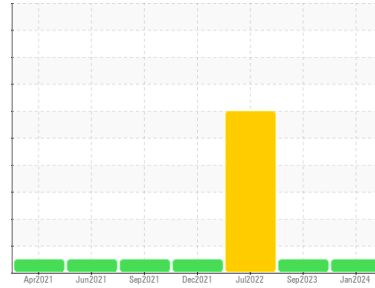




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
925010
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- LTR)

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		GFL0100593	GFL0077002	GFL0054661
Sample Date	Client Info		18 Jan 2024	12 Sep 2023	10 Jul 2022
Machine Age	hrs	Client Info	346098	17422	15759
Oil Age	hrs	Client Info	17422	600	0
Oil Changed	Client Info		N/A	Changed	Changed
Sample Status			NORMAL	NORMAL	SEVERE

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<1.0	<1.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	0.0	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >120	20	17	62
Chromium	ppm	ASTM D5185(m) >20	1	<1	9
Nickel	ppm	ASTM D5185(m) >5	2	3	20
Titanium	ppm	ASTM D5185(m) >2	0	0	<1
Silver	ppm	ASTM D5185(m) >2	0	0	0
Aluminum	ppm	ASTM D5185(m) >20	5	9	6
Lead	ppm	ASTM D5185(m) >40	4	<1	<1
Copper	ppm	ASTM D5185(m) >330	3	9	21
Tin	ppm	ASTM D5185(m) >15	<1	<1	<1
Antimony	ppm	ASTM D5185(m)	0	0	<1
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) 0	2	3	2
Barium	ppm	ASTM D5185(m) 0	0	0	0
Molybdenum	ppm	ASTM D5185(m) 60	58	58	57
Manganese	ppm	ASTM D5185(m) 0	0	<1	2
Magnesium	ppm	ASTM D5185(m) 1010	955	960	915
Calcium	ppm	ASTM D5185(m) 1070	1062	1012	1050
Phosphorus	ppm	ASTM D5185(m) 1150	943	970	922
Zinc	ppm	ASTM D5185(m) 1270	1157	1141	1177
Sulfur	ppm	ASTM D5185(m) 2060	2366	2125	2368
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

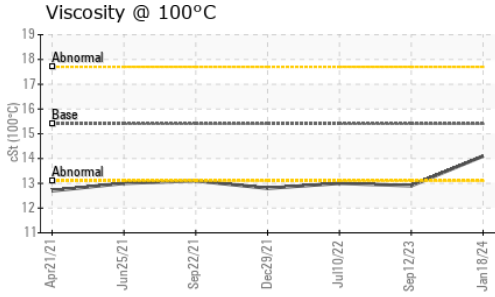
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	4	4	4
Sodium	ppm	ASTM D5185(m)	5	5	19
Potassium	ppm	ASTM D5185(m) >20	3	8	1

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >4	0.2	0.2	0.2
Nitration	Abs/cm	ASTM D7624* >20	9.6	8.6	9.5
Sulfation	Abs./1mm	ASTM D7415* >30	22.8	21.6	21.7

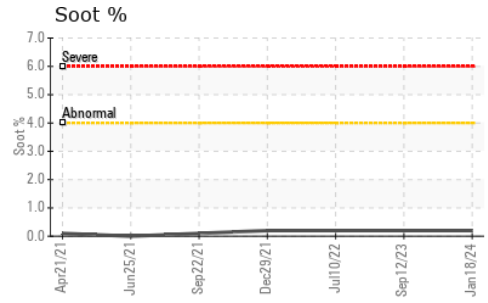
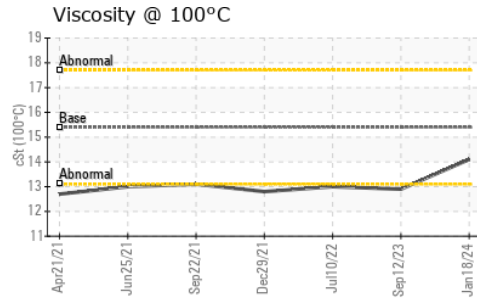
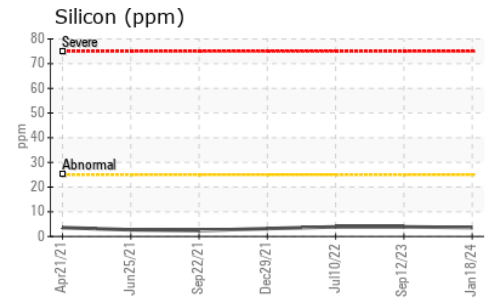
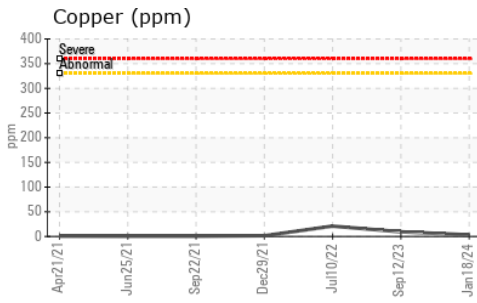
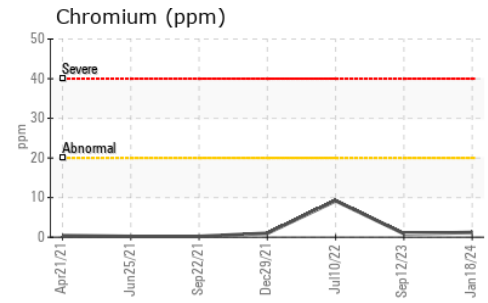
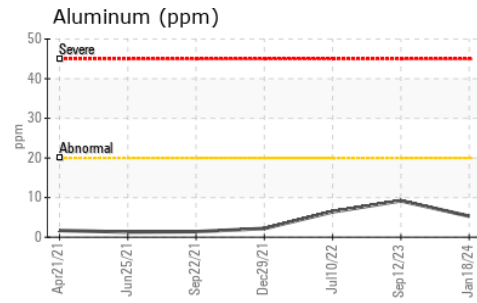
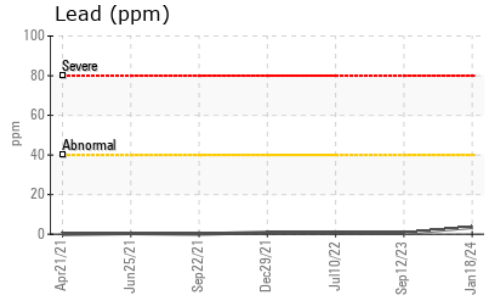
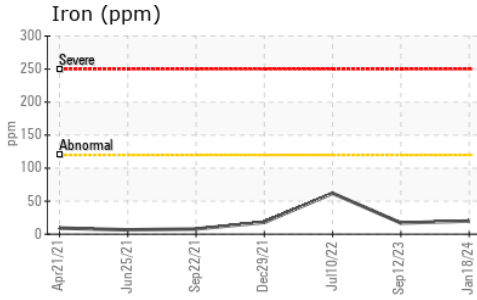


OIL ANALYSIS REPORT



FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	20.3	19.7	18.7
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)	15.4	14.1	12.9	13.0

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 575 - Squamish Hauling
Sample No. : GFL0100593 **Received** : 23 Jan 2024 38950 Queens Way,
Lab Number : **02610496** **Diagnosed** : 23 Jan 2024 Squamish, BC
Unique Number : 5711582 **Diagnostician** : Wes Davis CA V8B 0K8
Test Package : MOB 1

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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