



LIEBHERR

OIL ANALYSIS REPORT



Area
(344091)
Machine Id
LIEBHERR LH40M 120553-1215
Component
Swing Drive
Fluid
PETRO CANADA TRAXON SYNTHETIC 75W90 (--- GAL)

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

RECOMMENDATION

We advise that you check for the source of water entry. 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		LH0193877	LH0193863	LH0193849
Sample Date		Client Info		13 Feb 2024	21 Feb 2023	11 Oct 2021
Machine Age	hrs	Client Info		4086	2835	1021
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		None	None	None
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>350	303	145	28
Chromium	ppm	ASTM D5185(m)	>15	2	1	<1
Nickel	ppm	ASTM D5185(m)	>5	<1	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	<1
Aluminum	ppm	ASTM D5185(m)	>5	<1	0	<1
Lead	ppm	ASTM D5185(m)	>10	1	2	1
Copper	ppm	ASTM D5185(m)	>300	29	76	41
Tin	ppm	ASTM D5185(m)	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	LIGHT
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

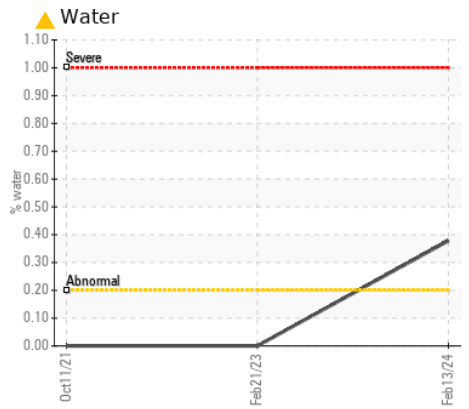
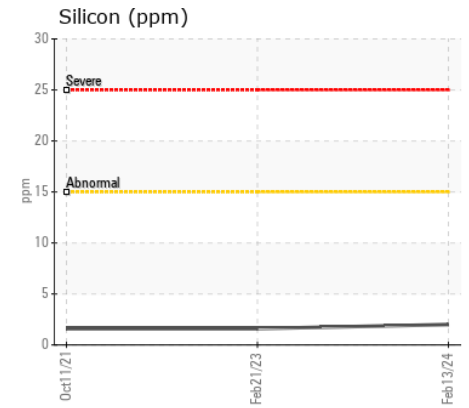
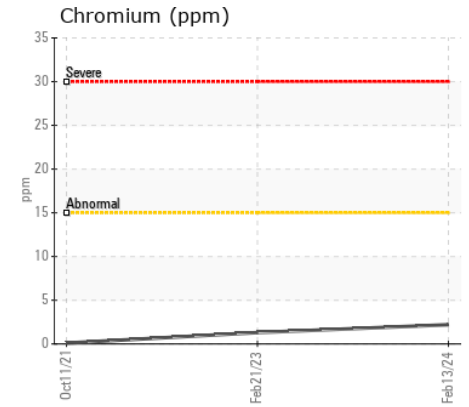
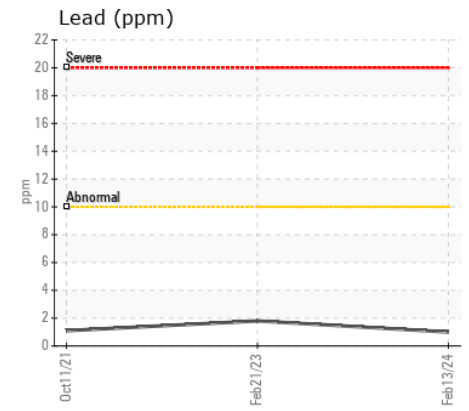
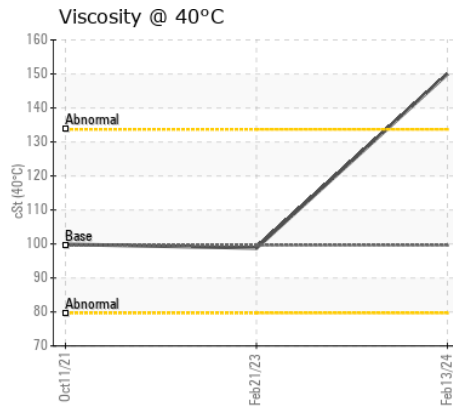
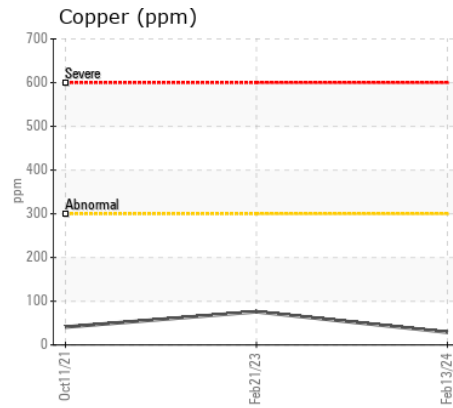
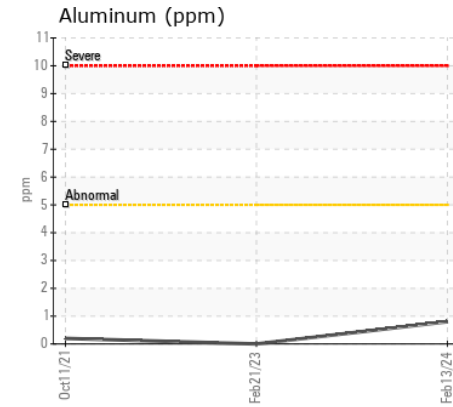
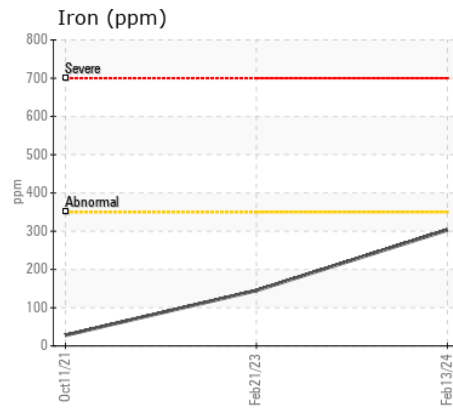
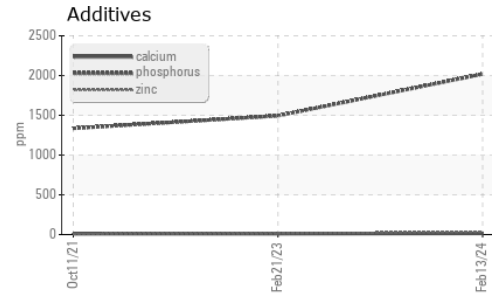
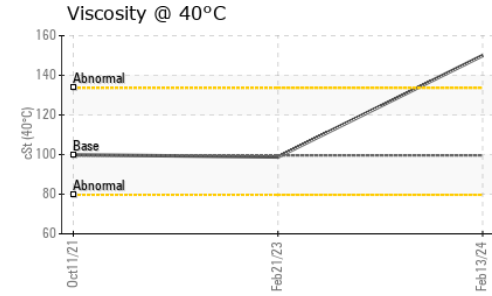
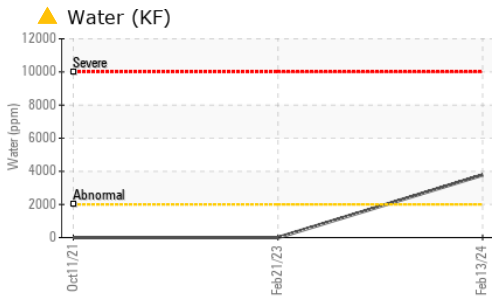
There is a moderate concentration of water present in the oil. Free water present.

Silicon	ppm	ASTM D5185(m)	>15	2	2	2
Potassium	ppm	ASTM D5185(m)	>20	1	<1	<1
Water	%	ASTM D6304*	>0.2	▲ 0.378	---	---
ppm Water	ppm	ASTM D6304*	>2000	▲ 3782	---	---
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	▲ WGOIL	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	▲ .5%	NEG	NEG

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		2	<1	<1
Boron	ppm	ASTM D5185(m)	328	30	293	280
Barium	ppm	ASTM D5185(m)	1	1	2	1
Molybdenum	ppm	ASTM D5185(m)		0	0	<1
Manganese	ppm	ASTM D5185(m)		2	1	<1
Magnesium	ppm	ASTM D5185(m)	1	2	1	1
Calcium	ppm	ASTM D5185(m)	7	14	10	10
Phosphorus	ppm	ASTM D5185(m)	1145	2019	1494	1336
Zinc	ppm	ASTM D5185(m)	3	33	12	7
Sulfur	ppm	ASTM D5185(m)	17909	24287	22386	20606
Visc @ 40°C	cSt	ASTM D7279(m)	99.6	150	98.8	99.9



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0193877 **Received** : 16 Feb 2024
Lab Number : 02616400 **Tested** : 20 Feb 2024
Unique Number : 5733510 **Diagnosed** : 20 Feb 2024 - Kevin Marson
Test Package : MOBCE (Additional Tests: KF, Visual)

Goodies Trading Ltd.
 8150 Aitken Road
 Chilliwack, BC
 CA V2R 4H5
 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.

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F: