



PROBLEM SUMMARY

Sample Rating Trend

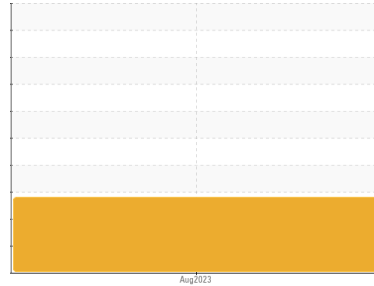
FUEL



Machine Id
226023

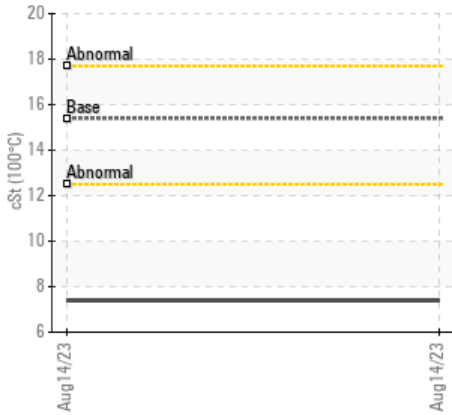
Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

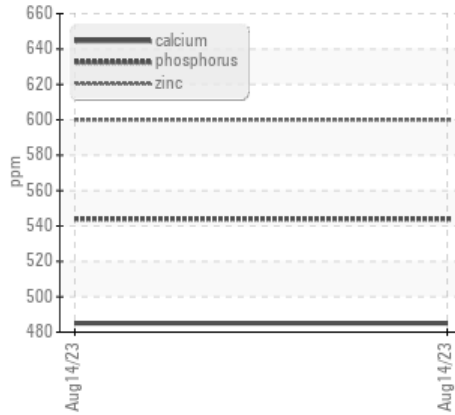


COMPONENT CONDITION SUMMARY

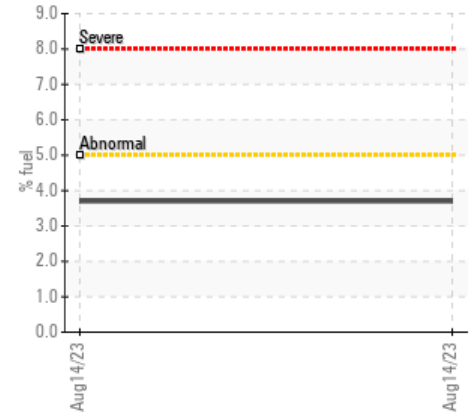
▲ Viscosity @ 100°C



▲ Additives



▲ Fuel Dilution



RECOMMENDATION

No corrective action is recommended at this time. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				ATTENTION	---	---
Magnesium	ppm	ASTM D5185m	1010	▲ 341	---	---
Calcium	ppm	ASTM D5185m	1070	▲ 485	---	---
Phosphorus	ppm	ASTM D5185m	1150	▲ 544	---	---
Zinc	ppm	ASTM D5185m	1270	▲ 600	---	---
Fuel	%	ASTM D3524	>5	▲ 3.7	---	---
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 7.4	---	---

Customer Id: GFL924
Sample No.: GFL0059621
Lab Number: 05924751
Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
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jhester@wearcheckusa.com

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

RECOMMENDED ACTIONS

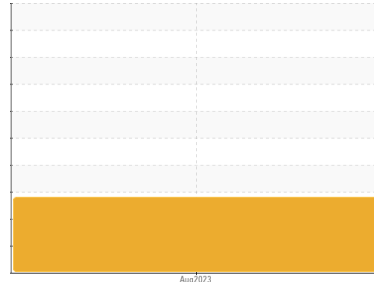
Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
226023

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

▲ Recommendation

No corrective action is recommended at this time. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

▲ Contamination

Light fuel dilution occurring.

▲ Fluid Condition

The oil viscosity is lower than normal. Additive levels indicate the addition of a different brand, or type of oil. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0059621	---	---
Sample Date	Client Info	14 Aug 2023	---	---
Machine Age	mls Client Info	0	---	---
Oil Age	mls Client Info	0	---	---
Oil Changed	Client Info	N/A	---	---
Sample Status		ATTENTION	---	---

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	66	---	---
Chromium	ppm ASTM D5185m >20	3	---	---
Nickel	ppm ASTM D5185m >4	0	---	---
Titanium	ppm ASTM D5185m	0	---	---
Silver	ppm ASTM D5185m >3	0	---	---
Aluminum	ppm ASTM D5185m >20	13	---	---
Lead	ppm ASTM D5185m >40	6	---	---
Copper	ppm ASTM D5185m >330	6	---	---
Tin	ppm ASTM D5185m >15	<1	---	---
Vanadium	ppm ASTM D5185m	0	---	---
Cadmium	ppm ASTM D5185m	0	---	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	26	---	---
Barium	ppm ASTM D5185m 0	0	---	---
Molybdenum	ppm ASTM D5185m 60	24	---	---
Manganese	ppm ASTM D5185m 0	1	---	---
Magnesium	ppm ASTM D5185m 1010	▲ 341	---	---
Calcium	ppm ASTM D5185m 1070	▲ 485	---	---
Phosphorus	ppm ASTM D5185m 1150	▲ 544	---	---
Zinc	ppm ASTM D5185m 1270	▲ 600	---	---
Sulfur	ppm ASTM D5185m 2060	2005	---	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	11	---	---
Sodium	ppm ASTM D5185m	27	---	---
Potassium	ppm ASTM D5185m >20	6	---	---
Fuel	% ASTM D3524 >5	▲ 3.7	---	---

INFRA-RED

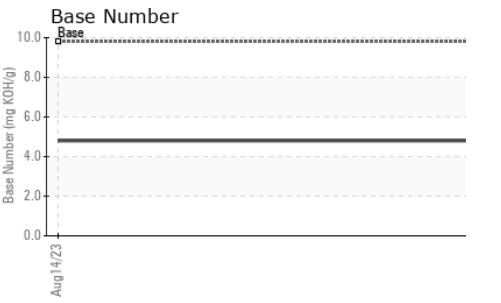
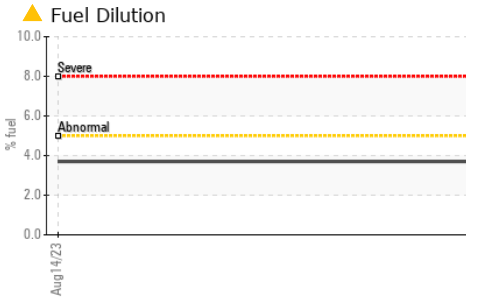
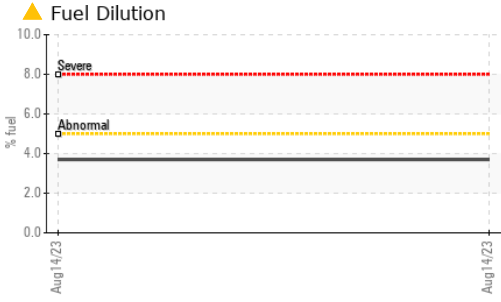
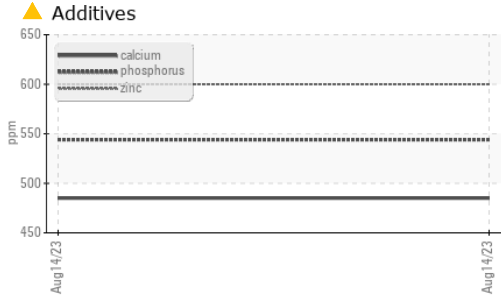
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	1.3	---	---
Nitration	Abs/cm *ASTM D7624 >20	9.7	---	---
Sulfation	Abs/.1mm *ASTM D7415 >30	29.1	---	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	30.6	---	---
Base Number (BN)	mg KOH/g ASTM D2896 9.8	4.8	---	---



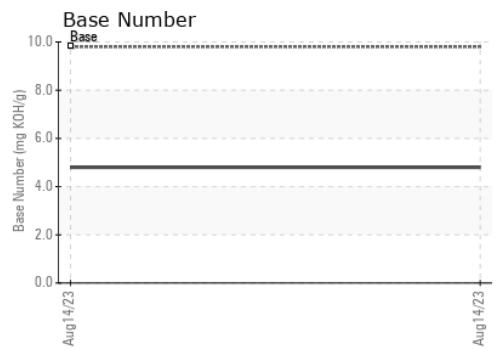
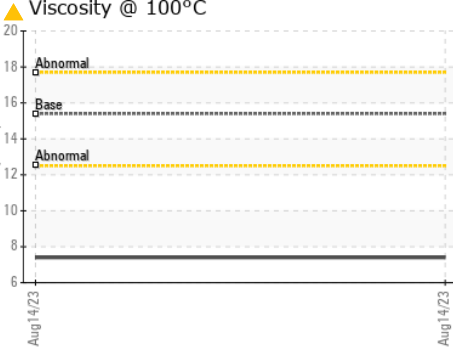
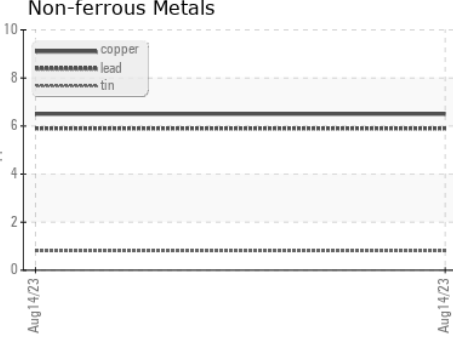
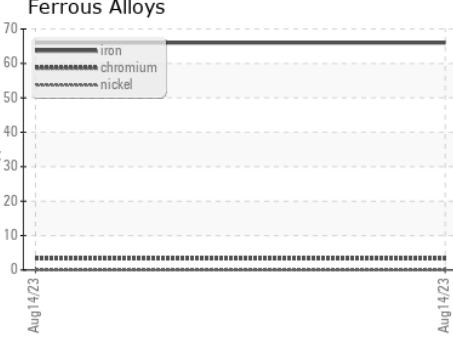
OIL ANALYSIS REPORT



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	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 7.4	---

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0059621 **Received** : 15 Aug 2023
Lab Number : 05924751 **Diagnosed** : 16 Aug 2023
Unique Number : 10604698 **Diagnostician** : Jonathan Hester
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 924 - Madison HC
 300 Raemisch Road
 Waunakee, WI
 US 53597
 Contact: Ben Briggs
 ben.briggs@gflenv.com
 T: (608)770-9196
 F:

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)