



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LH50 1216-123739
Component
Hydraulic System
Fluid
MOBIL DTE 10 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0211711	LH0211683	LH0211655
Sample Date		Client Info		17 Jun 2024	31 Jan 2024	09 Aug 2023
Machine Age	hrs	Client Info		12322	10743	8617
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	30	21	20
Chromium	ppm	ASTM D5185m	>5	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>2	3	0	0
Lead	ppm	ASTM D5185m	>4	1	0	0
Copper	ppm	ASTM D5185m	>10	4	2	2
Tin	ppm	ASTM D5185m	>2	<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

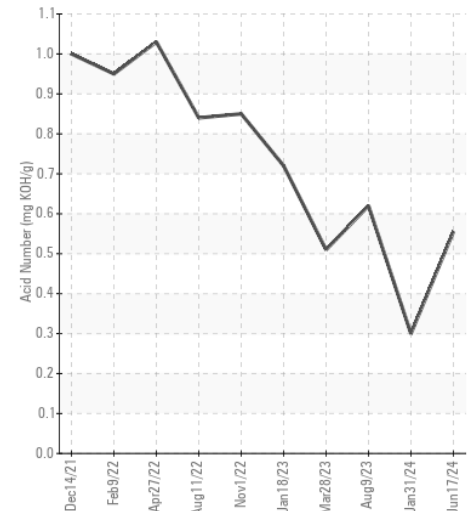
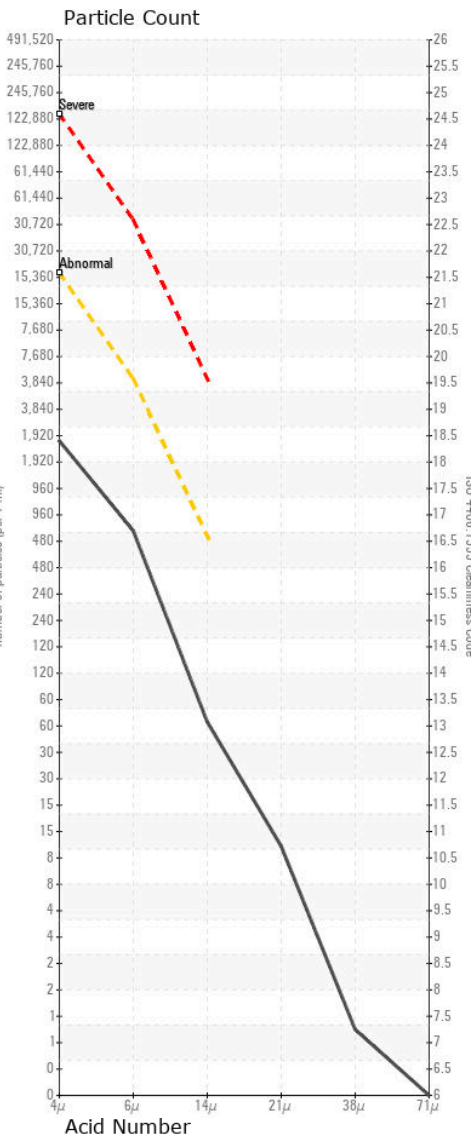
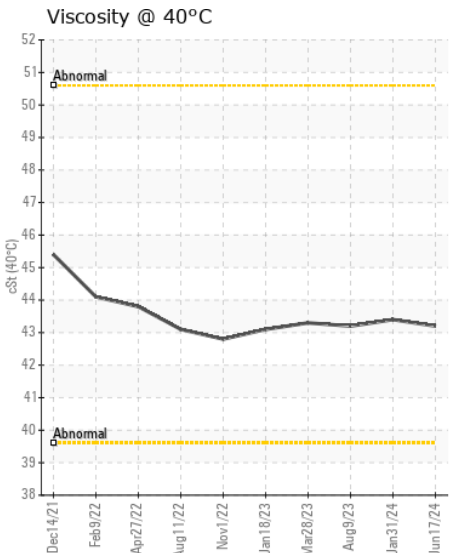
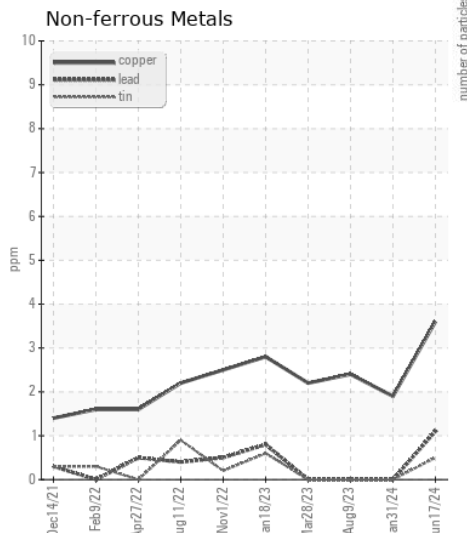
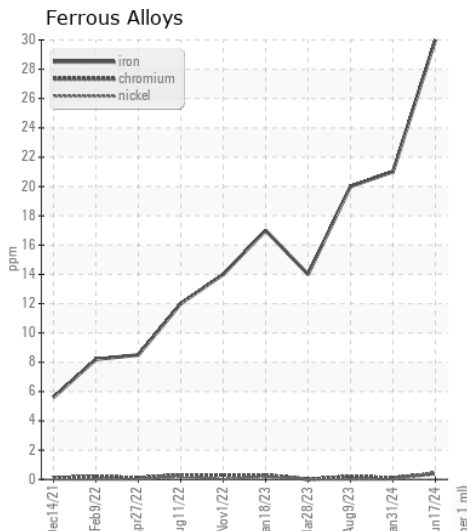
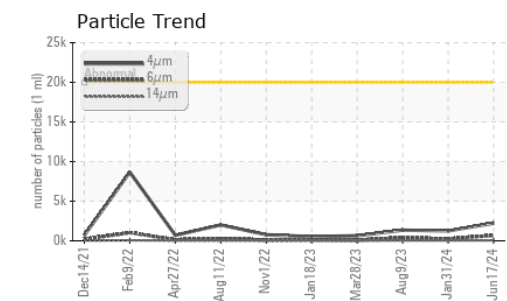
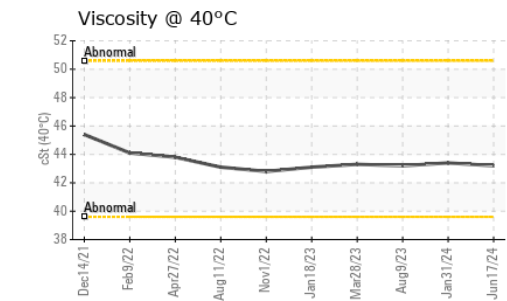
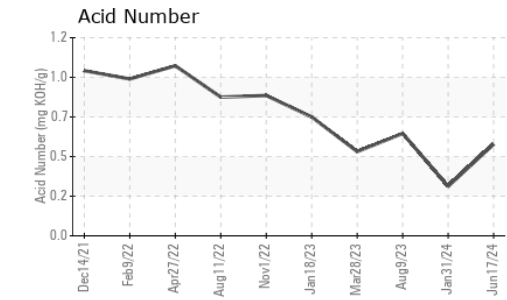
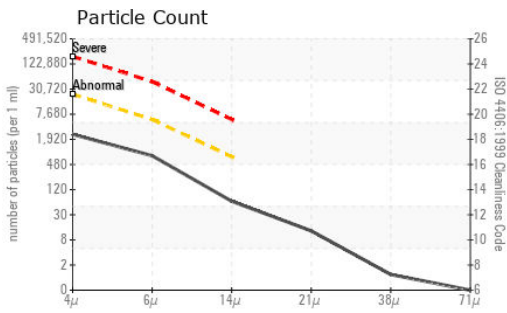
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>17	2	1	1
Potassium	ppm	ASTM D5185m	>20	2	0	0
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>20000	2216	1251	1350
Particles >6µm		ASTM D7647	>5000	683	248	384
Particles >14µm		ASTM D7647	>640	56	40	37
Particles >21µm		ASTM D7647	>160	11	16	12
Particles >38µm		ASTM D7647	>40	1	1	1
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	18/17/13	17/15/12	18/16/12
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

Viscosity of sample indicates oil is within ISO 32 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		0	1	2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		1	0	0
Molybdenum	ppm	ASTM D5185m		<1	0	0
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m		3	4	3
Calcium	ppm	ASTM D5185m		526	517	690
Phosphorus	ppm	ASTM D5185m		365	341	439
Zinc	ppm	ASTM D5185m		281	269	352
Sulfur	ppm	ASTM D5185m		2242	2135	3189
Acid Number (AN)	mg KOH/g	ASTM D8045		0.555	0.30	0.62
Visc @ 40°C	cSt	ASTM D445		43.2	43.4	43.2



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : LH0211711

Lab Number : 06218747

Unique Number : 11096944

Test Package : MOBCE

Received : 24 Jun 2024

Tested : 25 Jun 2024

Diagnosed : 26 Jun 2024 - Don Baldrige

AHLSTROM-MUNKSJO NA SPECIALTY

PO BOX 600

KAUKAUNA, WI

US 54130

Contact: JOE SEITZ

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T:

F:

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)