



Machine Id
1409
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION

We advise that you check the fuel injection system. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0118006	WCMF904302	---
Sample Date		Client Info		30 May 2024	24 Mar 2011	---
Machine Age	mls	Client Info		0	363413	---
Oil Age	mls	Client Info		0	363413	---
Filter Age	mls	Client Info		0	300	---
Oil Changed		Client Info		N/A	Not Changd	---
Filter Changed		Client Info		N/A	Not Changd	---
Sample Status				SEVERE	ABNORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	64	112	---
Chromium	ppm	ASTM D5185m	>20	2	4	---
Nickel	ppm	ASTM D5185m	>4	0	1	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>20	8	2	---
Lead	ppm	ASTM D5185m	>40	10	12	---
Copper	ppm	ASTM D5185m	>330	3	28	---
Tin	ppm	ASTM D5185m	>15	<1	5	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

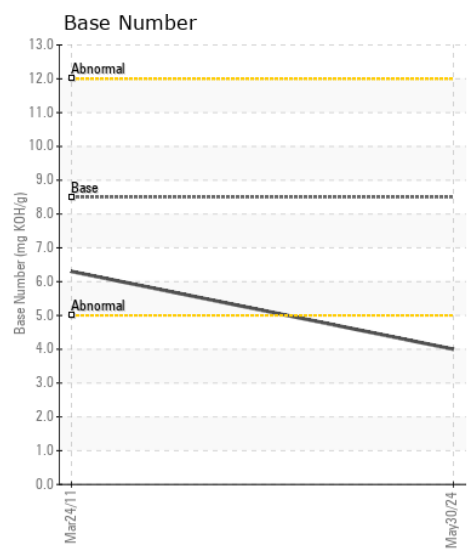
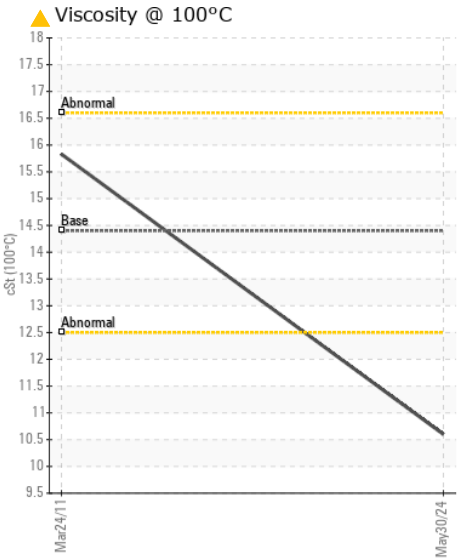
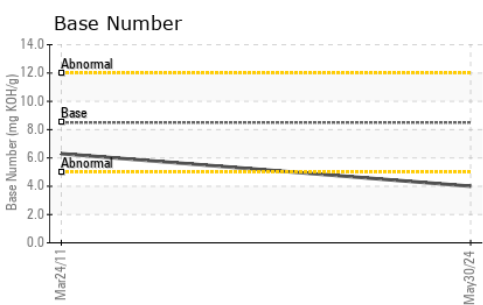
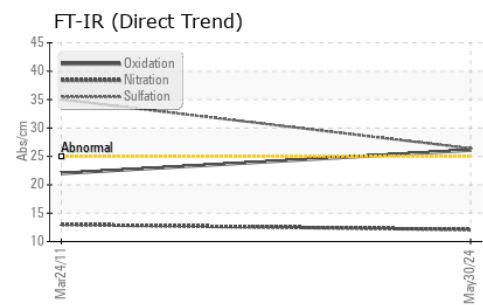
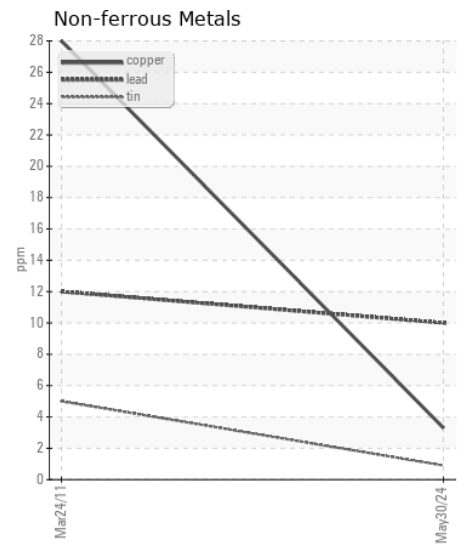
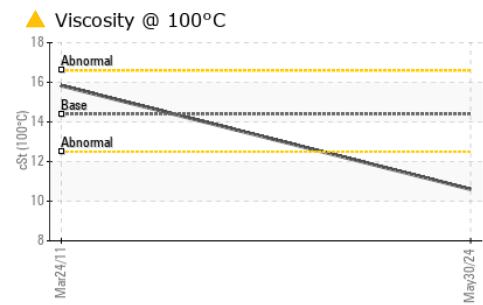
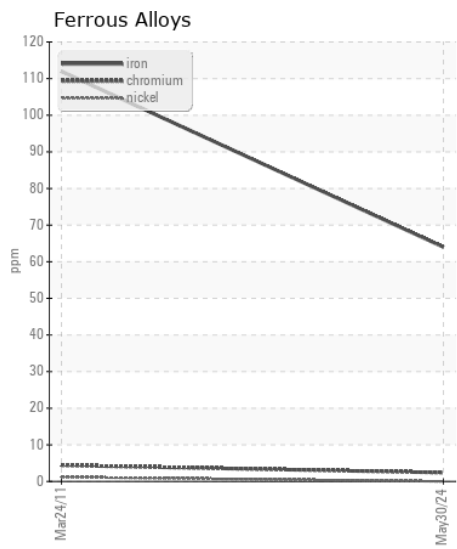
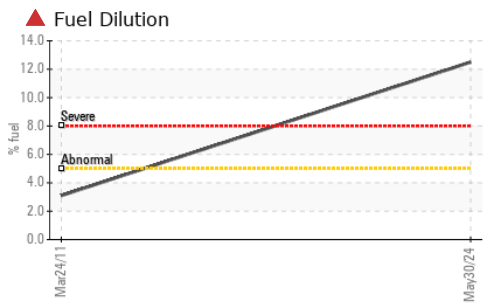
There is a high amount of fuel present in the oil.

Silicon	ppm	ASTM D5185m	>25	12	8	---
Potassium	ppm	ASTM D5185m	>20	5	4	---
Fuel	%	ASTM D3524	>5	▲ 12.5	▲ 3.1	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.4	▲ 5.8	---
Nitration	Abs/cm	*ASTM D7624	>20	12.1	13.	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	26.4	35.	---
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	---

FLUID CONDITION

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m	>158	18	5	---
Boron	ppm	ASTM D5185m	250	53	8	---
Barium	ppm	ASTM D5185m	10	0	<1	---
Molybdenum	ppm	ASTM D5185m	100	7	66	---
Manganese	ppm	ASTM D5185m		1	2	---
Magnesium	ppm	ASTM D5185m	450	101	691	---
Calcium	ppm	ASTM D5185m	3000	1810	1201	---
Phosphorus	ppm	ASTM D5185m	1150	834	904	---
Zinc	ppm	ASTM D5185m	1350	986	1029	---
Sulfur	ppm	ASTM D5185m	4250	3261	2218	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	26.1	22.	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	4.0	6.3	---
Visc @ 100°C	cSt	ASTM D445	14.4	▲ 10.6	15.83	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0118006 **Received** : 31 May 2024
Lab Number : 06196466 **Tested** : 05 Jun 2024
Unique Number : 11058589 **Diagnosed** : 05 Jun 2024 - Don Baldrige
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 112 - New Bern
 705 Airport Road
 New Bern, NC
 US 28560
 Contact: Marquis Williams
 marquis.williams@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)