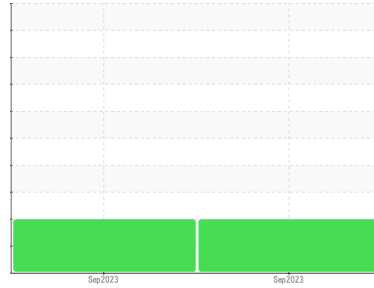




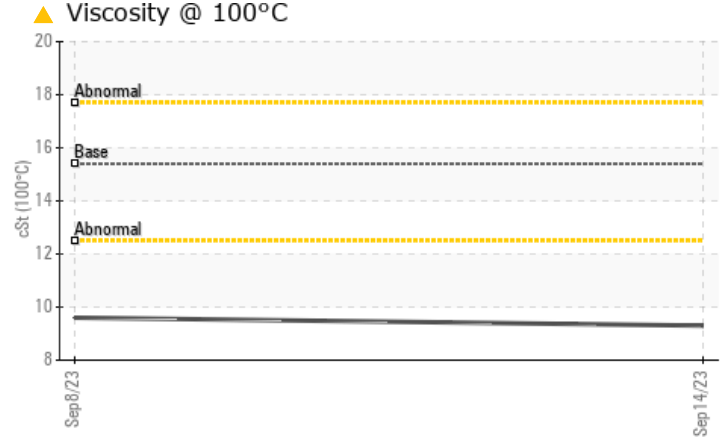
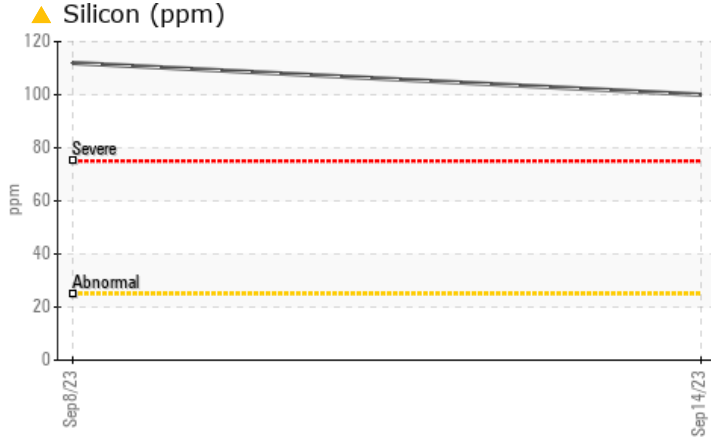
PROBLEM SUMMARY

Sample Rating Trend



Machine Id
914032
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	ABNORMAL	---
Silicon	ppm	ASTM D5185m	>25	▲ 100	▲ 112	---
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 9.3	▲ 9.6	---

Customer Id: GFL814
 Sample No.: GFL0091008
 Lab Number: 05956909
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Don Baldrige +1
don.b505@comcast.net

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	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

HISTORICAL DIAGNOSIS

08 Sep 2023 Diag: Don Baldrige

DIRT



Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. Metal levels are typical for a new component breaking in. Fuel content negligible. Elemental level of silicon (Si) above normal indicating ingress of seal material. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

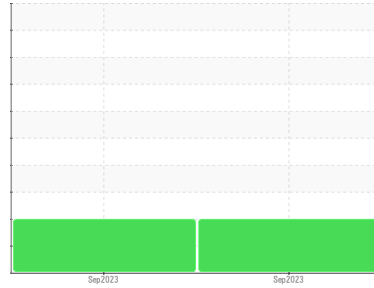
view report





OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id
914032

Component
Diesel Engine

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

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

Contamination

Fuel content negligible. Elemental level of silicon (Si) above normal indicating ingress of seal material.

Fluid Condition

The oil viscosity is lower than normal. 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	GFL0091008	GFL0090942	---
Sample Date	Client Info	14 Sep 2023	08 Sep 2023	---
Machine Age	hrs	Client Info	257	208
Oil Age	hrs	Client Info	257	0
Oil Changed	Client Info	Changed	Changed	---
Sample Status		ABNORMAL	ABNORMAL	---

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	25	26
Chromium	ppm	ASTM D5185m >20	<1	<1
Nickel	ppm	ASTM D5185m >4	1	<1
Titanium	ppm	ASTM D5185m	0	0
Silver	ppm	ASTM D5185m >3	2	1
Aluminum	ppm	ASTM D5185m >20	4	4
Lead	ppm	ASTM D5185m >40	0	0
Copper	ppm	ASTM D5185m >330	93	73
Tin	ppm	ASTM D5185m >15	2	2
Vanadium	ppm	ASTM D5185m	0	0
Cadmium	ppm	ASTM D5185m	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	350	389
Barium	ppm	ASTM D5185m 0	<1	2
Molybdenum	ppm	ASTM D5185m 60	118	125
Manganese	ppm	ASTM D5185m 0	4	4
Magnesium	ppm	ASTM D5185m 1010	750	749
Calcium	ppm	ASTM D5185m 1070	1431	1497
Phosphorus	ppm	ASTM D5185m 1150	712	691
Zinc	ppm	ASTM D5185m 1270	846	812
Sulfur	ppm	ASTM D5185m 2060	2908	2775

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	▲ 100	▲ 112
Sodium	ppm	ASTM D5185m	3	4
Potassium	ppm	ASTM D5185m >20	5	4
Fuel	%	ASTM D3524 >5	0.4	0.4

INFRA-RED

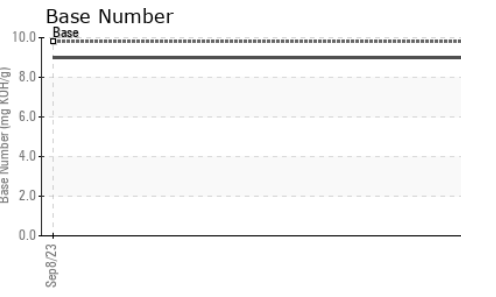
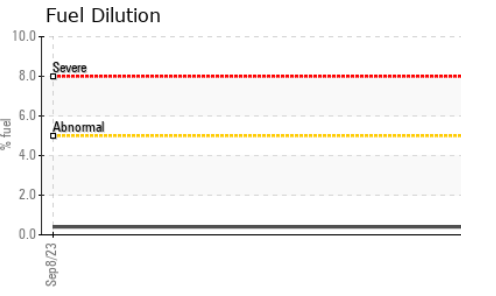
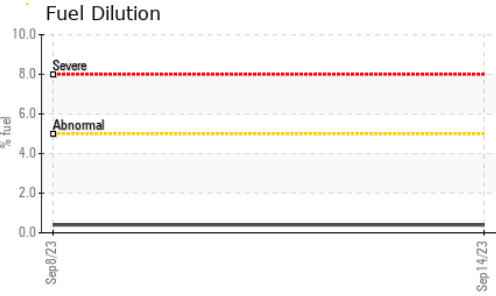
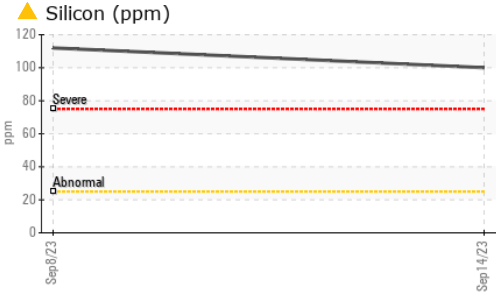
method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.2	0.2
Nitration	Abs/cm	*ASTM D7624 >20	6.8	6.7
Sulfation	Abs/.1mm	*ASTM D7415 >30	24.8	25.3

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	19.9	20.1
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	9.0	9.0



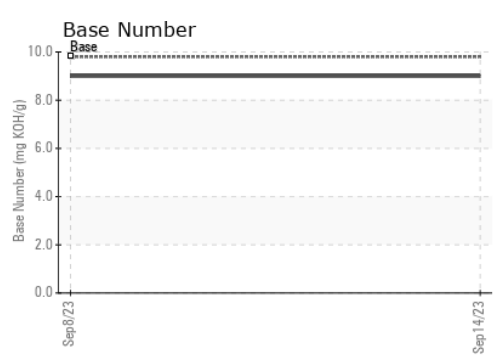
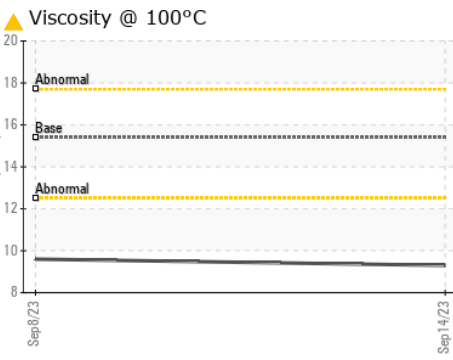
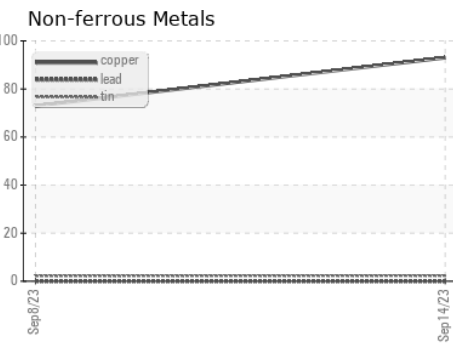
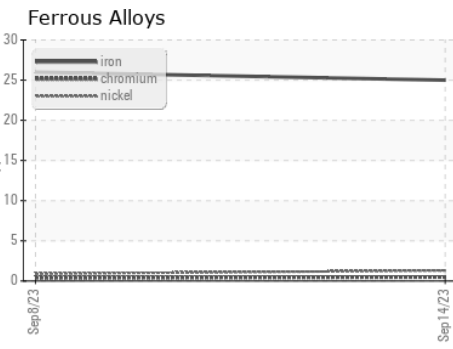
OIL ANALYSIS REPORT



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	▲ 9.3	▲ 9.6

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0091008 **Received** : 20 Sep 2023
Lab Number : 05956909 **Diagnosed** : 22 Sep 2023
Unique Number : 10658122 **Diagnostician** : Don Baldrige
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 814 - Little Rock Hauling
 4005 Hwy 161 N.
 Little Rock, AR
 US 72117
 Contact: Brad Manager

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)

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