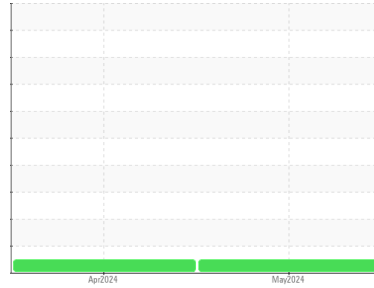




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area

[GfI0110922]

Machine Id

213014

Component

Diesel Engine

Fluid

AC DELCO 10W30 MOTOR OIL (--- GAL)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. 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		GFL0110922	GFL0110946	---
Sample Date	Client Info		28 May 2024	25 Apr 2024	---
Machine Age	hrs	Client Info	2368	2229	---
Oil Age	hrs	Client Info	1868	500	---
Oil Changed	Client Info		Changed	Changed	---
Sample Status			NORMAL	NORMAL	---

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	---
Water	WC Method	>0.2	NEG	NEG	---
Glycol	WC Method		NEG	NEG	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	19	10	---
Chromium	ppm	ASTM D5185m >20	<1	<1	---
Nickel	ppm	ASTM D5185m >4	<1	0	---
Titanium	ppm	ASTM D5185m	2	4	---
Silver	ppm	ASTM D5185m >3	0	0	---
Aluminum	ppm	ASTM D5185m >20	10	4	---
Lead	ppm	ASTM D5185m >40	<1	0	---
Copper	ppm	ASTM D5185m >330	1	<1	---
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	417	302	---
Barium	ppm	ASTM D5185m	<1	0	---
Molybdenum	ppm	ASTM D5185m	83	71	---
Manganese	ppm	ASTM D5185m	<1	<1	---
Magnesium	ppm	ASTM D5185m	436	493	---
Calcium	ppm	ASTM D5185m	1408	1448	---
Phosphorus	ppm	ASTM D5185m	1080	942	---
Zinc	ppm	ASTM D5185m	1200	1108	---
Sulfur	ppm	ASTM D5185m	3493	3700	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	10	5	---
Sodium	ppm	ASTM D5185m	1	1	---
Potassium	ppm	ASTM D5185m >20	9	5	---

INFRA-RED

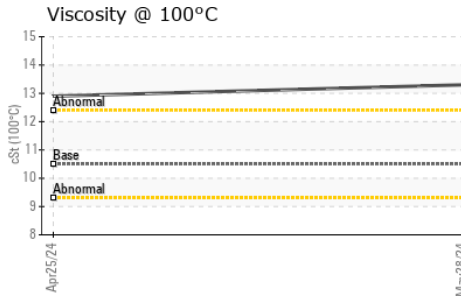
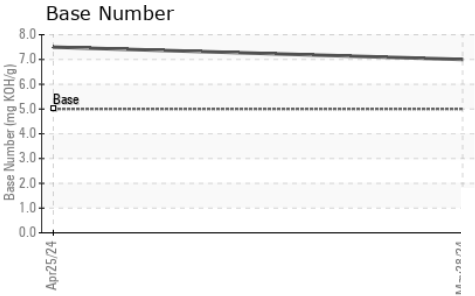
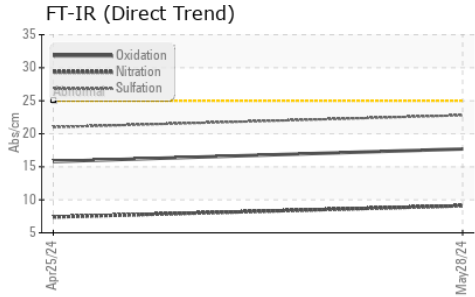
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.6	0.3	---
Nitration	Abs/cm	*ASTM D7624 >20	9.1	7.4	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	22.8	21.0	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	17.7	15.8	---
Base Number (BN)	mg KOH/g	ASTM D2896 5.0	7.0	7.5	---



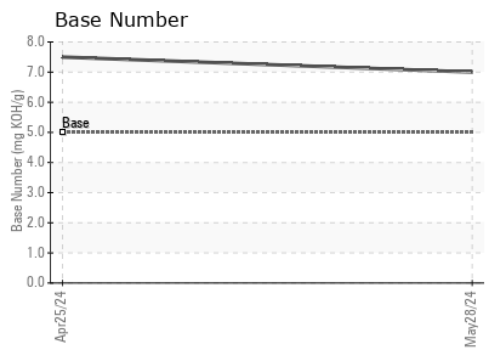
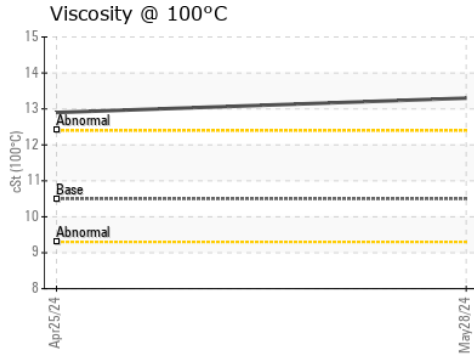
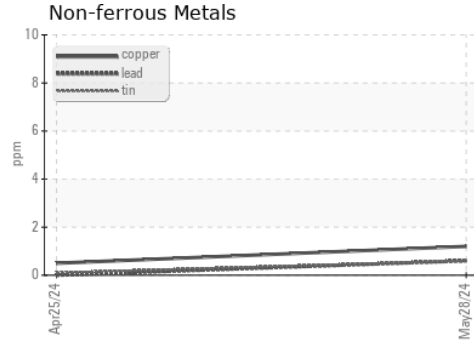
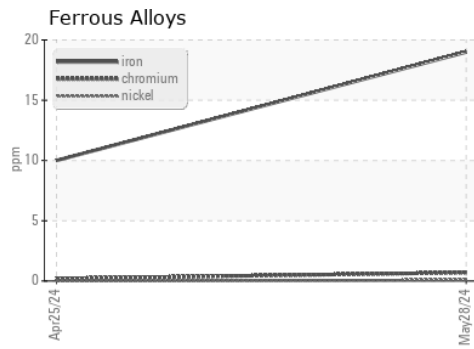
OIL ANALYSIS REPORT



PARAMETER	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	10.5	13.3	12.9

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0110922 **Received** : 31 May 2024
Lab Number : **06196314** **Tested** : 03 Jun 2024
Unique Number : 11058437 **Diagnosed** : 03 Jun 2024 - Don Baldrige
Test Package : FLEET

GFL Environmental - 629 - Northern A1
 3947 US 131 N
 Kalkaska, MI
 US 49646-8428
 Contact: MITCH HERSHBERGER

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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F: