



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL



Machine Id
LIEBHERR L566 054116-1484
Component
Transmission (Manual)
Fluid
PETRO CANADA DURATRAN (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0281152	LH0135632	---
Sample Date		Client Info		04 Jan 2024	14 Dec 2021	---
Machine Age	hrs	Client Info		9598	5482	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				ABNORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>200	34	50	---
Chromium	ppm	ASTM D5185(m)	>5	0	<1	---
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	---
Titanium	ppm	ASTM D5185(m)		0	0	---
Silver	ppm	ASTM D5185(m)	>7	0	<1	---
Aluminum	ppm	ASTM D5185(m)	>25	2	1	---
Lead	ppm	ASTM D5185(m)	>45	<1	<1	---
Copper	ppm	ASTM D5185(m)	>225	1	3	---
Tin	ppm	ASTM D5185(m)	>10	0	0	---
Vanadium	ppm	ASTM D5185(m)		0	0	---
White Metal	scalar	Visual*	NONE	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	---

CONTAMINATION

There is no indication of any contamination in the fluid.

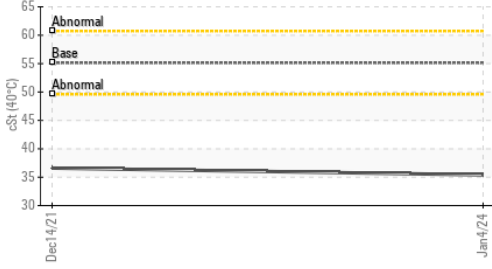
Silicon	ppm	ASTM D5185(m)	>125	8	8	---
Potassium	ppm	ASTM D5185(m)	>20	1	3	---
Water		WC Method	>0.1	NEG	NEG	---
Silt	scalar	Visual*	NONE	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML	---
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	---

FLUID CONDITION

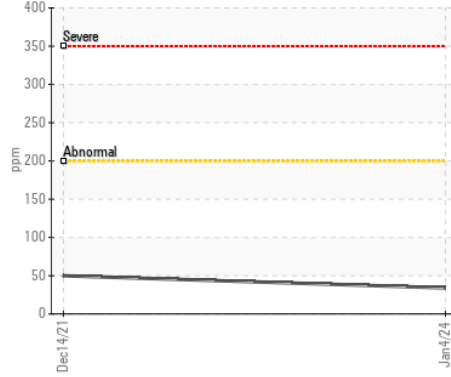
The fluid viscosity is lower than typical, possibly indicating the addition of lighter grade fluid. The condition of the fluid is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		3	9	---
Boron	ppm	ASTM D5185(m)	110	89	96	---
Barium	ppm	ASTM D5185(m)	0.0	0	0	---
Molybdenum	ppm	ASTM D5185(m)	0.0	0	<1	---
Manganese	ppm	ASTM D5185(m)	1	0	<1	---
Magnesium	ppm	ASTM D5185(m)	13	10	11	---
Calcium	ppm	ASTM D5185(m)	3610	3267	3248	---
Phosphorus	ppm	ASTM D5185(m)	1192	1108	1187	---
Zinc	ppm	ASTM D5185(m)	1455	1339	1366	---
Sulfur	ppm	ASTM D5185(m)	2641	2969	3468	---
Visc @ 40°C	cSt	ASTM D7279(m)	55.14	▲ 35.4	36.6	---

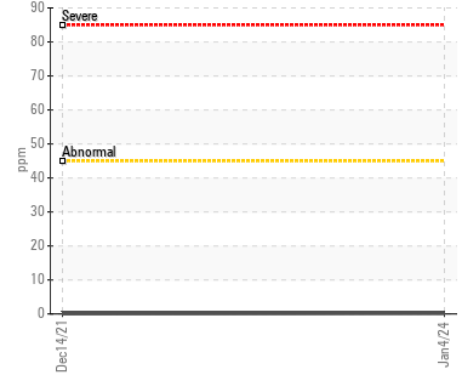
▲ Viscosity @ 40°C



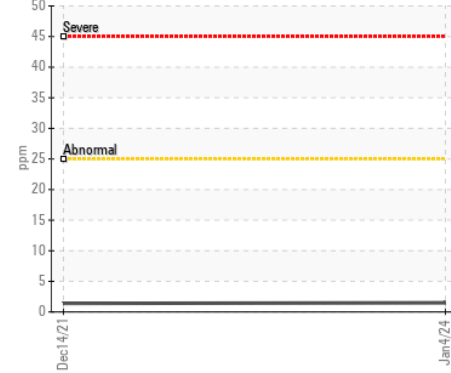
Iron (ppm)



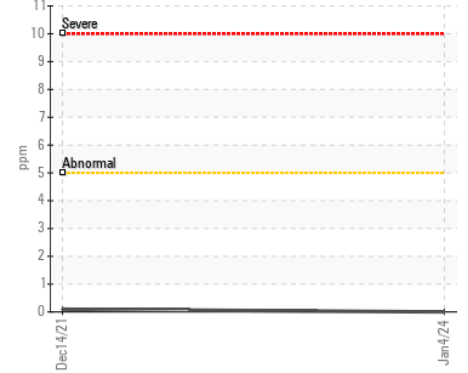
Lead (ppm)



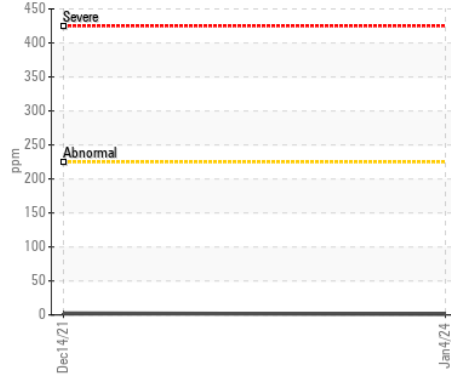
Aluminum (ppm)



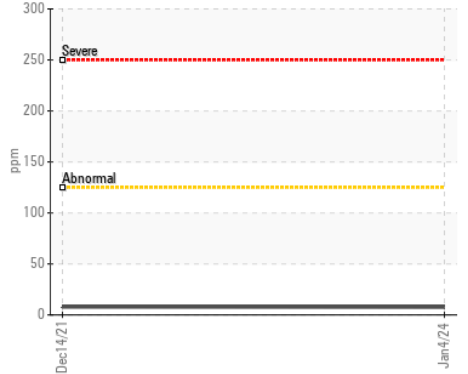
Chromium (ppm)



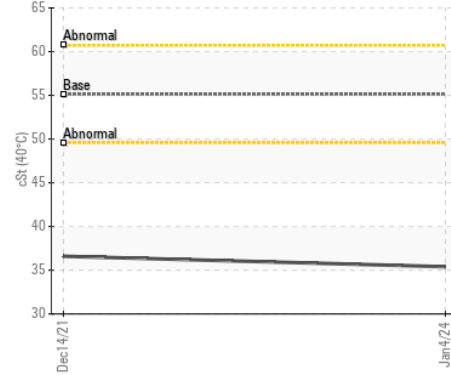
Copper (ppm)



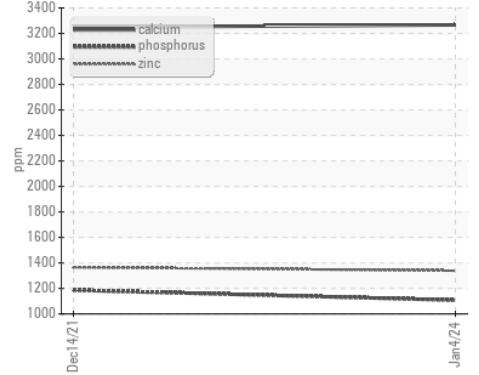
Silicon (ppm)



▲ Viscosity @ 40°C



Additives



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0281152 **Received** : 10 Jan 2024
Lab Number : 02607892 **Diagnosed** : 11 Jan 2024
Unique Number : 5708978 **Diagnostician** : Kevin Marson
Test Package : MOB 1

Abbycel Substrate Ltd.
 3545 Ross Road
 Abbotsford, BC
 CA V4X 1M6
 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: