



PROBLEM SUMMARY

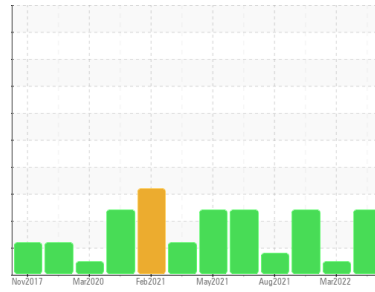
Area
(YA141250)

Machine Id
11316

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (7 GAL)

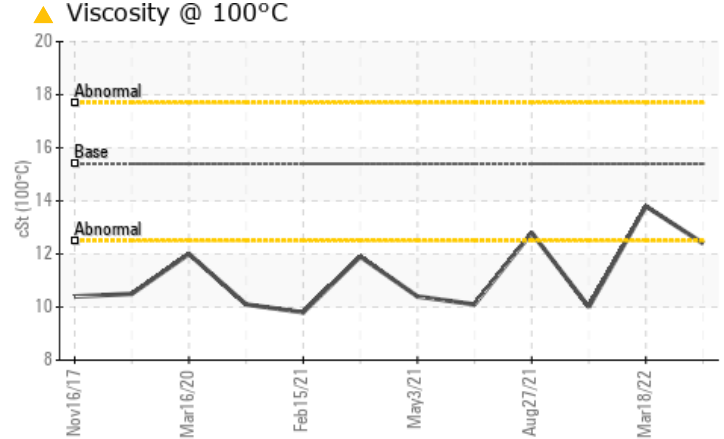
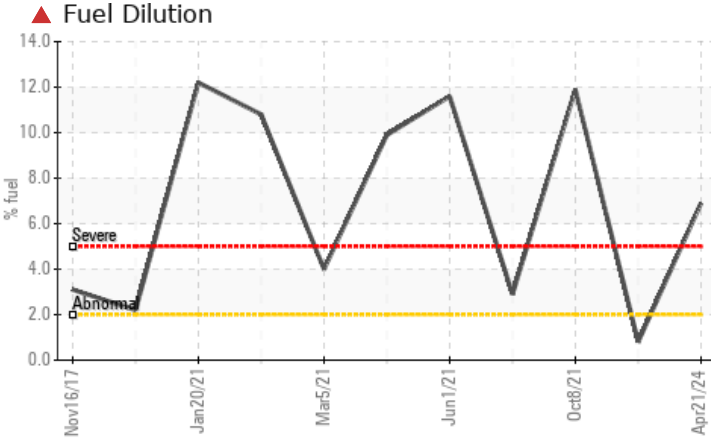
Sample Rating Trend



FUEL



COMPONENT CONDITION SUMMARY



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.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	NORMAL	SEVERE
Fuel	%	ASTM D3524	>2.0	▲ 6.9	0.8	▲ 11.9
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 12.4	13.8	▲ 10.0

Customer Id: GFL112
Sample No.: GFL0110406
Lab Number: 06156788
Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Fuel/injector System	---	---	?	We advise that you check the fuel injection system.

HISTORICAL DIAGNOSIS

NORMAL



18 Mar 2022 Diag: Wes Davis

Resample at the next service interval to monitor. No other corrective action is recommended at this time. All component wear rates are normal. Fuel content negligible. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



FUEL



08 Oct 2021 Diag: Jonathan Hester

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. All component wear rates are normal. There is a high amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

view report



FUEL



27 Aug 2021 Diag: Don Baldrige

No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Light fuel dilution occurring. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

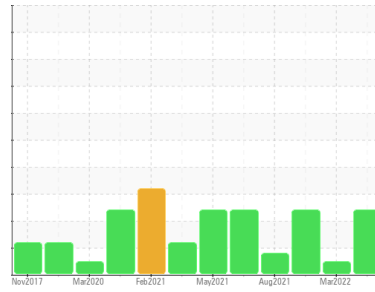
view report





OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Area
(YA141250)

Machine Id
11316

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (7 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

The BN result indicates that there is suitable alkalinity remaining in the oil. 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	GFL0110406	GFL0042131	GFL0038025
Sample Date	Client Info	21 Apr 2024	18 Mar 2022	08 Oct 2021
Machine Age	hrs	0	14883	14883
Oil Age	hrs	0	11478	0
Oil Changed	Client Info	N/A	N/A	Not Changd
Sample Status		SEVERE	NORMAL	SEVERE

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 D5185m >100	33	6	17
Chromium	ppm ASTM D5185m >20	<1	<1	1
Nickel	ppm ASTM D5185m >4	0	0	0
Titanium	ppm ASTM D5185m	0	0	<1
Silver	ppm ASTM D5185m >3	0	<1	0
Aluminum	ppm ASTM D5185m >20	3	1	4
Lead	ppm ASTM D5185m >40	3	0	5
Copper	ppm ASTM D5185m >330	0	<1	4
Tin	ppm ASTM D5185m >15	<1	0	1
Antimony	ppm ASTM D5185m	---	---	0
Vanadium	ppm ASTM D5185m	0	0	0
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	29	7	7
Barium	ppm ASTM D5185m 0	0	0	0
Molybdenum	ppm ASTM D5185m 60	41	58	65
Manganese	ppm ASTM D5185m 0	<1	<1	0
Magnesium	ppm ASTM D5185m 1010	620	969	941
Calcium	ppm ASTM D5185m 1070	1351	1094	1038
Phosphorus	ppm ASTM D5185m 1150	965	1041	985
Zinc	ppm ASTM D5185m 1270	1123	1223	1175
Sulfur	ppm ASTM D5185m 2060	3394	2901	2474

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	6	2	7
Sodium	ppm ASTM D5185m	11	2	5
Potassium	ppm ASTM D5185m >20	2	0	0
Fuel	% ASTM D3524 >2.0	▲ 6.9	0.8	▲ 11.9

INFRA-RED

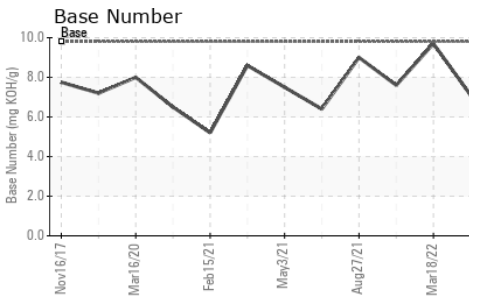
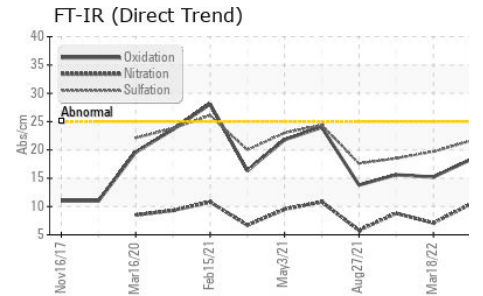
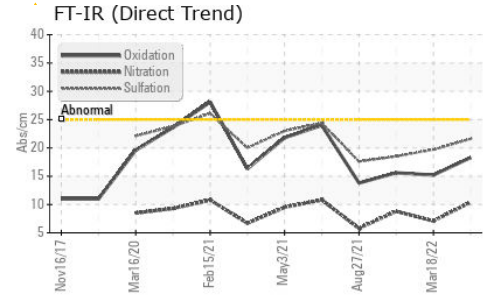
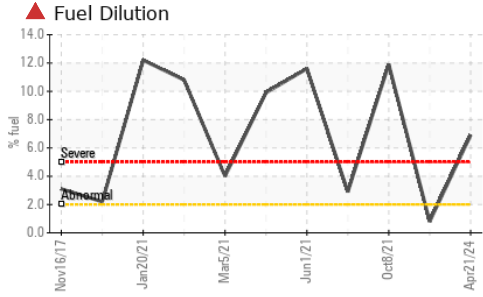
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	0.6	0.3	0.3
Nitration	Abs/cm *ASTM D7624 >20	10.4	7.1	8.8
Sulfation	Abs/.1mm *ASTM D7415 >30	21.6	19.7	18.5

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	18.3	15.2	15.6
Base Number (BN)	mg KOH/g ASTM D2896 9.8	7.1	9.7	7.6



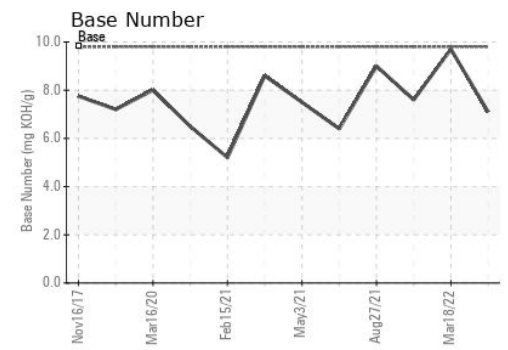
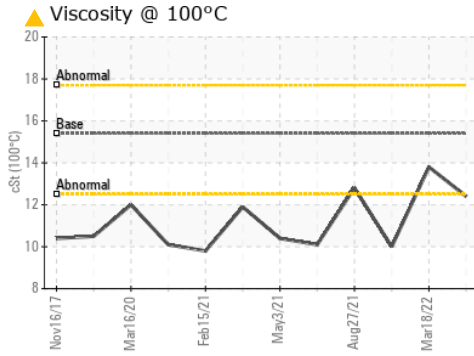
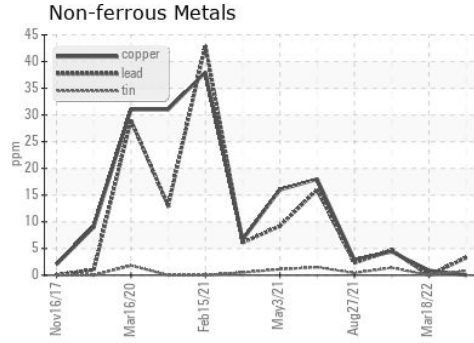
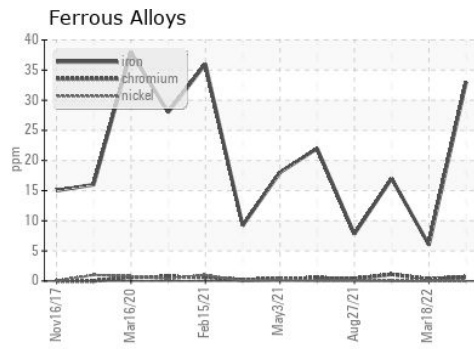
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	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 D445	15.4	▲ 12.4	13.8
					▲ 10.0

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0110406 **Received** : 22 Apr 2024
Lab Number : 06156788 **Tested** : 25 Apr 2024
Unique Number : 10992211 **Diagnosed** : 25 Apr 2024 - Wes Davis
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 112 - New Bern
 705 Airport Road
 New Bern, NC
 US 28560
 Contact: Marquis Williams
 marquis.williams@gflenv.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)