



# OIL ANALYSIS REPORT

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



Area  
**AMR-Sedalia**  
 Machine Id  
**233141 LIEBHERR LH50M 1203-75764**  
 Component  
**Hydraulic System**  
 Fluid  
**AW HYDRAULIC OIL ISO 46 (169 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>DJJ0019071</b>	DJJ0018639	DJJ0018419
Sample Date		Client Info		<b>09 Apr 2024</b>	01 Dec 2023	31 Jul 2023
Machine Age	hrs	Client Info		<b>14835</b>	14337	13834
Oil Age	hrs	Client Info		<b>1500</b>	0	500
Filter Age	hrs	Client Info		<b>500</b>	0	500
Oil Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Filter Changed		Client Info		<b>Not Chngd</b>	Changed	Not Chngd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>60	<b>3</b>	6	4
Chromium	ppm	ASTM D5185m	>40	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
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>2</b>	3	3
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	<1
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

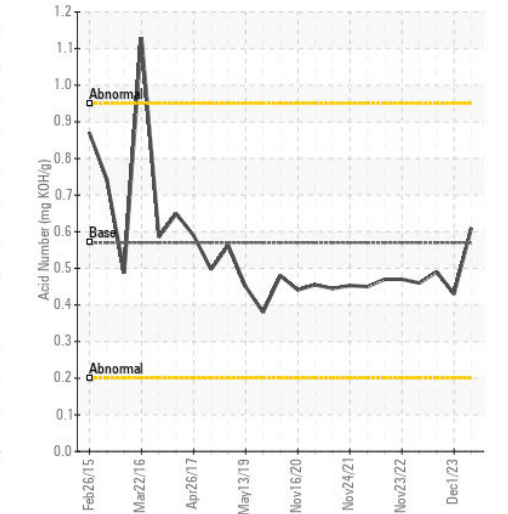
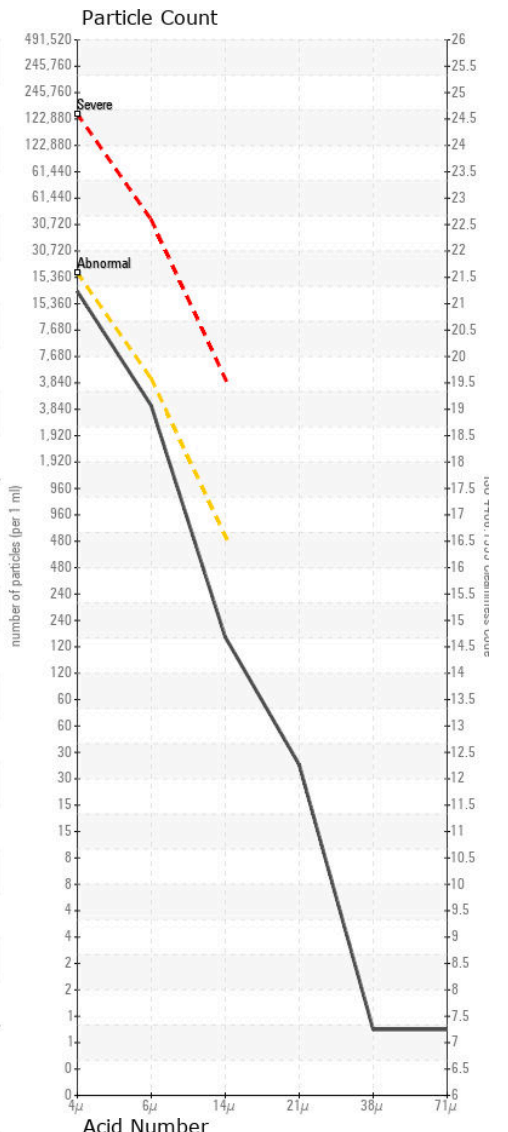
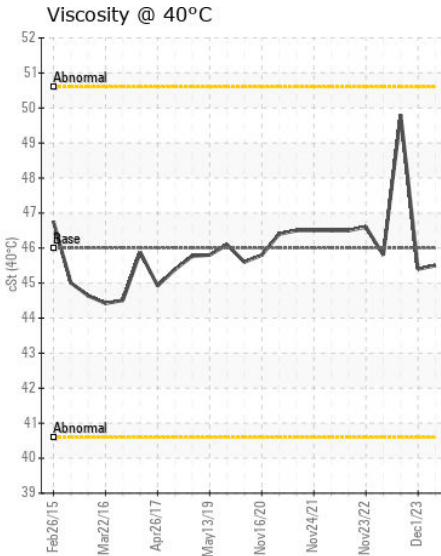
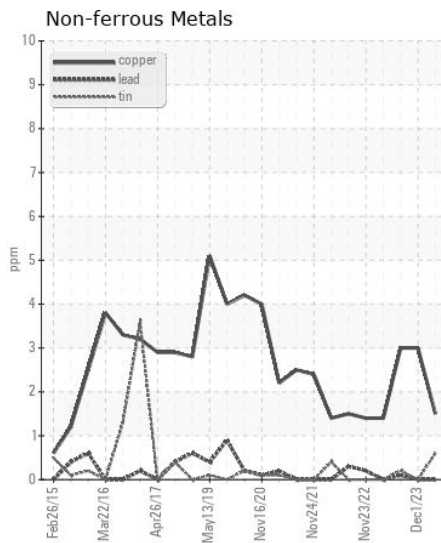
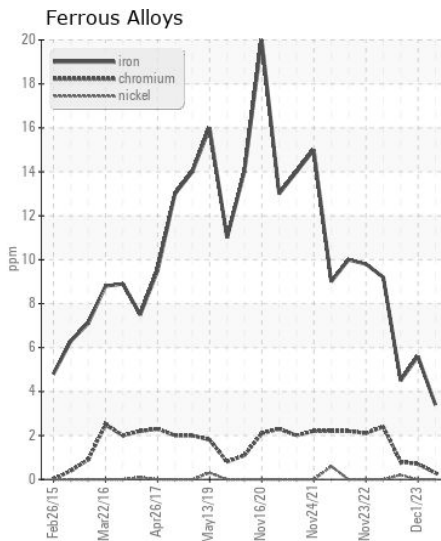
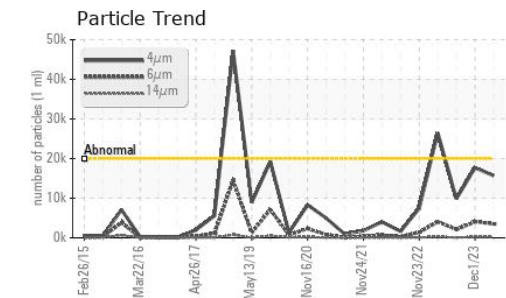
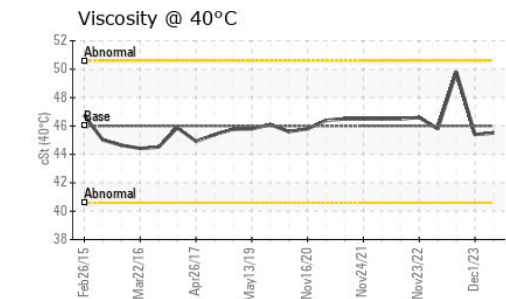
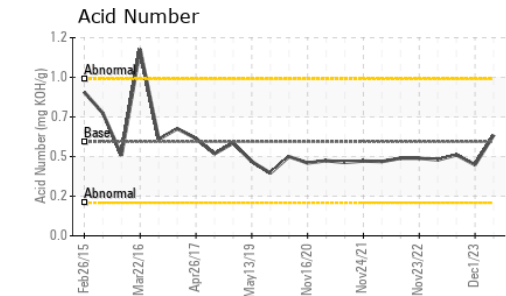
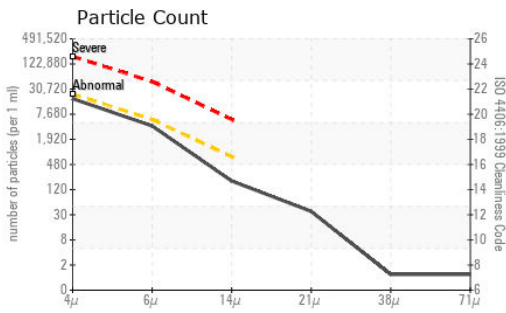
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	<1	<1
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>20000	<b>15692</b>	17690	9847
Particles >6µm		ASTM D7647	>5000	<b>3509</b>	4070	2089
Particles >14µm		ASTM D7647	>640	<b>170</b>	195	84
Particles >21µm		ASTM D7647	>160	<b>32</b>	24	12
Particles >38µm		ASTM D7647	>40	<b>1</b>	0	1
Particles >71µm		ASTM D7647	>10	<b>1</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>21/19/15</b>	21/19/15	20/18/14
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>	0	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>	<1	<1
Manganese	ppm	ASTM D5185m		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m	25	<b>1</b>	<1	<1
Calcium	ppm	ASTM D5185m	200	<b>292</b>	59	78
Phosphorus	ppm	ASTM D5185m	300	<b>359</b>	325	334
Zinc	ppm	ASTM D5185m	370	<b>392</b>	421	448
Sulfur	ppm	ASTM D5185m	2500	<b>1529</b>	880	973
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	<b>0.61</b>	0.43	0.49
Visc @ 40°C	cSt	ASTM D445	46	<b>45.5</b>	45.4	49.8



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DJJ0019071 **Received** : 16 Apr 2024  
**Lab Number** : 06150260 **Tested** : 17 Apr 2024  
**Unique Number** : 10980338 **Diagnosed** : 17 Apr 2024 - Wes Davis  
**Test Package** : CONST

**ADVANTAGE METALS RECYCLING - SEDALIA**  
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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)