



# LIEBHERR

## OIL ANALYSIS REPORT

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

Machine Id  
**LIEBHERR 3060**  
Component  
**Diesel Engine**  
Fluid  
**CHEVRON DELO 400 LE 15W40 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0281143</b>	LH0162229	---
Sample Date		Client Info		<b>04 Jan 2024</b>	12 Jul 2020	---
Machine Age	hrs	Client Info		<b>36058</b>	29075	---
Oil Age	hrs	Client Info		<b>0</b>	0	---
Filter Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>N/A</b>	Changed	---
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)	>100	<b>6</b>	8	---
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	---
Nickel	ppm	ASTM D5185(m)	>4	<b>1</b>	<1	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185(m)	>20	<b>2</b>	4	---
Lead	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	0	---
Copper	ppm	ASTM D5185(m)	>330	<b>&lt;1</b>	<1	---
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	<1	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	---

### CONTAMINATION

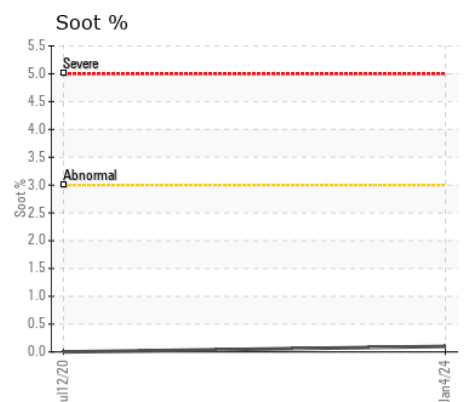
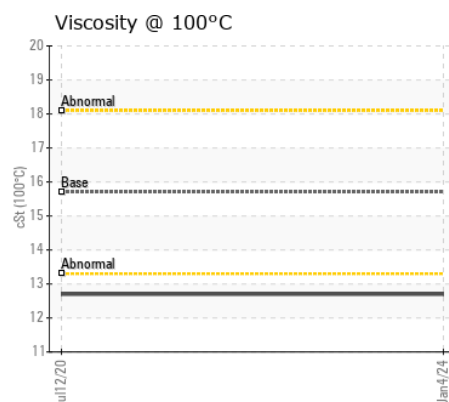
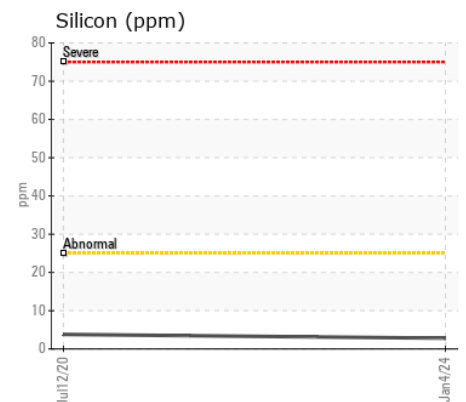
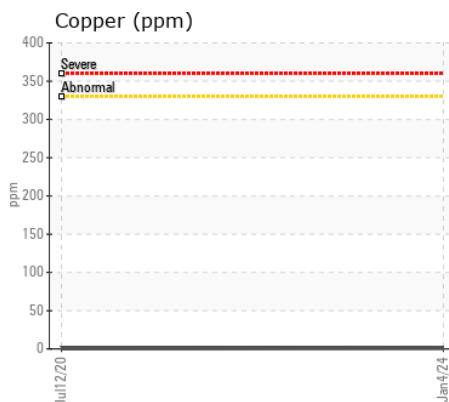
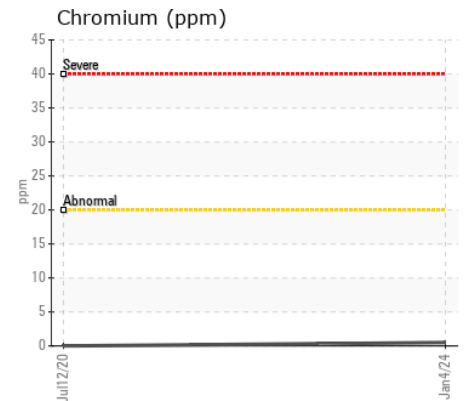
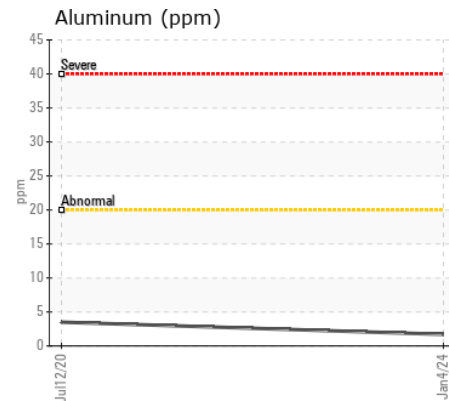
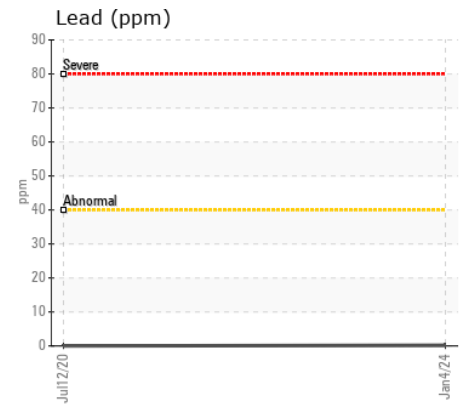
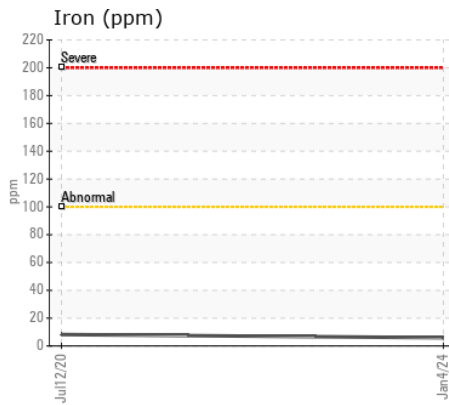
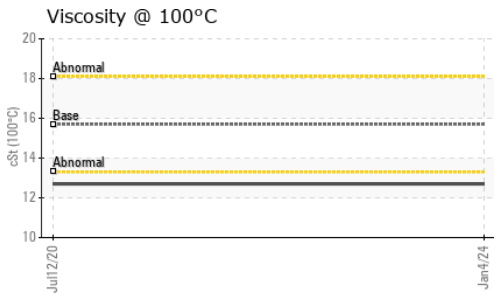
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>3</b>	4	---
Potassium	ppm	ASTM D5185(m)	>20	<b>3</b>	3	---
Fuel		WC Method	>5	<b>&lt;1.0</b>	1	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	ASTM D7844*	>3	<b>0.1</b>	0	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>8.3</b>	10.2	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>18.7</b>	24.3	---
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	---

### FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		<b>2</b>	<1	---
Boron	ppm	ASTM D5185(m)		<b>68</b>	72	---
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185(m)		<b>2</b>	<1	---
Manganese	ppm	ASTM D5185(m)		<b>0</b>	<1	---
Magnesium	ppm	ASTM D5185(m)		<b>713</b>	766	---
Calcium	ppm	ASTM D5185(m)		<b>1284</b>	1341	---
Phosphorus	ppm	ASTM D5185(m)	1200	<b>680</b>	726	---
Zinc	ppm	ASTM D5185(m)	1300	<b>766</b>	812	---
Sulfur	ppm	ASTM D5185(m)	3200	<b>2518</b>	2679	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>13.8</b>	14.6	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.7	<b>12.7</b>	12.7	---



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0281143 **Recieved** : 10 Jan 2024  
**Lab Number** : 02607770 **Diagnosed** : 10 Jan 2024  
**Unique Number** : 5708856 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1

**Fraser River Pile & Dredge**  
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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.