



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
731017
Component
Natural Gas Engine
Fluid
CASTROL 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0100765	GFL0079566	GFL0079565
Sample Date		Client Info		29 May 2024	21 Dec 2023	01 Jun 2023
Machine Age	kms	Client Info		151198	135339	115116
Oil Age	kms	Client Info		0	0	0
Filter Age	kms	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>50	12	19	12
Chromium	ppm	ASTM D5185(m)	>4	<1	2	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>9	10	34	2
Lead	ppm	ASTM D5185(m)	>30	1	8	4
Copper	ppm	ASTM D5185(m)	>35	1	1	1
Tin	ppm	ASTM D5185(m)	>4	<1	1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

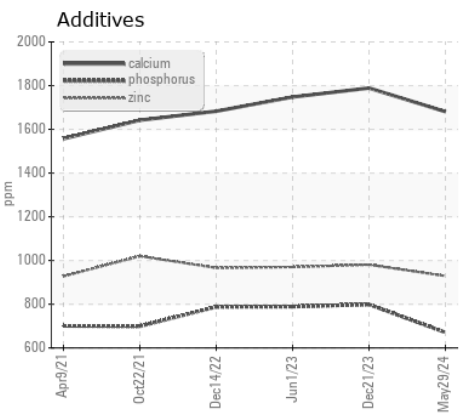
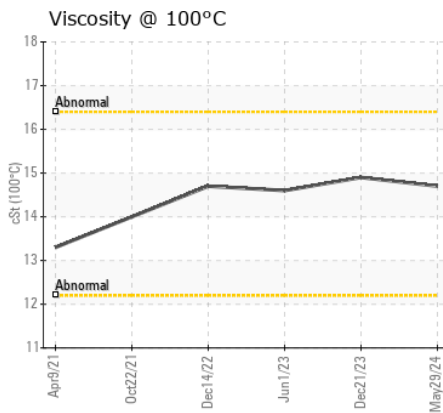
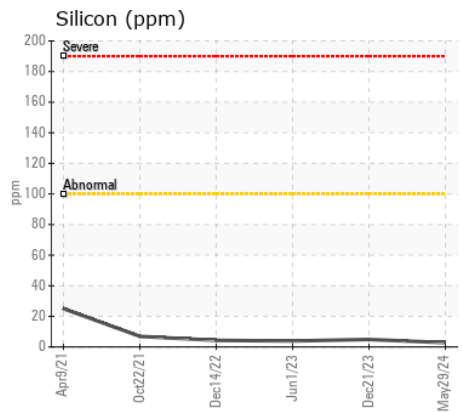
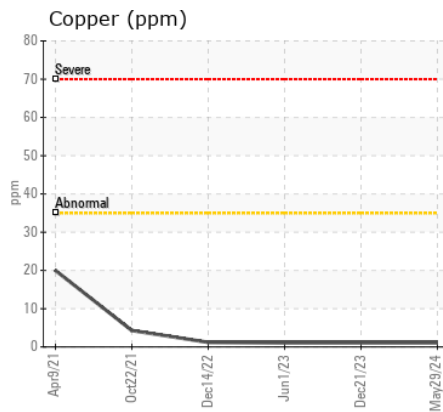
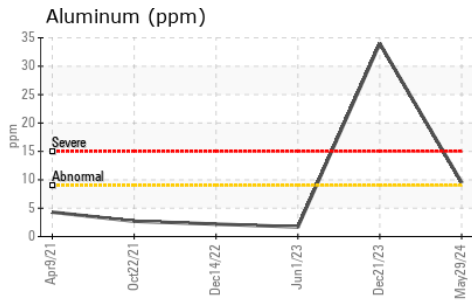
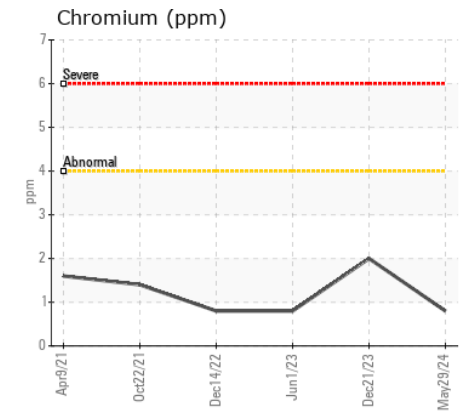
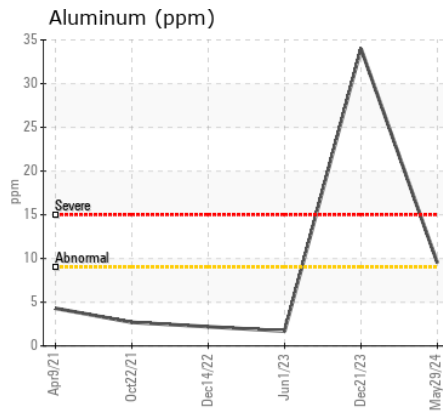
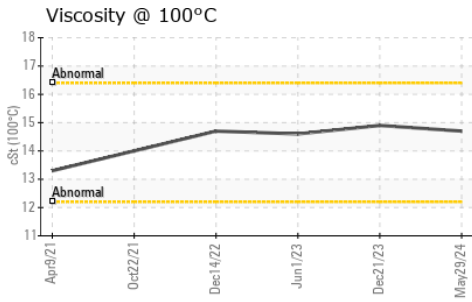
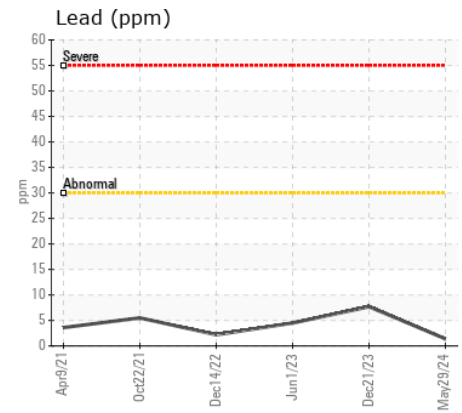
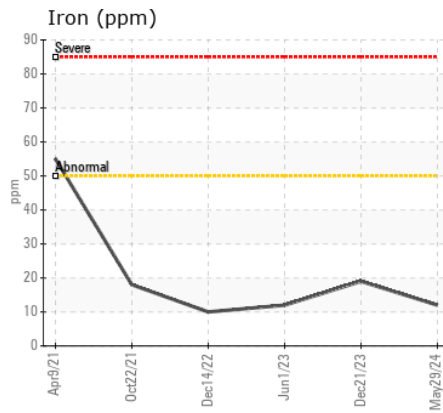
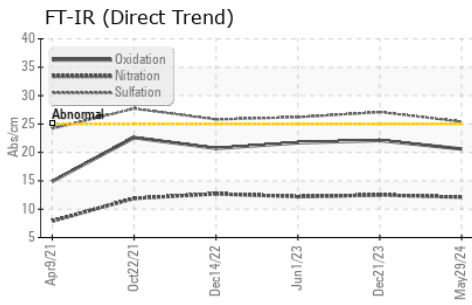
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>+100	3	5	4
Potassium	ppm	ASTM D5185(m)	>20	18	87	0
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	12.1	12.5	12.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	25.4	27.1	26.2
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)	>406	3	4	2
Boron	ppm	ASTM D5185(m)		7	7	4
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		54	57	58
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)		569	595	608
Calcium	ppm	ASTM D5185(m)		1681	1789	1748
Phosphorus	ppm	ASTM D5185(m)		671	799	789
Zinc	ppm	ASTM D5185(m)		929	981	970
Sulfur	ppm	ASTM D5185(m)		1991	2199	2102
Oxidation	Abs/.1mm	ASTM D7414*	>25	20.6	22.1	21.7
Visc @ 100°C	cSt	ASTM D7279(m)		14.7	14.9	14.6



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0100765
Lab Number : 02639074
Unique Number : 5788236
Test Package : MOB 1
Received : 31 May 2024
Tested : 31 May 2024
Diagnosed : 31 May 2024 - Kevin Marson

GFL Environmental - 277 - Niagara Regional
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 St. Catharines, ON
 CA L2P 3Y1
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 T: (437)235-6849
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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.