



# LIEBHERR

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id  
**LIEBHERR L566 014293-460**  
Component  
**Hydraulic System**  
Fluid  
**{not provided} (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0264558</b>	LHMC012359	LHMC012016
Sample Date		Client Info		<b>24 May 2024</b>	09 Jan 2008	23 Mar 2007
Machine Age	hrs	Client Info		<b>33900</b>	5262	1022
Oil Age	hrs	Client Info		<b>0</b>	2000	1022
Filter Age	hrs	Client Info		<b>0</b>	0	1022
Oil Changed		Client Info		<b>Not Chngd</b>	Not Chngd	N/A
Filter Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Changed
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	<b>5</b>	15	4
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	2	1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185m	>10	<b>1</b>	6	2
Copper	ppm	ASTM D5185m	>75	<b>4</b>	16	6
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>LIGHT</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

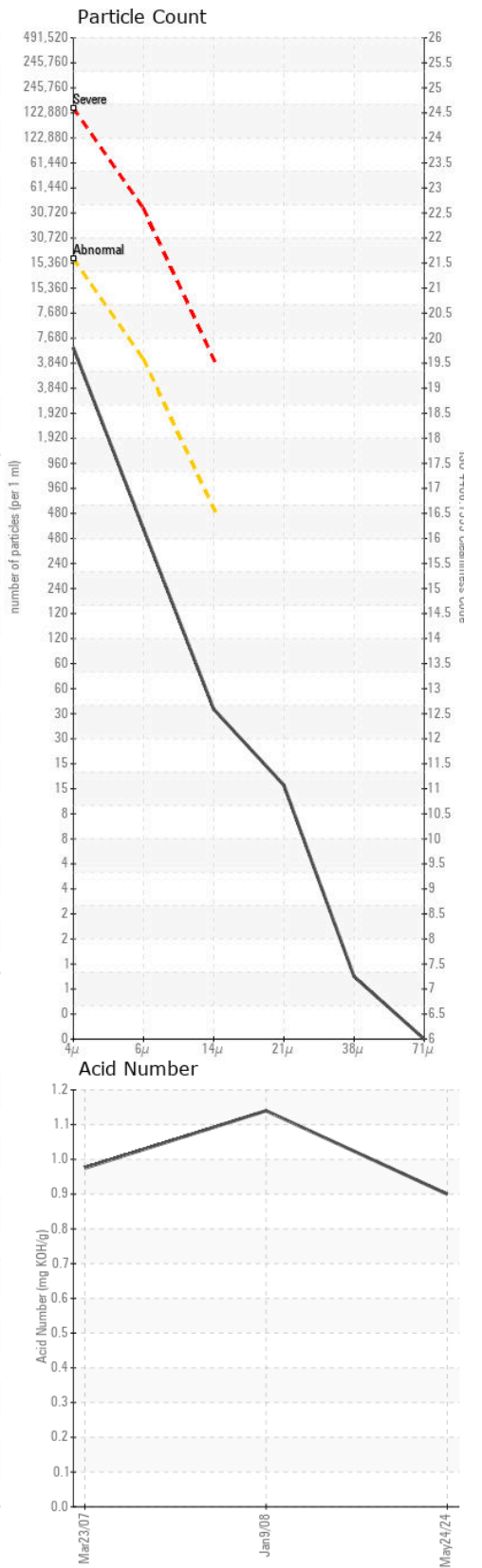
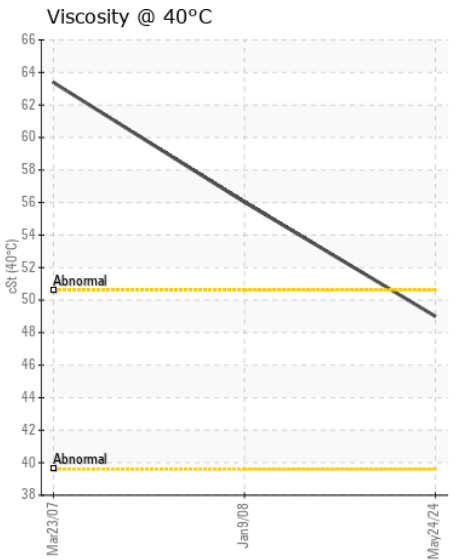
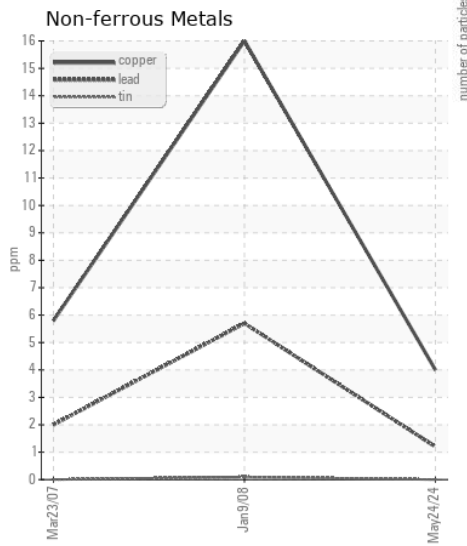
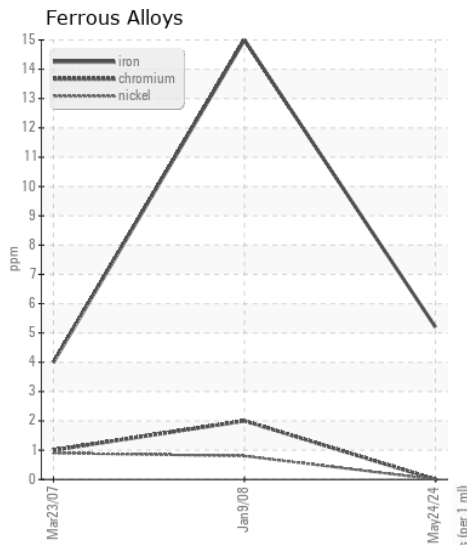
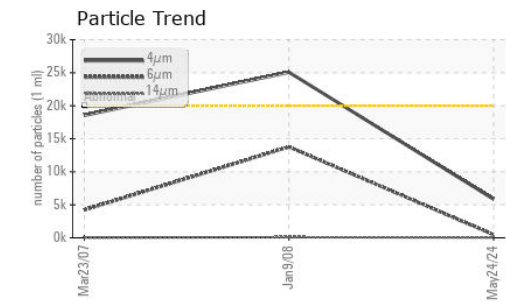
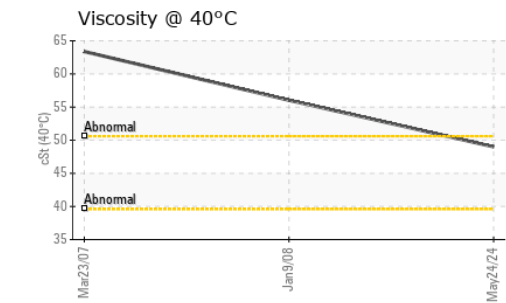
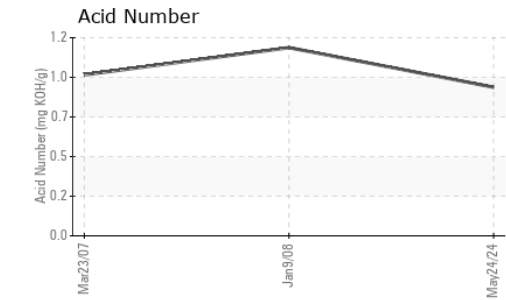
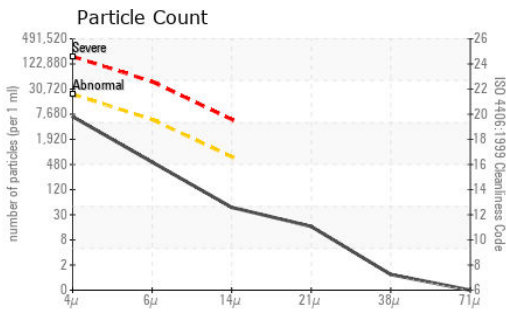
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>20	<b>12</b>	2	2
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>20000	<b>5856</b>	25074	18542
Particles >6µm		ASTM D7647	>5000	<b>481</b>	▲ 13769	4221
Particles >14µm		ASTM D7647	>640	<b>40</b>	93	23
Particles >21µm		ASTM D7647	>160	<b>14</b>	14	3
Particles >38µm		ASTM D7647	>40	<b>1</b>	1	0
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>20/16/12</b>	▲ 22/21/14	21/19/12
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>2</b>	4	5
Boron	ppm	ASTM D5185m		<b>120</b>	36	7
Barium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Molybdenum	ppm	ASTM D5185m		<b>3</b>	<1	0
Manganese	ppm	ASTM D5185m		<b>0</b>	3	<1
Magnesium	ppm	ASTM D5185m		<b>29</b>	18	8
Calcium	ppm	ASTM D5185m		<b>3499</b>	2111	1318
Phosphorus	ppm	ASTM D5185m		<b>1147</b>	682	368
Zinc	ppm	ASTM D5185m		<b>1415</b>	748	461
Sulfur	ppm	ASTM D5185m		<b>5752</b>	4997	4100
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.90</b>	1.14	0.975
Visc @ 40°C	cSt	ASTM D445		<b>49.0</b>	56.03	63.38



Certificate L2367

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

Sample No. : LH0264558

Lab Number : 06196601

Unique Number : 11058724

Test Package : CONST

Received : 31 May 2024

Tested : 03 Jun 2024

Diagnosed : 03 Jun 2024 - Don Baldrige

**DOMTAR PULP AND PAPER**

301 POINT BASSE AVE

NEKOOSA, WI

US 54457

Contact: MARK SNYDER

mark.snyder@domtar.com

T: (715)675-6900

F: (715)675-9748

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)