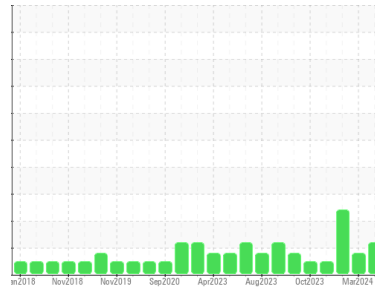




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id

801027

Component

Diesel Engine

Fluid

PETRO CANADA DURON SHP 15W40 (22 LTR)

DIAGNOSIS

Recommendation

We recommend that you drain the oil from the component if this has not already been done. 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	GFL0117908	GFL0111724	GFL0111721
Sample Date	Client Info	02 Apr 2024	18 Mar 2024	11 Mar 2024
Machine Age	hrs	139415	139415	14085
Oil Age	hrs	0	600	600
Oil Changed	Client Info	Not Chngd	Not Chngd	Changed
Sample Status		ABNORMAL	MARGINAL	SEVERE

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)	>80	9	6	23
Chromium	ppm	ASTM D5185(m)	>5	0	0	<1
Nickel	ppm	ASTM D5185(m)	>2	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>30	1	0	2
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	8	7	11
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	54	56	58
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	1010	849	924	887
Calcium	ppm	ASTM D5185(m)	1070	976	1025	1013
Phosphorus	ppm	ASTM D5185(m)	1150	927	951	965
Zinc	ppm	ASTM D5185(m)	1270	1092	1100	1128
Sulfur	ppm	ASTM D5185(m)	2060	2327	2433	2417
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

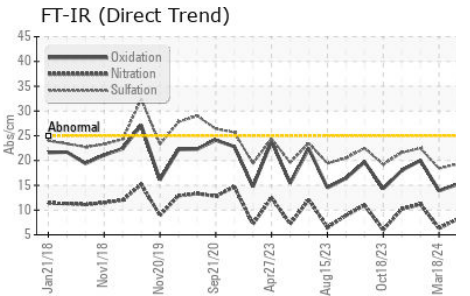
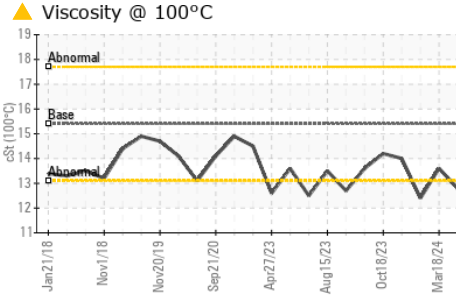
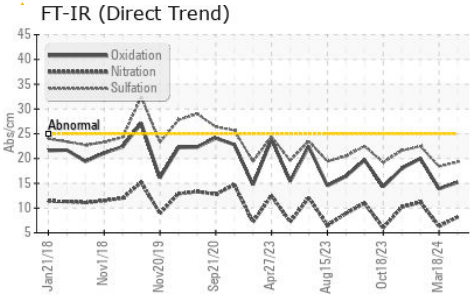
method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185(m)	>20	2	3	4
Sodium	ppm	ASTM D5185(m)		7	8	16
Potassium	ppm	ASTM D5185(m)	>20	<1	9	2
Fuel	%	ASTM D7593*	>5	▲ 5.6	▲ 3.1	▲ 8.3

INFRA-RED

method	limit/base	current	history1	history2		
Soot %	%	ASTM D7844*	>3	0.2	0.1	0.5
Nitration	Abs/cm	ASTM D7624*	>20	8.2	6.3	11.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.3	18.4	22.5



OIL ANALYSIS REPORT

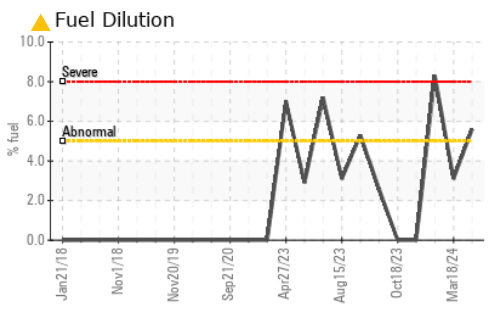
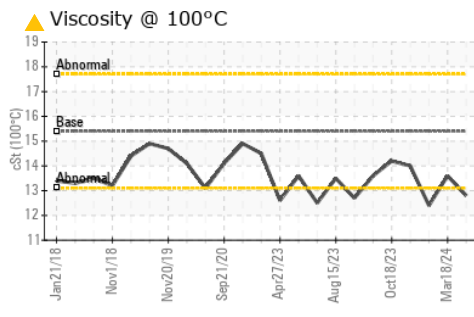
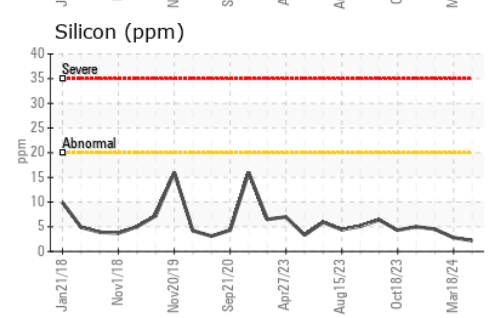
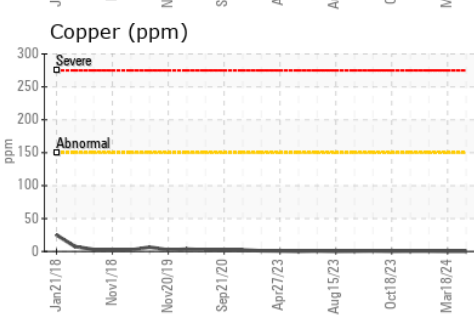
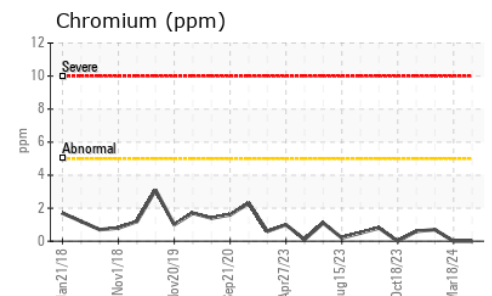
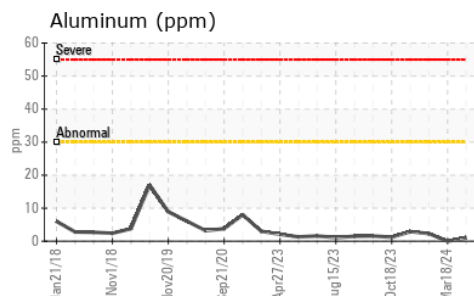
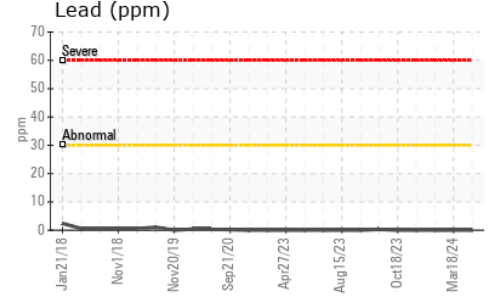
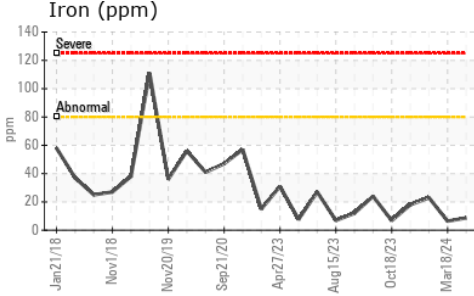


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	15.2	13.9	20.0

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	▲ 12.8	13.6	▲ 12.4

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0117908 **Received** : 04 Apr 2024
Lab Number : **02626521** **Tested** : 05 Apr 2024
Unique Number : 5759653 **Diagnosed** : 05 Apr 2024 - Wes Davis
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.