



OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id
414087
 Component
1 Diesel Engine
 Fluid
{not provided} (10 GAL)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

Metal levels are typical for a new component breaking in.

Contamination

Fuel content negligible. Elemental level of silicon (Si) above normal indicating ingress of seal material.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0109175	---	---
Sample Date	Client Info	05 Mar 2024	---	---
Machine Age	hrs Client Info	579	---	---
Oil Age	hrs Client Info	579	---	---
Oil Changed	Client Info	Changed	---	---
Sample Status		ABNORMAL	---	---

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.2	NEG	---	---
Glycol	WC Method	NEG	---	---

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >120	34	---	---
Chromium	ppm ASTM D5185m >20	<1	---	---
Nickel	ppm ASTM D5185m >5	5	---	---
Titanium	ppm ASTM D5185m >2	0	---	---
Silver	ppm ASTM D5185m >2	<1	---	---
Aluminum	ppm ASTM D5185m >20	10	---	---
Lead	ppm ASTM D5185m >40	0	---	---
Copper	ppm ASTM D5185m >330	170	---	---
Tin	ppm ASTM D5185m >15	3	---	---
Vanadium	ppm ASTM D5185m	0	---	---
Cadmium	ppm ASTM D5185m	0	---	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	239	---	---
Barium	ppm ASTM D5185m	0	---	---
Molybdenum	ppm ASTM D5185m	114	---	---
Manganese	ppm ASTM D5185m	4	---	---
Magnesium	ppm ASTM D5185m	701	---	---
Calcium	ppm ASTM D5185m	1372	---	---
Phosphorus	ppm ASTM D5185m	690	---	---
Zinc	ppm ASTM D5185m	810	---	---
Sulfur	ppm ASTM D5185m	2298	---	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	▲ 57	---	---
Sodium	ppm ASTM D5185m	4	---	---
Potassium	ppm ASTM D5185m >20	23	---	---
Fuel	% ASTM D3524 >3.0	0.6	---	---

INFRA-RED

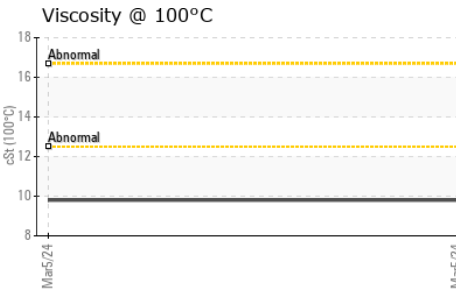
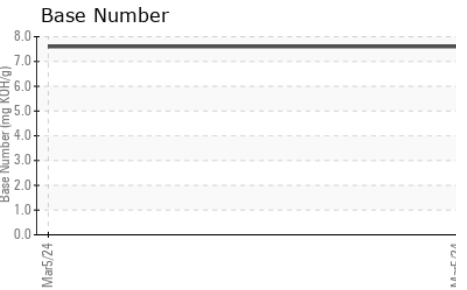
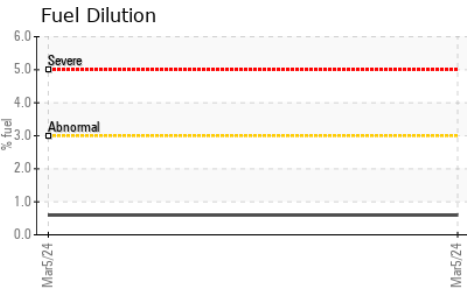
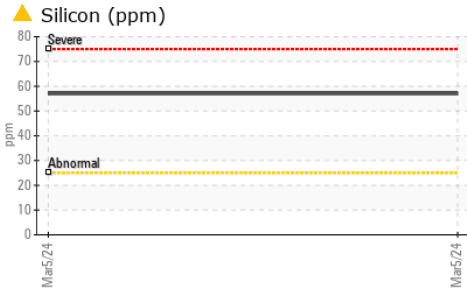
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >4	0.3	---	---
Nitration	Abs/cm *ASTM D7624 >20	9.6	---	---
Sulfation	Abs/.1mm *ASTM D7415 >30	24.3	---	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	22.7	---	---
Base Number (BN)	mg KOH/g ASTM D2896	7.6	---	---



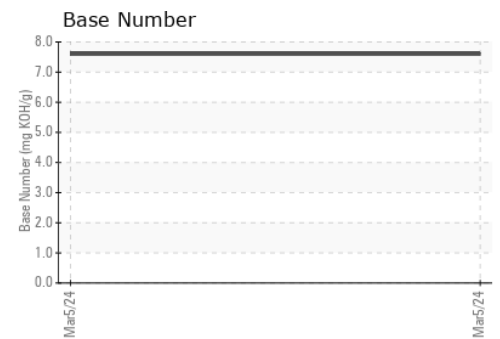
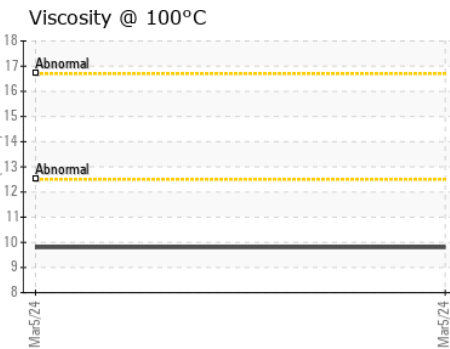
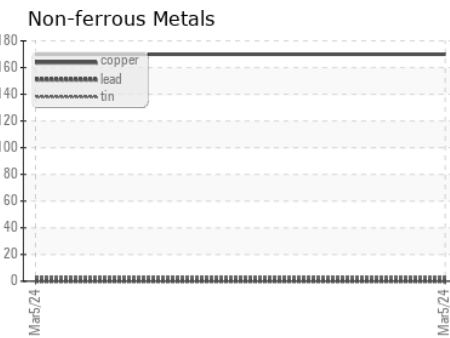
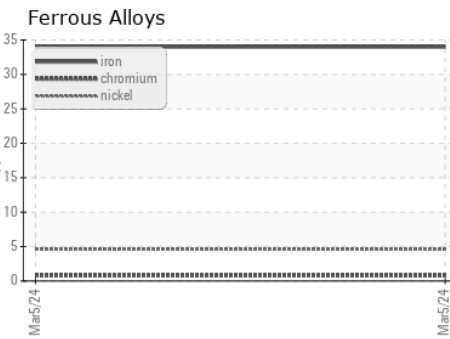
OIL ANALYSIS REPORT



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	9.8	---	---

GRAPHS



Certificate L2367

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

Sample No. : GFL0109175

Lab Number : 06116916

Unique Number : 10925749

Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

Received : 13 Mar 2024

Tested : 15 Mar 2024

Diagnosed : 15 Mar 2024 - Don Baldrige

GFL Environmental - 822 - Springfield Hauling

2120 West Bennett Street

Springfield, MO

US 65807

Contact: Dennis Moore

dennis.moore@gflenv.com

T: (417)403-3641

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)