OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
LIEBHERR LTR1100 HC1110 (S/N 97351)
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 46 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

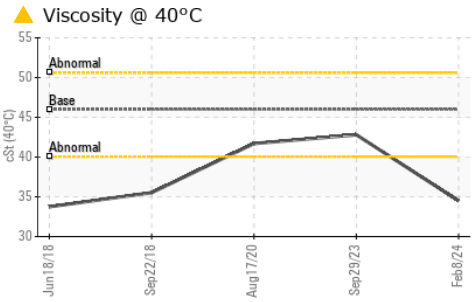
CONTAMINATION

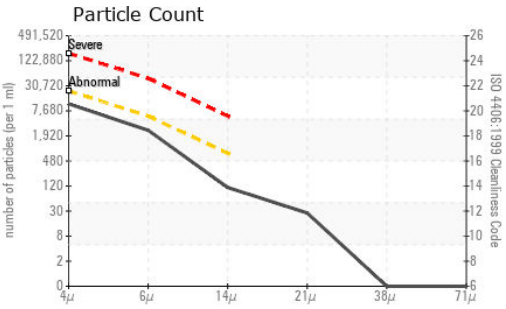
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

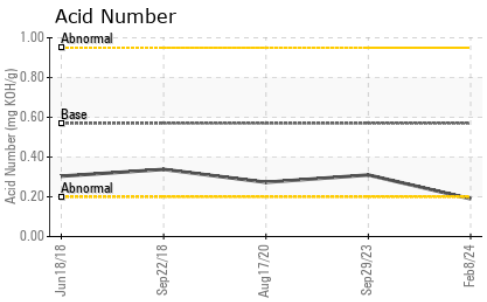
FLUID CONDITION

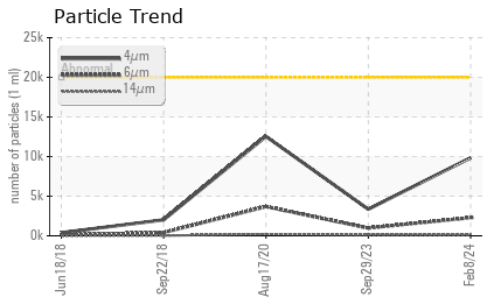
The oil viscosity is lower than normal. Confirm oil type. The AN level is acceptable for this fluid.

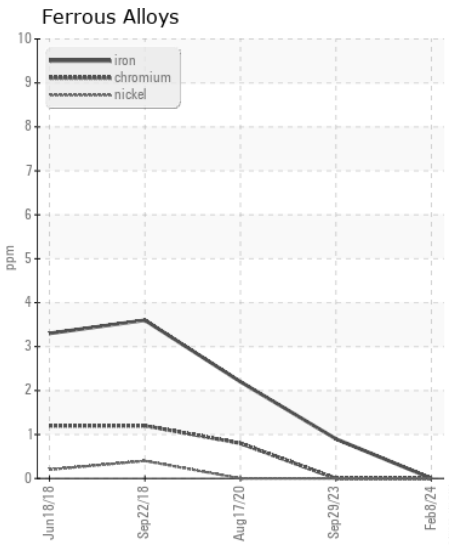
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0873440	WC0823671	WC0475438
Sample Date		Client Info		08 Feb 2024	29 Sep 2023	17 Aug 2020
Machine Age	hrs	Client Info		11988	11568	9717
Oil Age	hrs	Client Info		0	543	0
Filter Age	hrs	Client Info		0	543	0
Oil Changed		Client Info		Not Changd	Changed	N/A
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				ATTENTION	NORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>20	0	<1	2
Chromium	ppm	ASTM D5185m	>10	0	0	<1
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>10	0	0	0
Lead	ppm	ASTM D5185m	>10	0	<1	<1
Copper	ppm	ASTM D5185m	>75	3	3	3
Tin	ppm	ASTM D5185m	>10	2	0	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>20	<1	<1	<1
Potassium	ppm	ASTM D5185m	>20	0	<1	0
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>20000	9846	3355	▲ 12545
Particles >6µm		ASTM D7647	>5000	2288	977	▲ 3696
Particles >14µm		ASTM D7647	>640	98	123	▲ 207
Particles >21µm		ASTM D7647	>160	24	33	31
Particles >38µm		ASTM D7647	>40	0	2	2
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	20/18/14	19/17/14	▲ 21/19/15
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
Sodium	ppm	ASTM D5185m		<1	1	0
Boron	ppm	ASTM D5185m	5	0	0	9
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	5	<1	<1	<1
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m	25	3	8	3
Calcium	ppm	ASTM D5185m	200	67	71	87
Phosphorus	ppm	ASTM D5185m	300	321	352	263
Zinc	ppm	ASTM D5185m	370	348	377	317
Sulfur	ppm	ASTM D5185m	2500	1242	1496	1768
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.19	0.31	0.273
Visc @ 40°C	cSt	ASTM D445	46	▲ 34.5	42.8	41.7

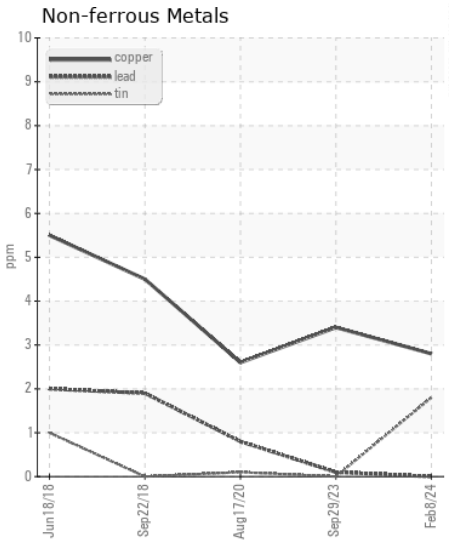


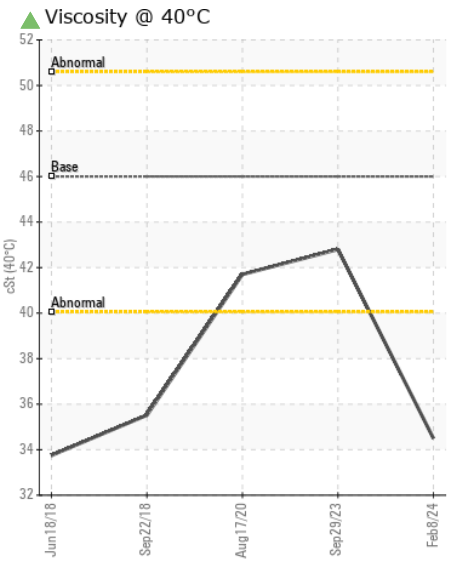


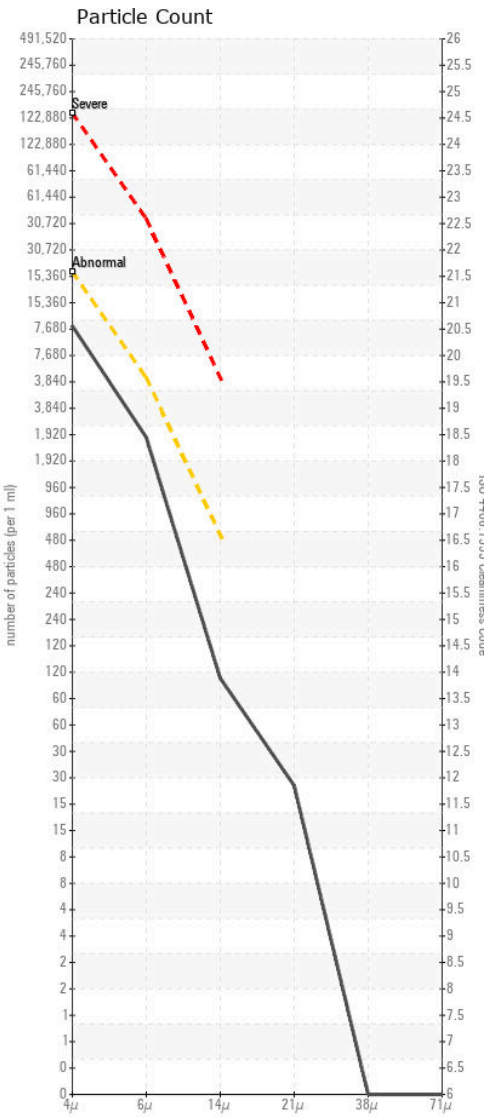


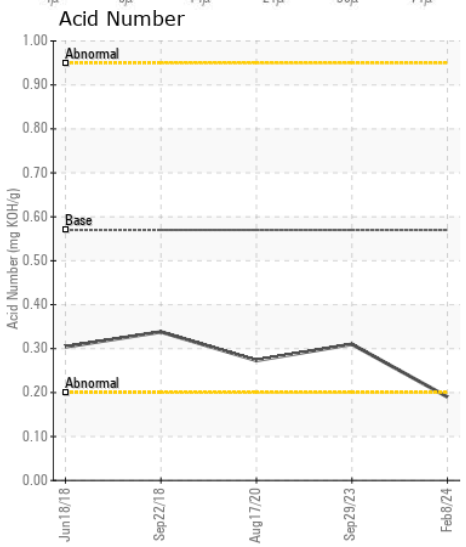












Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0873440
Lab Number : 06086649
Unique Number : 10874094
Test Package : CONST

Received : 12 Feb 2024
Tested : 13 Feb 2024
Diagnosed : 13 Feb 2024 - Don Baldridge

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)

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