



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
MACK 4473
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (23 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0112662	GFL0056307	GFL0056374
Sample Date		Client Info		13 Jun 2024	23 Dec 2023	29 Jun 2023
Machine Age	kms	Client Info		641100	634135	617662
Oil Age	kms	Client Info		0	0	0
Filter Age	kms	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	ABNORMAL	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	11	19	30
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	1
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	2	2	2
Lead	ppm	ASTM D5185(m)	>40	0	<1	2
Copper	ppm	ASTM D5185(m)	>330	1	2	3
Tin	ppm	ASTM D5185(m)	>15	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

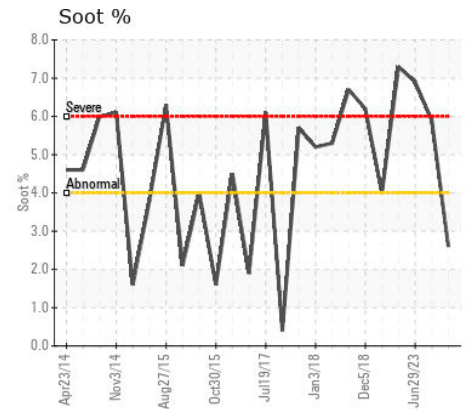
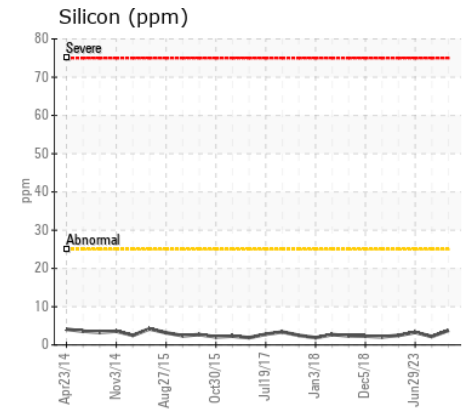
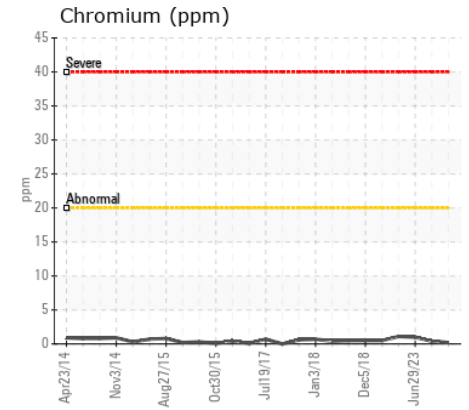
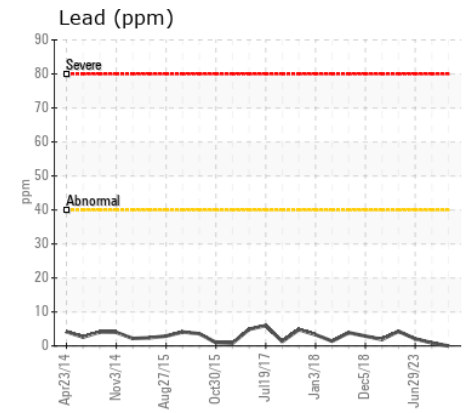
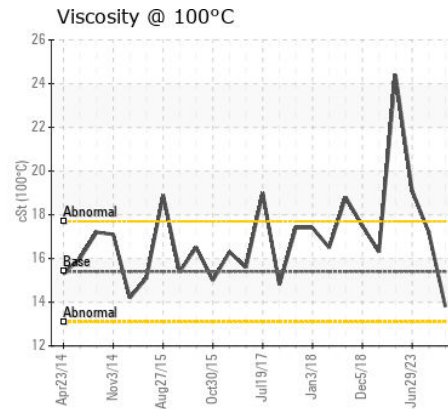
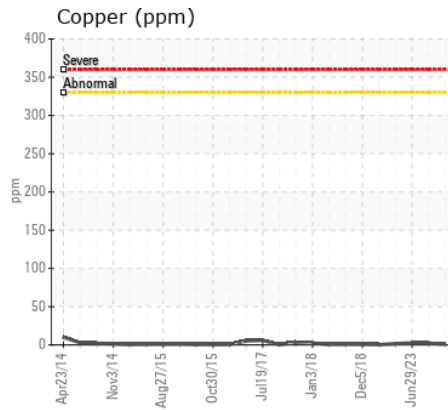
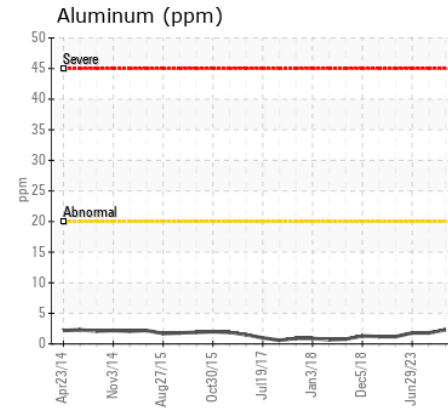
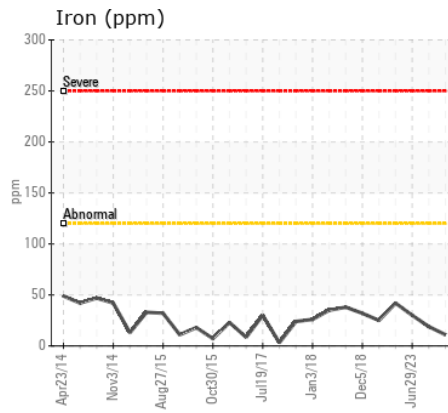
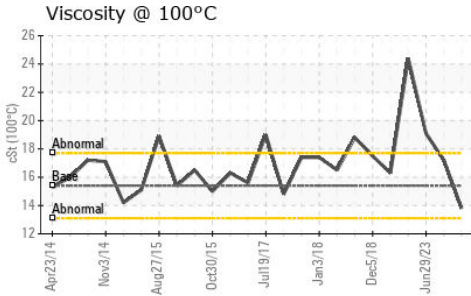
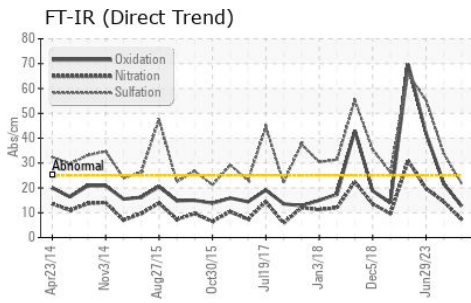
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	4	2	3
Potassium	ppm	ASTM D5185(m)	>20	<1	2	<1
Fuel		WC Method	>3.0	<1.0	2	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>4	2.6	▲ 5.9	▲ 6.9
Nitration	Abs/cm	ASTM D7624*	>20	7.3	14.4	19.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.7	33.9	55.3
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		1	1	3
Boron	ppm	ASTM D5185(m)	0	18	9	8
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	60	56	57
Manganese	ppm	ASTM D5185(m)	0	<1	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	853	892	924
Calcium	ppm	ASTM D5185(m)	1070	1006	1024	1042
Phosphorus	ppm	ASTM D5185(m)	1150	922	906	977
Zinc	ppm	ASTM D5185(m)	1270	1062	1053	1122
Sulfur	ppm	ASTM D5185(m)	2060	2417	2499	2318
Oxidation	Abs/.1mm	ASTM D7414*	>25	12.7	21.6	42.0
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.8	17.2	▲ 19.1



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0112662
Lab Number : 02642804
Unique Number : 5800343
Test Package : MOB 1

GFL Environmental - 255 - Blind River
 9 Industrial Park Road East
 Blind River, ON
 CA P0R 1B0
 Contact: Jason Haman
 jhaman@gflenv.com
 T: (705)356-4118
 F:

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.