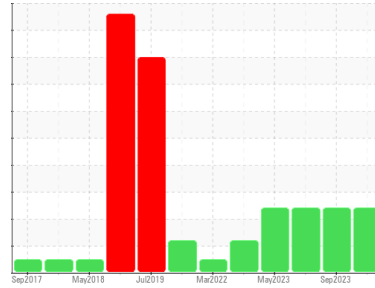




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
8137
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check the fuel injection system. 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 high 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		GFL0093901	GFL0090583	GFL0085922
Sample Date	Client Info		19 Sep 2023	07 Sep 2023	03 Jul 2023
Machine Age	hrs	Client Info	18000	0	258577
Oil Age	hrs	Client Info	81	0	0
Oil Changed	Client Info		Not Chngd	N/A	Changed
Sample Status			SEVERE	SEVERE	SEVERE

CONTAMINATION

	method	limit/base	current	history1	history2
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >80	14	25	23
Chromium	ppm	ASTM D5185(m) >5	<1	2	2
Nickel	ppm	ASTM D5185(m) >2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m) >3	<1	<1	0
Aluminum	ppm	ASTM D5185(m) >30	1	1	2
Lead	ppm	ASTM D5185(m) >30	<1	1	<1
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) 2	3	3	2
Barium	ppm	ASTM D5185(m) 0	0	0	0
Molybdenum	ppm	ASTM D5185(m) 50	51	47	52
Manganese	ppm	ASTM D5185(m) 0	0	<1	<1
Magnesium	ppm	ASTM D5185(m) 950	818	758	870
Calcium	ppm	ASTM D5185(m) 1050	891	809	909
Phosphorus	ppm	ASTM D5185(m) 995	862	808	959
Zinc	ppm	ASTM D5185(m) 1180	1006	928	1068
Sulfur	ppm	ASTM D5185(m) 2600	2216	1970	2302
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >20	4	5	6
Sodium	ppm	ASTM D5185(m)	4	4	6
Potassium	ppm	ASTM D5185(m) >20	1	<1	<1
Fuel	%	ASTM D7593* >5	9.9	10.7	8.8

INFRA-RED

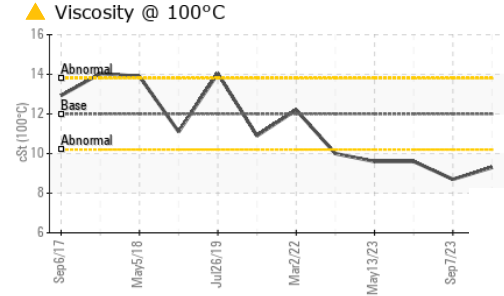
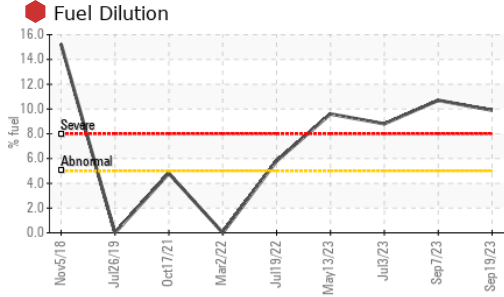
	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	0.3	0.6	0.4
Nitration	Abs/cm	ASTM D7624* >20	7.4	10.3	8.2
Sulfation	Abs/.1mm	ASTM D7415* >30	21.7	26.2	22.1

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414* >25	20.7	28.3	21.2



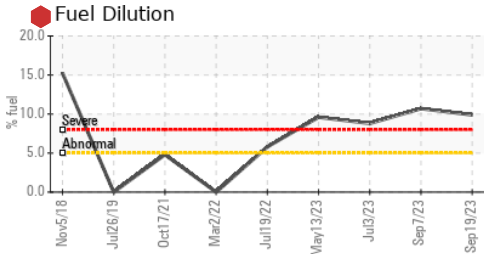
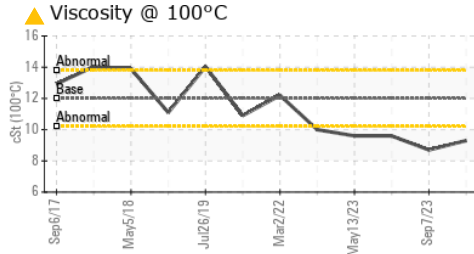
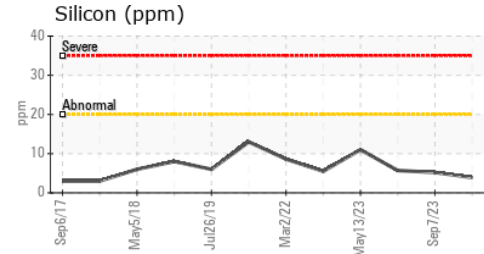
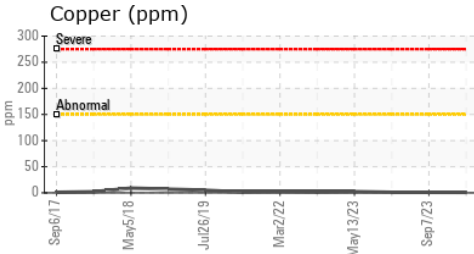
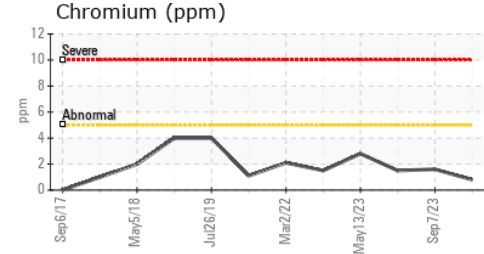
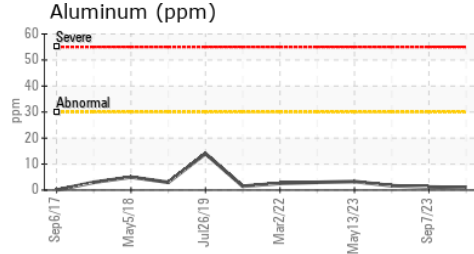
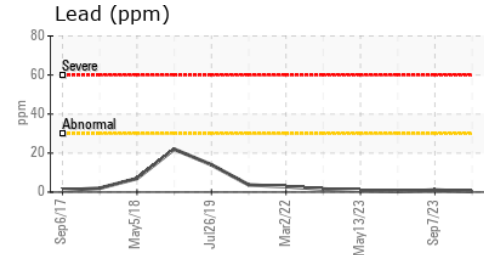
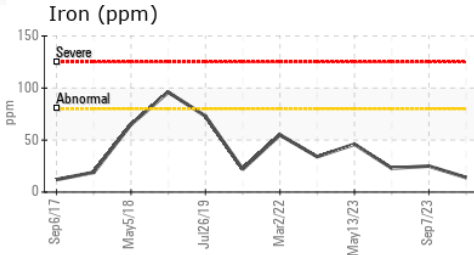
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	▲ 9.3	▲ 8.7

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 554 - Edmonton SW
Sample No. : GFL0093901 **Received** : 25 Sep 2023
Lab Number : 02584834 **Diagnosed** : 26 Sep 2023
Unique Number : 5645899 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: PercentFuel, Visual)

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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