



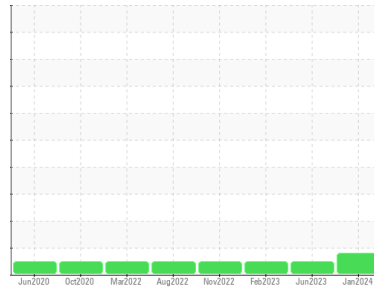
OIL ANALYSIS REPORT

Sample Rating Trend

FUEL



Machine Id
828007
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (22 GAL)



DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

Wear

All component wear rates are normal.

Contamination

Light fuel dilution occurring. No other contaminants were detected 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		GFL0107146	GFL0086759	GFL0063946
Sample Date	Client Info		16 Jan 2024	15 Jun 2023	24 Feb 2023
Machine Age	hrs	Client Info	11067	10203	9536
Oil Age	hrs	Client Info	0	10203	9536
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			MARGINAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >80	20	17	17
Chromium	ppm	ASTM D5185(m) >5	<1	<1	<1
Nickel	ppm	ASTM D5185(m) >2	<1	<1	0
Titanium	ppm	ASTM D5185(m)	0	<1	<1
Silver	ppm	ASTM D5185(m) >3	0	0	0
Aluminum	ppm	ASTM D5185(m) >30	5	3	4
Lead	ppm	ASTM D5185(m) >30	0	0	0
Copper	ppm	ASTM D5185(m) >150	1	1	1
Tin	ppm	ASTM D5185(m) >5	0	0	0
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) 0	22	3	2
Barium	ppm	ASTM D5185(m) 0	0	0	0
Molybdenum	ppm	ASTM D5185(m) 60	64	61	60
Manganese	ppm	ASTM D5185(m) 0	0	<1	<1
Magnesium	ppm	ASTM D5185(m) 1010	967	976	958
Calcium	ppm	ASTM D5185(m) 1070	1026	1120	1113
Phosphorus	ppm	ASTM D5185(m) 1150	943	1072	1070
Zinc	ppm	ASTM D5185(m) 1270	1145	1214	1205
Sulfur	ppm	ASTM D5185(m) 2060	2657	2501	2509
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

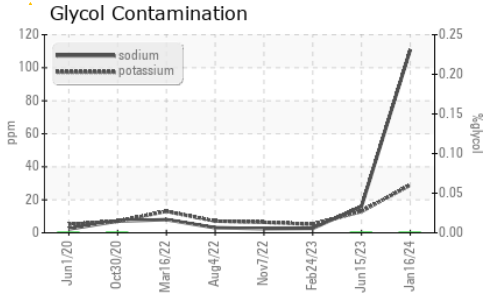
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >20	5	4	4
Sodium	ppm	ASTM D5185(m)	111	16	3
Potassium	ppm	ASTM D5185(m) >20	29	13	5
Fuel	%	ASTM D7593* >5	▲ 3.1	<1.0	<1.0
Glycol	%	ASTM D7922*	0.0	0.0	NEG

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	0.5	0.4	0.2
Nitration	Abs/cm	ASTM D7624* >20	11.4	9.6	10.1
Sulfation	Abs./1mm	ASTM D7415* >30	23.4	21.3	22.8



OIL ANALYSIS REPORT



FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs./1mm ASTM D7414*	>25	20.9	18.3	18.8

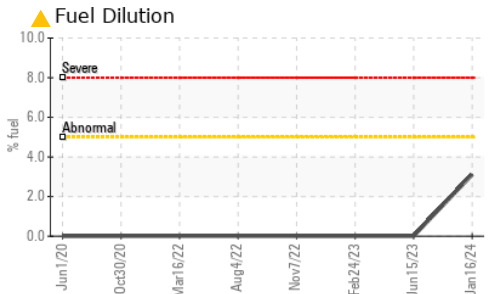
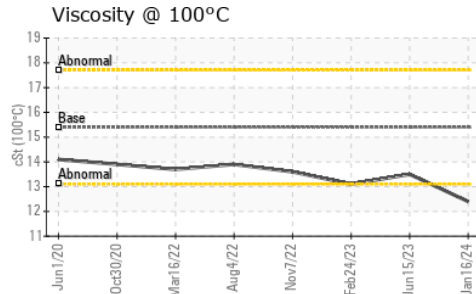
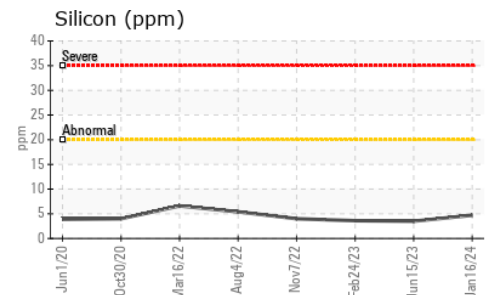
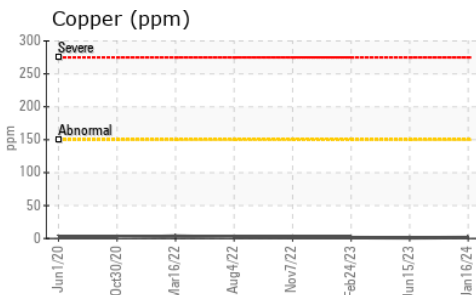
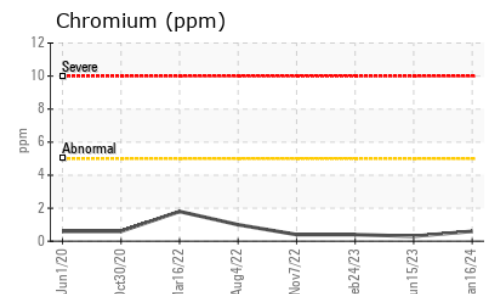
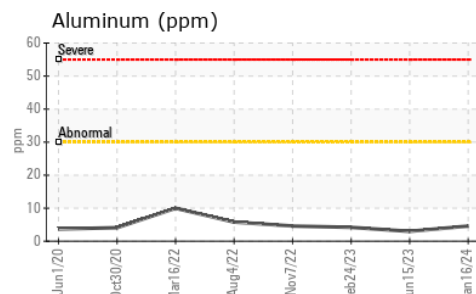
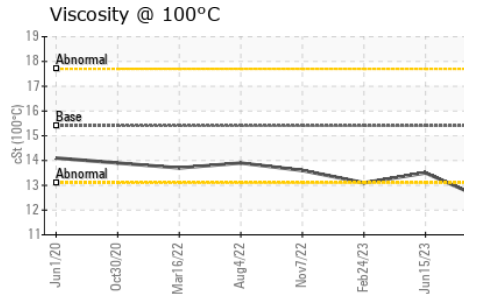
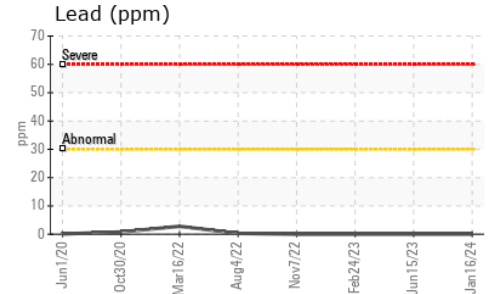
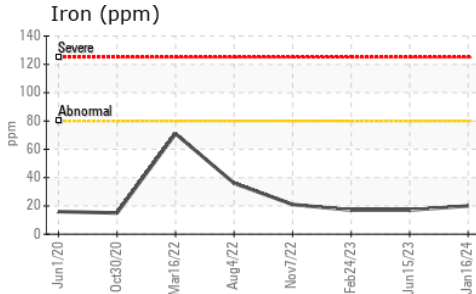
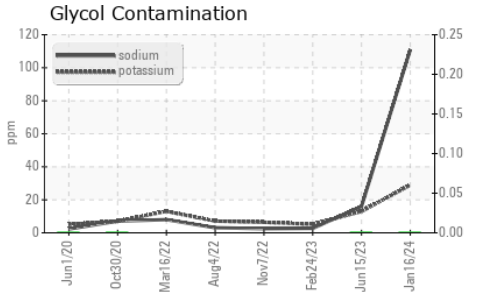
VISUAL

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)	15.4	12.4	13.5	13.1

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0107146
Lab Number : 02609606
Unique Number : 5710692
Test Package : MOB 1 (Additional Tests: FuelDilution, Glycol, PercentFuel)

GFL Environmental - 217 - Aurora
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 AURORA, ON
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 Contact: Mike Havens
 MHavens@gflenv.com
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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.