



# LIEBHERR

## OIL ANALYSIS REPORT



Area  
**(360378)**  
Machine Id  
**LIEBHERR A918 134117-1508**  
Component  
**Transmission (Auto)**  
Fluid  
**PETRO CANADA 10W40 (--- GAL)**

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

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0216263</b>	LH0216250	---
Sample Date		Client Info		<b>06 Jan 2024</b>	18 Nov 2022	---
Machine Age	hrs	Client Info		<b>2036</b>	1007	---
Oil Age	hrs	Client Info		<b>0</b>	0	---
Filter Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>None</b>	None	---
Sample Status				<b>ABNORMAL</b>	ABNORMAL	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>160	<b>46</b>	31	---
Chromium	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	<1	---
Silver	ppm	ASTM D5185(m)	>5	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185(m)	>50	<b>2</b>	3	---
Lead	ppm	ASTM D5185(m)	>50	<b>2</b>	1	---
Copper	ppm	ASTM D5185(m)	>225	<b>53</b>	52	---
Tin	ppm	ASTM D5185(m)	>10	<b>1</b>	1	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	<1	---
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---

### CONTAMINATION

There is no indication of any contamination in the fluid.

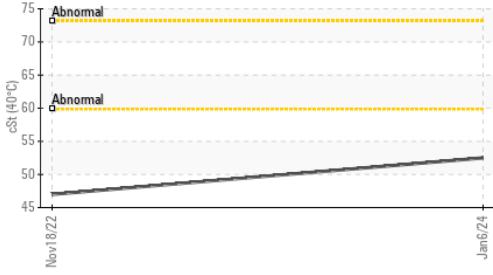
Silicon	ppm	ASTM D5185(m)	>20	<b>3</b>	3	---
Potassium	ppm	ASTM D5185(m)	>20	<b>3</b>	4	---
Water		WC Method	>0.1	<b>NEG</b>	NEG	---
Glycol	%	ASTM D7922*		<b>0.0</b>	---	---
Silt	scalar	Visual*	NONE	<b>VLITE</b>	NONE	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</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

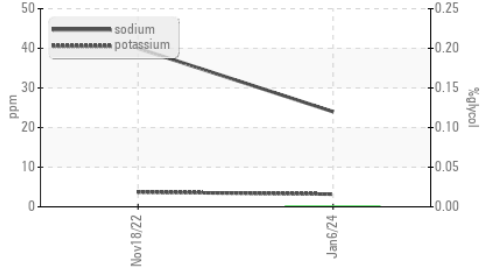
Viscosity of sample indicates oil is within SAE 20 range, advise investigate. The condition of the fluid is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)	>20	<b>24</b>	40	---
Boron	ppm	ASTM D5185(m)		<b>20</b>	5	---
Barium	ppm	ASTM D5185(m)		<b>2</b>	5	---
Molybdenum	ppm	ASTM D5185(m)		<b>23</b>	0	---
Manganese	ppm	ASTM D5185(m)		<b>12</b>	24	---
Magnesium	ppm	ASTM D5185(m)		<b>359</b>	7	---
Calcium	ppm	ASTM D5185(m)		<b>2192</b>	3550	---
Phosphorus	ppm	ASTM D5185(m)		<b>1126</b>	1170	---
Zinc	ppm	ASTM D5185(m)		<b>1056</b>	1173	---
Sulfur	ppm	ASTM D5185(m)		<b>7939</b>	8452	---
Visc @ 40°C	cSt	ASTM D7279(m)		<b>▲ 52.5</b>	▲ 47.0	---

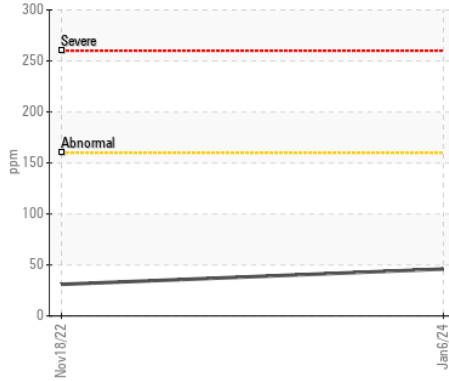
▲ Viscosity @ 40°C



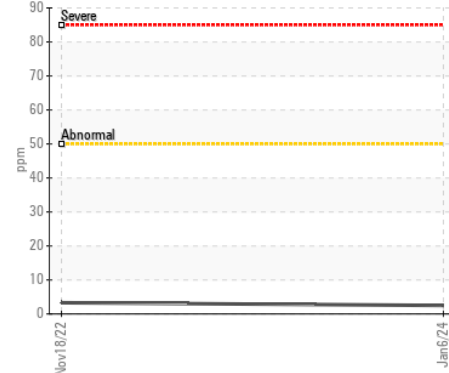
Glycol Contamination



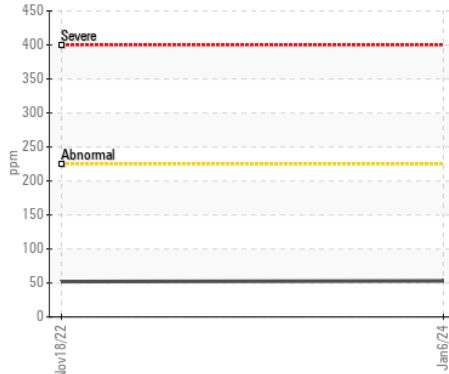
Iron (ppm)



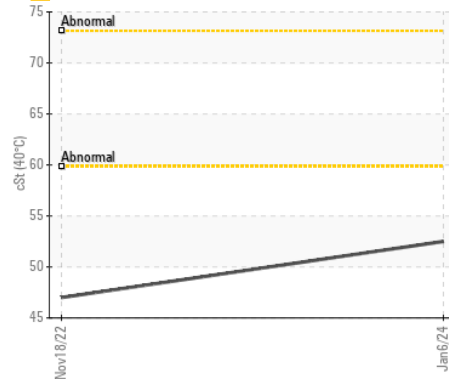
Aluminum (ppm)



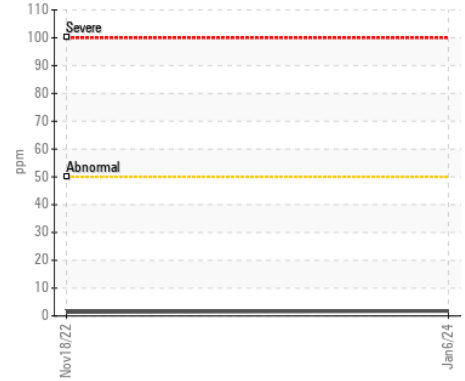
Copper (ppm)



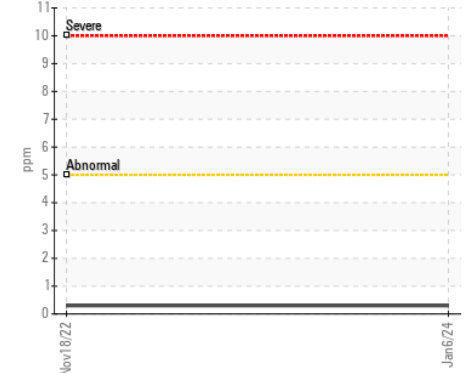
▲ Viscosity @ 40°C



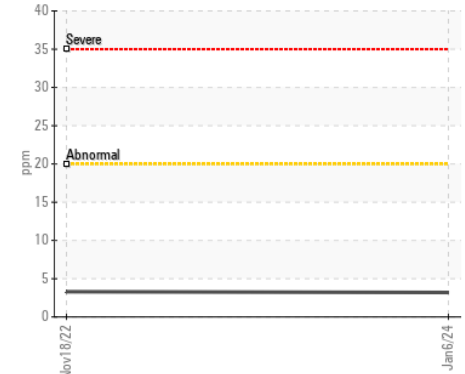
Lead (ppm)



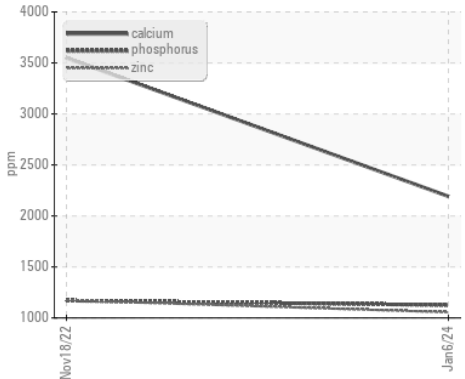
Chromium (ppm)



Silicon (ppm)



Additives



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **FAUBERT PRECISION CONTRACTING**  
**Sample No.** : LH0216263 **Received** : 19 Jan 2024 1394 194 STREET  
**Lab Number** : 02610006 **Diagnosed** : 22 Jan 2024 SURREY, BC  
**Unique Number** : 5711092 **Diagnostician** : Kevin Marson CA V3Z 9R9  
**Test Package** : MOBCE ( Additional Tests: Glycol, Visual ) 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.

T:  
F: