



Machine Id
731000
Component
Natural Gas Engine
Fluid
CASTROL DURATEC ES 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0100735	GFL0100734	GFL0100764
Sample Date		Client Info		11 Apr 2024	08 Apr 2024	02 Nov 2023
Machine Age	kms	Client Info		98531	98410	92992
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		Not Changed	Changed	N/A
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>50	3	10	19
Chromium	ppm	ASTM D5185(m)	>4	0	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	0	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>9	<1	2	2
Lead	ppm	ASTM D5185(m)	>30	0	0	2
Copper	ppm	ASTM D5185(m)	>35	<1	<1	2
Tin	ppm	ASTM D5185(m)	>4	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

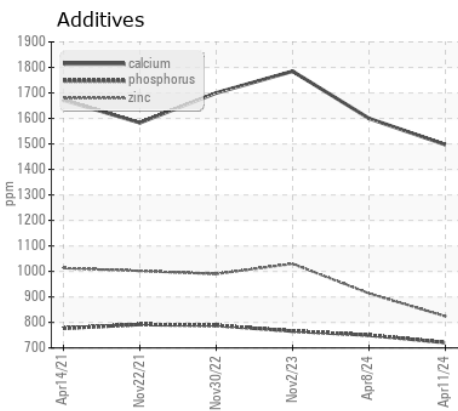
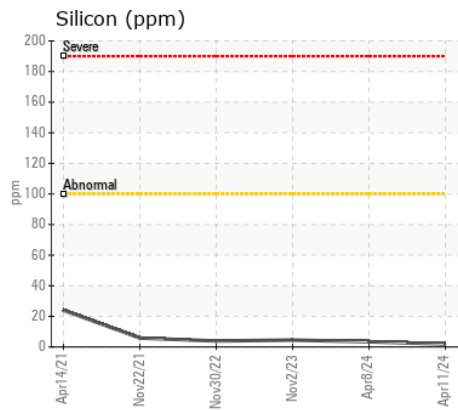
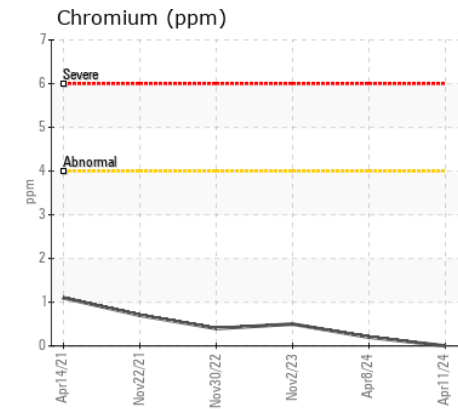
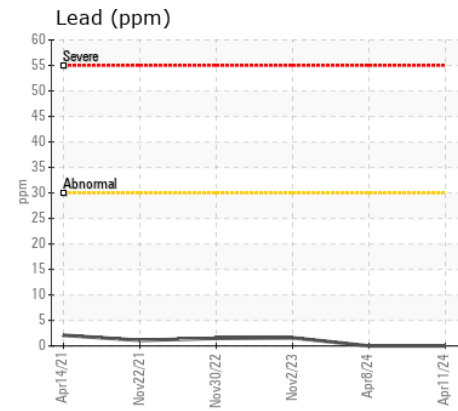
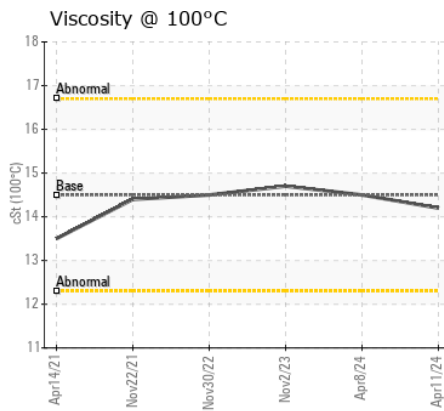
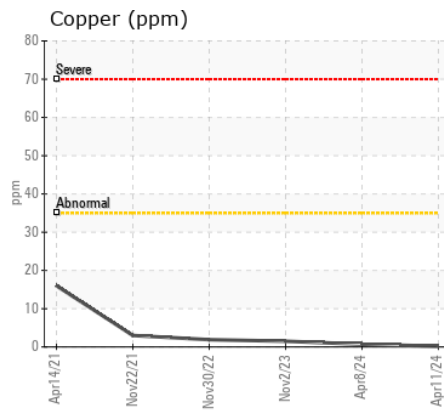
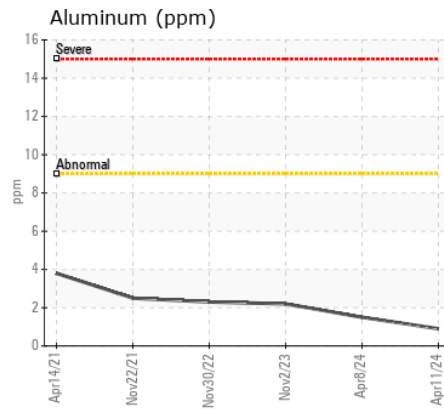
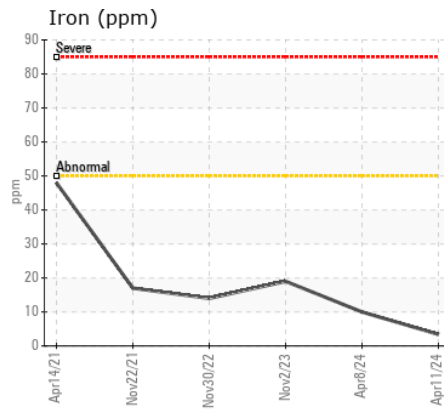
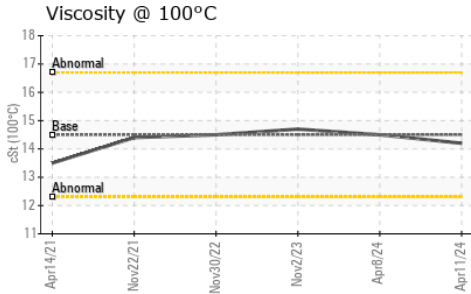
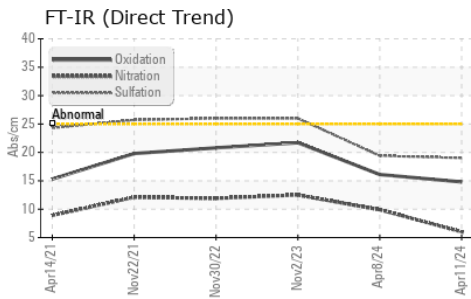
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>+100	2	3	4
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		---	0.0	---
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	6.0	9.9	12.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.0	19.4	26.0
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	▲.2%	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		3	2	4
Boron	ppm	ASTM D5185(m)	40	43	16	7
Barium	ppm	ASTM D5185(m)	0	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	100	46	49	60
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	15	518	527	622
Calcium	ppm	ASTM D5185(m)	2000	1497	1600	1785
Phosphorus	ppm	ASTM D5185(m)	700	721	750	766
Zinc	ppm	ASTM D5185(m)	850	824	914	1030
Sulfur	ppm	ASTM D5185(m)	2900	1993	1999	2162
Oxidation	Abs/.1mm	ASTM D7414*	>25	14.8	16.1	21.7
Visc @ 100°C	cSt	ASTM D7279(m)	14.5	14.2	14.5	14.7



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0100735
Lab Number : 02628709
Unique Number : 5761841
Test Package : MOB 1 (Additional Tests: Visual)
Received : 15 Apr 2024
Tested : 15 Apr 2024
Diagnosed : 15 Apr 2024 - Wes Davis

GFL Environmental - 277 - Niagara Regional
 C/O Metro Truck Niagara Inc., 411 Glendale Avenue
 St. Catharines, ON
 CA L2P 3Y1
 Contact: Kelly Bremner
 kbremner@gflenv.com
 T: (437)235-6849
 F:

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.