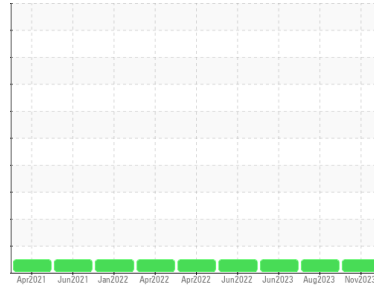




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
5619
 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		GFL0097610	GFL0090607	GFL0085915
Sample Date	Client Info		06 Nov 2023	25 Aug 2023	23 Jun 2023
Machine Age	hrs	Client Info	5435	4846	858822
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	Changed
Sample Status			NORMAL	NORMAL	NORMAL

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	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >120	16	17	20
Chromium	ppm	ASTM D5185(m) >20	<1	<1	<1
Nickel	ppm	ASTM D5185(m) >5	<1	<1	<1
Titanium	ppm	ASTM D5185(m) >2	0	<1	<1
Silver	ppm	ASTM D5185(m) >2	0	0	0
Aluminum	ppm	ASTM D5185(m) >20	2	2	2
Lead	ppm	ASTM D5185(m) >40	2	2	2
Copper	ppm	ASTM D5185(m) >330	3	3	4
Tin	ppm	ASTM D5185(m) >15	<1	<1	<1
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	2	2
Barium	ppm	ASTM D5185(m) 0	<1	0	0
Molybdenum	ppm	ASTM D5185(m) 50	60	62	61
Manganese	ppm	ASTM D5185(m) 0	0	<1	<1
Magnesium	ppm	ASTM D5185(m) 950	991	1027	999
Calcium	ppm	ASTM D5185(m) 1050	1094	1097	1066
Phosphorus	ppm	ASTM D5185(m) 995	1014	1076	1045
Zinc	ppm	ASTM D5185(m) 1180	1217	1233	1194
Sulfur	ppm	ASTM D5185(m) 2600	2261	2389	2216
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

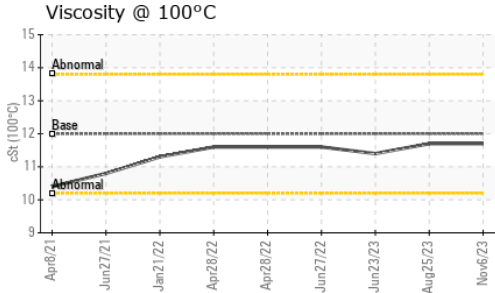
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	11	13	12
Sodium	ppm	ASTM D5185(m)	4	5	5
Potassium	ppm	ASTM D5185(m) >20	0	<1	1

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >4	0.6	0.5	0.7
Nitration	Abs/cm	ASTM D7624* >20	9.5	9.5	9.8
Sulfation	Abs./1mm	ASTM D7415* >30	22.0	22.8	22.7



OIL ANALYSIS REPORT



FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	18.0	17.9	18.8

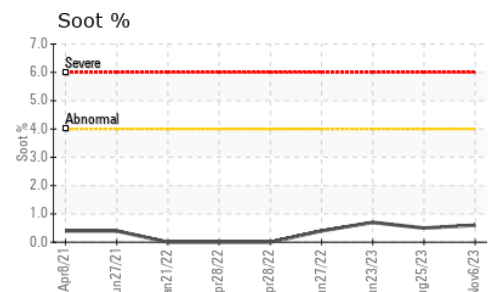
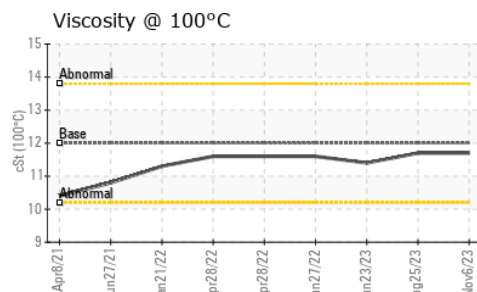
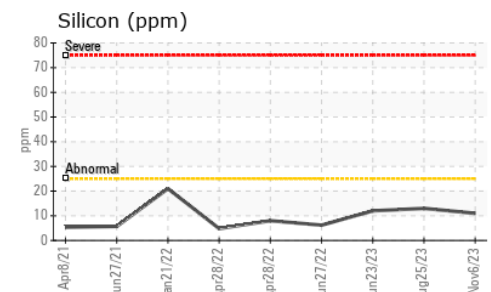
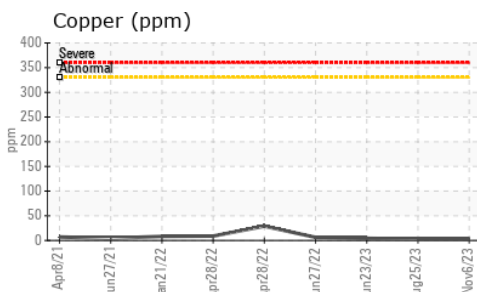
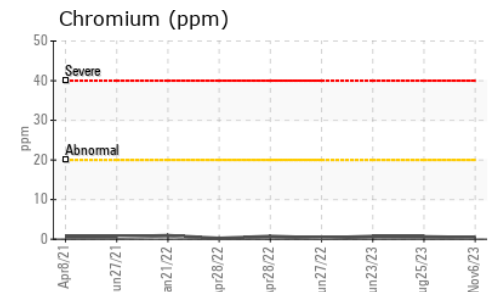
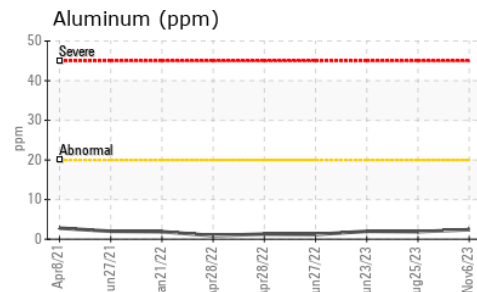
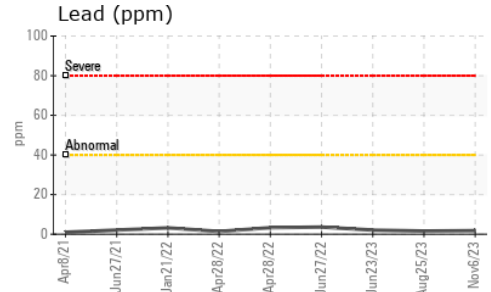
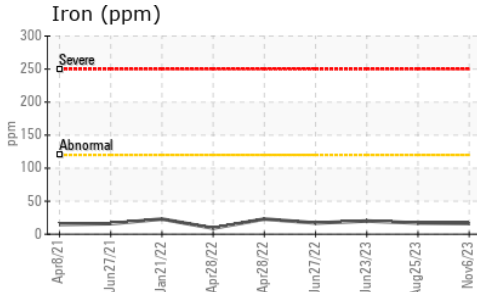
VISUAL

	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	11.7	11.7	11.4

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 554 - Edmonton SW**
Sample No. : GFL0097610 **Received** : 20 Nov 2023 **8409 -15th Street NW**
Lab Number : **02597446** **Diagnosed** : 20 Nov 2023 **Edmonton, AB**
Unique Number : 5682526 **Diagnostician** : Kevin Marson **CA T6P 0B8**
Test Package : MOB 1 **Contact:** Tim Greig **tgreg@gflenv.com**
T: (780)231-0521
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.