



LIEBHERR

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
031629-793

Component
Swing Drive

Fluid
PETRO CANADA TRAXON 75W90 SYNTHETIC (10 GAL)

RECOMMENDATION

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		LH0289502	LH0227406	LH
Sample Date		Client Info		24 May 2024	08 Apr 2022	09 Jan 2022
Machine Age	hrs	Client Info		16113	13549	12577
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		N/A	None	None
Sample Status				ABNORMAL	NORMAL	MARGINAL

WEAR

Iron and lead ppm levels are abnormal. Tin ppm levels are marginal. Bearing wear is indicated. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion.

PQ		ASTM D8184*		122	---	---
Iron	ppm	ASTM D5185(m)	>750	▲ 1044	188	586
Chromium	ppm	ASTM D5185(m)	>10	8	2	5
Nickel	ppm	ASTM D5185(m)	>5	2	<1	2
Titanium	ppm	ASTM D5185(m)		4	0	0
Silver	ppm	ASTM D5185(m)		0	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	3	<1	<1
Lead	ppm	ASTM D5185(m)	>5	▲ 8	2	4
Copper	ppm	ASTM D5185(m)	>250	331	56	151
Tin	ppm	ASTM D5185(m)	>10	▲ 20	3	6
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	VLITE	NONE	VLITE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

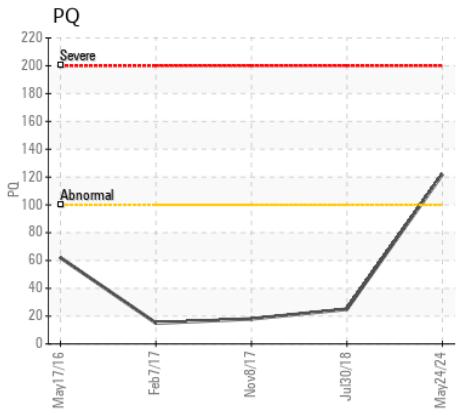
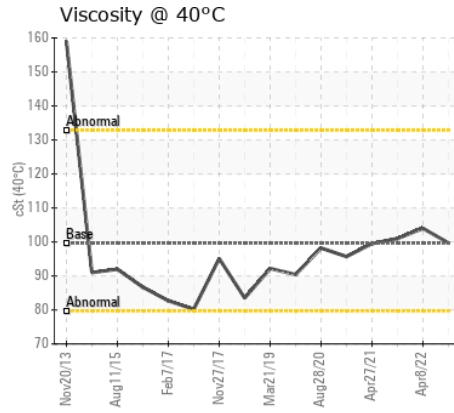
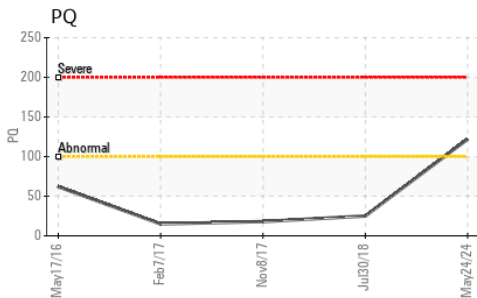
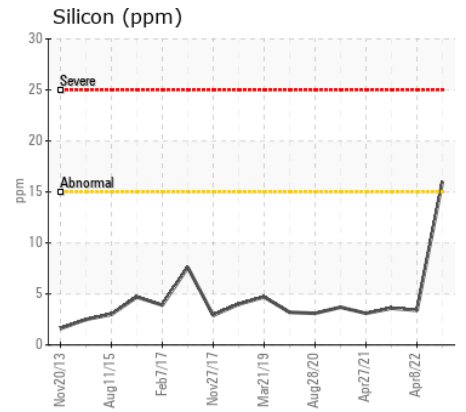
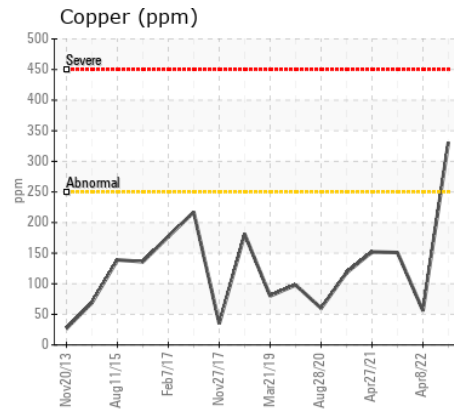
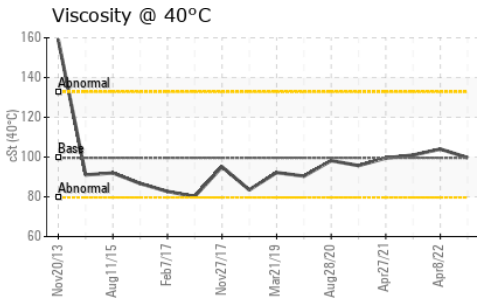
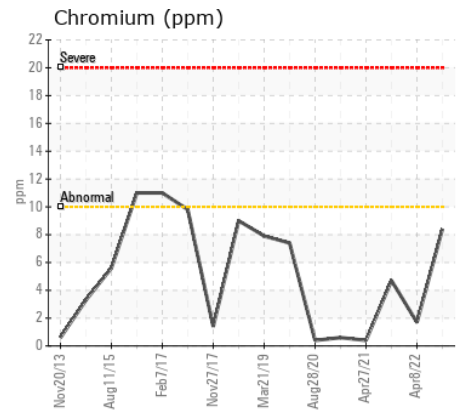
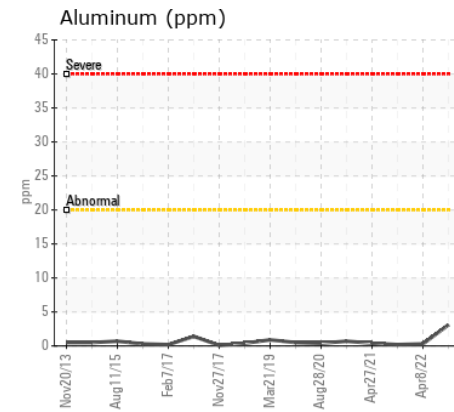
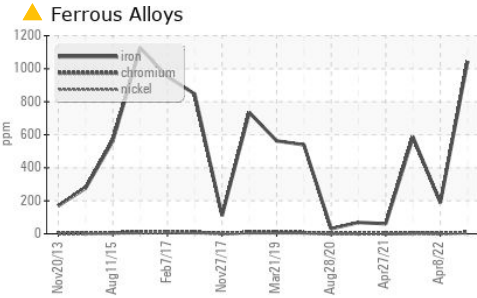
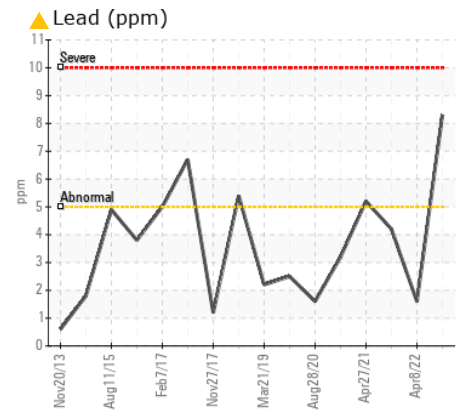
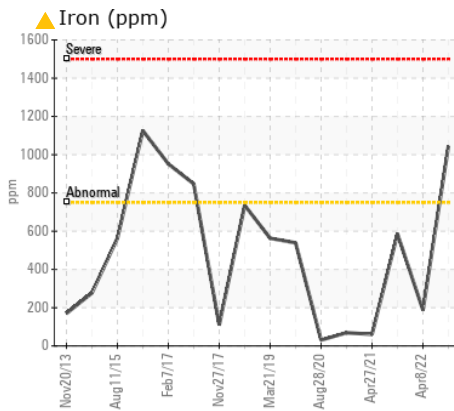
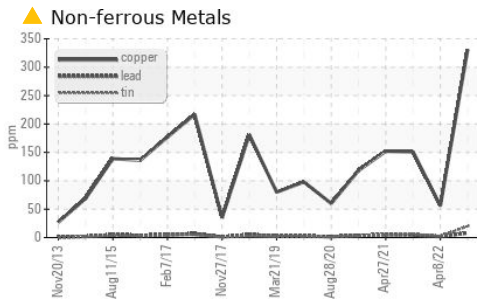
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>15	16	3	4
Potassium	ppm	ASTM D5185(m)	>20	<1	1	1
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	Visual*	NONE	VLITE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	VLITE
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	▲ .5%

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		<1	<1	1
Boron	ppm	ASTM D5185(m)	328	245	309	221
Barium	ppm	ASTM D5185(m)	1	2	0	0
Molybdenum	ppm	ASTM D5185(m)		0	<1	<1
Manganese	ppm	ASTM D5185(m)		7	1	4
Magnesium	ppm	ASTM D5185(m)	1	4	2	<1
Calcium	ppm	ASTM D5185(m)	7	20	11	10
Phosphorus	ppm	ASTM D5185(m)	1145	1270	1258	1327
Zinc	ppm	ASTM D5185(m)	3	33	15	26
Sulfur	ppm	ASTM D5185(m)	17909	21398	21160	22027
Visc @ 40°C	cSt	ASTM D7279(m)	99.6	99.7	104	101



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0289502 **Received** : 29 May 2024
Lab Number : 02638618 **Tested** : 30 May 2024
Unique Number : 5787780 **Diagnosed** : 31 May 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: PQ)

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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