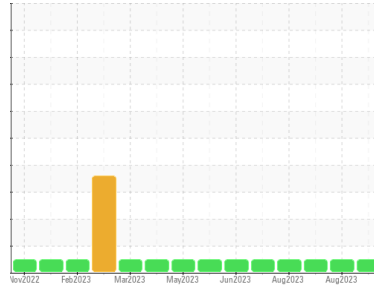# OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

Machine Id
812090
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 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	**GFL0094364**	GFL0091390	GFL0088749
Sample Date		Client Info	**12 Sep 2023**	28 Aug 2023	16 Aug 2023
Machine Age	hrs	Client Info	**2635**	2477	2394
Oil Age	hrs	Client Info	**241**	83	547
Oil Changed		Client Info	**Not Changd**	Not Changd	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	**9**	6	13
Chromium	ppm	ASTM D5185m	>20	**<1**	<1	2
Nickel	ppm	ASTM D5185m	>4	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	<1
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**8**	6	13
Lead	ppm	ASTM D5185m	>40	**<1**	0	<1
Copper	ppm	ASTM D5185m	>330	**<1**	0	<1
Tin	ppm	ASTM D5185m	>15	**<1**	<1	<1
Vanadium	ppm	ASTM D5185m		**<1**	0	<1
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES

		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**13**	16	13
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	60	**61**	59	58
Manganese	ppm	ASTM D5185m	0	**<1**	<1	1
Magnesium	ppm	ASTM D5185m	1010	**831**	819	785
Calcium	ppm	ASTM D5185m	1070	**1135**	1055	1113
Phosphorus	ppm	ASTM D5185m	1150	**935**	943	910
Zinc	ppm	ASTM D5185m	1270	**1169**	1162	1122
Sulfur	ppm	ASTM D5185m	2060	**3488**	3601	3330

CONTAMINANTS

		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**4**	2	3
Sodium	ppm	ASTM D5185m		**3**	2	4
Potassium	ppm	ASTM D5185m	>20	**17**	11	28

INFRA-RED

		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	**0.3**	0.2	0.4
Nitration	Abs/cm	*ASTM D7624	>20	**6.0**	5.8	6.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	**16.2**	15.6	16.8

FLUID DEGRADATION

		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**10.9**	10.6	11.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**7.5**	7.8	7.2

OIL ANALYSIS REPORT

Base Number

Viscosity @ 100°C
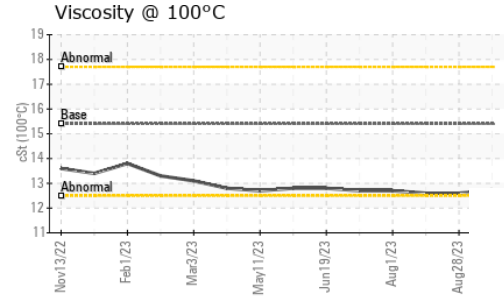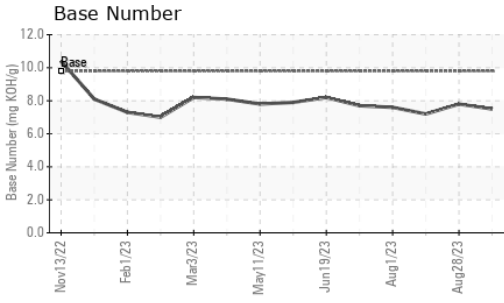
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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	**12.7**	12.6	12.6

GRAPHS

Ferrous Alloys

Non-ferrous Metals

Viscosity @ 100°C

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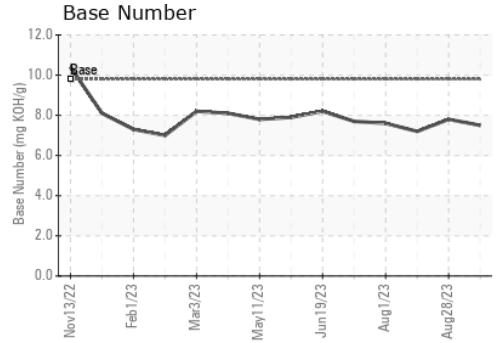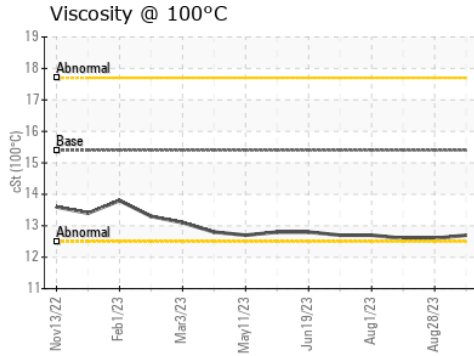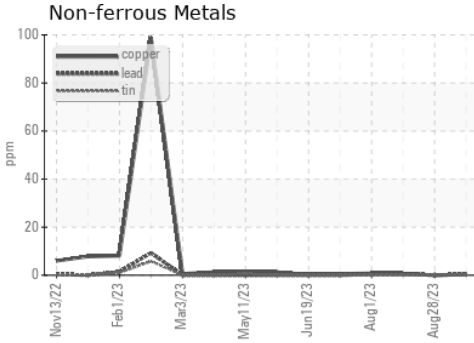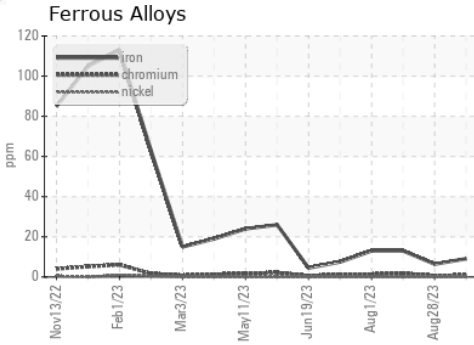
Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : GFL0094364 **Received** : 14 Sep 2023

Lab Number : 05951007 **Diagnosed** : 16 Sep 2023

Unique Number : 10646966 **Diagnostician** : Wes Davis

Test Package : FLEET

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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