



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>ABNORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**120556-1216 LIEBHERR LH50M 120556-1216**

Component  
**Hydraulic System**

Fluid  
**AW HYDRAULIC OIL ISO 46 (--- GAL)**

## RECOMMENDATION

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>DJJ0022516</b>	DJJ0019882	DJJ0019874
Sample Date		Client Info		<b>03 Jan 2024</b>	11 Oct 2023	06 Jun 2023
Machine Age	hrs	Client Info		<b>9096</b>	8542	7786
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changed</b>	Changed	N/A
Filter Changed		Client Info		<b>Changed</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	ATTENTION	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>60	<b>10</b>	20	26
Chromium	ppm	ASTM D5185m	>40	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>5	<b>0</b>	<1	0
Lead	ppm	ASTM D5185m	>5	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>15	<b>1</b>	3	3
Tin	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

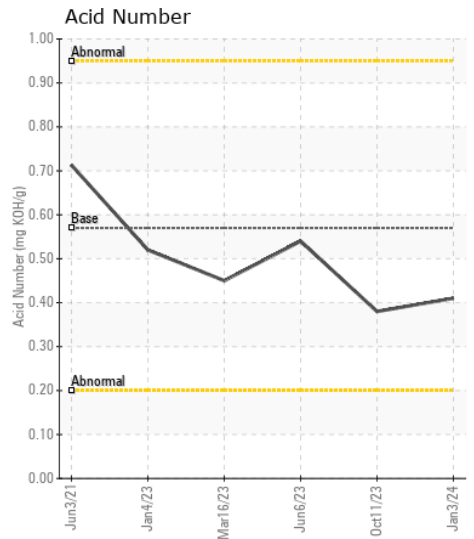
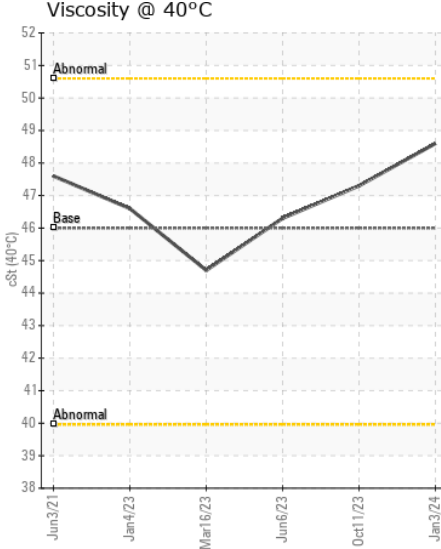
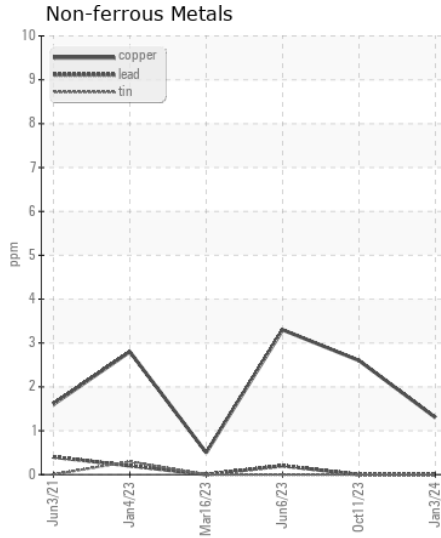
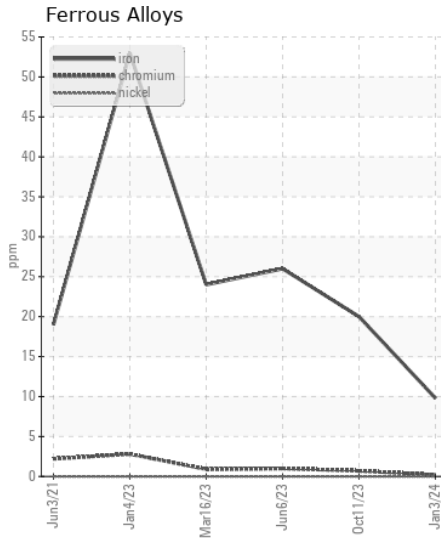
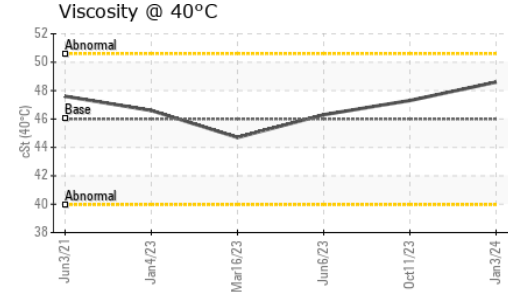
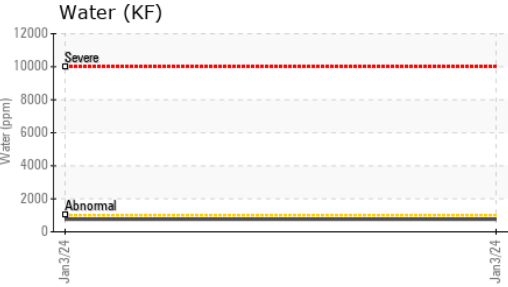
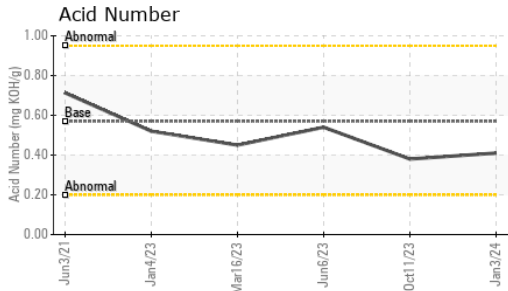
Moderate concentration of visible dirt/debris present in the oil.

Silicon	ppm	ASTM D5185m	>15	<b>&lt;1</b>	12	<1
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	<1
Water	%	ASTM D6304	>0.1	<b>0.076</b>	---	---
ppm Water	ppm	ASTM D6304	>1000	<b>760</b>	---	---
Particles >4µm		ASTM D7647	>20000	---	▲ 26675	5965
Particles >6µm		ASTM D7647	>5000	---	▲ 6131	1824
Particles >14µm		ASTM D7647	>640	---	302	138
Particles >21µm		ASTM D7647	>160	---	84	30
Particles >38µm		ASTM D7647	>40	---	11	1
Particles >71µm		ASTM D7647	>10	---	1	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	---	▲ 22/20/15	20/18/14
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	▲ <b>MODER</b>	LIGHT	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>0.2%</b>	NEG	NEG

## FLUID CONDITION

The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Boron	ppm	ASTM D5185m	5	<b>0</b>	0	0
Barium	ppm	ASTM D5185m	5	<b>0</b>	0	2
Molybdenum	ppm	ASTM D5185m	5	<b>&lt;1</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	25	<b>0</b>	0	<1
Calcium	ppm	ASTM D5185m	200	<b>27</b>	13	37
Phosphorus	ppm	ASTM D5185m	300	<b>315</b>	295	337
Zinc	ppm	ASTM D5185m	370	<b>400</b>	387	428
Sulfur	ppm	ASTM D5185m	2500	<b>826</b>	917	1088
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	<b>0.41</b>	0.38	0.54
Visc @ 40°C	cSt	ASTM D445	46	<b>48.6</b>	47.3	46.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DJJ0022516 **Received** : 16 Jan 2024  
**Lab Number** : 06060982 **Diagnosed** : 23 Jan 2024  
**Unique Number** : 10832364 **Diagnostician** : Doug Bogart  
**Test Package** : CONST ( Additional Tests: KF )

**RIVER METALS RECYCLING - DECATUR FACILITY**  
 4301 IVERSON BLVD  
 TRINITY, AL  
 US 35673  
 Contact: LARRY BARBER  
 larry.barber@rmrecycling.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)

T:  
F: