



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**114200-1217**  
Component  
**Front Right Wheel Hub**  
Fluid  
**GEAR OIL SAE 80W90 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0290944</b>	LH0290943	LH0242399
Sample Date		Client Info		<b>14 May 2024</b>	14 May 2024	13 Oct 2022
Machine Age	hrs	Client Info		<b>5300</b>	5300	3197
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>	N/A	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	None
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>650	<b>57</b>	59	114
Chromium	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185(m)	>4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185(m)	>4	<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>25	<b>&lt;1</b>	<1	1
Lead	ppm	ASTM D5185(m)	>4	<b>0</b>	0	4
Copper	ppm	ASTM D5185(m)	>60	<b>5</b>	8	30
Tin	ppm	ASTM D5185(m)	>4	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>VLITE</b>	VLITE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	LIGHT

### CONTAMINATION

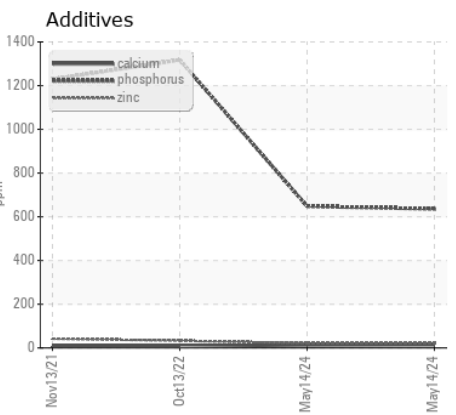
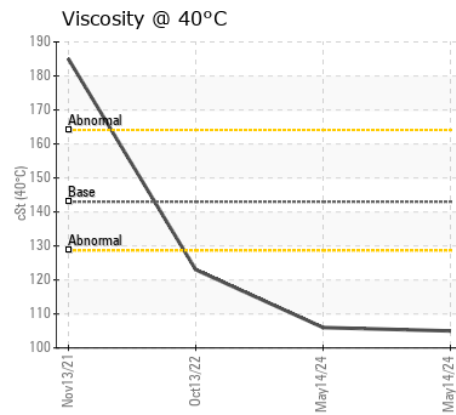
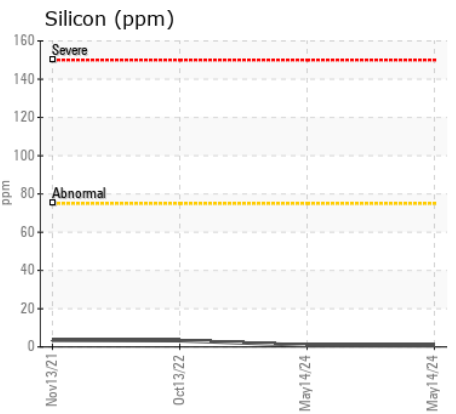
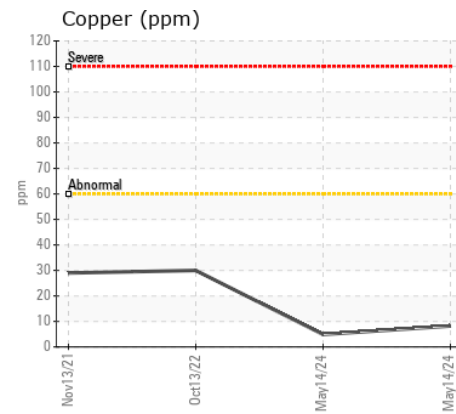
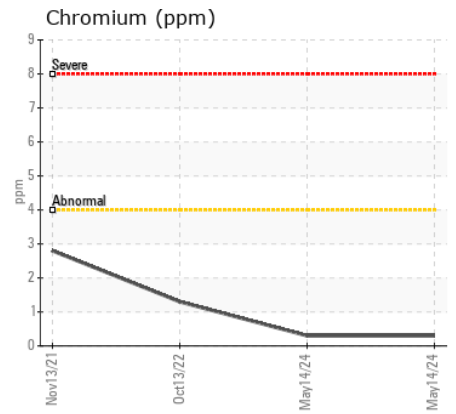
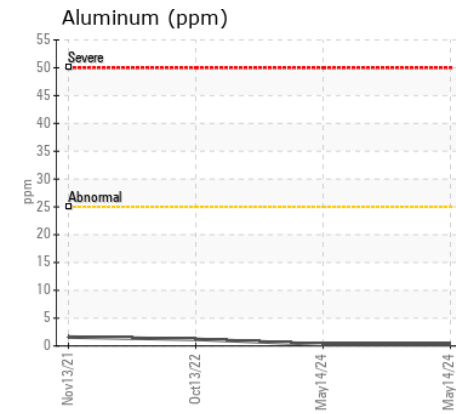
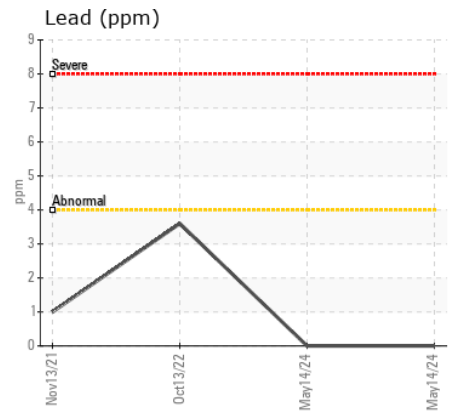
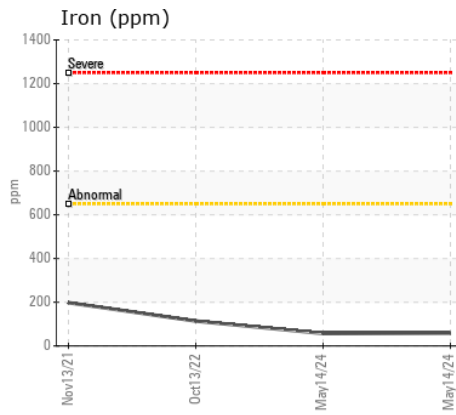
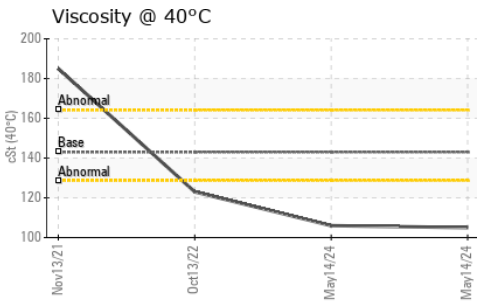
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>75	<b>&lt;1</b>	<1	3
Potassium	ppm	ASTM D5185(m)	>20	<b>4</b>	9	2
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
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*	>0.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)	>170	<b>3</b>	4	2
Boron	ppm	ASTM D5185(m)	400	<b>34</b>	33	209
Barium	ppm	ASTM D5185(m)	200	<b>6</b>	6	149
Molybdenum	ppm	ASTM D5185(m)	12	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)		<b>1</b>	1	3
Magnesium	ppm	ASTM D5185(m)	12	<b>8</b>	8	2
Calcium	ppm	ASTM D5185(m)	150	<b>15</b>	14	9
Phosphorus	ppm	ASTM D5185(m)	1650	<b>636</b>	648	1318
Zinc	ppm	ASTM D5185(m)	125	<b>21</b>	21	33
Sulfur	ppm	ASTM D5185(m)	22500	<b>23877</b>	23786	24839
Visc @ 40°C	cSt	ASTM D7279(m)	143	<b>105</b>	106	123



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0290944 **Received** : 16 May 2024  
**Lab Number** : 02636142 **Tested** : 16 May 2024  
**Unique Number** : 5785304 **Diagnosed** : 16 May 2024 - Wes Davis  
**Test Package** : MOB 1

**American Iron and Metal**  
 4250 NORTH SERVICE ROAD  
 WINDSOR, ON  
 CA N8W 5X2  
 Contact: Service Manager

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.

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F: