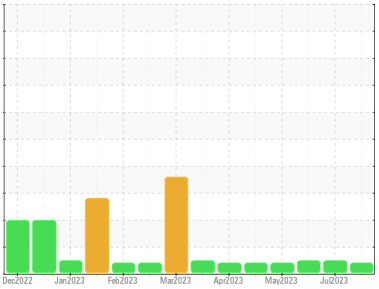
PROBLEM SUMMARY

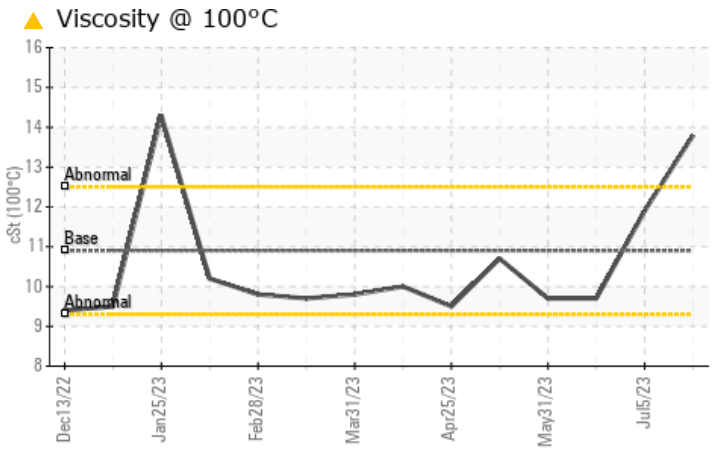
Sample Rating Trend



VISCOSITY

Machine Id
413108
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 5W30 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				**ATTENTION**	NORMAL	NORMAL
Visc @ 100°C	cSt	ASTM D445	10.9	▲ **13.8**	11.9	9.7

Customer Id: GFL836
Sample No.: GFL0087213
Lab Number: 05894833
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

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

05 Jul 2023 Diag: Jonathan Hester

NORMAL

Resample at the next service interval to monitor.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

12 Jun 2023 Diag: Wes Davis

NORMAL

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.All component wear rates are normal. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. 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

31 May 2023 Diag: Jonathan Hester

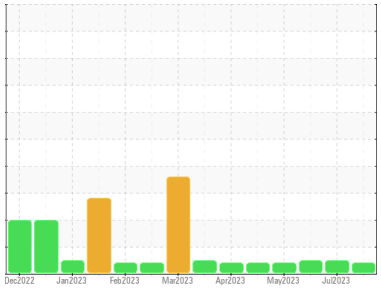
VISCOSITY

No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY

Machine Id
413108
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 5W30 (--- GAL)

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 oil viscosity is higher than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

SAMPLE INFORMATION		method	limit/base	current	history 1	history 2
Sample Number		Client Info		**GFL0087213**	GFL0083764	GFL0083743
Sample Date		Client Info		**07 Jul 2023**	05 Jul 2023	12 Jun 2023
Machine Age	hrs	Client Info		**2024**	1998	1806
Oil Age	hrs	Client Info		**0**	0	600
Oil Changed		Client Info		**Not Changd**	Not Changd	Changed
Sample Status				**ATTENTION**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history 1	history 2
Fuel		WC Method	>5	**<1.0**	<1.0	<1.0
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m	>80	**21**	5	17
Chromium	ppm	ASTM D5185m	>5	**<1**	0	<1
Nickel	ppm	ASTM D5185m	>2	**<1**	0	<1
Titanium	ppm	ASTM D5185m		**<1**	0	<1
Silver	ppm	ASTM D5185m	>3	**0**	<1	0
Aluminum	ppm	ASTM D5185m	>30	**4**	4	8
Lead	ppm	ASTM D5185m	>30	**<1**	0	1
Copper	ppm	ASTM D5185m	>150	**1**	36	132
Tin	ppm	ASTM D5185m	>5	**0**	0	2
Vanadium	ppm	ASTM D5185m		**<1**	0	<1
Cadmium	ppm	ASTM D5185m		**<1**	0	<1

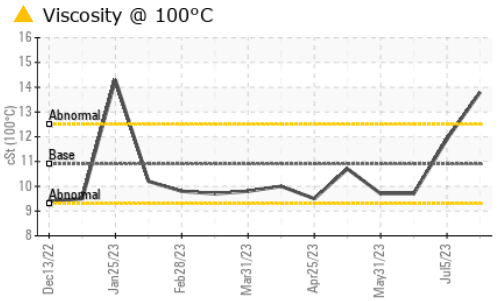
ADDITIVES		method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m	250	**0**	67	183
Barium	ppm	ASTM D5185m	10	**0**	0	0
Molybdenum	ppm	ASTM D5185m	100	**58**	14	125
Manganese	ppm	ASTM D5185m		**<1**	<1	1
Magnesium	ppm	ASTM D5185m	450	**943**	803	747
Calcium	ppm	ASTM D5185m	3000	**1089**	1197	1537
Phosphorus	ppm	ASTM D5185m	1150	**940**	683	700
Zinc	ppm	ASTM D5185m	1350	**1240**	795	868
Sulfur	ppm	ASTM D5185m	4250	**3361**	2494	2680

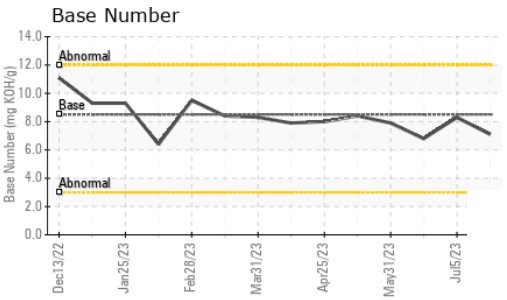
CONTAMINANTS		method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m	>20	**8**	5	9
Sodium	ppm	ASTM D5185m		**25**	1	2
Potassium	ppm	ASTM D5185m	>20	**4**	4	13

INFRA-RED		method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844	>3	**0.7**	0.2	0.3
Nitration	Abs/cm	*ASTM D7624	>20	**11.3**	7.5	10.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	**23.4**	22.8	24.7

FLUID DEGRADATION		method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**21.1**	19.0	24.2
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	**7.1**	8.3	6.8

OIL ANALYSIS REPORT

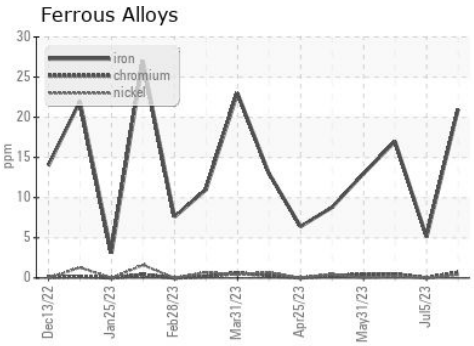


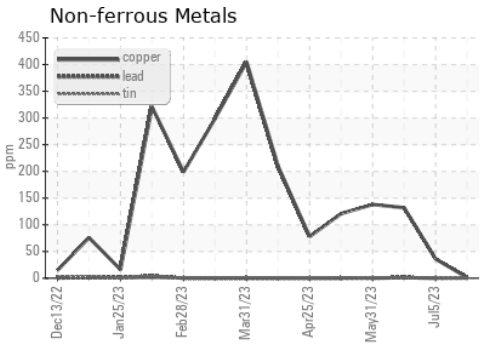


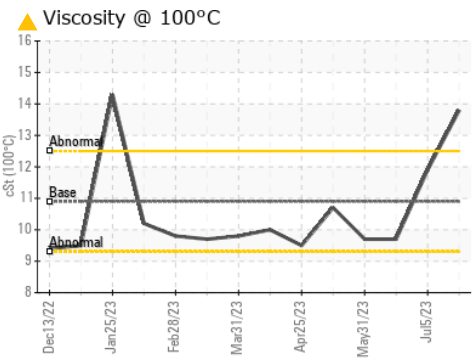
VISUAL		method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

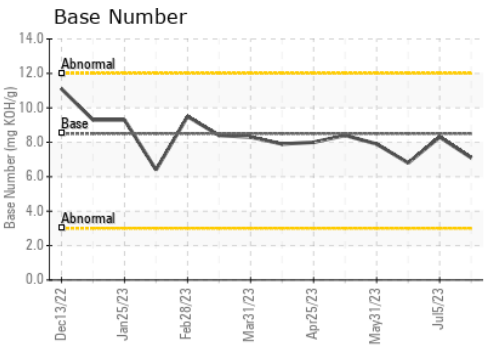
FLUID PROPERTIES		method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D445	10.9	▲ **13.8**	11.9	9.7

GRAPHS









Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0087213
Lab Number : 05894833
Unique Number : 10550643
Test Package : FLEET

Received : 11 Jul 2023
Diagnosed : 12 Jul 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 - 836 - Kansas City Hauling
7801 East Truman Road
Kansas City, MO
US 64126
Contact: Robert Hart
rhart@gflenv.com
T: (580)461-1509
F:

Report Id: GFL836 [WUSCAR] 05894833 (Generated: 07/12/2023 13:45:42) Rev: 1

Contact/Location: See also GFL823, 834, 837, 840 - Robert Hart - GFL836