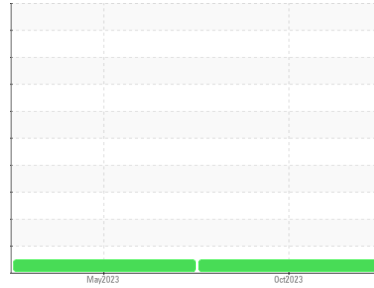




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
813023
 Component
Diesel Engine
 Fluid

DIESEL ENGINE OIL SAE 40 (24 QTS)

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		GFL0092708	GFL0072430	---
Sample Date	Client Info		30 Oct 2023	23 May 2023	---
Machine Age	hrs	Client Info	3398	0	---
Oil Age	hrs	Client Info	614	1350	---
Oil Changed	Client Info		Changed	Changed	---
Sample Status			NORMAL	NORMAL	---

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<1.0	<1.0	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >120	59	56	---
Chromium	ppm	ASTM D5185m >20	2	2	---
Nickel	ppm	ASTM D5185m >5	6	5	---
Titanium	ppm	ASTM D5185m >2	0	<1	---
Silver	ppm	ASTM D5185m >2	0	<1	---
Aluminum	ppm	ASTM D5185m >20	4	6	---
Lead	ppm	ASTM D5185m >40	<1	9	---
Copper	ppm	ASTM D5185m >330	50	109	---
Tin	ppm	ASTM D5185m >15	2	4	---
Vanadium	ppm	ASTM D5185m	0	<1	---
Cadmium	ppm	ASTM D5185m	<1	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 250	3	9	---
Barium	ppm	ASTM D5185m 10	0	0	---
Molybdenum	ppm	ASTM D5185m 100	68	65	---
Manganese	ppm	ASTM D5185m	2	3	---
Magnesium	ppm	ASTM D5185m 450	949	907	---
Calcium	ppm	ASTM D5185m 3000	1259	1191	---
Phosphorus	ppm	ASTM D5185m 1150	987	962	---
Zinc	ppm	ASTM D5185m 1350	1274	1232	---
Sulfur	ppm	ASTM D5185m 4250	2564	2630	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	9	16	---
Sodium	ppm	ASTM D5185m >216	0	8	---
Potassium	ppm	ASTM D5185m >20	19	8	---
Glycol	%	*ASTM D2982	NEG	NEG	---

INFRA-RED

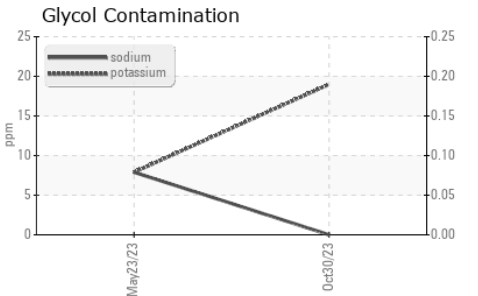
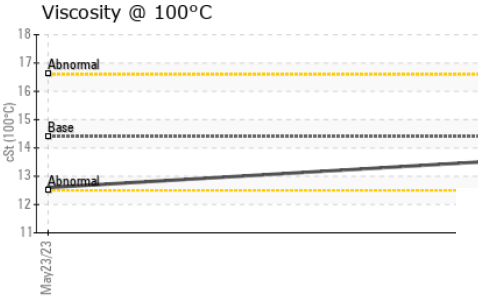
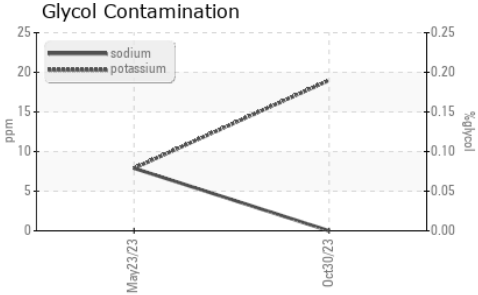
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	1.3	1.3	---
Nitration	Abs/cm	*ASTM D7624 >20	12.6	12.1	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	24.7	23.8	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	23.2	22.2	---
Base Number (BN)	mg KOH/g	ASTM D2896 8.5	5.1	6.2	---



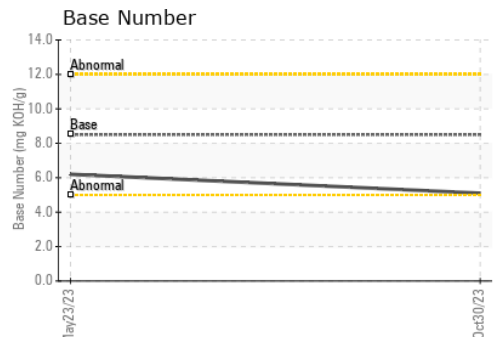
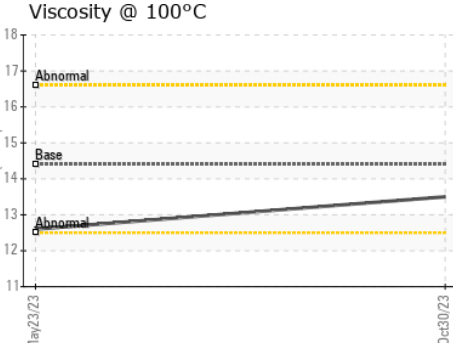
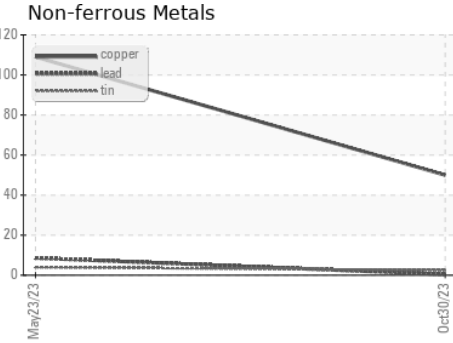
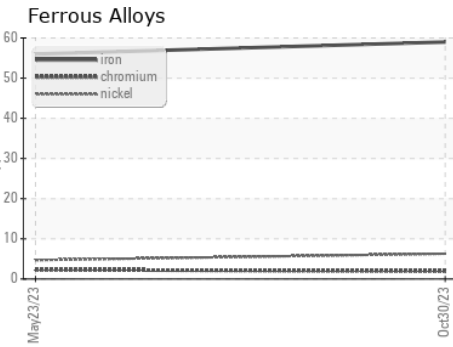
OIL ANALYSIS REPORT



VISUAL	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	14.4	13.5	12.6	---

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0092708 **Received** : 02 Nov 2023
Lab Number : **05996512** **Diagnosed** : 04 Nov 2023
Unique Number : 10724872 **Diagnostician** : Don Baldrige
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 005 - Wilson/Tri-East(CNG)
 2810 Contentnea Road S
 Wilson, NC
 US 27893-8501
 Contact: SPENCER LIGGON
 spencer.liggon@gflenv.com
 T: (800)207-6618
 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)