



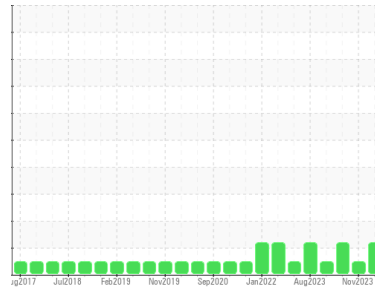
OIL ANALYSIS REPORT

Sample Rating Trend

FUEL



Machine Id
901014
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (19 LTR)



DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0107116	WC0875086	WC0875073
Sample Date	Client Info		24 Jan 2024	22 Nov 2023	16 Nov 2023
Machine Age	hrs	Client Info	247017	15189	15159
Oil Age	hrs	Client Info	600	0	0
Oil Changed	Client Info		Changed	Not Changd	Changed
Sample Status			ABNORMAL	NORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
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	4	2	5
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>5	<1	0	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	2	1	2
Lead	ppm	ASTM D5185(m)	>40	<1	<1	1
Copper	ppm	ASTM D5185(m)	>330	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>15	0	0	<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)	0	21	32	3
Barium	ppm	ASTM D5185(m)	0	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	58	60	60
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	1010	882	923	956
Calcium	ppm	ASTM D5185(m)	1070	1010	1040	1059
Phosphorus	ppm	ASTM D5185(m)	1150	968	1010	968
Zinc	ppm	ASTM D5185(m)	1270	1147	1171	1185
Sulfur	ppm	ASTM D5185(m)	2060	2600	2629	2297
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	2	3	3
Sodium	ppm	ASTM D5185(m)		<1	1	2
Potassium	ppm	ASTM D5185(m)	>20	<1	0	0
Fuel	%	ASTM D7593*	>3.0	▲ 3.9	1.6	▲ 4.5

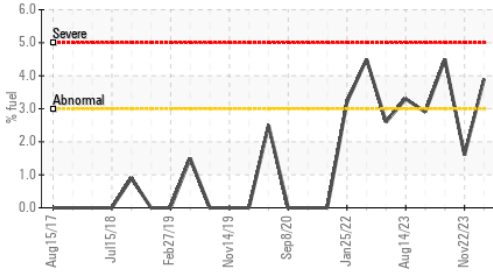
INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>4	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	8.4	5.2	9.6
Sulfation	Abs./1mm	ASTM D7415*	>30	19.5	18.6	21.6

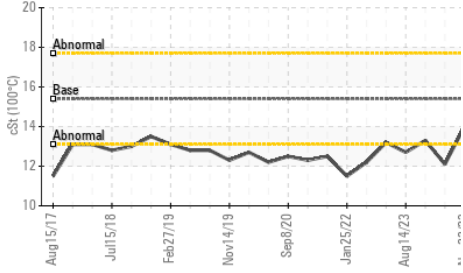


OIL ANALYSIS REPORT

▲ Fuel Dilution



▲ Viscosity @ 100°C



FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs./1mm ASTM D7414*	>25	15.5	13.5	18.3

VISUAL

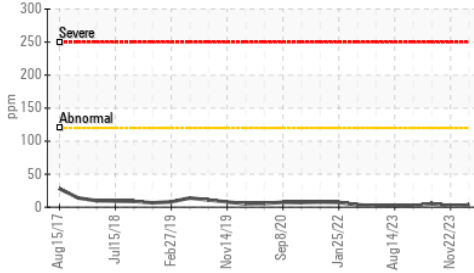
method	limit/base	current	history1	history2	
Emulsified Water	scalar Visual*	>0.2	NEG	.2%	NEG
Free Water	scalar Visual*		NEG	NEG	NEG

FLUID PROPERTIES

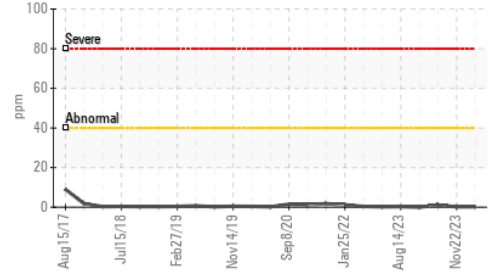
method	limit/base	current	history1	history2
Visc @ 100°C	cSt ASTM D7279(m)	15.4 ▲ 12.9	14.0	▲ 12.1

GRAPHS

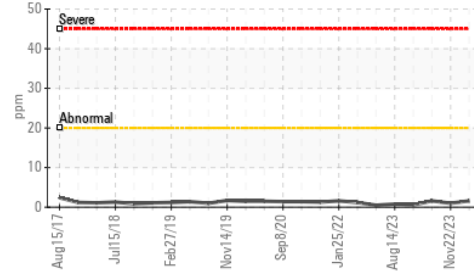
Iron (ppm)



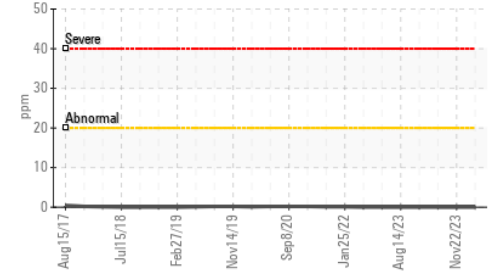
Lead (ppm)



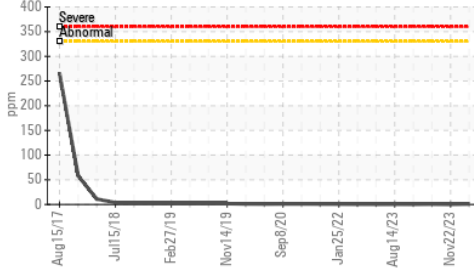
Aluminum (ppm)



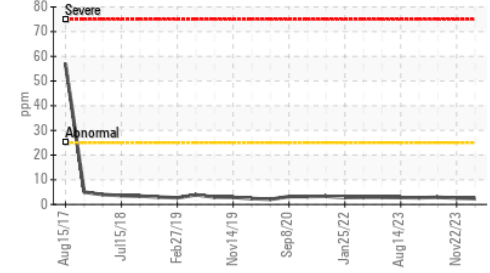
Chromium (ppm)



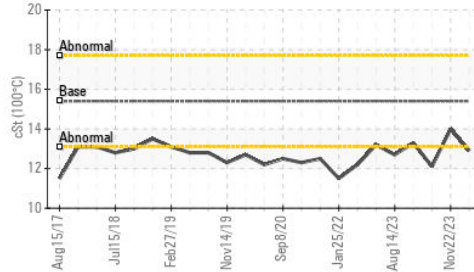
Copper (ppm)



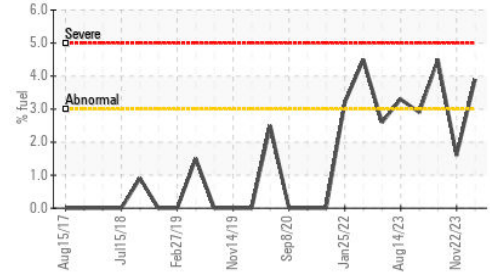
Silicon (ppm)



▲ Viscosity @ 100°C



▲ Fuel Dilution



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0107116
Lab Number : 02612024
Unique Number : 5721119
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 217 - Aurora
 14131 BAYVIEW AVE, AURORA YARD
 AURORA, ON
 CA L4G 0K6
 Contact: Mike Havens
 MHavens@gflenv.com

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.

T:
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