



# OIL ANALYSIS REPORT

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



Area  
**RMR-Greensburg**  
 Machine Id  
**14869 LIEBHERR A934 016294-935**  
 Component  
**Hydraulic System**  
 Fluid  
**AW HYDRAULIC OIL ISO 46 (--- 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>DJJ0017776</b>	DJJ0004745	DJJ0004032
Sample Date		Client Info		<b>18 Mar 2024</b>	03 Aug 2021	04 Dec 2020
Machine Age	hrs	Client Info		<b>18736</b>	16312	15774
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>N/A</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>N/A</b>	Not Changd	Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	ATTENTION

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>24</b>	24	24
Chromium	ppm	ASTM D5185m	>5	<b>14</b>	14	13
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>2	<b>0</b>	<1	<1
Lead	ppm	ASTM D5185m	>5	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>15	<b>6</b>	7	7
Tin	ppm	ASTM D5185m	>4	<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

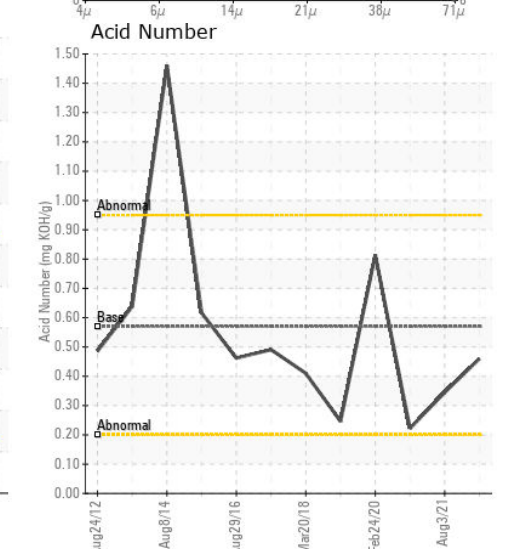
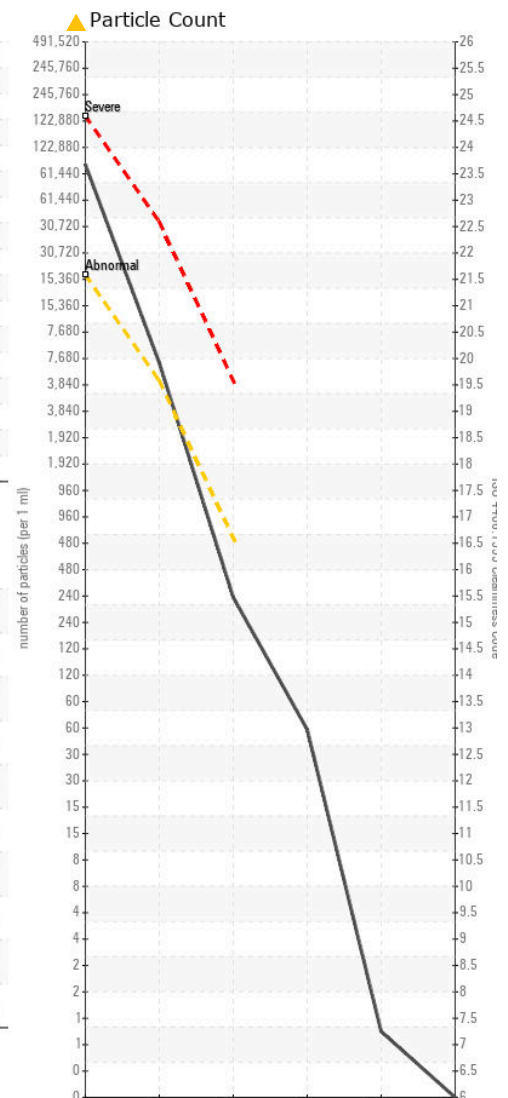
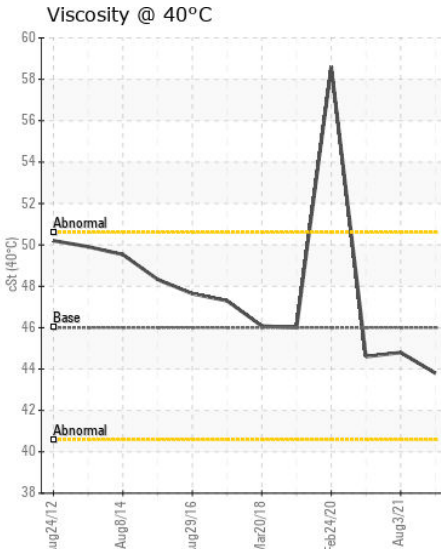
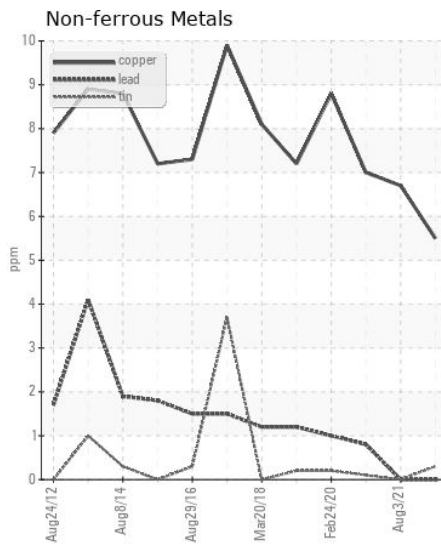
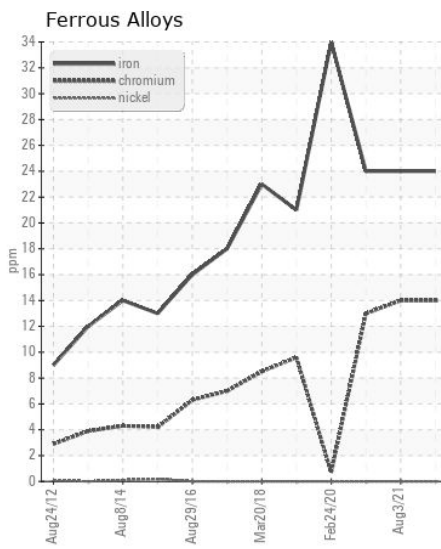
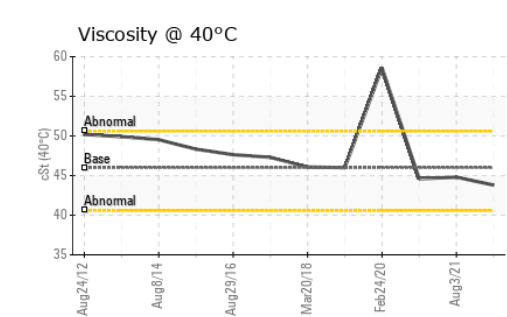
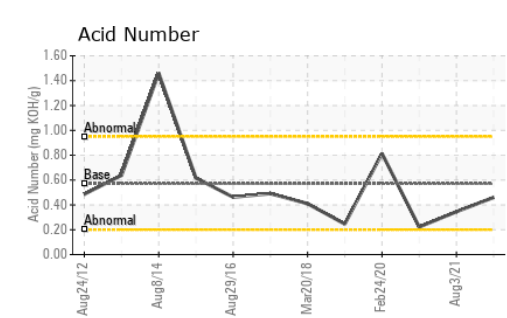
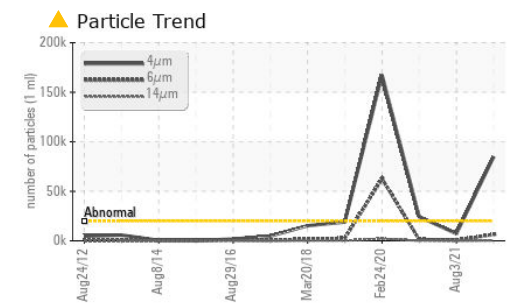
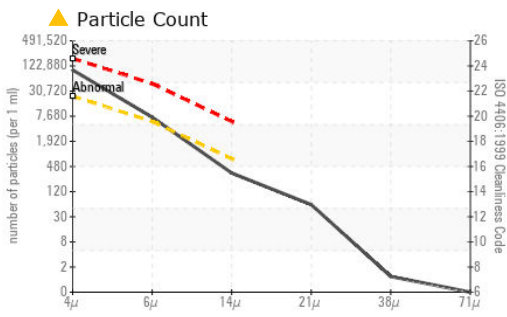
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>2</b>	3	2
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	4	0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>20000	<b>84794</b>	7179	24349
Particles >6µm		ASTM D7647	>5000	<b>6330</b>	693	1302
Particles >14µm		ASTM D7647	>640	<b>294</b>	40	68
Particles >21µm		ASTM D7647	>160	<b>52</b>	12	15
Particles >38µm		ASTM D7647	>40	<b>1</b>	0	2
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	2
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>24/20/15</b>	20/17/12	22/18/13
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>4</b>	3	3
Boron	ppm	ASTM D5185m	5	<b>0</b>	3	<1
Barium	ppm	ASTM D5185m	5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	5	<b>1</b>	0	<1
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	25	<b>&lt;1</b>	4	8
Calcium	ppm	ASTM D5185m	200	<b>44</b>	85	95
Phosphorus	ppm	ASTM D5185m	300	<b>284</b>	263	245
Zinc	ppm	ASTM D5185m	370	<b>365</b>	298	280
Sulfur	ppm	ASTM D5185m	2500	<b>1089</b>	1293	1121
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	<b>0.46</b>	0.345	0.222
Visc @ 40°C	cSt	ASTM D445	46	<b>43.8</b>	44.8	44.6



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DJJ0017776  
**Lab Number** : 06124808  
**Unique Number** : 10938959  
**Test Package** : MOBCE  
**Received** : 21 Mar 2024  
**Tested** : 22 Mar 2024  
**Diagnosed** : 24 Mar 2024 - Don Baldrige

**RIVER METALS RECYCLING - GREENSBURG**  
 323 SOUTH MONFORT STREET  
 GREENSBURG, IN  
 US 47240  
 Contact: RYAN BOWDEN

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)

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