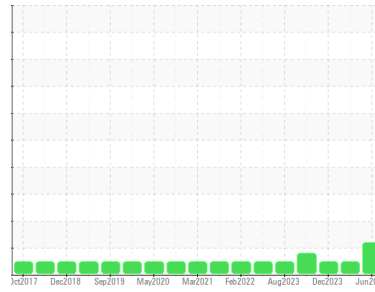




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id

701030

Component

Diesel Engine

Fluid

PETRO CANADA DURON SHP 15W40 (19 LTR)

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. Light fuel dilution occurring.

Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0122297	GFL0107125	WC0875106
Sample Date	Client Info	12 Jun 2024	17 Jan 2024	13 Dec 2023
Machine Age	hrs	11361	0	106415
Oil Age	hrs	600	0	106415
Oil Changed	Client Info	Changed	Changed	N/A
Sample Status		ABNORMAL	NORMAL	NORMAL

CONTAMINATION

method	limit/base	current	history1	history2	
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)	>100	25	12	7
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	0
Nickel	ppm	ASTM D5185(m)	>4	0	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	7	7	3
Lead	ppm	ASTM D5185(m)	>40	0	0	0
Copper	ppm	ASTM D5185(m)	>330	2	<1	3
Tin	ppm	ASTM D5185(m)	>15	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	6	15	20
Barium	ppm	ASTM D5185(m)	0	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	60	57	59
Manganese	ppm	ASTM D5185(m)	0	<1	0	0
Magnesium	ppm	ASTM D5185(m)	1010	946	908	918
Calcium	ppm	ASTM D5185(m)	1070	1036	1023	1014
Phosphorus	ppm	ASTM D5185(m)	1150	946	991	962
Zinc	ppm	ASTM D5185(m)	1270	1166	1145	1170
Sulfur	ppm	ASTM D5185(m)	2060	2366	2688	2571
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

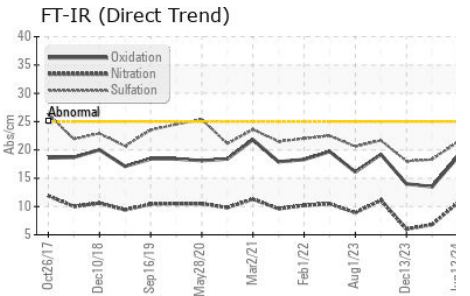
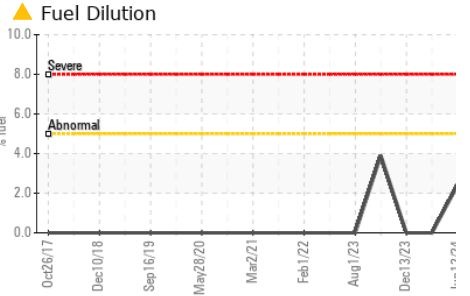
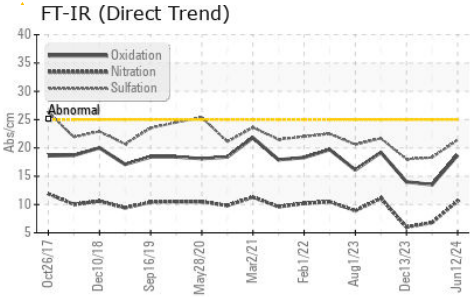
method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185(m)	>25	4	5	4
Sodium	ppm	ASTM D5185(m)		7	4	4
Potassium	ppm	ASTM D5185(m)	>20	10	8	2
Fuel	%	ASTM D7593*	>5	▲ 2.4	<1.0	<1.0

INFRA-RED

method	limit/base	current	history1	history2		
Soot %	%	ASTM D7844*	>3	0.5	0.1	0.1
Nitration	Abs/cm	ASTM D7624*	>20	10.6	6.8	6.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.4	18.3	18.0



OIL ANALYSIS REPORT

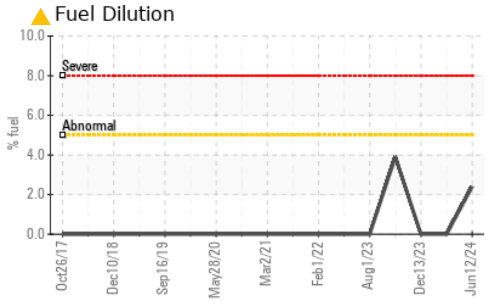
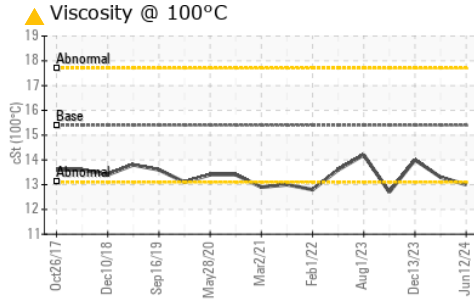
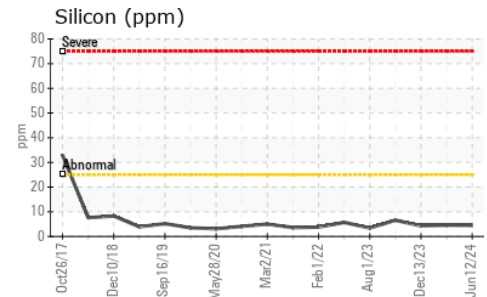
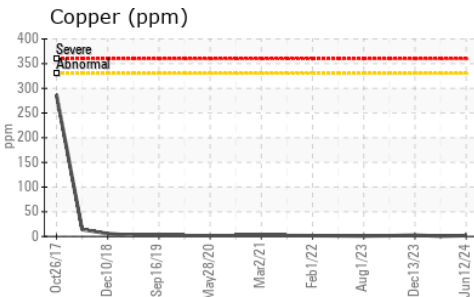
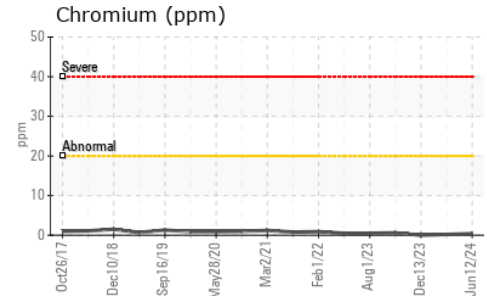
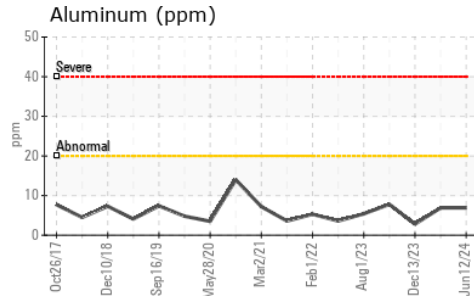
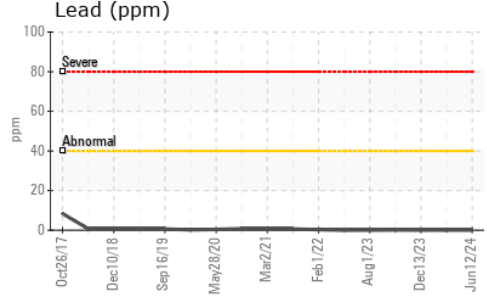
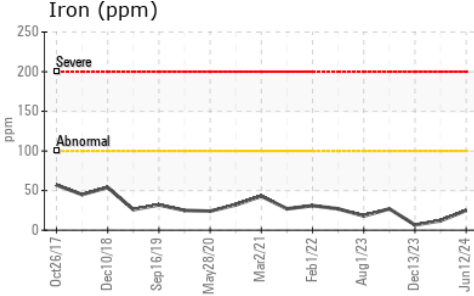


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	18.7	13.5	14.0

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	▲ 13.0	13.3	14.0

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0122297
Lab Number : **02641921**
Unique Number : 5799460
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.

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