



# OIL ANALYSIS REPORT

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



Area  
**AMR-12 Street**  
Machine Id  
**339324 LIEBHERR LH60 1204-86896**  
Component  
**Hydraulic System**  
Fluid  
**AW HYDRAULIC OIL ISO 46 (240 GAL)**

## RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>DJJ0013836</b>	DJJ0017126	DJJ0017128
Sample Date		Client Info		<b>03 Feb 2024</b>	02 Feb 2024	26 Dec 2023
Machine Age	hrs	Client Info		<b>15292</b>	15292	15052
Oil Age	hrs	Client Info		<b>1250</b>	1250	1000
Filter Age	hrs	Client Info		<b>250</b>	250	1000
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ATTENTION

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>60	<b>8</b>	7	7
Chromium	ppm	ASTM D5185m	>40	<b>2</b>	2	<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>	0	2
Lead	ppm	ASTM D5185m	>5	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>15	<b>2</b>	2	2
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

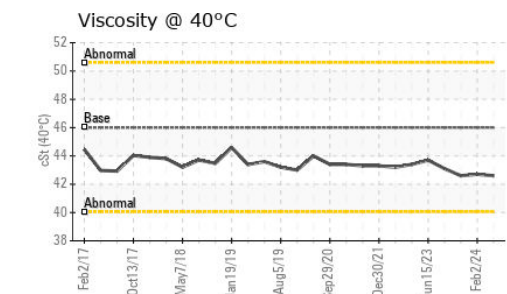
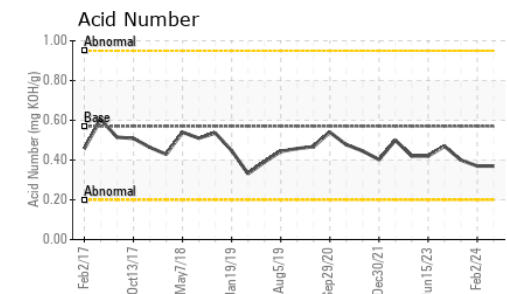
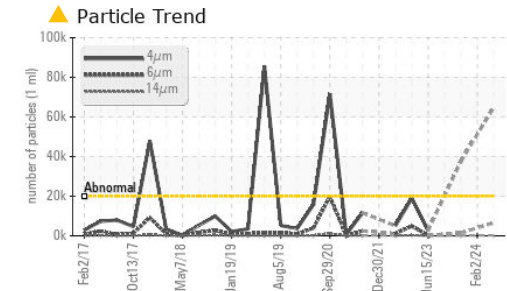
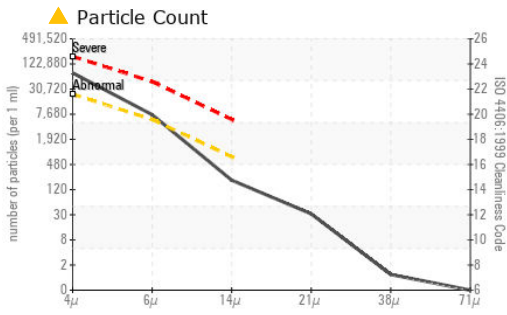
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>15	<b>1</b>	<1	<1
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	1
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>20000	<b>64695</b>	---	37579
Particles >6µm		ASTM D7647	>5000	<b>6513</b>	---	1458
Particles >14µm		ASTM D7647	>640	<b>178</b>	---	55
Particles >21µm		ASTM D7647	>160	<b>28</b>	---	11
Particles >38µm		ASTM D7647	>40	<b>1</b>	---	0
Particles >71µm		ASTM D7647	>10	<b>0</b>	---	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>23/20/15</b>	---	22/18/13
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	<b>MODER</b>	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>1</b>	1	0
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>0</b>	0	0
Magnesium	ppm	ASTM D5185m	25	<b>0</b>	0	1
Calcium	ppm	ASTM D5185m	200	<b>69</b>	81	108
Phosphorus	ppm	ASTM D5185m	300	<b>328</b>	331	370
Zinc	ppm	ASTM D5185m	370	<b>405</b>	411	435
Sulfur	ppm	ASTM D5185m	2500	<b>875</b>	898	1045
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	<b>0.37</b>	0.37	0.40
Visc @ 40°C	cSt	ASTM D445	46	<b>42.6</b>	42.7	42.6



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DJJ0013836  
**Lab Number** : 06084710  
**Unique Number** : 10872155  
**Test Package** : MOBCE

**Received** : 09 Feb 2024  
**Tested** : 12 Feb 2024  
**Diagnosed** : 12 Feb 2024 - Jonathan Hester

**ADVANTAGE METALS RECYCLING - 12 STREET**  
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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)

