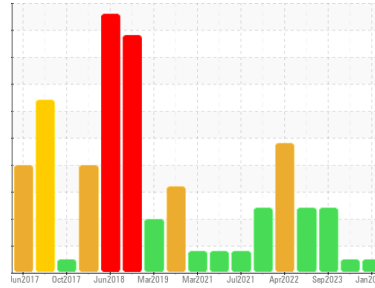




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
4785

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 10W30 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

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

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0102637	GFL0097647	GFL0093897
Sample Date	Client Info	10 Jan 2024	12 Oct 2023	29 Sep 2023
Machine Age	hrs	25078	24572	24551
Oil Age	hrs	0	0	0
Oil Changed	Client Info	Changed	N/A	N/A
Sample Status		NORMAL	NORMAL	ABNORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	<1.0	<1.0
Water	WC Method >0.2	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >100	78	10	48
Chromium	ppm ASTM D5185(m) >20	4	<1	3
Nickel	ppm ASTM D5185(m) >4	<1	<1	<1
Titanium	ppm ASTM D5185(m)	0	0	0
Silver	ppm ASTM D5185(m) >3	0	<1	<1
Aluminum	ppm ASTM D5185(m) >20	3	1	3
Lead	ppm ASTM D5185(m) >40	21	9	▲ 45
Copper	ppm ASTM D5185(m) >330	110	52	238
Tin	ppm ASTM D5185(m) >15	2	<1	2
Antimony	ppm ASTM D5185(m)	0	0	0
Vanadium	ppm ASTM D5185(m)	0	0	0
Beryllium	ppm ASTM D5185(m)	0	0	0
Cadmium	ppm ASTM D5185(m)	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m) 2	2	5	15
Barium	ppm ASTM D5185(m) 0	0	<1	1
Molybdenum	ppm ASTM D5185(m) 50	63	59	63
Manganese	ppm ASTM D5185(m) 0	<1	<1	5
Magnesium	ppm ASTM D5185(m) 950	1016	903	594
Calcium	ppm ASTM D5185(m) 1050	1157	1093	1395
Phosphorus	ppm ASTM D5185(m) 995	993	959	792
Zinc	ppm ASTM D5185(m) 1180	1232	1122	924
Sulfur	ppm ASTM D5185(m) 2600	2226	2495	1928
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

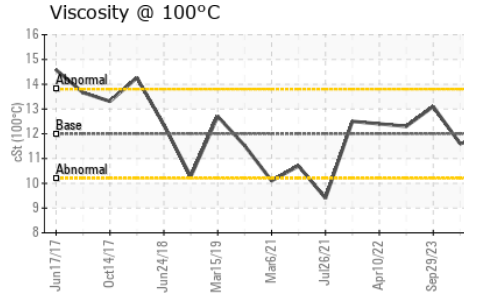
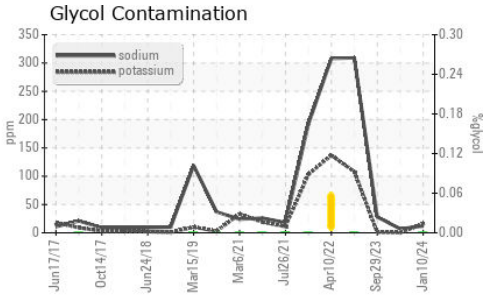
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	10	7	▲ 26
Sodium	ppm ASTM D5185(m)	12	7	28
Potassium	ppm ASTM D5185(m) >20	16	<1	<1
Glycol	% ASTM D7922*	0.0	NEG	NEG

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	1.9	0.1	0.7
Nitration	Abs/cm ASTM D7624* >20	12.7	5.4	9.6
Sulfation	Abs/.1mm ASTM D7415* >30	25.6	18.5	21.2



OIL ANALYSIS REPORT

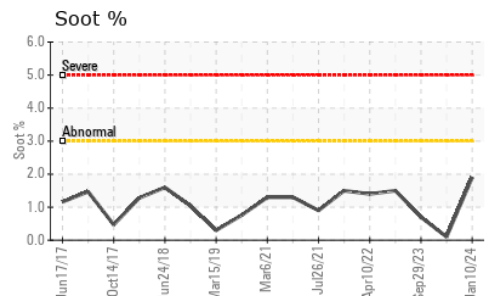
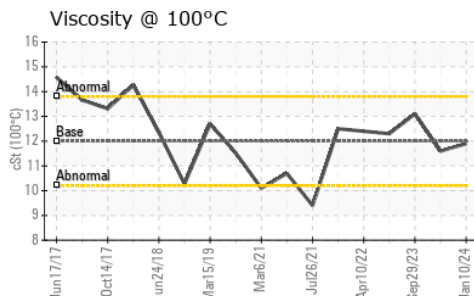
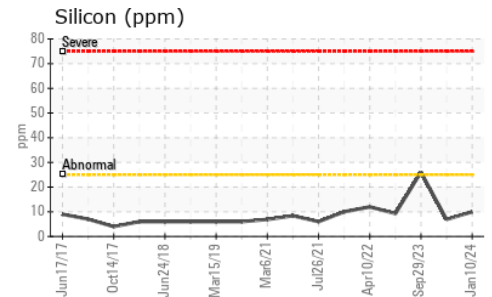
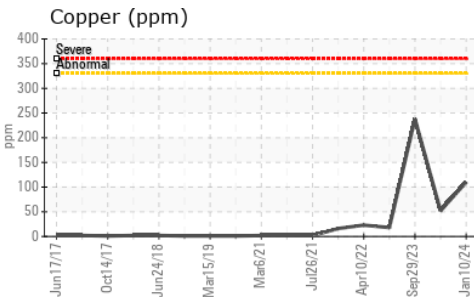
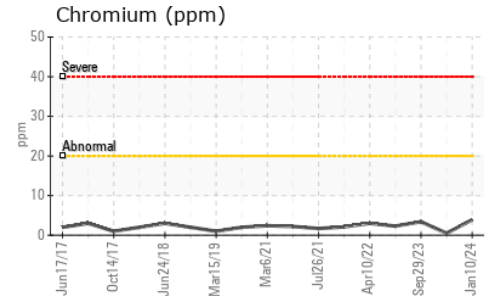
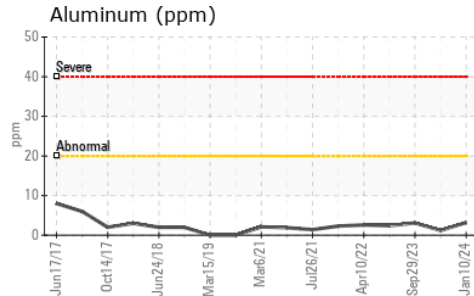
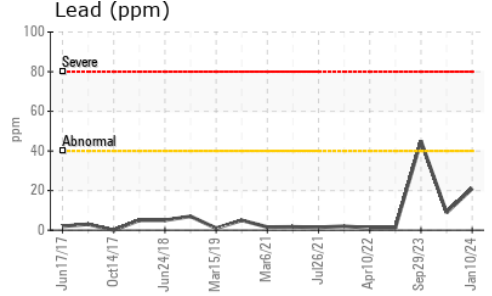
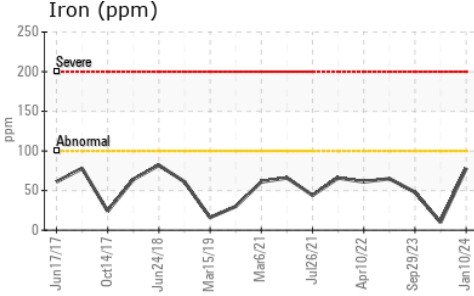


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	22.0	13.8	18.4

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	11.9	11.6	13.1

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 554 - Edmonton SW
Sample No. : GFL0102637 **Received** : 22 Jan 2024
Lab Number : 02610179 **Diagnosed** : 22 Jan 2024
Unique Number : 5711265 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: Glycol)

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.

8409 -15th Street NW
 Edmonton, AB
 CA T6P 0B8
 Contact: Tim Greig
 tgreig@gflenv.com
 T: (780)231-0521
 F: