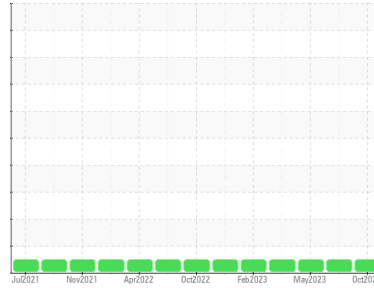# OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

Machine Id
728052-42
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- LTR)

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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		**GFL0091939**	GFL0075051	GFL0075080
Sample Date	Client Info		**05 Oct 2023**	18 Jul 2023	02 May 2023
Machine Age	hrs	Client Info	**10439**	9864	9259
Oil Age	hrs	Client Info	**575**	605	600
Oil Changed		Client Info	**Changed**	Changed	Changed
Sample Status			**NORMAL**	NORMAL	NORMAL

CONTAMINATION

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

WEAR METALS

		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	**25**	23	14
Chromium	ppm	ASTM D5185m	>20	**1**	<1	<1
Nickel	ppm	ASTM D5185m	>4	**0**	<1	<1
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**13**	12	5
Lead	ppm	ASTM D5185m	>40	**0**	<1	0
Copper	ppm	ASTM D5185m	>330	**1**	1	<1
Tin	ppm	ASTM D5185m	>15	**0**	0	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES

		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**3**	2	6
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	60	**67**	63	60
Manganese	ppm	ASTM D5185m	0	**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	1010	**989**	925	990
Calcium	ppm	ASTM D5185m	1070	**1124**	1128	1072
Phosphorus	ppm	ASTM D5185m	1150	**1101**	1036	1058
Zinc	ppm	ASTM D5185m	1270	**1353**	1281	1300
Sulfur	ppm	ASTM D5185m	2060	**3283**	2881	3668

CONTAMINANTS

		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**8**	5	4
Sodium	ppm	ASTM D5185m		**2**	0	1
Potassium	ppm	ASTM D5185m	>20	**16**	13	3

INFRA-RED

		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	**0.4**	0.4	0.2
Nitration	Abs/cm	*ASTM D7624	>20	**10.0**	10.3	7.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	**20.7**	21.0	17.3

FLUID DEGRADATION

		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**19.2**	19.3	15.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**6.5**	7.2	7.5

OIL ANALYSIS REPORT

Base Number

Viscosity @ 100°C
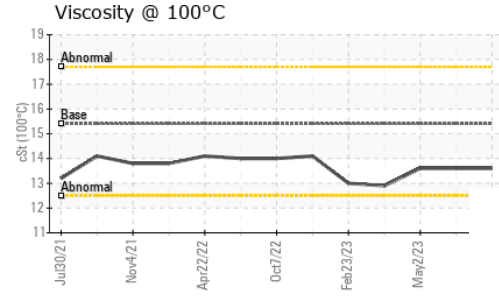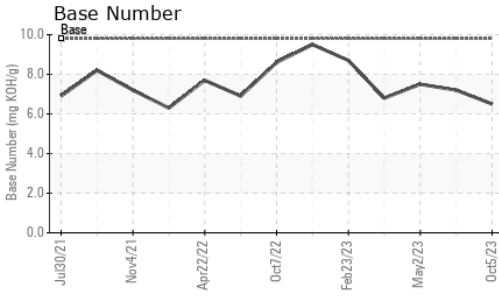
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	**13.6**	13.6	13.6

GRAPHS

Ferrous Alloys

Non-ferrous Metals

Viscosity @ 100°C

Base Number
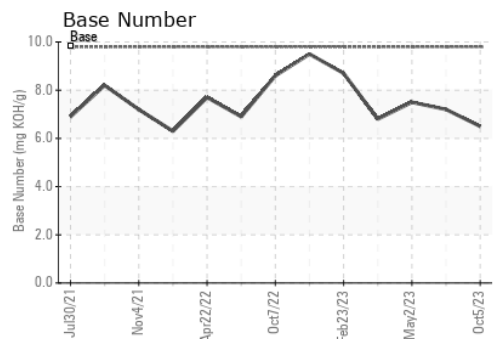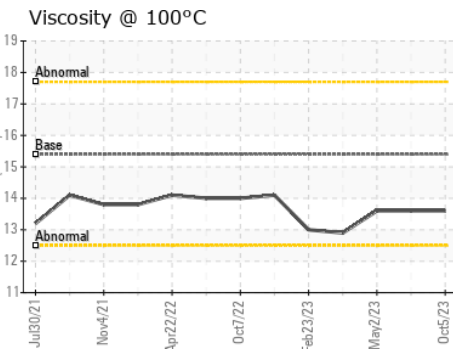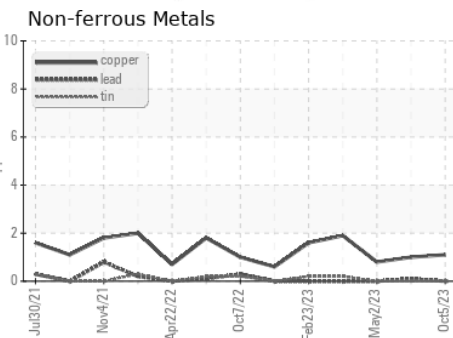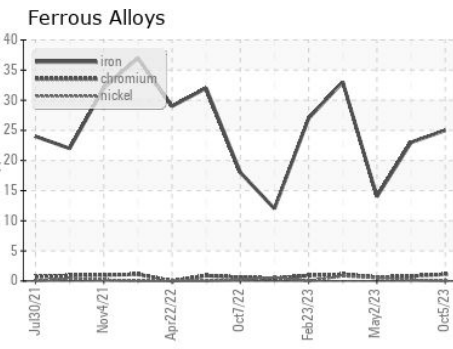
Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : GFL0091939   **Received** : 06 Oct 2023

Lab Number : 05972047   **Diagnosed** : 09 Oct 2023

Unique Number : 10683997   **Diagnostician** : Wes Davis

Test Package : FLEET

GFL Environmental - 683 - Ruckersville Hauling
261 INDUSTRIAL DR
Ruckersville, VA
US 22698
Contact: Jaf Finney
jfinney@gflenv.com
T: (434)990-4972
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)