



PROBLEM SUMMARY

Sample Rating Trend

DIRT

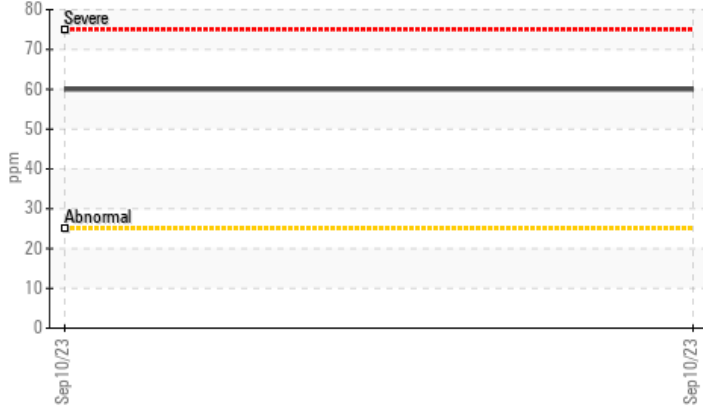


Area
{UNASSIGNED}
 Machine Id
914022
 Component
1 Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (9 GAL)

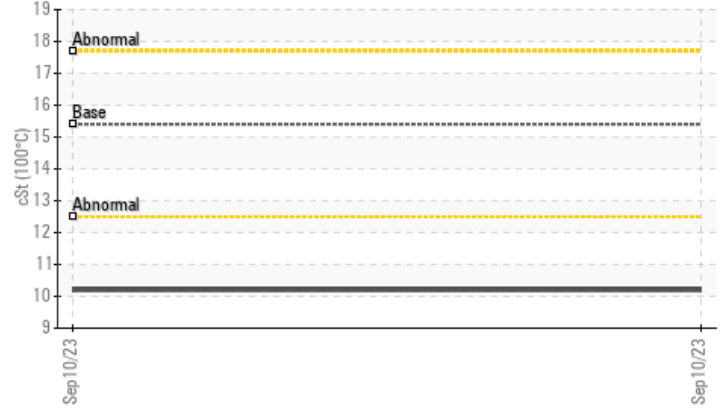


COMPONENT CONDITION SUMMARY

▲ Silicon (ppm)



▲ Viscosity @ 100°C



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	---	---
Silicon	ppm	ASTM D5185m	>25	▲ 60	---	---
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 10.2	---	---

Customer Id: GFL405
 Sample No.: GFL0087252
 Lab Number: 05967329
 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.

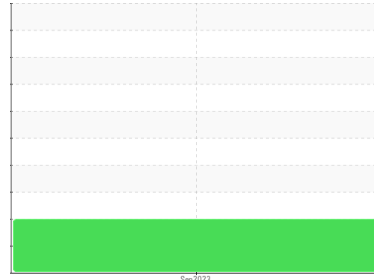
HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Area
{UNASSIGNED}
 Machine Id
914022
 Component
1 Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (9 GAL)

Sample Rating Trend



DIRT



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	GFL0087252	---	---
Sample Date	Client Info	10 Sep 2023	---	---
Machine Age	hrs Client Info	741	---	---
Oil Age	hrs Client Info	741	---	---
Oil Changed	Client Info	Changed	---	---
Sample Status		ABNORMAL	---	---

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >120	44	---	---
Chromium	ppm ASTM D5185m >20	<1	---	---
Nickel	ppm ASTM D5185m >5	2	---	---
Titanium	ppm ASTM D5185m >2	<1	---	---
Silver	ppm ASTM D5185m >2	<1	---	---
Aluminum	ppm ASTM D5185m >20	6	---	---
Lead	ppm ASTM D5185m >40	<1	---	---
Copper	ppm ASTM D5185m >330	181	---	---
Tin	ppm ASTM D5185m >15	3	---	---
Vanadium	ppm ASTM D5185m	0	---	---
Cadmium	ppm ASTM D5185m	0	---	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	140	---	---
Barium	ppm ASTM D5185m 0	0	---	---
Molybdenum	ppm ASTM D5185m 60	121	---	---
Manganese	ppm ASTM D5185m 0	5	---	---
Magnesium	ppm ASTM D5185m 1010	666	---	---
Calcium	ppm ASTM D5185m 1070	1430	---	---
Phosphorus	ppm ASTM D5185m 1150	696	---	---
Zinc	ppm ASTM D5185m 1270	889	---	---
Sulfur	ppm ASTM D5185m 2060	2409	---	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	▲ 60	---	---
Sodium	ppm ASTM D5185m	2	---	---
Potassium	ppm ASTM D5185m >20	9	---	---
Fuel	% ASTM D3524 >3.0	0.3	---	---

INFRA-RED

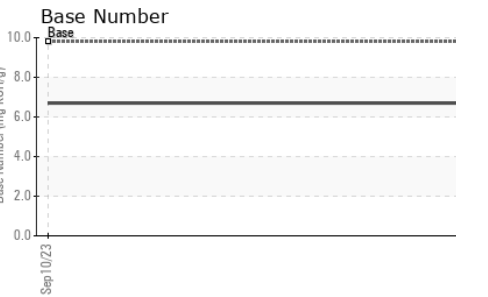
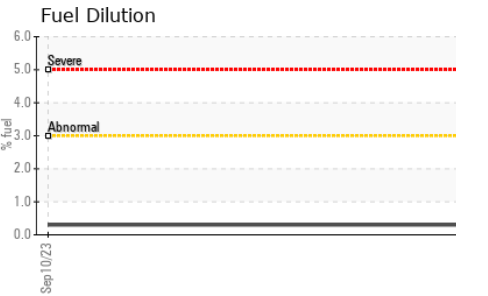
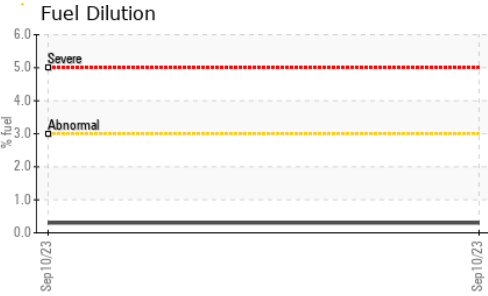
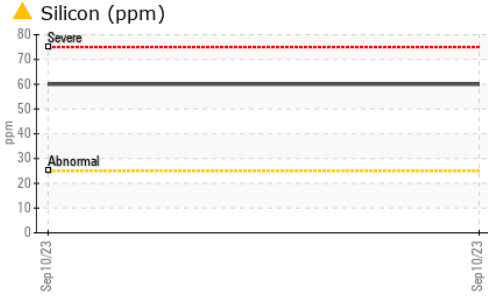
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >4	0.5	---	---
Nitration	Abs/cm *ASTM D7624 >20	10.6	---	---
Sulfation	Abs/.1mm *ASTM D7415 >30	23.9	---	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	23.7	---	---
Base Number (BN)	mg KOH/g ASTM D2896 9.8	6.7	---	---



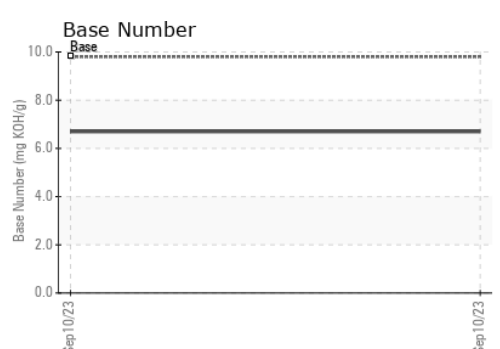
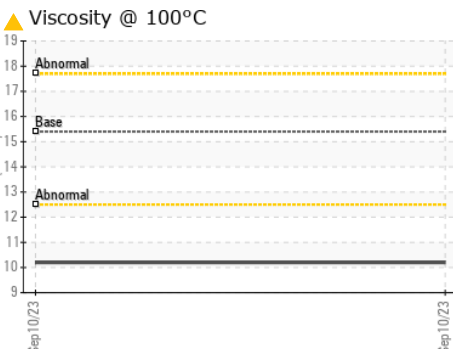
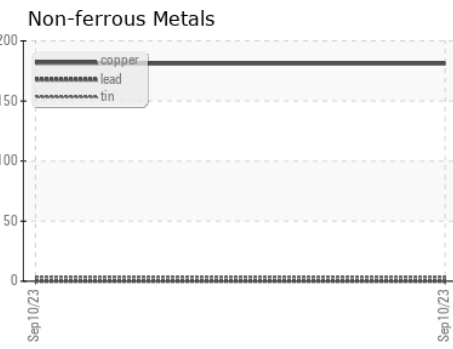
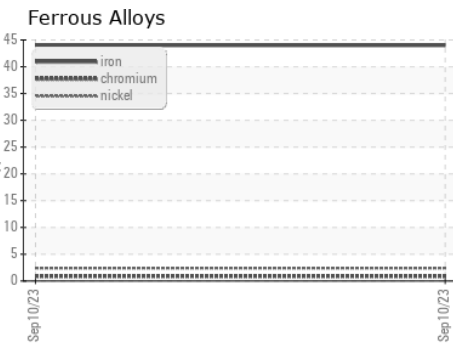
OIL ANALYSIS REPORT



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	▲ 10.2	---

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0087252 Received : 03 Oct 2023
 Lab Number : 05967329 Diagnosed : 05 Oct 2023
 Unique Number : 10673880 Diagnostician : Don Baldrige
 Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 405 - Arbor Hills
 7400 Napier Rd
 NORTHVILLE, MI
 US 48168
 Contact: Anthony Hopkins
 ahopkins@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)