



LIEBHERR

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL



Machine Id
LIEBHERR R922 56035

Component
Swing Drive

Fluid
PETRO CANADA TRAXON SYNTHETIC 75W90 (6 LTR)

RECOMMENDATION

The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0280949	LH0250586	LH0260493
Sample Date		Client Info		19 Mar 2024	25 Sep 2023	31 Jul 2023
Machine Age	hrs	Client Info		2105	959	598
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

Chromium and iron ppm levels are abnormal. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion.

PQ		ASTM D8184*		0	---	---
Iron	ppm	ASTM D5185(m)	>750	▲ 1037	42	72
Chromium	ppm	ASTM D5185(m)	>10	▲ 10	<1	1
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	0
Titanium	ppm	ASTM D5185(m)		<1	0	0
Silver	ppm	ASTM D5185(m)		0	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	<1	<1	<1
Lead	ppm	ASTM D5185(m)	>5	0	<1	0
Copper	ppm	ASTM D5185(m)	>250	1	<1	<1
Tin	ppm	ASTM D5185(m)	>10	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	VLITE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

Lithium (Li) level abnormal at 17ppm., indicates possible grease contamination. There is no indication of any contamination in the oil.

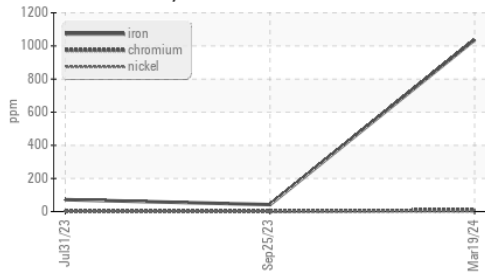
Silicon	ppm	ASTM D5185(m)	>15	4	3	1
Potassium	ppm	ASTM D5185(m)	>20	<1	0	<1
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	Visual*	NONE	NONE	NONE	VLITE
Debris	scalar	Visual*	NONE	VLITE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

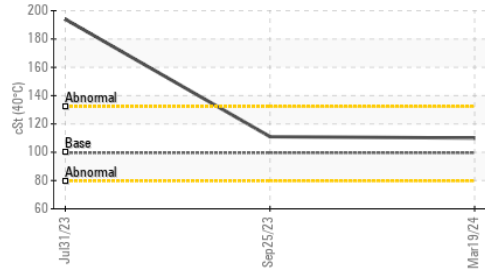
Additive levels indicate the addition of a different brand, or type of oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185(m)		1	2	4
Boron	ppm	ASTM D5185(m)	328	158	269	2
Barium	ppm	ASTM D5185(m)	1	0	2	6
Molybdenum	ppm	ASTM D5185(m)		0	0	<1
Manganese	ppm	ASTM D5185(m)		6	0	1
Magnesium	ppm	ASTM D5185(m)	1	2	4	2
Calcium	ppm	ASTM D5185(m)	7	58	20	17
Phosphorus	ppm	ASTM D5185(m)	1145	1186	1262	1288
Zinc	ppm	ASTM D5185(m)	3	31	20	18
Sulfur	ppm	ASTM D5185(m)	17909	19817	21543	24318
Visc @ 40°C	cSt	ASTM D7279(m)	99.6	110	111	194

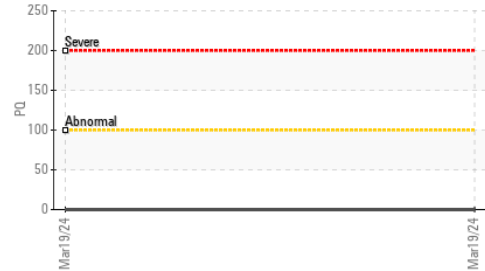
▲ Ferrous Alloys



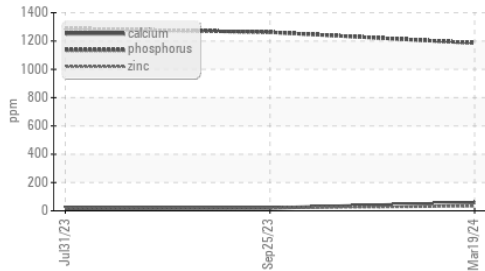
Viscosity @ 40°C



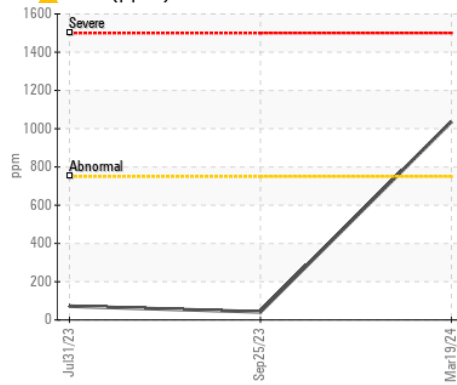
PQ



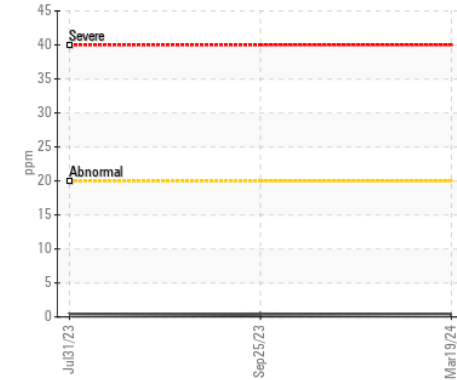
Additives



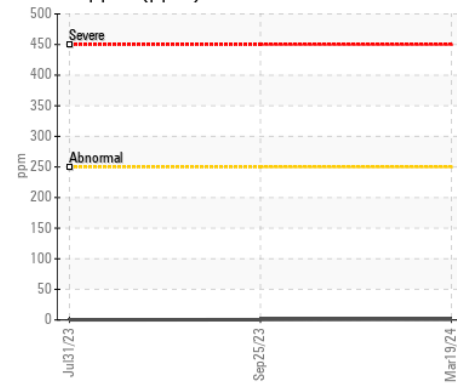
▲ Iron (ppm)



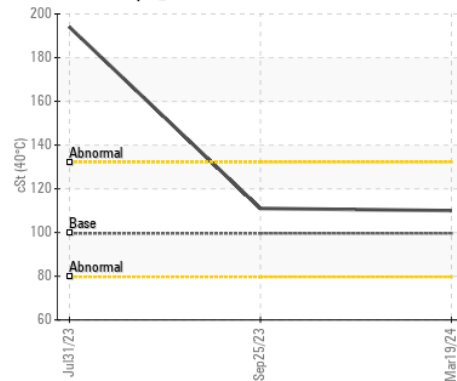
Aluminum (ppm)



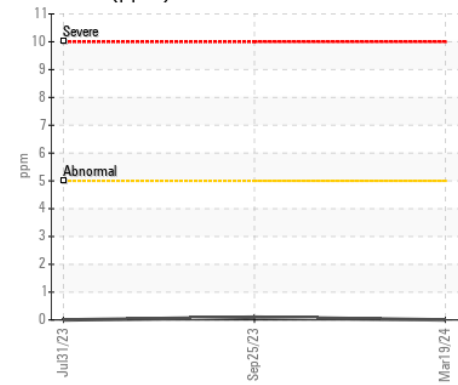
Copper (ppm)



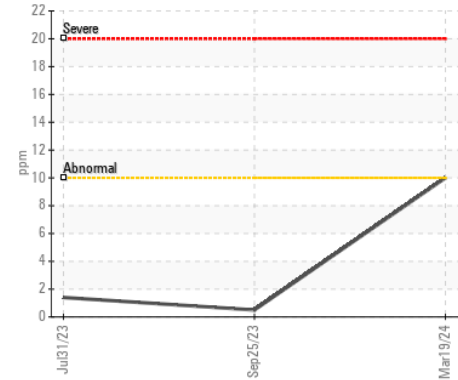
Viscosity @ 40°C



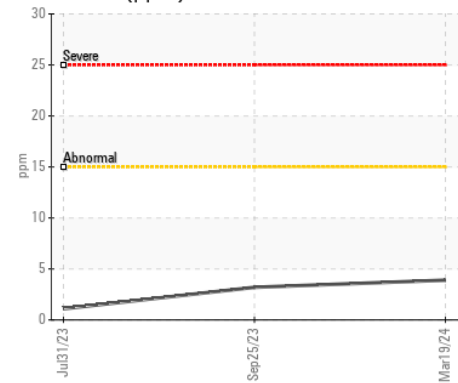
Lead (ppm)



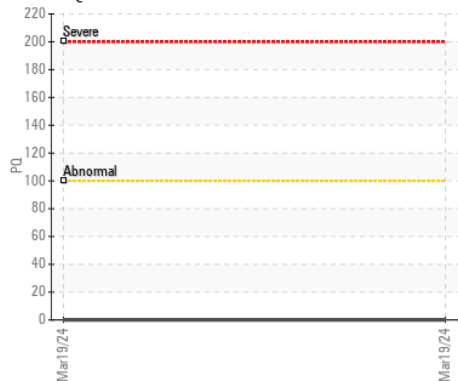
▲ Chromium (ppm)



Silicon (ppm)



PQ



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0280949 **Received** : 27 Mar 2024
Lab Number : 02625015 **Tested** : 27 Mar 2024
Unique Number : 5750134 **Diagnosed** : 27 Mar 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: PQ)

MITCHELL METAL RECYCLING
 12100 MITCHELL RD
 RICHMOND, BC
 CA V6V 1MB
 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: (778)235-0918
 F: