



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR LH30M 142539-1253**

Component  
**Hydraulic System**

Fluid  
**PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL (--- GAL)**

### RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill.  
Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0284074</b>	LH0260398	LH0260657
Sample Date		Client Info		<b>15 Feb 2024</b>	17 Aug 2023	03 May 2023
Machine Age	hrs	Client Info		<b>0</b>	1138	732
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>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	ATTENTION

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>50	<b>12</b>	11	11
Chromium	ppm	ASTM D5185(m)	>5	<b>1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185(m)	>4	<b>1</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>10	<b>5</b>	5	4
Tin	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<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

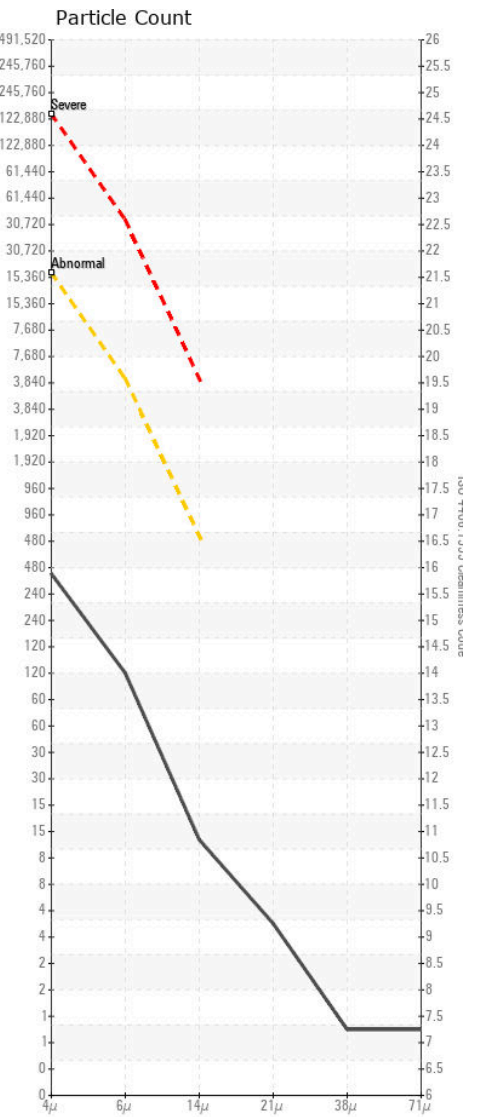
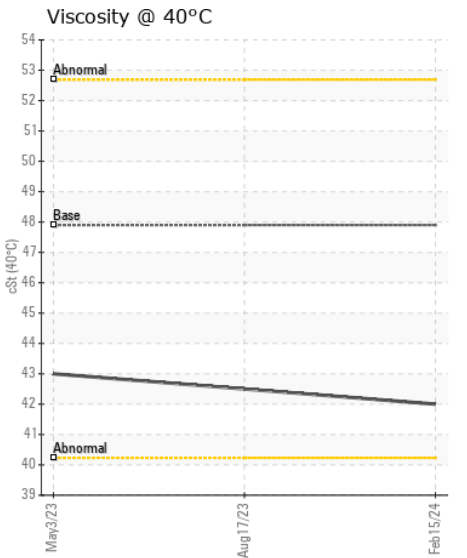
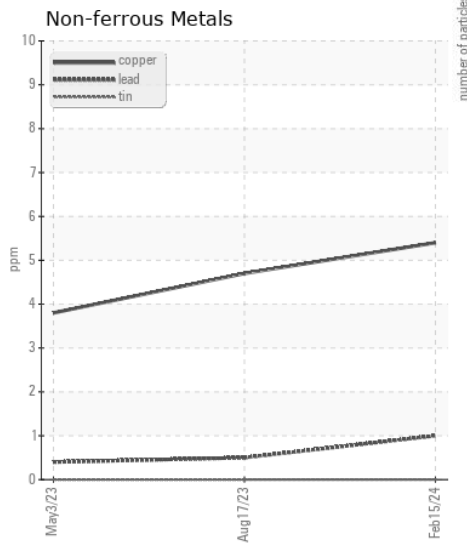
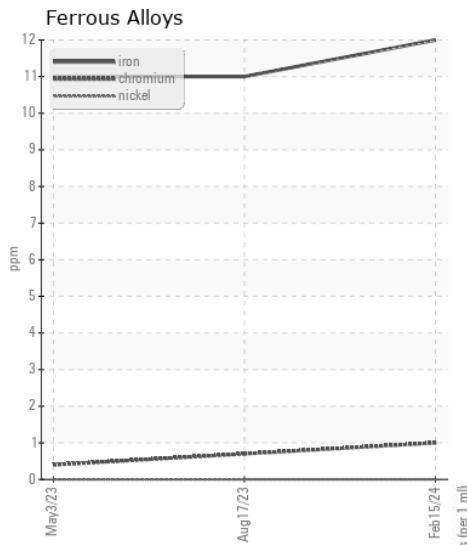
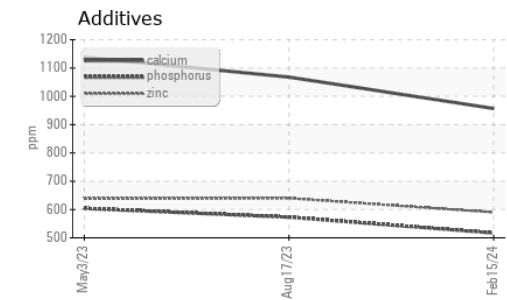
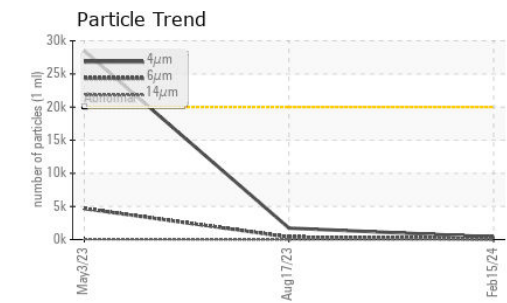
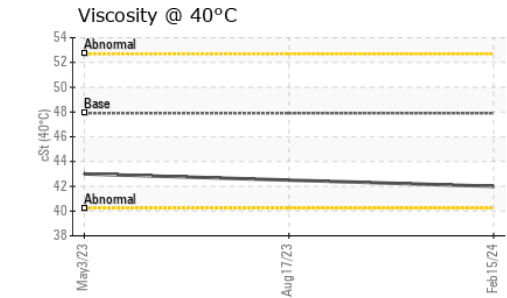
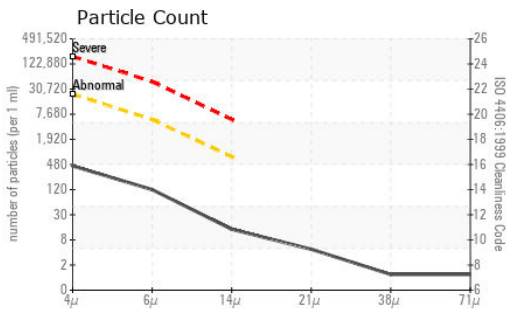
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185(m)	>17	<b>3</b>	4	3
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>20000	<b>390</b>	1731	▲ 28476
Particles >6µm		ASTM D7647	>5000	<b>106</b>	375	4679
Particles >14µm		ASTM D7647	>640	<b>12</b>	20	63
Particles >21µm		ASTM D7647	>160	<b>4</b>	6	10
Particles >38µm		ASTM D7647	>40	<b>1</b>	1	0
Particles >71µm		ASTM D7647	>10	<b>1</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>16/14/11</b>	18/16/11	▲ 22/19/13
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

Additive levels indicate the addition of a different brand, or type of oil.  
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>2</b>	2	1
Boron	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	<1
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)	1	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	0	<b>4</b>	3	3
Calcium	ppm	ASTM D5185(m)	100	<b>957</b>	1068	1138
Phosphorus	ppm	ASTM D5185(m)	670	<b>517</b>	573	604
Zinc	ppm	ASTM D5185(m)	850	<b>590</b>	640	638
Sulfur	ppm	ASTM D5185(m)	1600	<b>2757</b>	2882	3005
Visc @ 40°C	cSt	ASTM D7279(m)	47.9	<b>42.0</b>	42.5	43.0



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0284074 **Received** : 16 Feb 2024  
**Lab Number** : 02616272 **Tested** : 20 Feb 2024  
**Unique Number** : 5733382 **Diagnosed** : 20 Feb 2024 - Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: PrtCount )

**Goodies Trading Ltd.**  
 8150 Aitken Road  
 Chilliwack, BC  
 CA V2R 4H5  
 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: