



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
834090
 Component
Natural Gas Engine
 Fluid
{not provided} (--- GAL)

RECOMMENDATION

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

WEAR

All component wear rates are normal.

CONTAMINATION

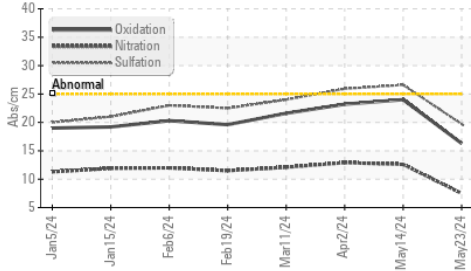
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

FLUID CONDITION

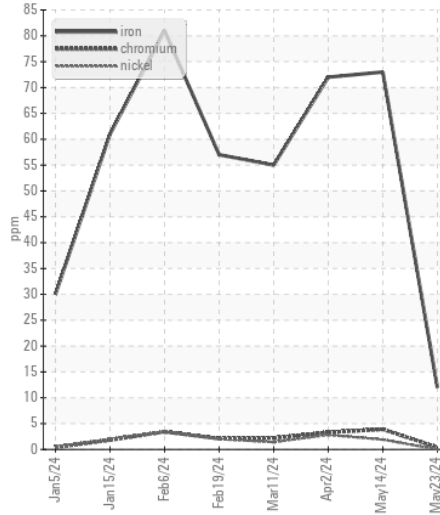
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0122060	GFL0116540	GFL0116559
Sample Date		Client Info		23 May 2024	14 May 2024	02 Apr 2024
Machine Age	hrs	Client Info		1300	1231	923
Oil Age	hrs	Client Info		69	1231	923
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changed	Changed	Not Changed
Filter Changed		Client Info		Not Changed	Changed	Not Changed
Sample Status				NORMAL	ABNORMAL	NORMAL
Iron	ppm	ASTM D5185m	>50	12	▲ 73	72
Chromium	ppm	ASTM D5185m	>4	<1	4	3
Nickel	ppm	ASTM D5185m	>2	0	2	3
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	18	67	59
Lead	ppm	ASTM D5185m	>30	<1	1	<1
Copper	ppm	ASTM D5185m	>35	2	14	16
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>+100	6	21	24
Potassium	ppm	ASTM D5185m	>20	42	184	163
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	*ASTM D7844		0	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	7.5	12.6	12.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.7	26.6	25.9
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	>0.1	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m		5	7	7
Boron	ppm	ASTM D5185m		35	3	8
Barium	ppm	ASTM D5185m		0	2	2
Molybdenum	ppm	ASTM D5185m		48	65	63
Manganese	ppm	ASTM D5185m		2	13	13
Magnesium	ppm	ASTM D5185m		588	831	823
Calcium	ppm	ASTM D5185m		1499	1566	1428
Phosphorus	ppm	ASTM D5185m		772	830	739
Zinc	ppm	ASTM D5185m		909	1042	995
Sulfur	ppm	ASTM D5185m		2787	2873	2862
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.3	24.0	23.2
Base Number (BN)	mg KOH/g	ASTM D2896		8.3	2.7	2.8
Visc @ 100°C	cSt	ASTM D445		14.6	14.2	14.2

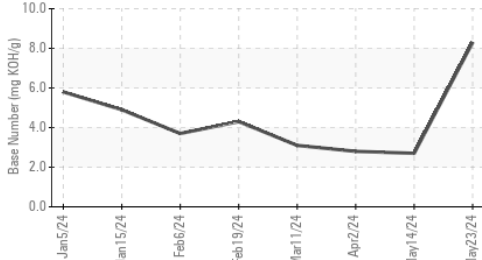
FT-IR (Direct Trend)



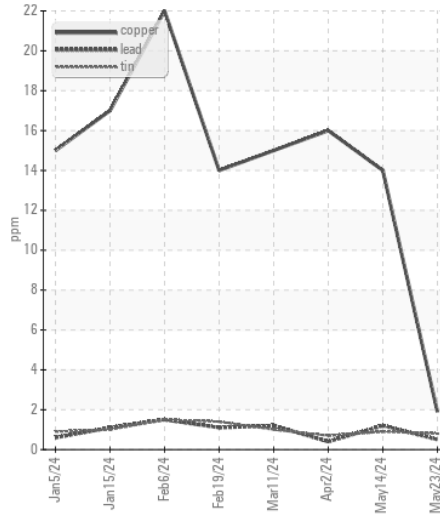
Ferrous Alloys



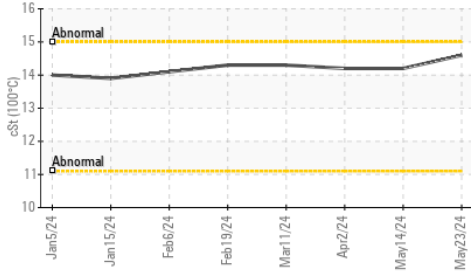
Base Number



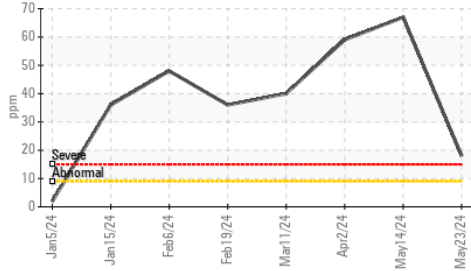
Non-ferrous Metals



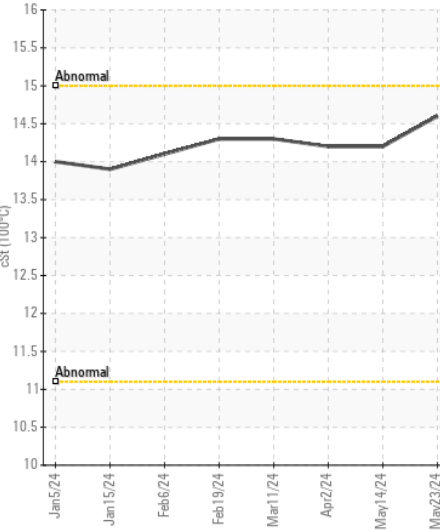
Viscosity @ 100°C



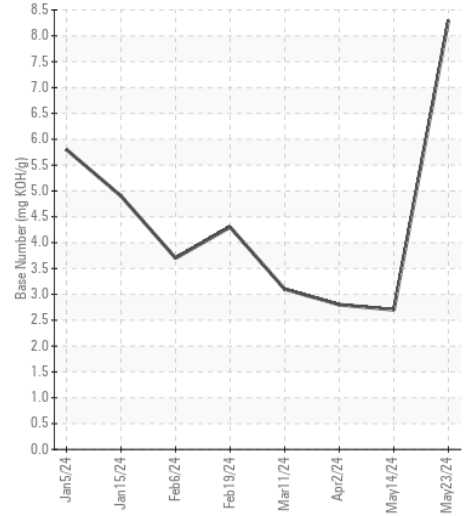
Aluminum (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0122060
Lab Number : 06193837
Unique Number : 11055960
Test Package : FLEET

Received : 29 May 2024
Tested : 30 May 2024
Diagnosed : 30 May 2024 - Wes Davis

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

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)

T:
F: