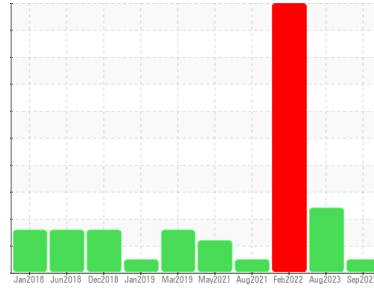




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
4522
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (--- 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	GFL0090579	GFL0090619	GFL0041433	
Sample Date	Client Info	01 Sep 2023	21 Aug 2023	14 Feb 2022	
Machine Age	hrs	Client Info	15248	15247	0
Oil Age	hrs	Client Info	3	0	0
Oil Changed	Client Info	N/A	Changed	Changed	
Sample Status		NORMAL	ABNORMAL	SEVERE	

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<1.0	<1.0	<1.0
Glycol	WC Method	NEG	0.0	🔴 >.70

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >120	2	14	5
Chromium	ppm ASTM D5185(m) >20	0	<1	<1
Nickel	ppm ASTM D5185(m) >5	<1	▲ 8	<1
Titanium	ppm ASTM D5185(m) >2	0	0	0
Silver	ppm ASTM D5185(m) >2	0	0	<1
Aluminum	ppm ASTM D5185(m) >20	<1	<1	2
Lead	ppm ASTM D5185(m) >40	0	<1	5
Copper	ppm ASTM D5185(m) >330	<1	7	64
Tin	ppm ASTM D5185(m) >15	0	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	<1

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m) 2	16	3	11
Barium	ppm ASTM D5185(m) 0	0	0	0
Molybdenum	ppm ASTM D5185(m) 50	55	57	165
Manganese	ppm ASTM D5185(m) 0	0	<1	<1
Magnesium	ppm ASTM D5185(m) 950	888	930	574
Calcium	ppm ASTM D5185(m) 1050	998	1011	583
Phosphorus	ppm ASTM D5185(m) 995	981	1018	667
Zinc	ppm ASTM D5185(m) 1180	1092	1136	753
Sulfur	ppm ASTM D5185(m) 2600	2509	2493	1716
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	6	▲ 26	39
Sodium	ppm ASTM D5185(m)	2	3	▲ 2460
Potassium	ppm ASTM D5185(m) >20	0	1	▲ 139

INFRA-RED

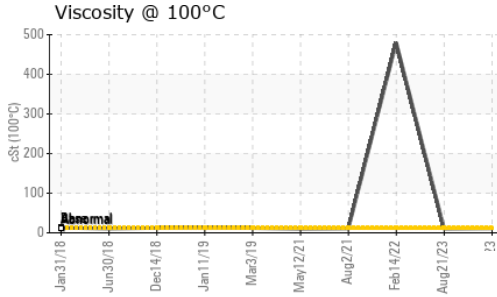
method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >4	0	0	0
Nitration	Abs/cm ASTM D7624* >20	4.8	9.1	13.7
Sulfation	Abs/.1mm ASTM D7415* >30	18.8	20.9	0.7

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm ASTM D7414* >25	13.2	17.7	12.2



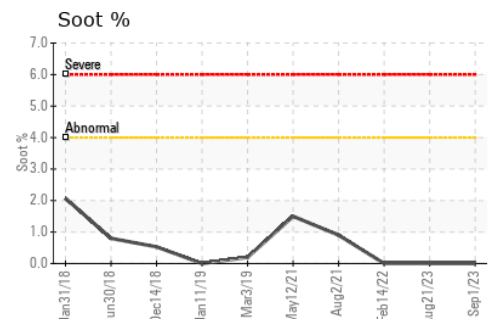
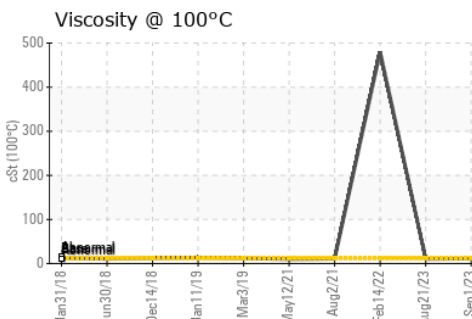
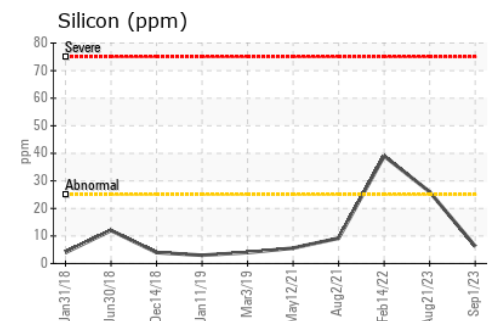
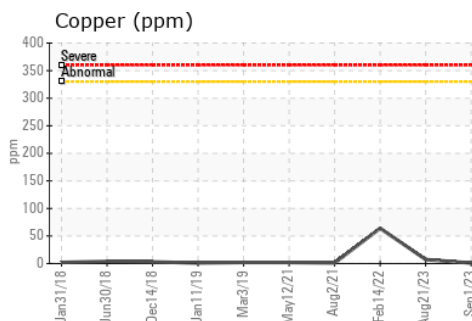
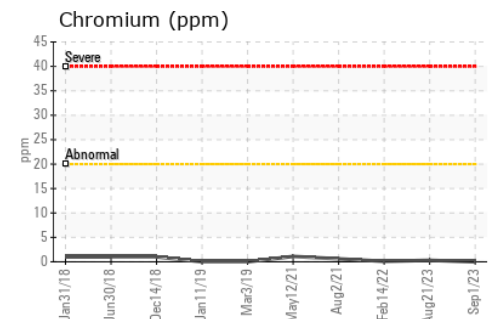
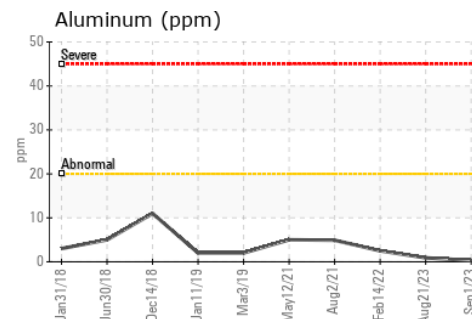
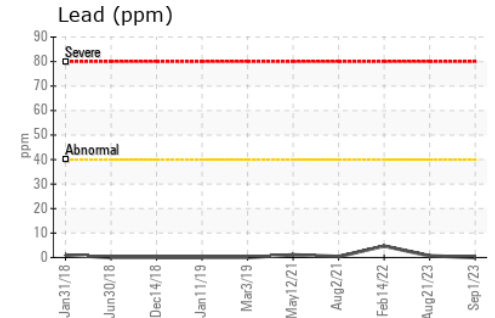
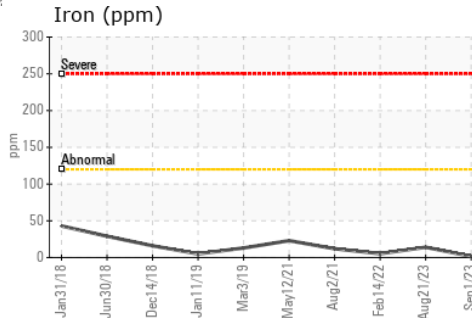
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG ▲ .2%
Free Water	scalar	Visual*		NEG	NEG ● 1%

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	11.1	10.3 480

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 554 - Edmonton SW
Sample No. : GFL0090579 **Received** : 06 Sep 2023
Lab Number : 02580565 **Diagnosed** : 06 Sep 2023
Unique Number : 5633625 **Diagnostician** : Wes Davis
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.

Contact: Tim Greig
 tgreig@gflenv.com

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F: