



# OIL ANALYSIS REPORT

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



Machine Id  
**062713-1419 LIEBHERR A934CHD 062713-1419**  
Component  
**Hydraulic System**  
Fluid  
**{not provided} (--- GAL)**

## RECOMMENDATION

We recommend you service the filters on this component. 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>DJJ0023808</b>	LH0229492	DJJ0011188
Sample Date		Client Info		<b>13 Jun 2024</b>	12 Jul 2023	09 Feb 2023
Machine Age	hrs	Client Info		<b>12992</b>	12515	12363
Oil Age	hrs	Client Info		<b>0</b>	0	12363
Filter Age	hrs	Client Info		<b>0</b>	500	1000
Oil Changed		Client Info		<b>Not Changed</b>	N/A	Not Changed
Filter Changed		Client Info		<b>Not Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>7</b>	7	7
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>2	<b>2</b>	2	0
Lead	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>15	<b>1</b>	1	<1
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

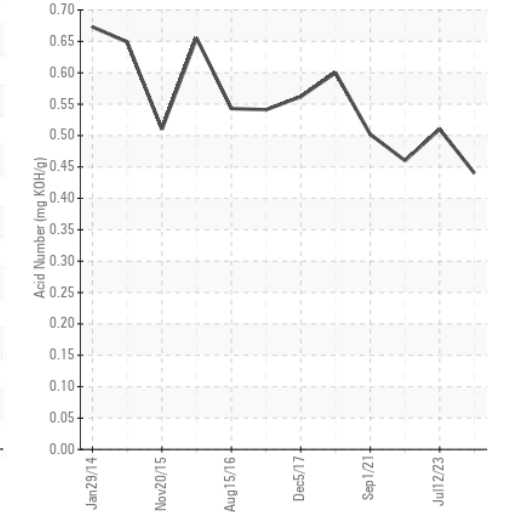
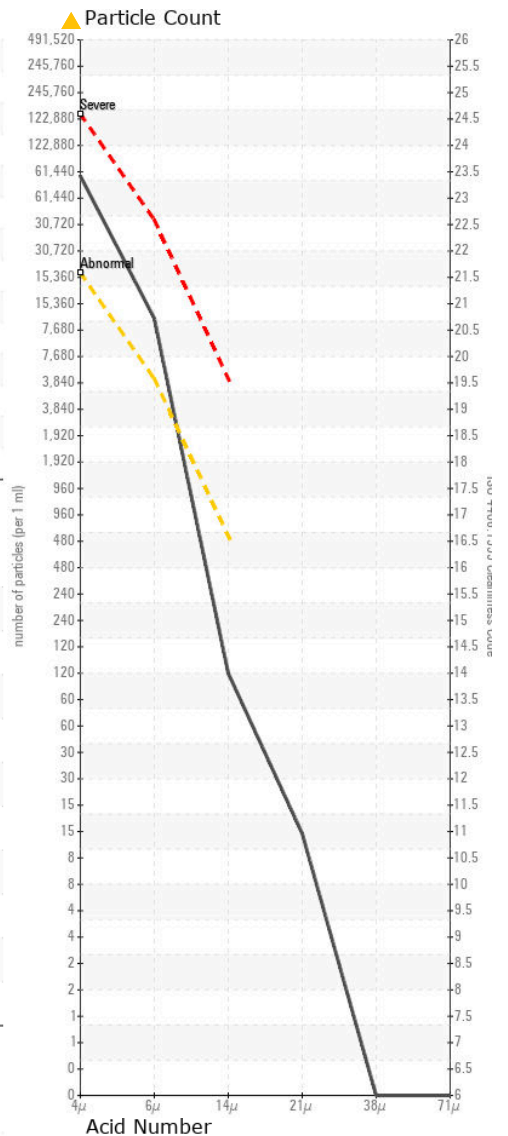
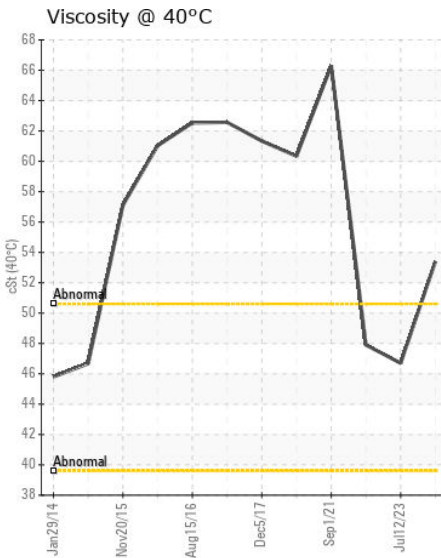
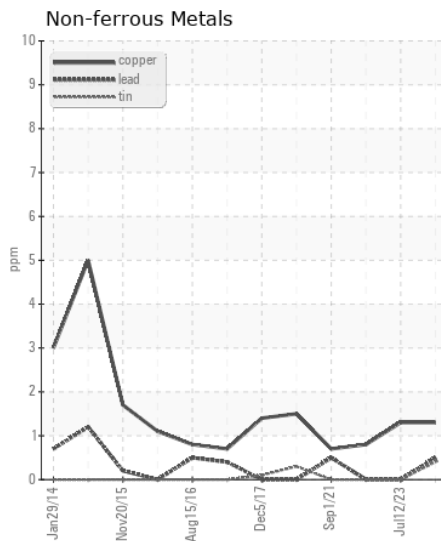
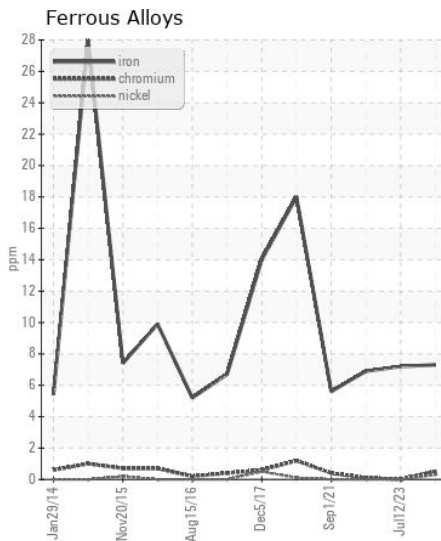
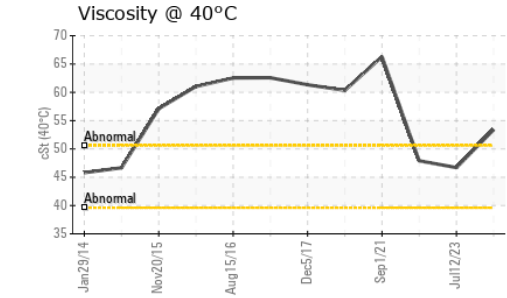
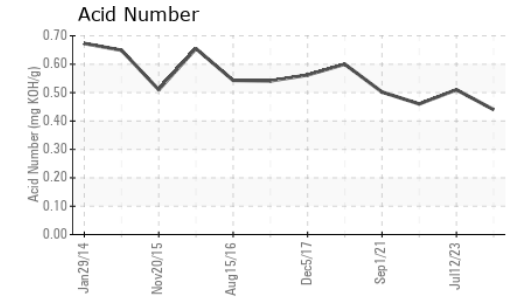
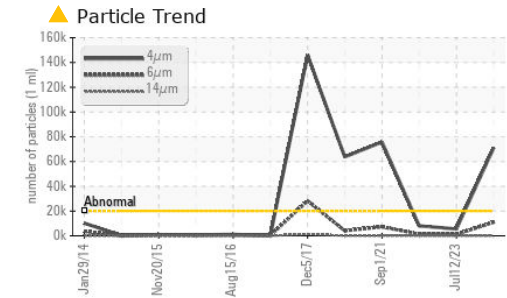
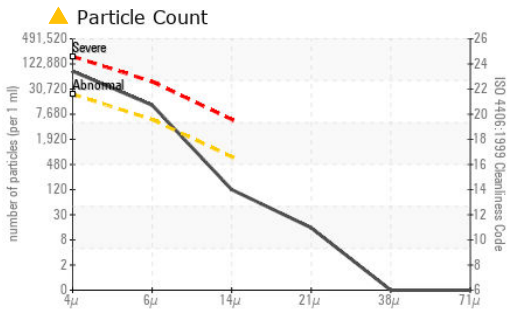
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>8</b>	2	2
Potassium	ppm	ASTM D5185m	>20	<b>16</b>	14	16
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>20000	<b>▲ 71002</b>	5505	8028
Particles >6µm		ASTM D7647	>5000	<b>▲ 11011</b>	1243	1318
Particles >14µm		ASTM D7647	>640	<b>106</b>	81	104
Particles >21µm		ASTM D7647	>160	<b>13</b>	20	25
Particles >38µm		ASTM D7647	>40	<b>0</b>	2	4
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>▲ 23/21/14</b>	20/17/14	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>5</b>	6	4
Boron	ppm	ASTM D5185m		<b>31</b>	32	33
Barium	ppm	ASTM D5185m		<b>2</b>	0	1
Molybdenum	ppm	ASTM D5185m		<b>18</b>	19	19
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m		<b>55</b>	54	47
Calcium	ppm	ASTM D5185m		<b>448</b>	410	382
Phosphorus	ppm	ASTM D5185m		<b>355</b>	368	331
Zinc	ppm	ASTM D5185m		<b>404</b>	417	386
Sulfur	ppm	ASTM D5185m		<b>2552</b>	3425	2980
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.44</b>	0.51	0.46
Visc @ 40°C	cSt	ASTM D445		<b>53.4</b>	46.7	47.9



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DJJ0023808  
**Lab Number** : 06213394  
**Unique Number** : 11086258  
**Test Package** : CONST

**Received** : 18 Jun 2024  
**Tested** : 19 Jun 2024  
**Diagnosed** : 20 Jun 2024 - Don Baldrige

**METAL RECYCLING SERVICES - GASTONIA**  
 5401 S YORK HWY  
 GASTONIA, NC  
 US 28052  
 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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