



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
MACK 429034-402129
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. 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.
NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0046853	GFL0037259	GFLI-M59961
Sample Date		Client Info		08 Dec 2022	01 Dec 2021	02 Oct 2019
Machine Age	hrs	Client Info		3627	3025	40493
Oil Age	hrs	Client Info		3627	0	473
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Not Chngd	Changed	Changed
Filter Changed		Client Info		Not Chngd	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a components first oil change.

Iron	ppm	ASTM D5185m	>100	15	58	50
Chromium	ppm	ASTM D5185m	>20	<1	1	1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	2	8	8
Lead	ppm	ASTM D5185m	>40	<1	6	19
Copper	ppm	ASTM D5185m	>330	<1	3	47
Tin	ppm	ASTM D5185m	>15	<1	<1	1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

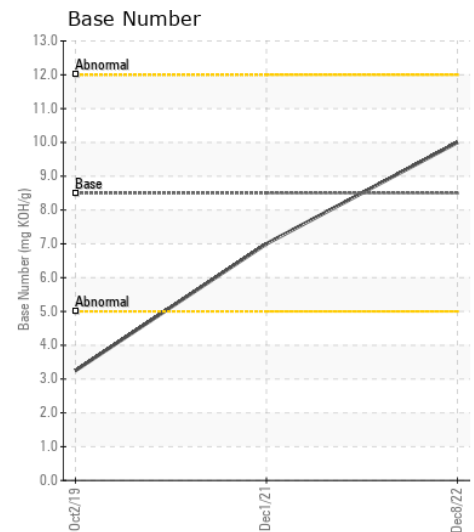
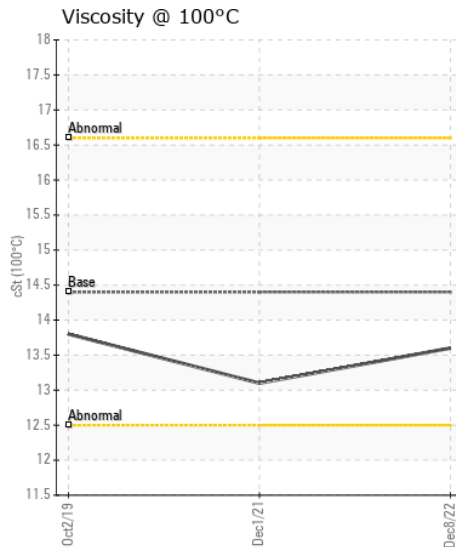
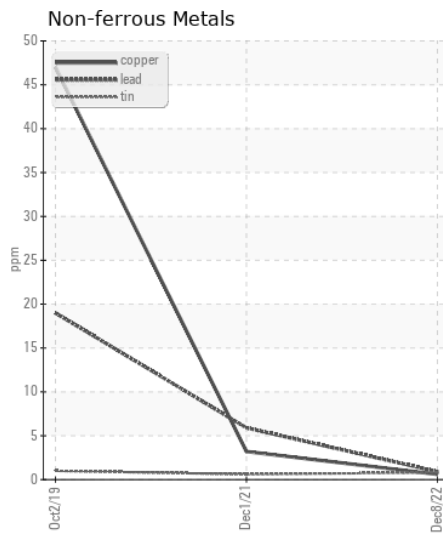
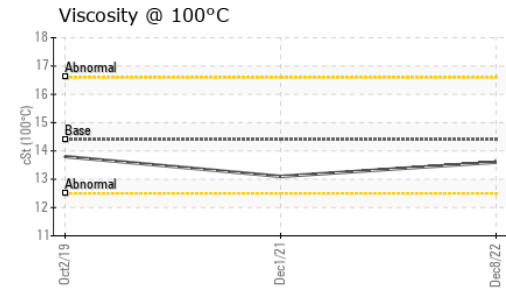
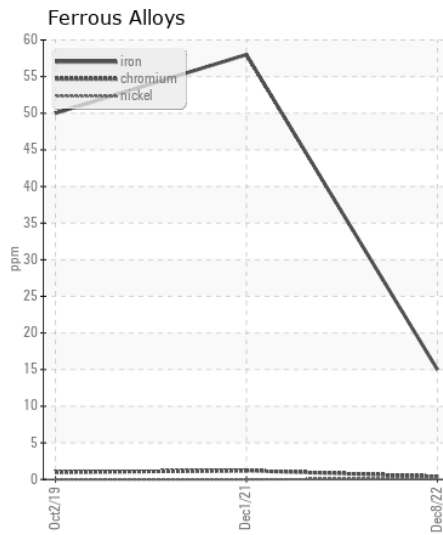
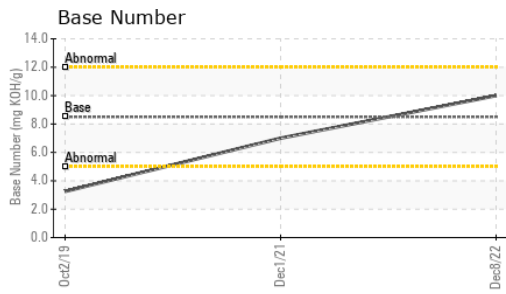
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	7	8	6
Potassium	ppm	ASTM D5185m	>20	1	<1	3
Fuel		WC Method	>5	<1.0	<1.0	0.5
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	2.9	2.1
Nitration	Abs/cm	*ASTM D7624	>20	5.5	10.1	13
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.7	27.3	---
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

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

Sodium	ppm	ASTM D5185m	>216	2	2	5
Boron	ppm	ASTM D5185m	250	20	13	153
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	63	61	122
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m	450	965	890	720
Calcium	ppm	ASTM D5185m	3000	1132	1117	1625
Phosphorus	ppm	ASTM D5185m	1150	1067	1031	713
Zinc	ppm	ASTM D5185m	1350	1283	1141	877
Sulfur	ppm	ASTM D5185m	4250	3623	2382	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.8	23	21
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	10.0	7	3.25
Visc @ 100°C	cSt	ASTM D445	14.4	13.6	13.1	13.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0046853
Lab Number : 05722371
Unique Number : 10266952
Test Package : FLEET

Received : 20 Dec 2022
Diagnosed : 21 Dec 2022
Diagnostician : Wes Davis

GFL Environmental - 9999 - Moved No Longer Used Units

US
 Contact:

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)

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