



LIEBHERR

OIL ANALYSIS REPORT

WEAR
CONTAMINATION
FLUID CONDITION

ABNORMAL

SEVERE

NORMAL



Area

(336342)

Machine Id

LIEBHERR A918 109052-1508

Component

Swing Drive

Fluid

PETRO CANADA TRAXON 75W90 SYNTHETIC (--- GAL)

RECOMMENDATION

We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0281475	LH0237728	LH0239632
Sample Date		Client Info		09 Jan 2024	15 Jun 2023	30 Aug 2022
Machine Age	hrs	Client Info		4997	3985	3011
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				SEVERE	SEVERE	ABNORMAL

WEAR

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

PQ		ASTM D8184*		4	21	0
Iron	ppm	ASTM D5185(m)	>350	▲ 778	▲ 1146	▲ 1270
Chromium	ppm	ASTM D5185(m)	>15	8	11	12
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		5	<1	<1
Silver	ppm	ASTM D5185(m)		<1	<1	<1
Aluminum	ppm	ASTM D5185(m)	>5	1	<1	<1
Lead	ppm	ASTM D5185(m)	>10	2	2	5
Copper	ppm	ASTM D5185(m)	>300	53	50	132
Tin	ppm	ASTM D5185(m)	>15	2	2	2
Vanadium	ppm	ASTM D5185(m)		0	0	<1
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

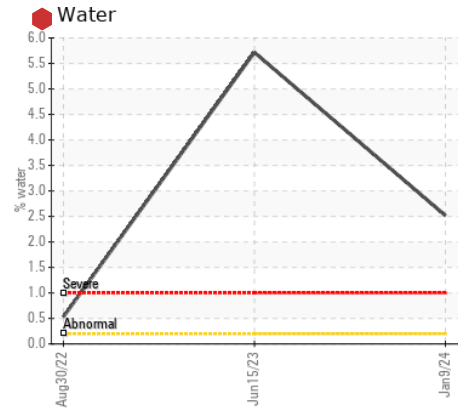
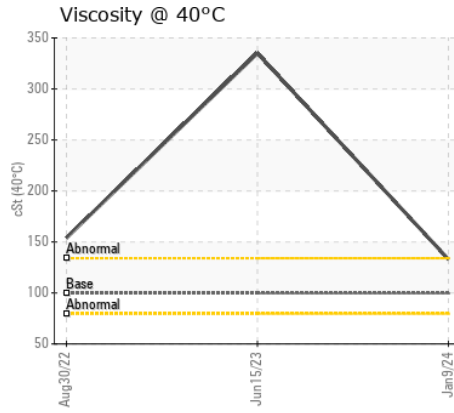
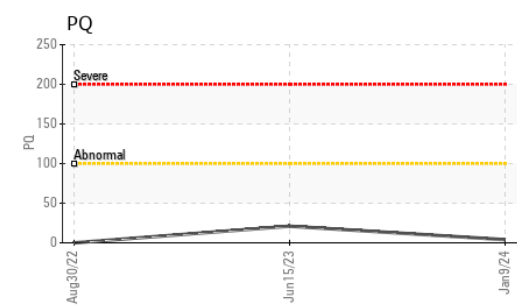
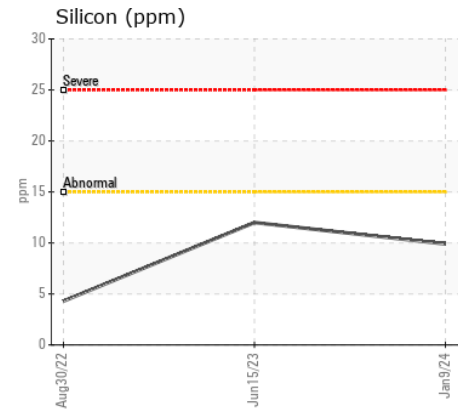
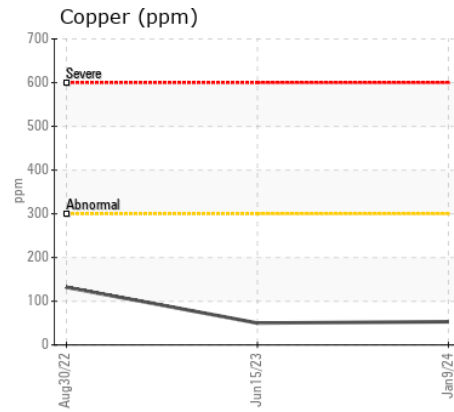
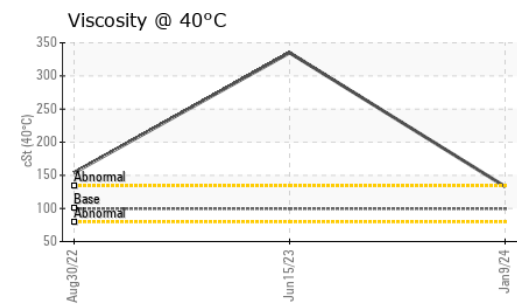
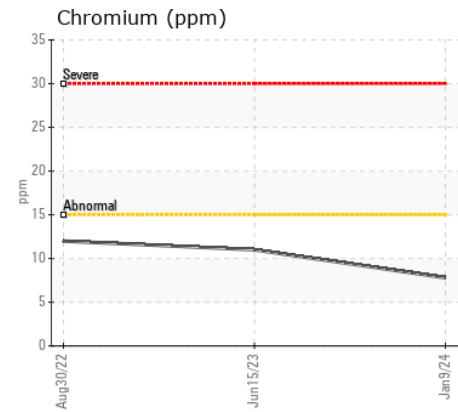
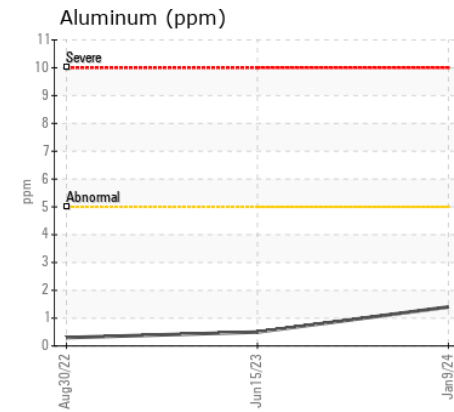
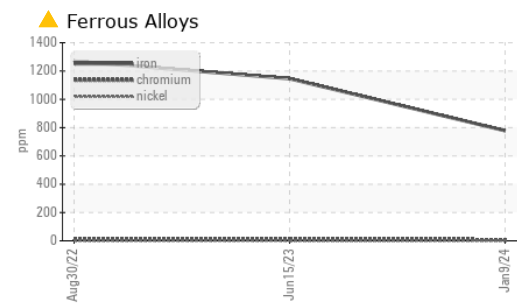
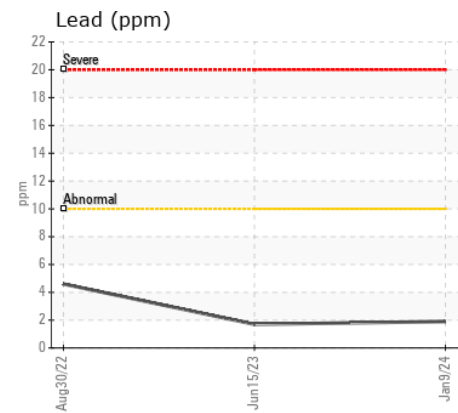
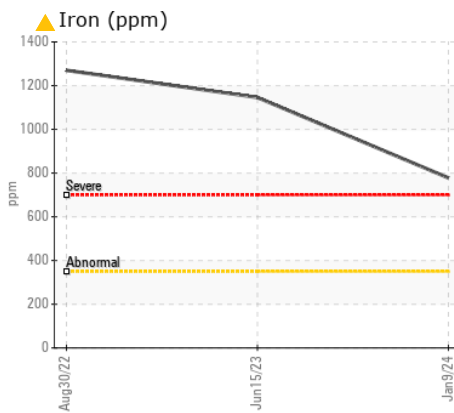
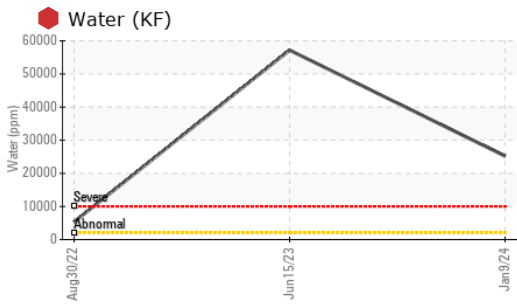
There is a high concentration of water present in the oil.

Silicon	ppm	ASTM D5185(m)	>15	10	12	4
Potassium	ppm	ASTM D5185(m)	>20	7	2	2
Water	%	ASTM D6304*	>0.2	◆ 2.518	◆ 5.717	▲ 0.532
ppm Water	ppm	ASTM D6304*	>2000	◆ 25190	◆ 57176.1	▲ 5320.1
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	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	▲ .5%	▲ 1%	▲ .2%

FLUID CONDITION

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185(m)		69	203	4
Boron	ppm	ASTM D5185(m)	328	134	46	77
Barium	ppm	ASTM D5185(m)	1	0	<1	3
Molybdenum	ppm	ASTM D5185(m)		2	9	2
Manganese	ppm	ASTM D5185(m)		5	8	9
Magnesium	ppm	ASTM D5185(m)	1	30	7	19
Calcium	ppm	ASTM D5185(m)	7	152	37	112
Phosphorus	ppm	ASTM D5185(m)	1145	1471	2263	1576
Zinc	ppm	ASTM D5185(m)	3	88	26	101
Sulfur	ppm	ASTM D5185(m)	17909	20023	22739	20699
Visc @ 40°C	cSt	ASTM D7279(m)	99.6	133	▲ 335	154



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **THOMAS CAVANAGH CONSTRUCTION LTD**
Sample No. : LH0281475 **Received** : 23 Jan 2024 **RR # 2, 9094 CAVANAGH ROAD**
Lab Number : 02610657 **Diagnosed** : 25 Jan 2024 **ASHTON, ON**
Unique Number : 5711743 **Diagnostician** : Kevin Marson **CA K0A 1B0**
Test Package : MOB 1 (Additional Tests: KF, PQ) **Contact: Keith**

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.

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