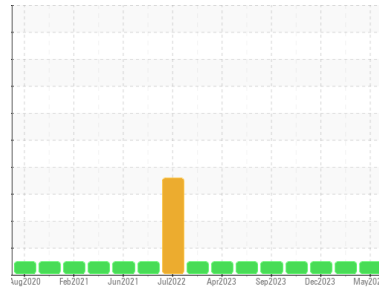




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
426021-4673

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	GFL0091845	GFL0101316	GFL0101366
Sample Date	Client Info	03 May 2024	01 Feb 2024	13 Dec 2023
Machine Age	hrs	43991	43453	43336
Oil Age	hrs	0	0	0
Oil Changed	Client Info	Not Changed	Changed	Not Changed
Sample Status		NORMAL	NORMAL	NORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<1.0	<1.0	<1.0
Water	WC Method >0.2	NEG	NEG	NEG
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >120	2	9	10
Chromium	ppm ASTM D5185m >20	<1	<1	<1
Nickel	ppm ASTM D5185m >5	0	0	<1
Titanium	ppm ASTM D5185m >2	<1	<1	<1
Silver	ppm ASTM D5185m >2	0	0	0
Aluminum	ppm ASTM D5185m >20	2	<1	2
Lead	ppm ASTM D5185m >40	<1	0	<1
Copper	ppm ASTM D5185m >330	<1	<1	1
Tin	ppm ASTM D5185m >15	<1	<1	<1
Vanadium	ppm ASTM D5185m	<1	<1	0
Cadmium	ppm ASTM D5185m	<1	0	<1

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<1	3	3
Barium	ppm ASTM D5185m 0	0	0	12
Molybdenum	ppm ASTM D5185m 60	54	59	58
Manganese	ppm ASTM D5185m 0	0	<1	<1
Magnesium	ppm ASTM D5185m 1010	880	961	910
Calcium	ppm ASTM D5185m 1070	1067	1038	1000
Phosphorus	ppm ASTM D5185m 1150	1031	1031	966
Zinc	ppm ASTM D5185m 1270	1160	1241	1170
Sulfur	ppm ASTM D5185m 2060	3330	3143	3100

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	3	2	3
Sodium	ppm ASTM D5185m	2	<1	0
Potassium	ppm ASTM D5185m >20	2	0	3

INFRA-RED

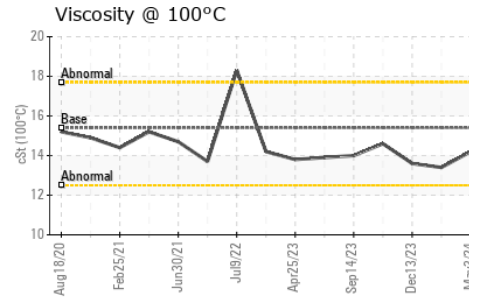
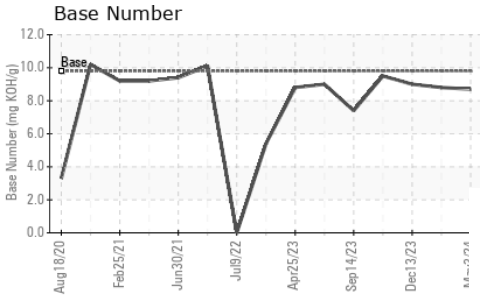
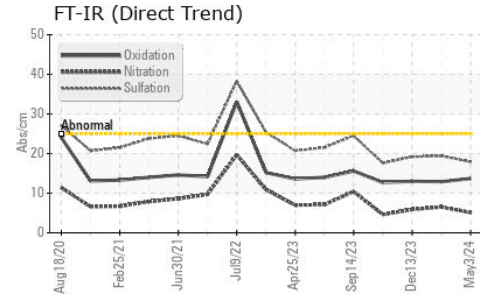
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >4	0.1	1.5	1.2
Nitration	Abs/cm *ASTM D7624 >20	5.1	6.5	5.9
Sulfation	Abs/.1mm *ASTM D7415 >30	17.9	19.4	19.2

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	13.7	12.9	13.0
Base Number (BN)	mg KOH/g ASTM D2896 9.8	8.7	8.8	9.0



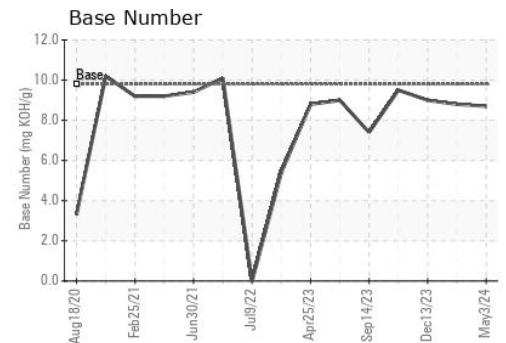
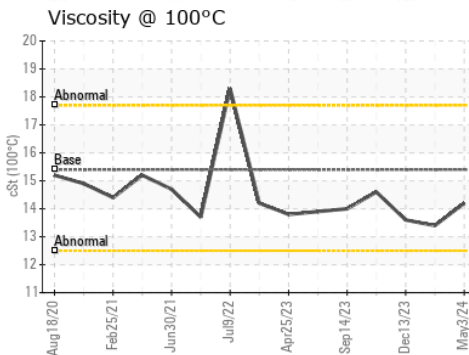
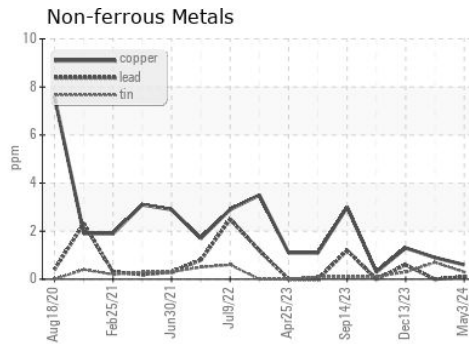
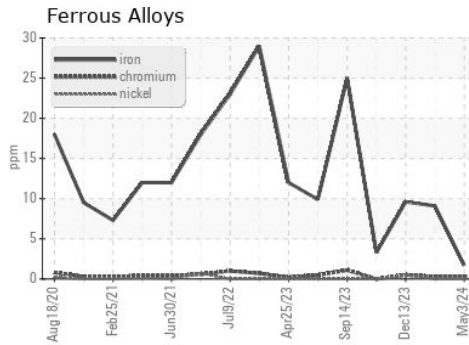
OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	14.2	13.4

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0091845
Lab Number : 06174876
Unique Number : 11020929
Test Package : FLEET

Received : 09 May 2024
Tested : 10 May 2024
Diagnosed : 10 May 2024 - Wes Davis

GFL Environmental - 654 - Richmond Hauling
 11800 Lewis Road
 Chester, VA
 US 23831

Contact: Jimmy Mayes
 jmayes@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)

T:
F: