



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR LR636 018081-1275**

Component  
**Hydraulic System**

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

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0216092</b>	LH0239351	---
Sample Date		Client Info		<b>15 Feb 2024</b>	01 Sep 2022	---
Machine Age	hrs	Client Info		<b>5913</b>	4366	---
Oil Age	hrs	Client Info		<b>0</b>	0	---
Filter Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	---
Filter Changed		Client Info		<b>N/A</b>	N/A	---
Sample Status				<b>NORMAL</b>	NORMAL	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>30	<b>8</b>	4	---
Chromium	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	0	---
Nickel	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	0	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185(m)	>5	<b>1</b>	<1	---
Lead	ppm	ASTM D5185(m)	>8	<b>2</b>	<1	---
Copper	ppm	ASTM D5185(m)	>25	<b>20</b>	12	---
Tin	ppm	ASTM D5185(m)	>4	<b>0</b>	0	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	---
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---

### CONTAMINATION

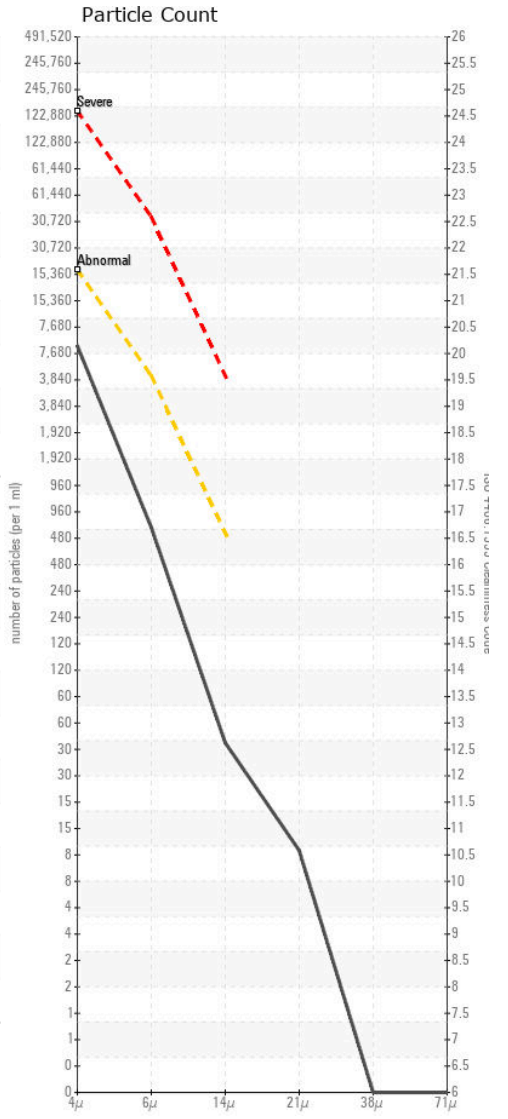
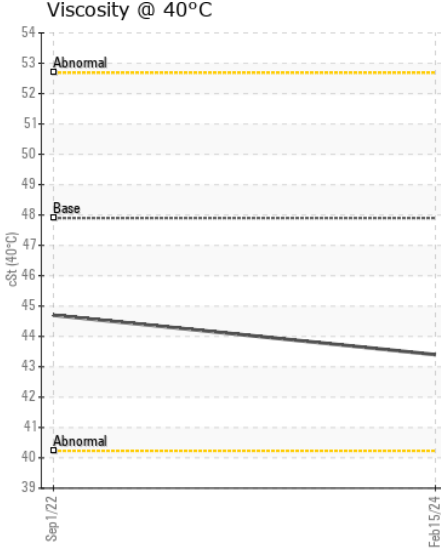
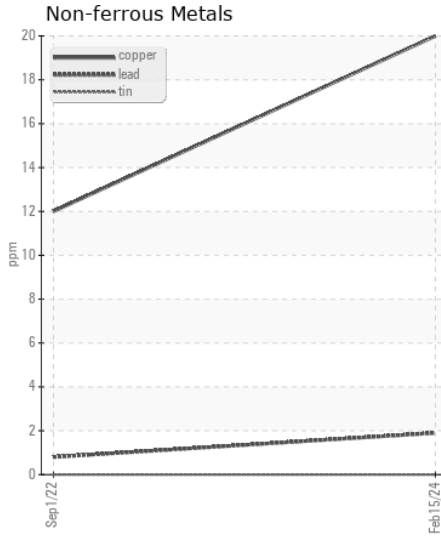
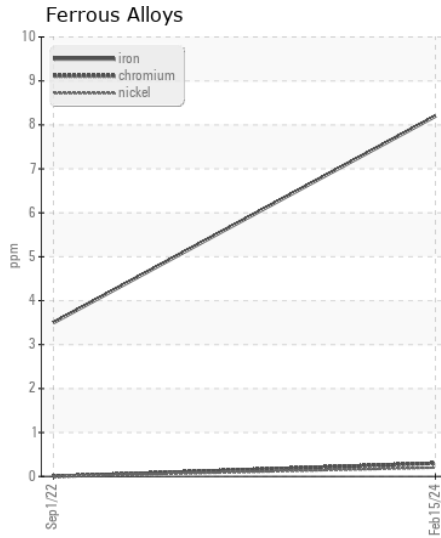
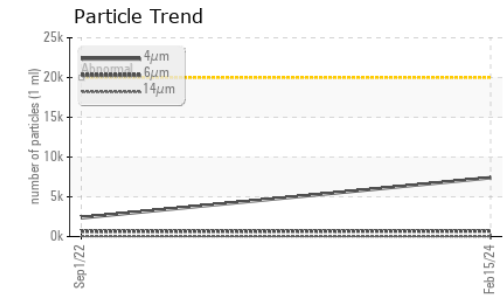
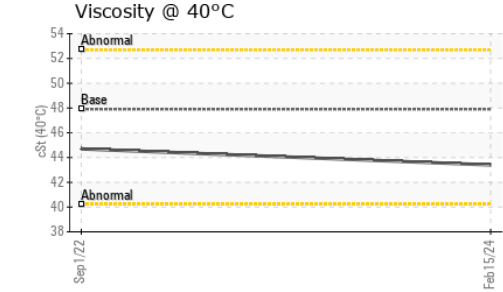
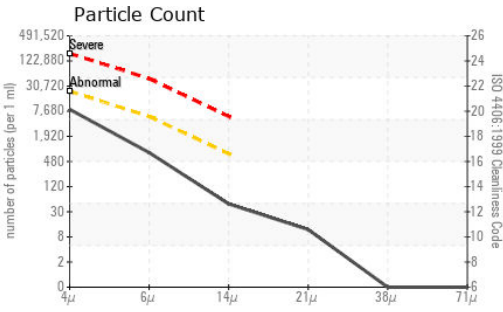
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185(m)	>25	<b>1</b>	1	---
Potassium	ppm	ASTM D5185(m)	>20	<b>1</b>	<1	---
Water		WC Method	>0.1	<b>NEG</b>	NEG	---
Particles >4µm		ASTM D7647	>20000	<b>7405</b>	2362	---
Particles >6µm		ASTM D7647	>5000	<b>687</b>	654	---
Particles >14µm		ASTM D7647	>640	<b>41</b>	58	---
Particles >21µm		ASTM D7647	>160	<b>10</b>	13	---
Particles >38µm		ASTM D7647	>40	<b>0</b>	1	---
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>20/17/13</b>	18/17/13	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	Visual*	>0.1	<b>NEG</b>	NEG	---

### FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		<b>4</b>	4	---
Boron	ppm	ASTM D5185(m)	0	<b>0</b>	<1	---
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185(m)	0	<b>0</b>	<1	---
Manganese	ppm	ASTM D5185(m)	1	<b>0</b>	<1	---
Magnesium	ppm	ASTM D5185(m)	0	<b>4</b>	5	---
Calcium	ppm	ASTM D5185(m)	100	<b>155</b>	273	---
Phosphorus	ppm	ASTM D5185(m)	670	<b>508</b>	433	---
Zinc	ppm	ASTM D5185(m)	850	<b>629</b>	542	---
Sulfur	ppm	ASTM D5185(m)	1600	<b>1472</b>	1391	---
Visc @ 40°C	cSt	ASTM D7279(m)	47.9	<b>43.4</b>	44.7	---



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0216092 **Received** : 20 Feb 2024  
**Lab Number** : 02616667 **Tested** : 21 Feb 2024  
**Unique Number** : 5733777 **Diagnosed** : 21 Feb 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: PrtCount )

**CON-DRAIN LTD.**  
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 CONCORD, ON  
 CA L4K 4R1  
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 T:  
 F:

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.