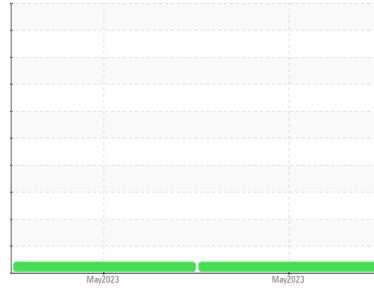




PROBLEM SUMMARY

Sample Rating Trend



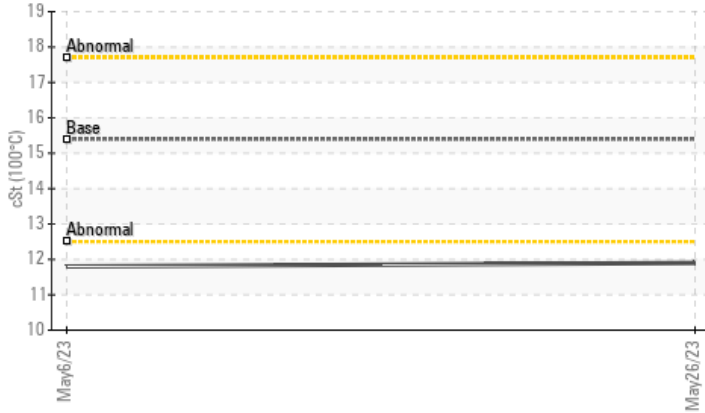
VISCOSITY



Machine Id
713029
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Viscosity @ 100°C



RECOMMENDATION

Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ATTENTION	ATTENTION	---
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 11.9	▲ 11.8	---

Customer Id: GFL821
 Sample No.: GFL0065417
 Lab Number: 05861627
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Sean Felton +1 919-379-4092
sfelton@wearcheckusa.com

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

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

06 May 2023 Diag: Jonathan Hester

VISCOSITY



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. 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.

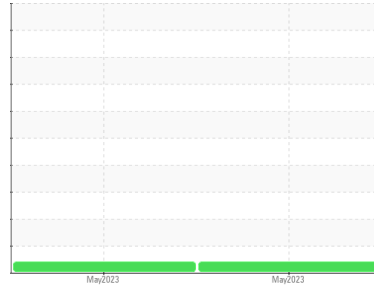
view report





OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id
713029

Component
Diesel Engine

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

DIAGNOSIS

▲ Recommendation

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	GFL0065417	GFL0076821	---
Sample Date	Client Info	26 May 2023	06 May 2023	---
Machine Age	hrs	289	162	---
Oil Age	hrs	289	162	---
Oil Changed	Client Info	Not Chngd	Not Chngd	---
Sample Status		ATTENTION	ATTENTION	---

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	0.9	---
Glycol	WC Method	NEG	NEG	---

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	25	17	---
Chromium	ppm ASTM D5185m >20	<1	<1	---
Nickel	ppm ASTM D5185m >4	0	<1	---
Titanium	ppm ASTM D5185m	0	<1	---
Silver	ppm ASTM D5185m >3	<1	<1	---
Aluminum	ppm ASTM D5185m >20	3	3	---
Lead	ppm ASTM D5185m >40	0	<1	---
Copper	ppm ASTM D5185m >330	14	14	---
Tin	ppm ASTM D5185m >15	1	<1	---
Vanadium	ppm ASTM D5185m	0	<1	---
Cadmium	ppm ASTM D5185m	0	0	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	40	43	---
Barium	ppm ASTM D5185m 0	1	1	---
Molybdenum	ppm ASTM D5185m 60	46	45	---
Manganese	ppm ASTM D5185m 0	5	5	---
Magnesium	ppm ASTM D5185m 1010	852	867	---
Calcium	ppm ASTM D5185m 1070	1214	1216	---
Phosphorus	ppm ASTM D5185m 1150	742	769	---
Zinc	ppm ASTM D5185m 1270	909	930	---
Sulfur	ppm ASTM D5185m 2060	2777	2967	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	12	12	---
Sodium	ppm ASTM D5185m	5	5	---
Potassium	ppm ASTM D5185m >20	3	2	---

INFRA-RED

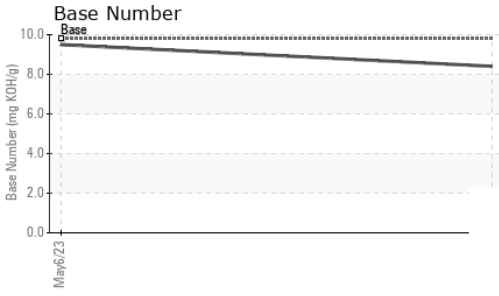
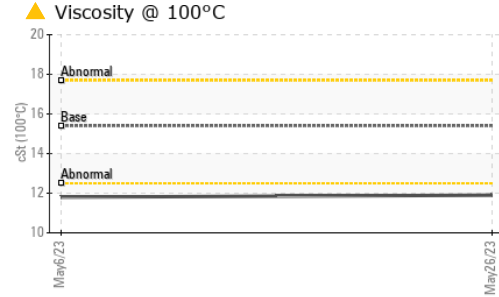
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	0.4	0.3	---
Nitration	Abs/cm *ASTM D7624 >20	10.5	9.2	---
Sulfation	Abs/.1mm *ASTM D7415 >30	21.6	21.2	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	20.6	19.6	---
Base Number (BN)	mg KOH/g ASTM D2896 9.8	8.4	9.5	---



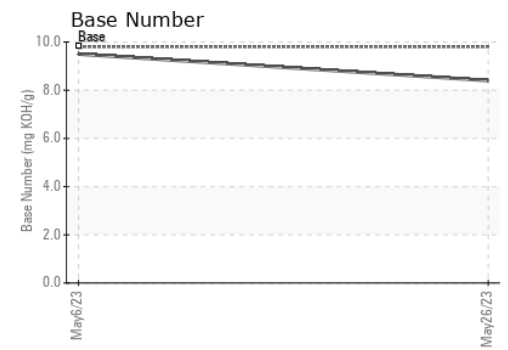
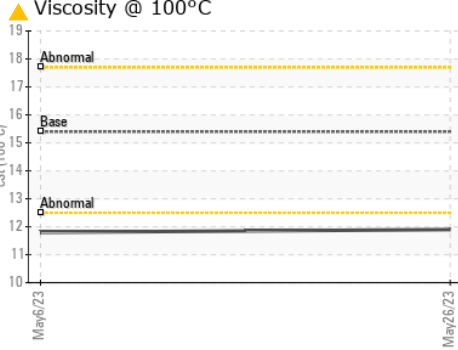
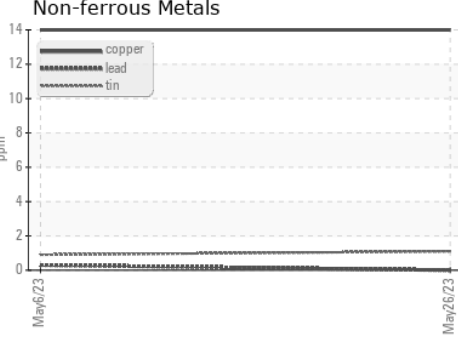
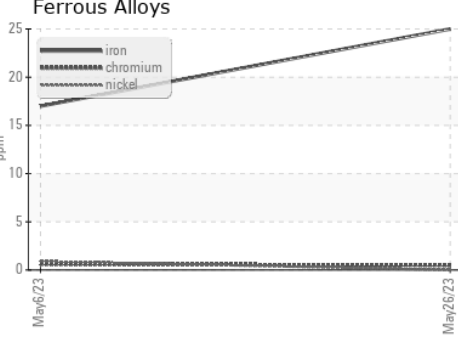
OIL ANALYSIS REPORT



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	▲ 11.9	▲ 11.8	---

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0065417 **Received** : 01 Jun 2023
Lab Number : 05861627 **Diagnosed** : 02 Jun 2023
Unique Number : 10496092 **Diagnostician** : Sean Felton
Test Package : FLEET

GFL Environmental - 821 - Ozarks Hauling
 33924 Olath Drive
 Lebanon, MO
 US 65536
 Contact: Landen Johnson
 landen.johnson@gflenv.com
 T: (417)664-0010
 F:

Certificate L2367
 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)