



WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ATTENTION



Area
(34744UA)
Machine Id
813000
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. We recommend that you drain the oil from the component if this has not already been done. We advise that you flush the component thoroughly before re-filling with oil. We recommend an early resample to monitor this condition. 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		GFL0116573	GFL0111818	GFL0111898
Sample Date		Client Info		16 Apr 2024	21 Mar 2024	18 Mar 2024
Machine Age	hrs	Client Info		4036	3922	3890
Oil Age	hrs	Client Info		3863	3781	141
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				SEVERE	SEVERE	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	16	6	8
Chromium	ppm	ASTM D5185m	>20	1	0	<1
Nickel	ppm	ASTM D5185m	>5	1	<1	<1
Titanium	ppm	ASTM D5185m	>2	<1	0	<1
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	2	2	2
Lead	ppm	ASTM D5185m	>40	1	0	0
Copper	ppm	ASTM D5185m	>330	11	1	1
Tin	ppm	ASTM D5185m	>15	1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

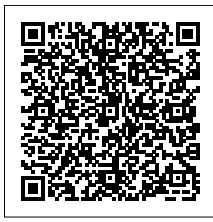
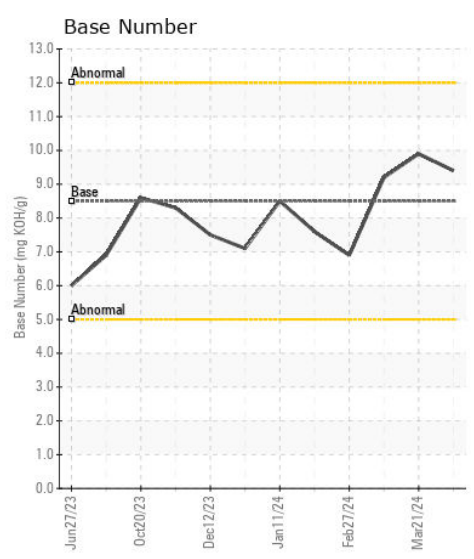
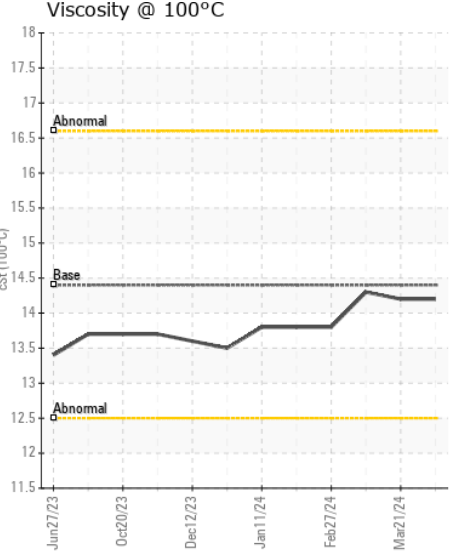
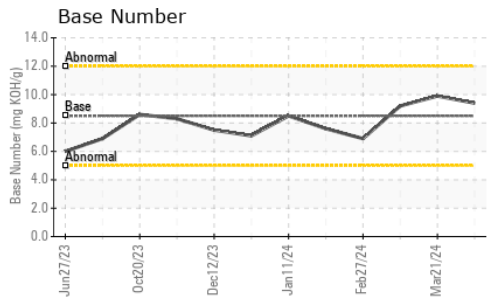
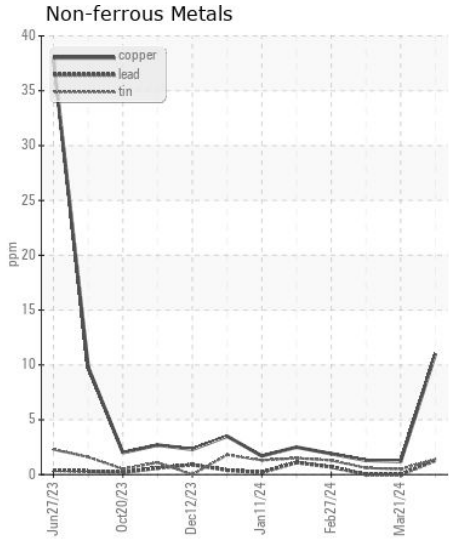
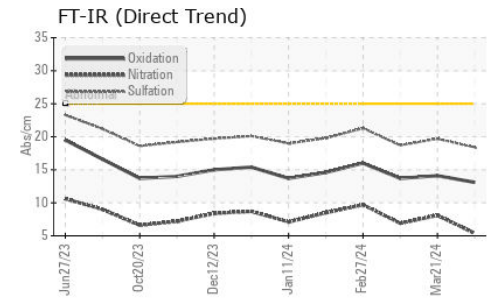
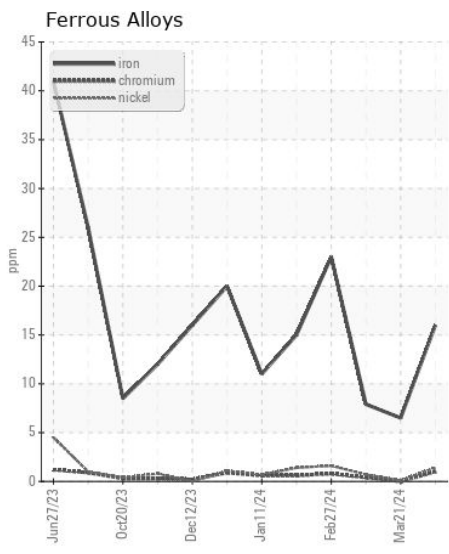
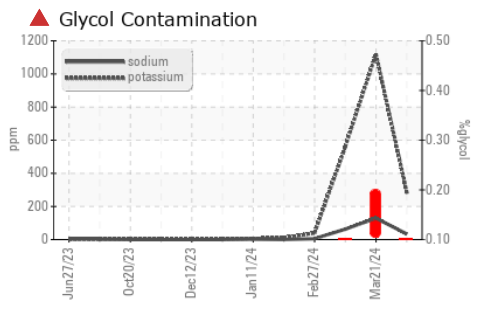
Test for glycol is positive. There is a high concentration of glycol present in the oil.

Silicon	ppm	ASTM D5185m	>25	5	6	6
Potassium	ppm	ASTM D5185m	>20	▲ 290	▲ 1120	▲ 560
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		▲ 0.10	▲ 0.20	▲ 0.10
Soot %	%	*ASTM D7844	>4	0.4	0.5	0.4
Nitration	Abs/cm	*ASTM D7624	>20	5.4	8.1	6.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.4	19.7	18.7
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 oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m	>216	● 34	▲ 129	● 63
Boron	ppm	ASTM D5185m	250	14	13	12
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	83	140	99
Manganese	ppm	ASTM D5185m		2	<1	<1
Magnesium	ppm	ASTM D5185m	450	839	890	903
Calcium	ppm	ASTM D5185m	3000	1086	1045	1128
Phosphorus	ppm	ASTM D5185m	1150	1027	960	1008
Zinc	ppm	ASTM D5185m	1350	1126	1172	1218
Sulfur	ppm	ASTM D5185m	4250	3305	3443	3321
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.1	14.1	13.7
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.4	9.9	9.2
Visc @ 100°C	cSt	ASTM D445	14.4	14.2	14.2	14.3



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0116573
Lab Number : 06152840
Unique Number : 10982918
Test Package : FLEET
Received : 18 Apr 2024
Tested : 19 Apr 2024
Diagnosed : 19 Apr 2024 - Wes Davis

GFL Environmental - 652 - Fredericksburg Hauling
 10954 Houser Drive
 Fredericksburg, VA
 US 22408
 Contact: WILLIAM MILO
 wmilo@gflenv.com
 T:
 F:

Certificate L2367
 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)