



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
(YA156376) GFL035

Machine Id
810017

Component
Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 15W40 (38 QTS)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0085174	GFL0071629	GFL0071564
Sample Date		Client Info		11 Jan 2024	10 Oct 2023	18 Jul 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		600	600	600
Filter Age	hrs	Client Info		600	600	600
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	20	16	16
Chromium	ppm	ASTM D5185m	>5	<1	<1	1
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>15	9	1	7
Lead	ppm	ASTM D5185m	>25	<1	<1	0
Copper	ppm	ASTM D5185m	>100	2	3	2
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

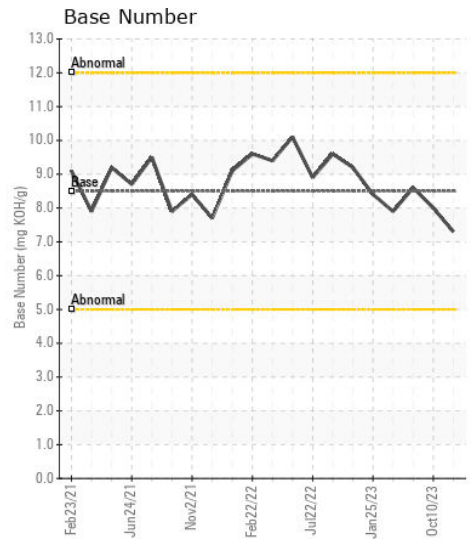
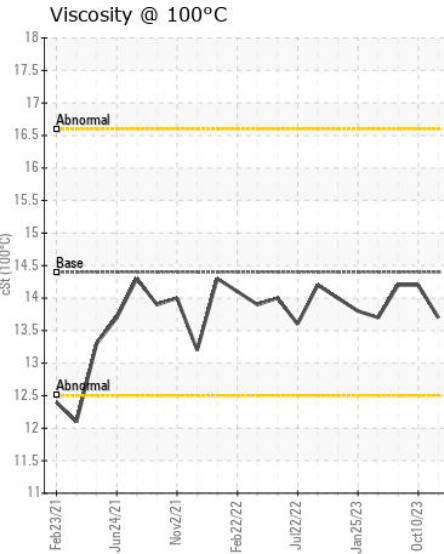
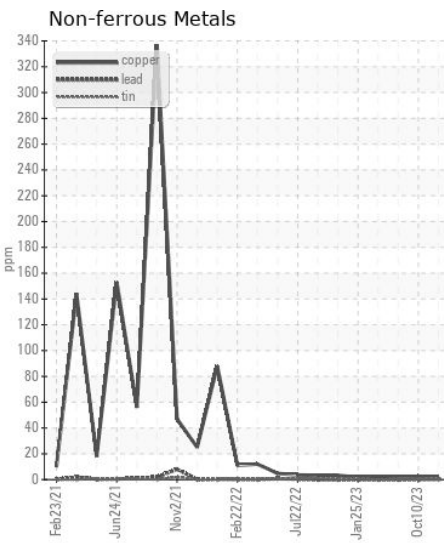
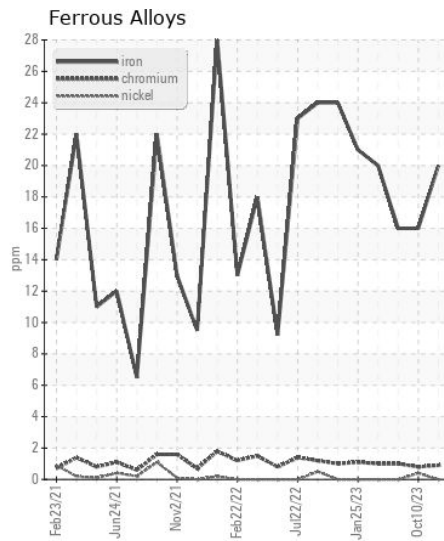
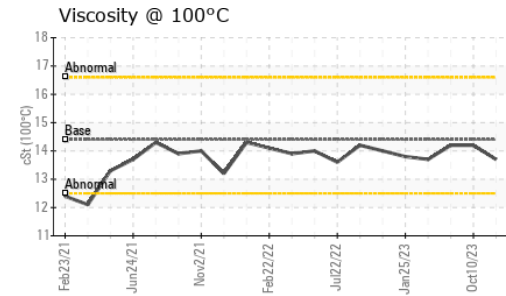
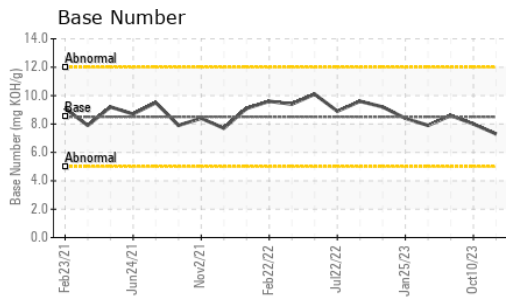
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	8	8	7
Potassium	ppm	ASTM D5185m	>20	6	6	4
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.6	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	9.2	8.3	8.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.4	19.8	19.5
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

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	>158	4	3	4
Boron	ppm	ASTM D5185m	250	9	3	4
Barium	ppm	ASTM D5185m	10	0	2	<1
Molybdenum	ppm	ASTM D5185m	100	65	64	68
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	905	894	1058
Calcium	ppm	ASTM D5185m	3000	1140	1102	1230
Phosphorus	ppm	ASTM D5185m	1150	1067	1009	1149
Zinc	ppm	ASTM D5185m	1350	1300	1250	1428
Sulfur	ppm	ASTM D5185m	4250	2914	3081	3945
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.5	16.1	15.9
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.3	8.0	8.6
Visc @ 100°C	cSt	ASTM D445	14.4	13.7	14.2	14.2



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0085174 **Received** : 16 Jan 2024
Lab Number : 06060836 **Diagnosed** : 17 Jan 2024
Unique Number : 10832218 **Diagnostician** : Wes Davis
Test Package : FLEET

GFL Environmental - 035 - Greensboro
 1236 Elon Place
 High Point, NC
 US 27263
 Contact: JORGE COSTA
 jorge.costa@gflenv.com
 T: (336)668-3712
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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)