



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR L556 046000-1332**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA 10W40 (26 LTR)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0288097</b>	LH0242096	LH0226601
Sample Date		Client Info		<b>15 May 2024</b>	18 Oct 2023	12 Jul 2023
Machine Age	hrs	Client Info		<b>6994</b>	6011	5647
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>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	<b>3</b>	3	3
Chromium	ppm	ASTM D5185(m)	>5	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185(m)	>5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185(m)	>30	<b>0</b>	1	1
Copper	ppm	ASTM D5185(m)	>125	<b>2</b>	2	2
Tin	ppm	ASTM D5185(m)	>5	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---

### CONTAMINATION

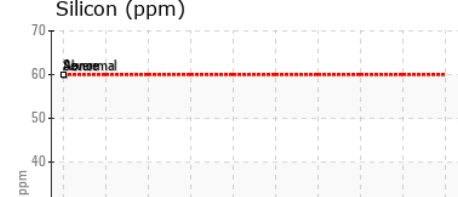
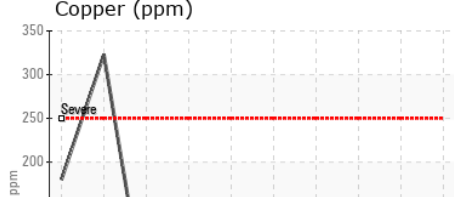
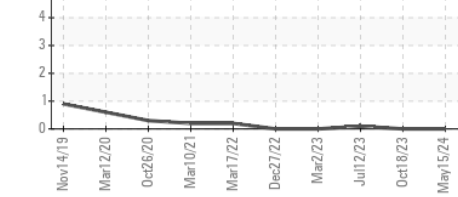
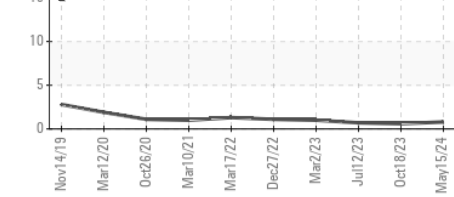
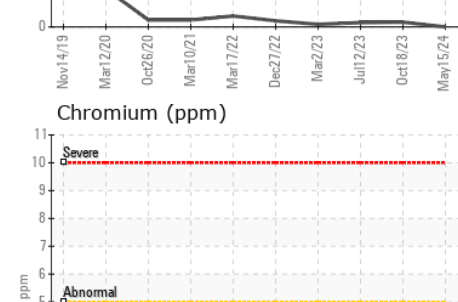
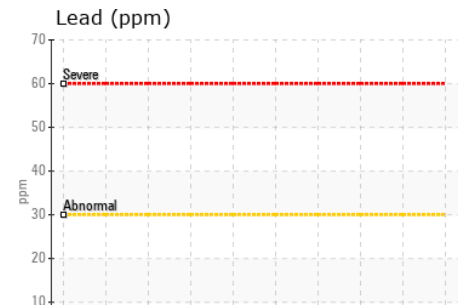
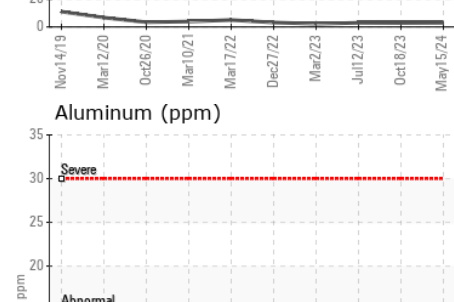
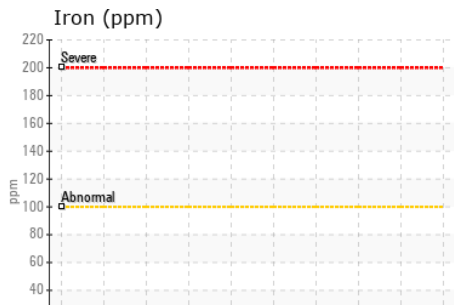
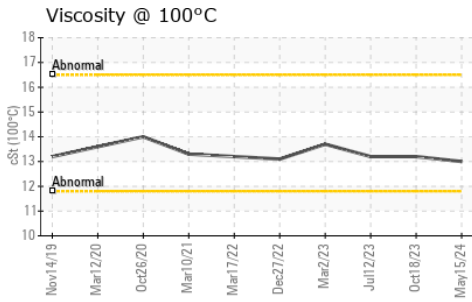
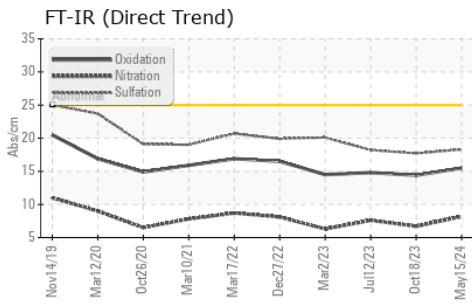
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	<b>6</b>	7	14
Potassium	ppm	ASTM D5185(m)	>20	<b>1</b>	0	<1
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*	>3	<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>8.2</b>	6.7	7.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>18.3</b>	17.7	18.2
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
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)	>20	<b>&lt;1</b>	1	2
Boron	ppm	ASTM D5185(m)		<b>&lt;1</b>	2	1
Barium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)		<b>58</b>	58	57
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)		<b>963</b>	944	972
Calcium	ppm	ASTM D5185(m)		<b>1027</b>	1085	1052
Phosphorus	ppm	ASTM D5185(m)		<b>1043</b>	1005	1044
Zinc	ppm	ASTM D5185(m)		<b>1195</b>	1185	1191
Sulfur	ppm	ASTM D5185(m)		<b>2656</b>	2566	2593
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>15.5</b>	14.4	14.8
Visc @ 100°C	cSt	ASTM D7279(m)		<b>13.0</b>	13.2	13.2



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0288097 **Received** : 17 May 2024  
**Lab Number** : 02636329 **Tested** : 17 May 2024  
**Unique Number** : 5785491 **Diagnosed** : 17 May 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: Visual )

**ECOWASTE INDUSTRIES**  
 4 SPRUCE ST  
 NEW WESTMINSTER, BC  
 CA V3L 5G6  
 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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