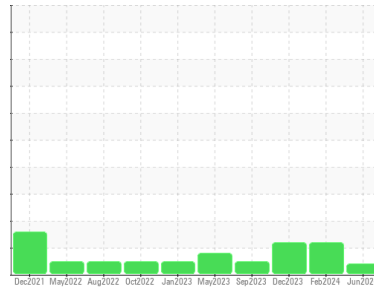




OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id
724010-515

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		GFL0100017	GFL0115447	GFL0100048
Sample Date	Client Info		10 Jun 2024	29 Feb 2024	04 Dec 2023
Machine Age	hrs	Client Info	37054	36945	36945
Oil Age	hrs	Client Info	500	36484	1
Oil Changed	Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status			ATTENTION	ABNORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
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 >100	28	▲ 137	▲ 118
Chromium	ppm	ASTM D5185m >20	<1	2	2
Nickel	ppm	ASTM D5185m >4	<1	2	1
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >20	2	5	3
Lead	ppm	ASTM D5185m >40	<1	0	0
Copper	ppm	ASTM D5185m >330	1	2	2
Tin	ppm	ASTM D5185m >15	<1	0	0
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	16	11	11
Barium	ppm	ASTM D5185m 0	0	0	3
Molybdenum	ppm	ASTM D5185m 60	68	70	71
Manganese	ppm	ASTM D5185m 0	<1	1	0
Magnesium	ppm	ASTM D5185m 1010	907	883	823
Calcium	ppm	ASTM D5185m 1070	1135	1151	1070
Phosphorus	ppm	ASTM D5185m 1150	1062	939	941
Zinc	ppm	ASTM D5185m 1270	1217	1122	1117
Sulfur	ppm	ASTM D5185m 2060	3520	2738	3027

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	6	6	6
Sodium	ppm	ASTM D5185m	12	2	0
Potassium	ppm	ASTM D5185m >20	2	0	2
Fuel	%	ASTM D3524 >2.0	<1.0	<1.0	0.2

INFRA-RED

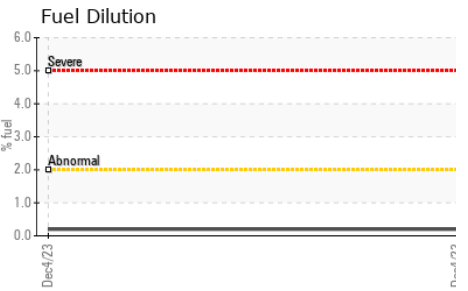
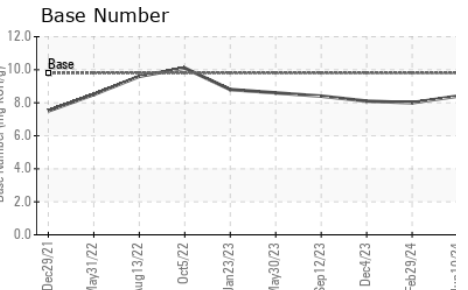
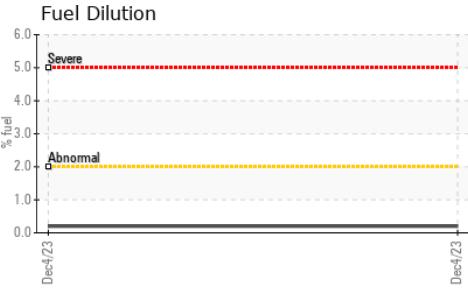
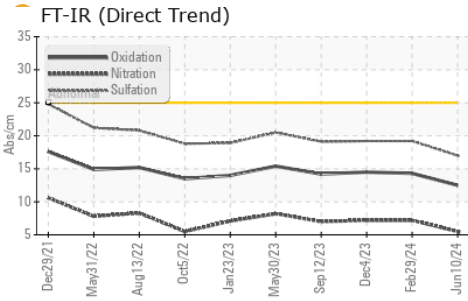
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.3	0.9	0.9
Nitration	Abs/cm	*ASTM D7624 >20	5.5	7.2	7.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	17.0	19.2	19.2

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	12.5	14.3	14.5
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	8.4	8.0	8.1



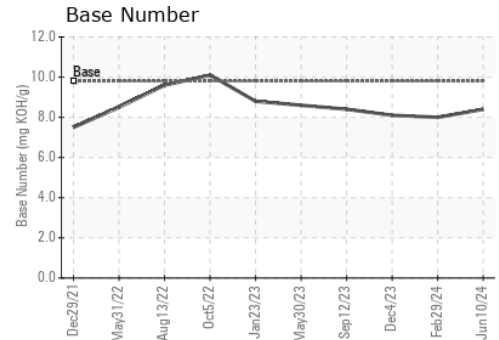
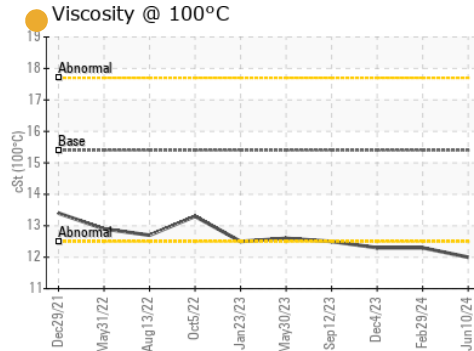
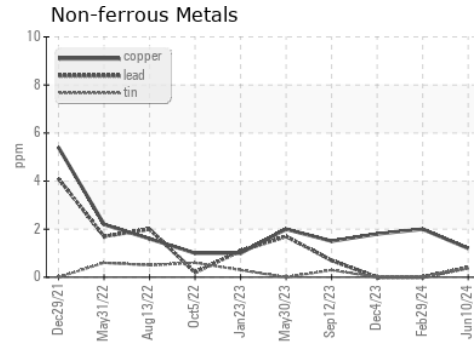
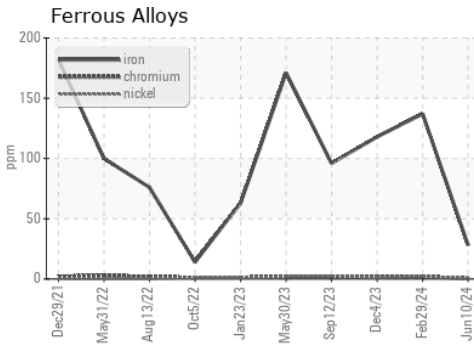
OIL ANALYSIS REPORT



VISUAL	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	● 12.0	● 12.3

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0100017
Lab Number : 06211334
Unique Number : 11084198
Test Package : FLEET (Additional Tests : FuelDilution)

GFL Environmental - 626 - Cadillac Hauling
 1501 Ron Wilson St
 Cadillac, MI
 US 49601
 Contact: GARY BREWER
 gbrewerjr@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)

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