

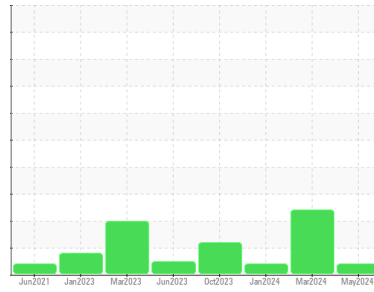


# OIL ANALYSIS REPORT



Machine Id  
**120556-1216 LIEBHERR LH50M 120556-1216**  
 Component  
**Hydraulic System**  
 Fluid  
**AW HYDRAULIC OIL ISO 46 (--- GAL)**

Sample Rating Trend



VIS DEBRIS



## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component. 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.

### Wear

All component wear rates are normal.

### Contamination

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

### Fluid Condition

The AN level is acceptable for this fluid.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>DJJ0022472</b>	DJJ0022507	DJJ0022516
Sample Date	Client Info		<b>24 May 2024</b>	08 Mar 2024	03 Jan 2024
Machine Age	hrs	Client Info	<b>9944</b>	9578	9096
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	Not Changd	Not Changd
Sample Status			<b>ABNORMAL</b>	ATTENTION	ABNORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >60	<b>9</b>	11	10
Chromium	ppm	ASTM D5185m >40	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >10	<b>&lt;1</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>&lt;1</b>	0	0
Lead	ppm	ASTM D5185m >5	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >15	<b>1</b>	2	1
Tin	ppm	ASTM D5185m >5	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 5	<b>0</b>	0	0
Barium	ppm	ASTM D5185m 5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 5	<b>0</b>	0	<1
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m 25	<b>1</b>	0	0
Calcium	ppm	ASTM D5185m 200	<b>55</b>	34	27
Phosphorus	ppm	ASTM D5185m 300	<b>351</b>	289	315
Zinc	ppm	ASTM D5185m 370	<b>445</b>	337	400
Sulfur	ppm	ASTM D5185m 2500	<b>1051</b>	890	826

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	<1
Sodium	ppm	ASTM D5185m	<b>2</b>	3	<1
Potassium	ppm	ASTM D5185m >20	<b>3</b>	0	0
Water	%	ASTM D6304 >0.1	<b>0.088</b>	▲ 0.178	0.076
ppm Water	ppm	ASTM D6304 >1000	<b>880</b>	▲ 1780	760

## FLUID CLEANLINESS

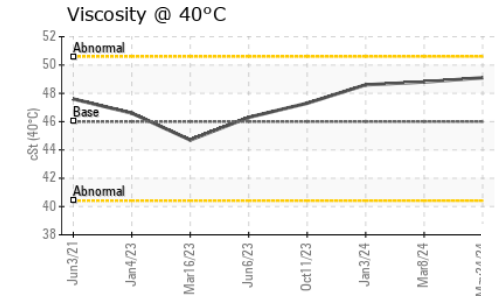
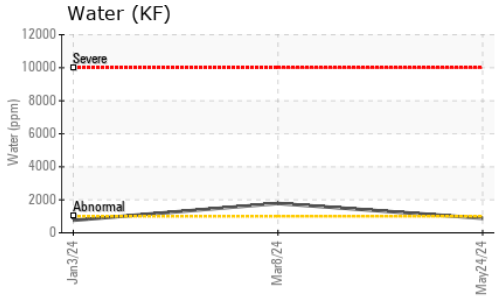
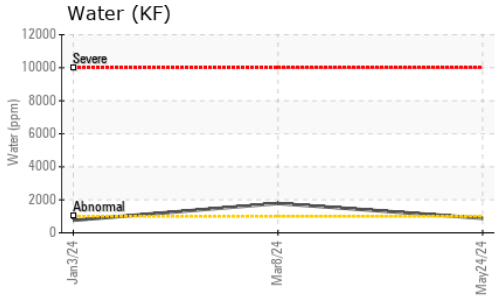
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	---	● 20969	---
Particles >6µm	ASTM D7647	>5000	---	● 3140	---
Particles >14µm	ASTM D7647	>640	---	● 91	---
Particles >21µm	ASTM D7647	>160	---	● 18	---
Particles >38µm	ASTM D7647	>40	---	● 0	---
Particles >71µm	ASTM D7647	>10	---	● 0	---
Oil Cleanliness	ISO 4406 (c)	>21/19/16	---	● 22/19/14	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.57	<b>0.41</b>	0.41	0.41



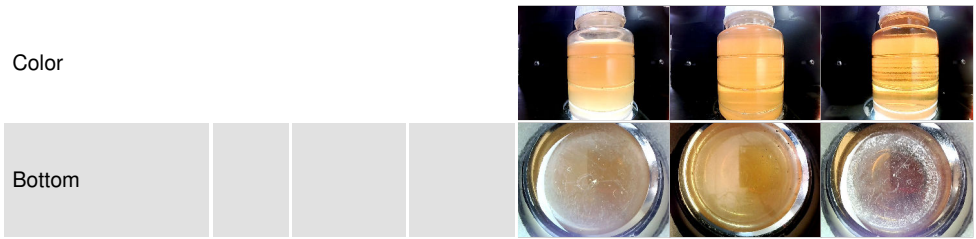
# OIL ANALYSIS REPORT



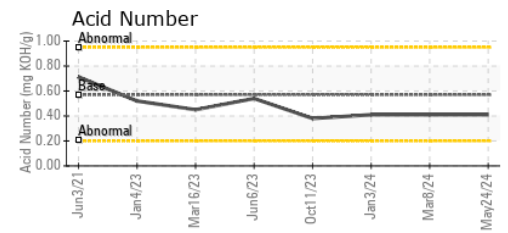
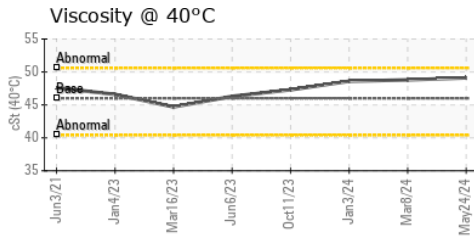
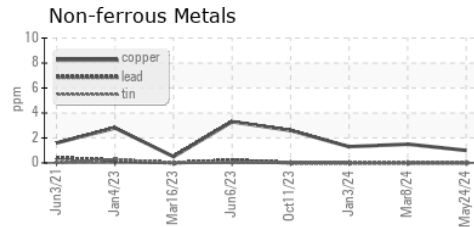
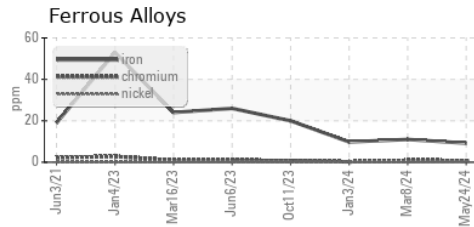
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	▲ MODER	LIGHT	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	0.2%	0.2%
Free Water	scalar	*Visual	NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 46	49.1	48.8	48.6

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DJJ0022472      **Received** : 20 Jun 2024  
**Lab Number** : 06215753      **Tested** : 22 Jun 2024  
**Unique Number** : 11088617      **Diagnosed** : 22 Jun 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: KF )

**RIVER METALS RECYCLING - DECATUR FACILITY**  
 4301 IVERSON BLVD  
 TRINITY, AL 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)