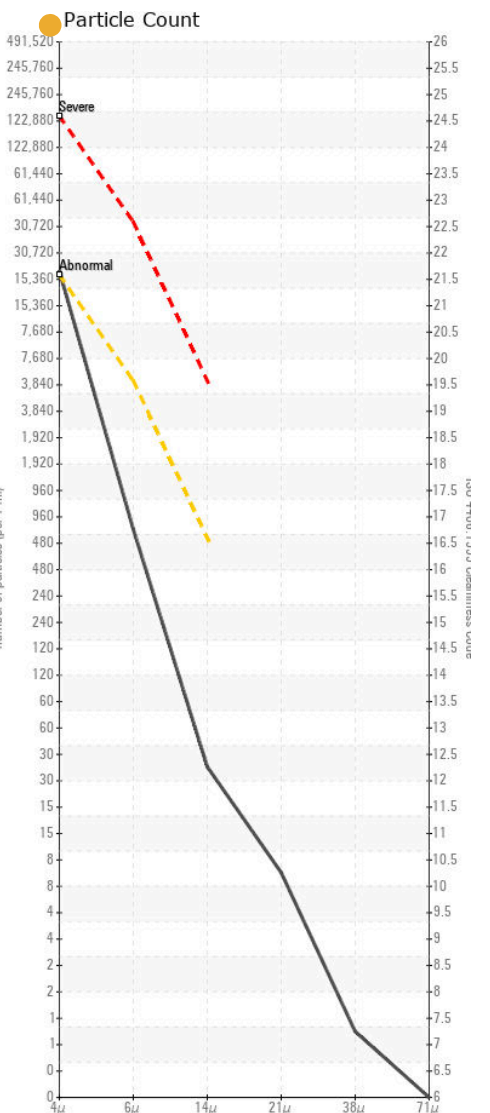
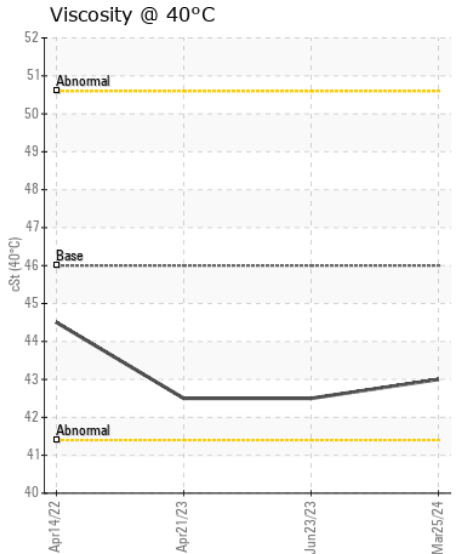
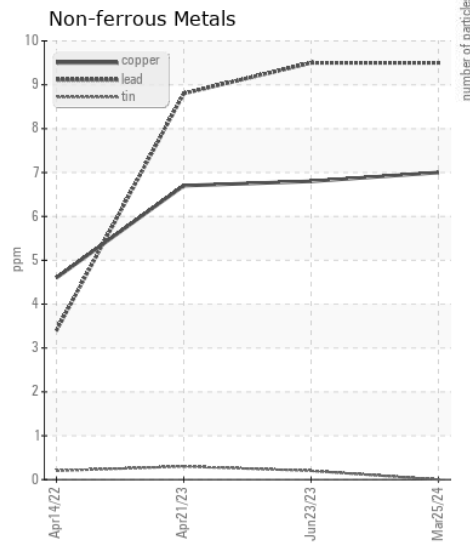
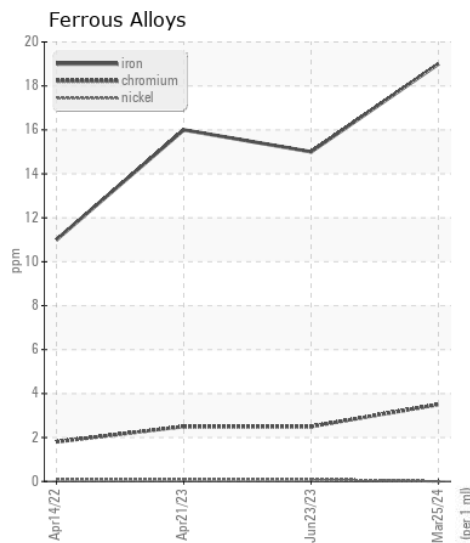
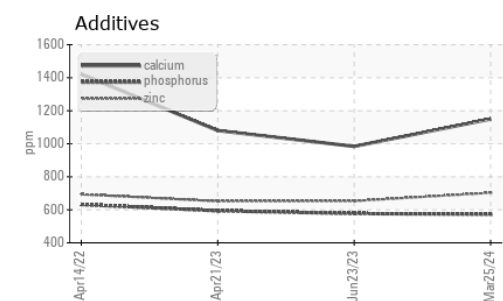
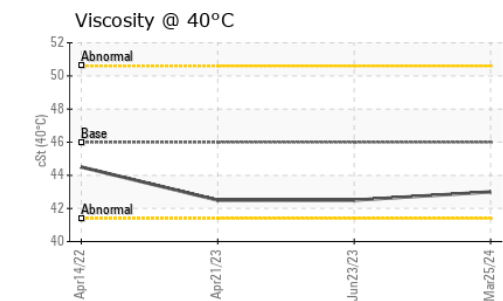
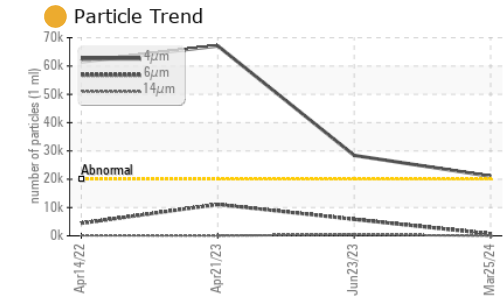
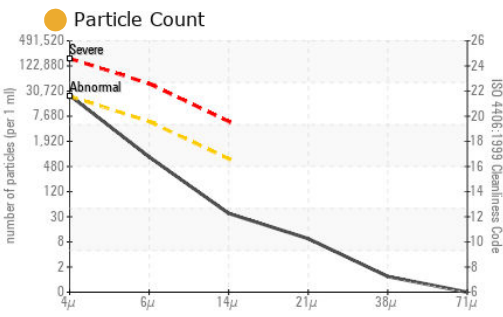
There is a light amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185(m)	>20	2	3	3
Potassium	ppm	ASTM D5185(m)	>20	3	3	3
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>20000	21069	28406	67126
Particles >6µm		ASTM D7647	>5000	716	5832	11075
Particles >14µm		ASTM D7647	>640	32	400	76
Particles >21µm		ASTM D7647	>160	8	85	10
Particles >38µm		ASTM D7647	>40	1	2	0
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	22/17/12	22/20/16	23/21/13
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	VLITE	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

Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		2	2	2
Boron	ppm	ASTM D5185(m)	0	<1	<1	<1
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)	0	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	<1	14	13	12
Calcium	ppm	ASTM D5185(m)	2	1150	984	1080
Phosphorus	ppm	ASTM D5185(m)	118	572	577	594
Zinc	ppm	ASTM D5185(m)	1	703	653	652
Sulfur	ppm	ASTM D5185(m)	257	3554	3616	3701
Visc @ 40°C	cSt	ASTM D7279(m)	46	43.0	42.5	42.5



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH **Received** : 08 Apr 2024
Lab Number : 02627398 **Tested** : 10 Apr 2024
Unique Number : 5760530 **Diagnosed** : 10 Apr 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: PrtCount)

METAUX 139 INC.
 86 RTE MARIE-VICTORIN
 PIERREVILLE, QC
 CA J0G 1J0
 Contact: Service Manager

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

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F: