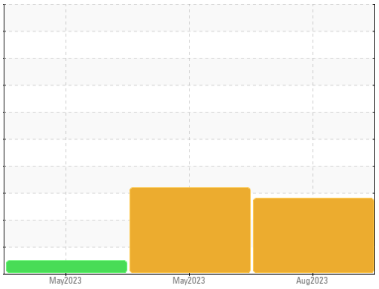
PROBLEM SUMMARY

Sample Rating Trend

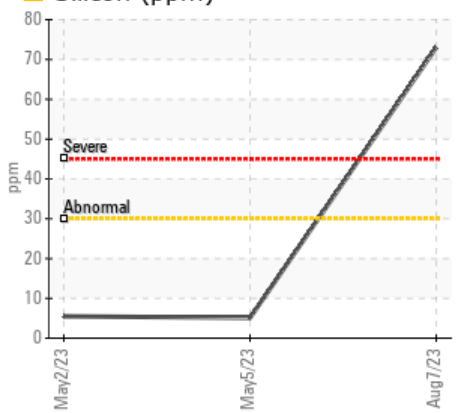


DIRT

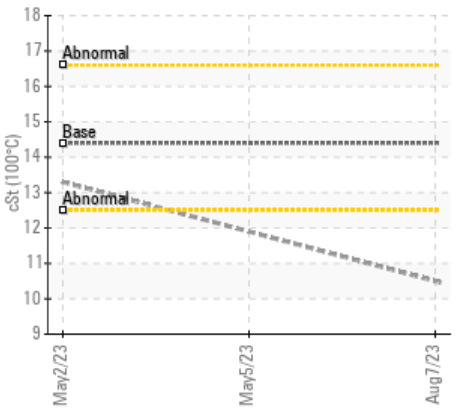
Machine Id
2567
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

COMPONENT CONDITION SUMMARY

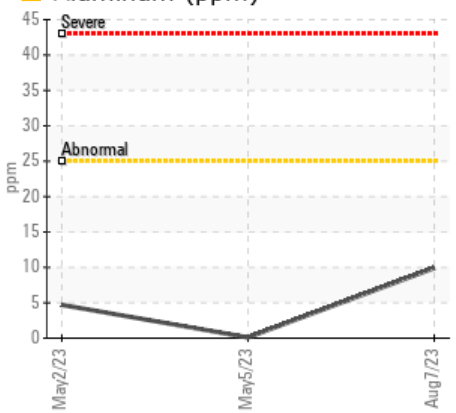
▲ Silicon (ppm)



▲ Viscosity @ 100°C



▲ Aluminum (ppm)



RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	SEVERE	NORMAL
Aluminum	ppm	ASTM D5185m	>25	▲ **10**	<1	5
Silicon	ppm	ASTM D5185m	>30	▲ **73**	5	6
Visc @ 100°C	cSt	ASTM D445	14.4	▲ **10.5**	---	13.3

Customer Id: GFL732
Sample No.: GFL0046603
Lab Number: 05919674
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Dirt Access	---	---	?	We advise that you check the air filter, air induction system, and any areas where dirt may enter the component.

HISTORICAL DIAGNOSIS

05 May 2023 Diag: Jonathan Hester

WATER

We advise that you check for the source of water entry. 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.All component wear rates are normal. There is a high concentration of water present in the oil. The oil is no longer serviceable due to the presence of contaminants.

view report

02 May 2023 Diag: Wes Davis

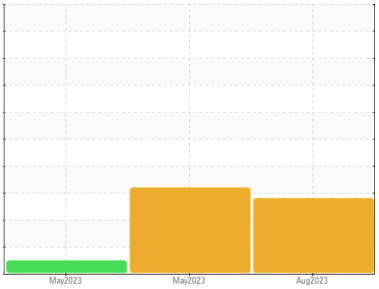
NORMAL

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 40. Please confirm.
All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



DIRT

Machine Id
2567
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

DIAGNOSIS

Recommendation
We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend an early resample to monitor this condition.

Wear
All component wear rates are normal.

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

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		**GFL0046603**	GFL0077896	GFL0046591
Sample Date		Client Info		**07 Aug 2023**	05 May 2023	02 May 2023
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Not Changd**	Not Changd	Not Changd
Sample Status				**ABNORMAL**	SEVERE	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>110	**39**	9	15
Chromium	ppm	ASTM D5185m	>4	**1**	<1	0
Nickel	ppm	ASTM D5185m	>2	**6**	<1	0
Titanium	ppm	ASTM D5185m		**<1**	<1	0
Silver	ppm	ASTM D5185m	>2	**1**	0	0
Aluminum	ppm	ASTM D5185m	>25	▲ **10**	<1	5
Lead	ppm	ASTM D5185m	>45	**0**	<1	0
Copper	ppm	ASTM D5185m	>85	**20**	<1	0
Tin	ppm	ASTM D5185m	>4	**3**	2	0
Vanadium	ppm	ASTM D5185m		**0**	<1	0
Cadmium	ppm	ASTM D5185m		**0**	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	**76**	21	4
Barium	ppm	ASTM D5185m	10	**<1**	0	0
Molybdenum	ppm	ASTM D5185m	100	**109**	60	58
Manganese	ppm	ASTM D5185m		**5**	<1	0
Magnesium	ppm	ASTM D5185m	450	**740**	976	934
Calcium	ppm	ASTM D5185m	3000	**1410**	1080	1047
Phosphorus	ppm	ASTM D5185m	1150	**726**	1062	997
Zinc	ppm	ASTM D5185m	1350	**927**	1321	1228
Sulfur	ppm	ASTM D5185m	4250	**2762**	3655	3353

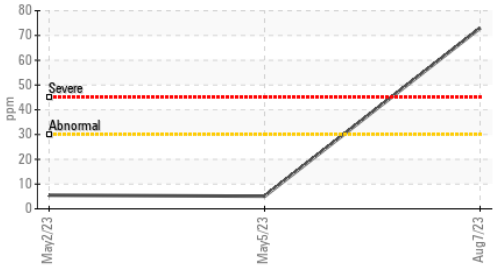
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>30	▲ **73**	5	6
Sodium	ppm	ASTM D5185m	>216	**4**	3	2
Potassium	ppm	ASTM D5185m	>20	**34**	3	3
Fuel	%	ASTM D3524	>5	**0.4**	<1.0	<1.0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	**0.4**	0.3	0.4
Nitration	Abs/cm	*ASTM D7624	>20	**10.4**	16.6	8.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	**23.3**	7.9	19.4

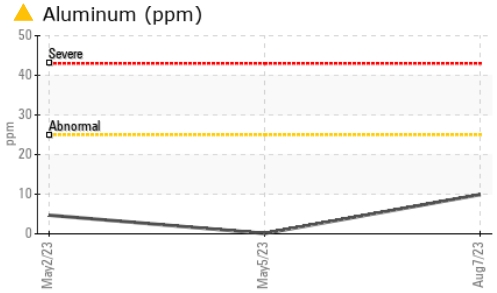
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**22.7**	19.9	15.1
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	**6.1**	24.8	8.2

OIL ANALYSIS REPORT

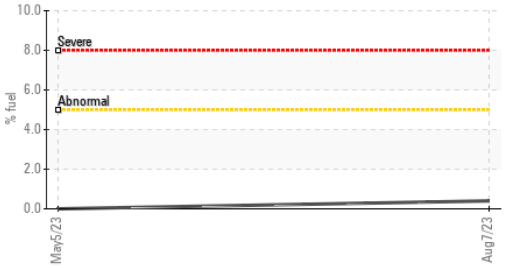
Silicon (ppm)



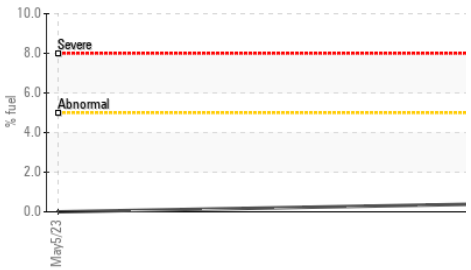
Aluminum (ppm)



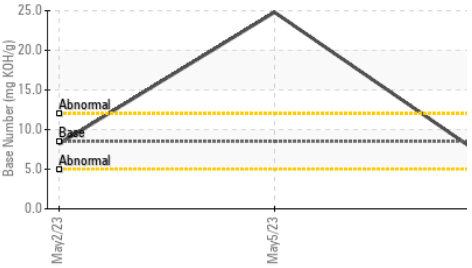
Fuel Dilution



Fuel Dilution



Base Number

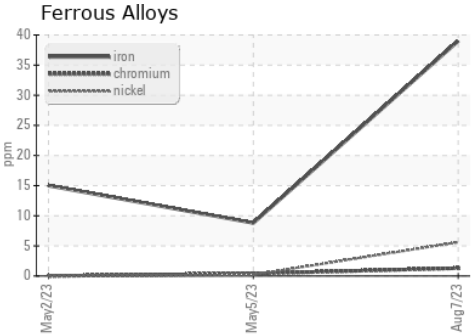


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	LIGHT	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	**NEG**	0.2%	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

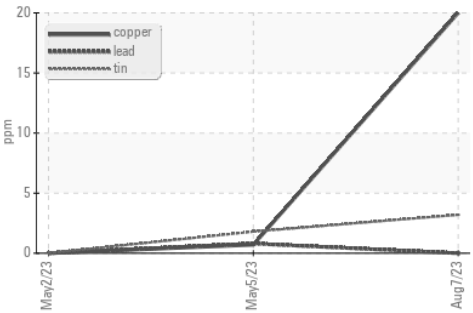
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	**10.5**	---	13.3

GRAPHS

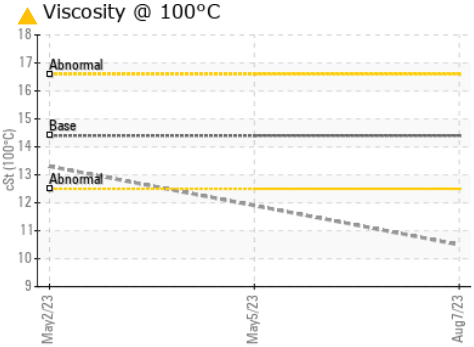
Ferrous Alloys



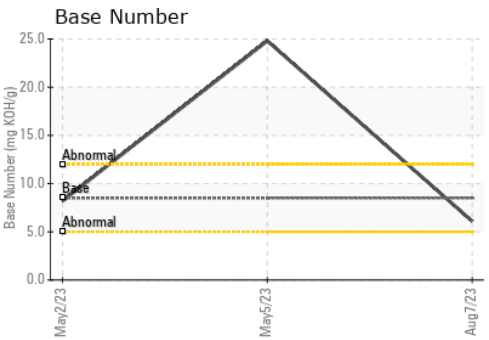
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0046603
Lab Number : 05919674
Unique Number : 10591588
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

Received : 09 Aug 2023
Diagnosed : 10 Aug 2023
Diagnostician : Don Baldridge

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)

GFL Environmental - 732 - Thomaston Hauling
2616 Waynmansville Road
Thomaston, GA
US 30286
Contact: WILLIAM BROWN
william.brown@gflenv.com
T: (706)936-4065
F: