



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR R945 055788-1866
Component
Swing Drive
Fluid
PETRO CANADA SUPREME 5W30 (--- GAL)

RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill.
Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0276881	LH0265652	---
Sample Date		Client Info		22 Mar 2024	23 Aug 2023	---
Machine Age	hrs	Client Info		1446	967	---
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				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>750	29	31	---
Chromium	ppm	ASTM D5185(m)	>10	0	<1	---
Nickel	ppm	ASTM D5185(m)	>5	0	<1	---
Titanium	ppm	ASTM D5185(m)		0	0	---
Silver	ppm	ASTM D5185(m)		0	0	---
Aluminum	ppm	ASTM D5185(m)	>20	<1	0	---
Lead	ppm	ASTM D5185(m)	>5	0	0	---
Copper	ppm	ASTM D5185(m)	>250	<1	<1	---
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

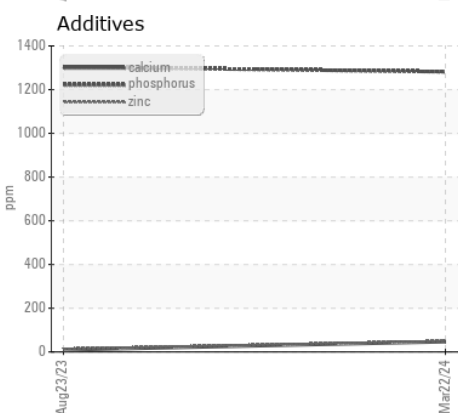
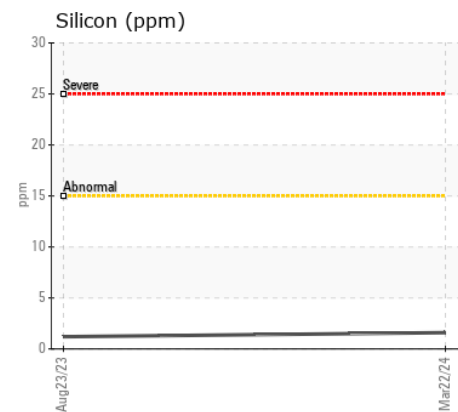
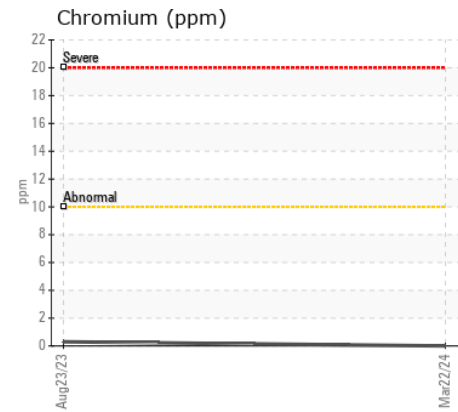
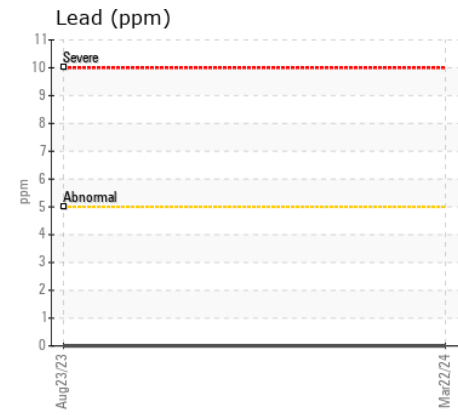
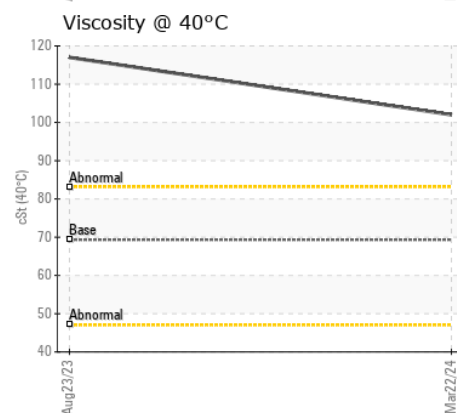
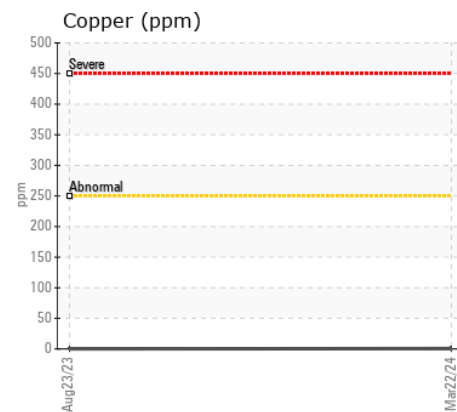
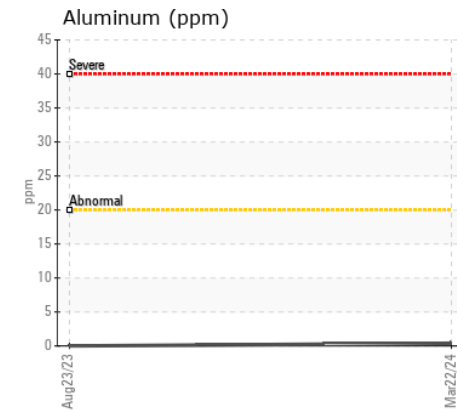
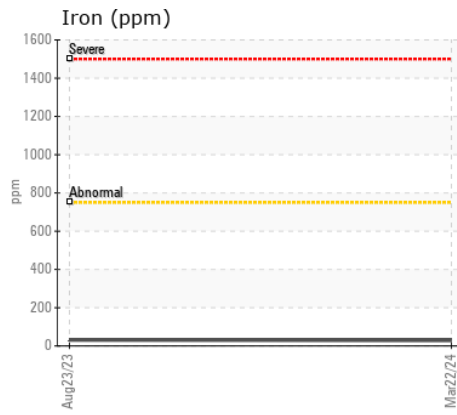
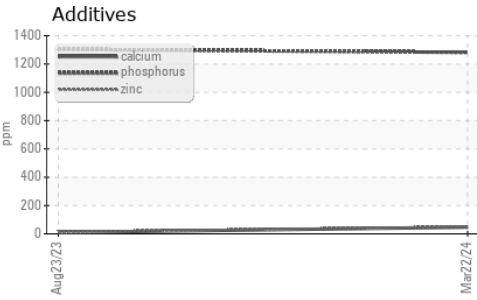
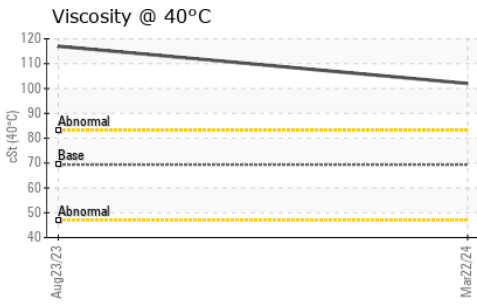
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>15	2	1	---
Potassium	ppm	ASTM D5185(m)	>20	1	<1	---
Water		WC Method	>0.2	NEG	NEG	---
Silt	scalar	Visual*	NONE	NONE	NONE	---
Debris	scalar	Visual*	NONE	VLITE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML	---
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	---

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil.
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		1	1	---
Boron	ppm	ASTM D5185(m)	186	227	225	---
Barium	ppm	ASTM D5185(m)	<1	0	2	---
Molybdenum	ppm	ASTM D5185(m)	79	0	<1	---
Manganese	ppm	ASTM D5185(m)	0	<1	<1	---
Magnesium	ppm	ASTM D5185(m)	578	7	3	---
Calcium	ppm	ASTM D5185(m)	1002	47	10	---
Phosphorus	ppm	ASTM D5185(m)	745	1282	1304	---
Zinc	ppm	ASTM D5185(m)	837	50	14	---
Sulfur	ppm	ASTM D5185(m)	2502	20468	20247	---
Visc @ 40°C	cSt	ASTM D7279(m)	69.33	102	117	---



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

Sample No. : LH0276881

Lab Number : 02628988

Unique Number : 5762120

Test Package : MOB 1

Received : 15 Apr 2024

Tested : 16 Apr 2024

Diagnosed : 16 Apr 2024 - Kevin Marson

American Iron and Metal

997 CARPIN BEACH RD

SAULT ST MARIE, ON

CA P6A 6K4

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: