



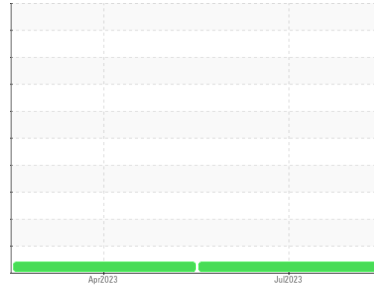
PROBLEM SUMMARY

Sample Rating Trend

VISCOSITY

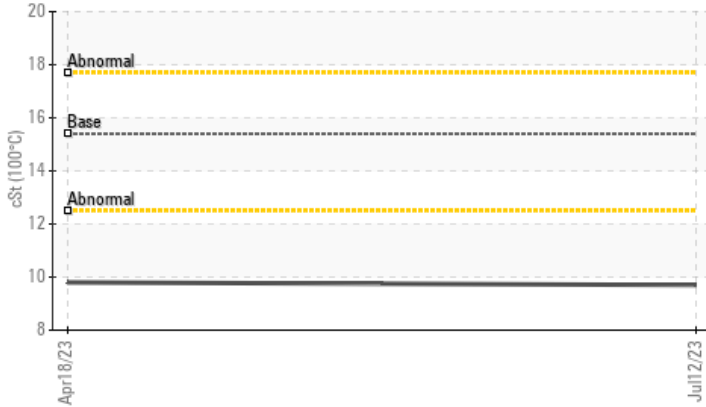


Machine Id
413116
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- QTS)



COMPONENT CONDITION SUMMARY

▲ Viscosity @ 100°C



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ATTENTION	ATTENTION	---
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 9.7	▲ 9.8	---

Customer Id: GFL836
Sample No.: GFL0087732
Lab Number: 05901821
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

18 Apr 2023 Diag: Doug Bogart

VISCOSITY



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Metal levels are typical for a new component breaking in. Fuel content negligible. There is no indication of any contamination in the oil. 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





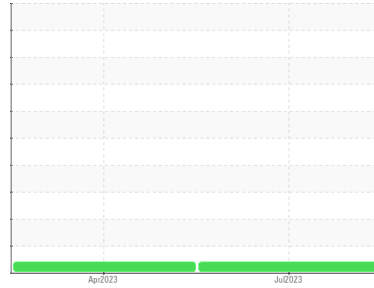
OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY



Machine Id
413116
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- QTS)



DIAGNOSIS

▲ Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

▲ 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	GFL0087732	GFL0078538	---
Sample Date	Client Info	12 Jul 2023	18 Apr 2023	---
Machine Age	hrs	1131	618	---
Oil Age	hrs	0	0	---
Oil Changed	Client Info	Changed	Changed	---
Sample Status		ATTENTION	ATTENTION	---

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<1.0	0.4	---
Glycol	WC Method	NEG	NEG	---

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >120	14	24	---
Chromium	ppm ASTM D5185m >20	<1	<1	---
Nickel	ppm ASTM D5185m >5	0	<1	---
Titanium	ppm ASTM D5185m >2	<1	<1	---
Silver	ppm ASTM D5185m >2	<1	<1	---
Aluminum	ppm ASTM D5185m >20	10	8	---
Lead	ppm ASTM D5185m >40	2	0	---
Copper	ppm ASTM D5185m >330	279	361	---
Tin	ppm ASTM D5185m >15	1	3	---
Vanadium	ppm ASTM D5185m	<1	0	---
Cadmium	ppm ASTM D5185m	0	0	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	201	266	---
Barium	ppm ASTM D5185m 0	0	0	---
Molybdenum	ppm ASTM D5185m 60	126	117	---
Manganese	ppm ASTM D5185m 0	1	4	---
Magnesium	ppm ASTM D5185m 1010	729	719	---
Calcium	ppm ASTM D5185m 1070	1545	1503	---
Phosphorus	ppm ASTM D5185m 1150	706	711	---
Zinc	ppm ASTM D5185m 1270	856	843	---
Sulfur	ppm ASTM D5185m 2060	2835	2902	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	12	58	---
Sodium	ppm ASTM D5185m	2	4	---
Potassium	ppm ASTM D5185m >20	17	20	---

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >4	0.2	0.2	---
Nitration	Abs/cm *ASTM D7624 >20	10.1	10.2	---
Sulfation	Abs/.1mm *ASTM D7415 >30	24.9	23.9	---

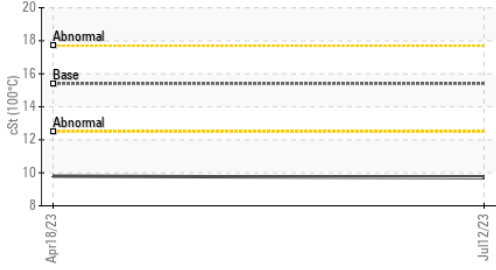
FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	23.2	23.3	---
Base Number (BN)	mg KOH/g ASTM D2896 9.8	8.1	7.3	---

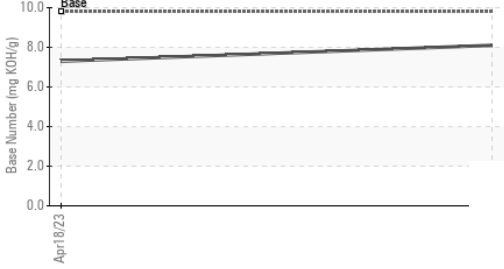


OIL ANALYSIS REPORT

▲ Viscosity @ 100°C



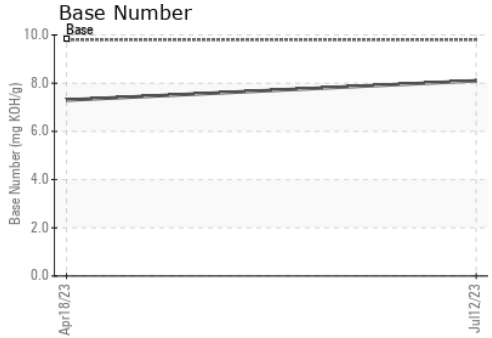
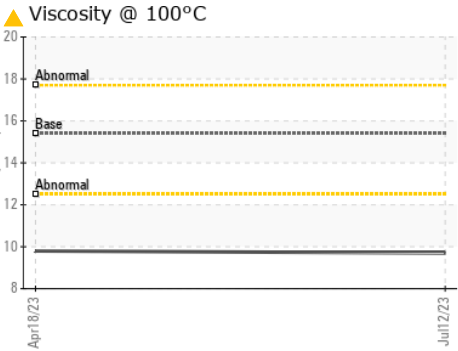
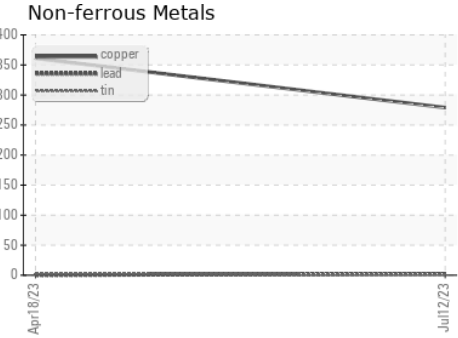
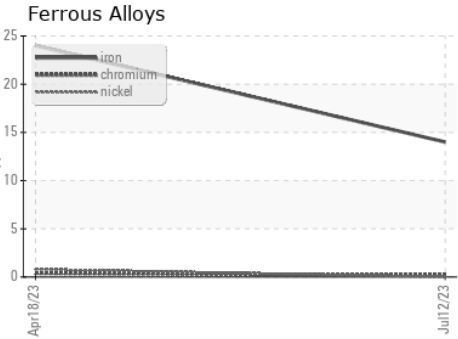
Base Number



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 ▲ 9.7	▲ 9.8	---

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0087732 **Received** : 18 Jul 2023
Lab Number : 05901821 **Diagnosed** : 20 Jul 2023
Unique Number : 10563177 **Diagnostician** : Don Baldrige
Test Package : FLEET

GFL Environmental - 836 - Kansas City Hauling
 7801 East Truman Road
 Kansas City, MO
 US 64126
 Contact: Robert Hart
 rhart@gflenv.com
 T: (580)461-1509
 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)