



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**7899**  
Component  
**Natural Gas Engine**  
Fluid  
**CASTROL 15W40 (24 LTR)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0100770</b>	GFL0100773	PC0021812
Sample Date		Client Info		<b>24 Jun 2024</b>	11 Jun 2024	19 Jan 2020
Machine Age	kms	Client Info		<b>232572</b>	232490	15567
Oil Age	kms	Client Info		<b>0</b>	0	1200
Filter Age	kms	Client Info		<b>0</b>	0	1200
Oil Changed		Client Info		<b>N/A</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>50	<b>2</b>	12	11
Chromium	ppm	ASTM D5185(m)	>4	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>9	<b>&lt;1</b>	1	1
Lead	ppm	ASTM D5185(m)	>30	<b>0</b>	0	<1
Copper	ppm	ASTM D5185(m)	>35	<b>&lt;1</b>	2	2
Tin	ppm	ASTM D5185(m)	>4	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

**CONTAMINATION**

There is no indication of any contamination in the oil.

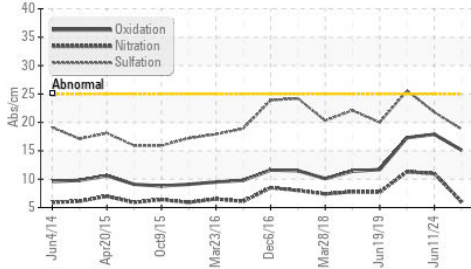
Silicon	ppm	ASTM D5185(m)	>+100	<b>3</b>	7	3
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	4	<1
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*		<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>6.0</b>	11.0	11.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>18.8</b>	21.8	25.6
Emulsified Water	scalar	Visual*	>0.1	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

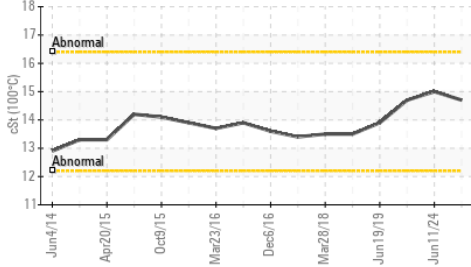
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)	>406	<b>2</b>	4	7
Boron	ppm	ASTM D5185(m)		<b>36</b>	14	7
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>43</b>	53	54
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)		<b>529</b>	561	519
Calcium	ppm	ASTM D5185(m)		<b>1434</b>	1634	1544
Phosphorus	ppm	ASTM D5185(m)		<b>697</b>	713	676
Zinc	ppm	ASTM D5185(m)		<b>845</b>	926	902
Sulfur	ppm	ASTM D5185(m)		<b>1962</b>	1952	1976
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>15.1</b>	17.9	17.3
Visc @ 100°C	cSt	ASTM D7279(m)		<b>14.7</b>	15.0	14.7

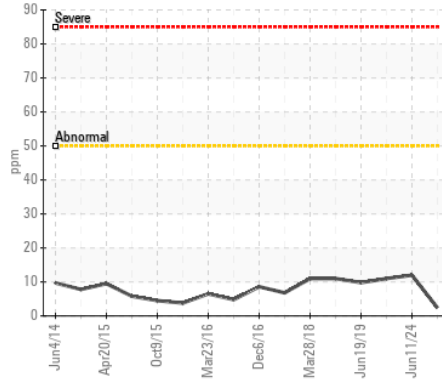
FT-IR (Direct Trend)



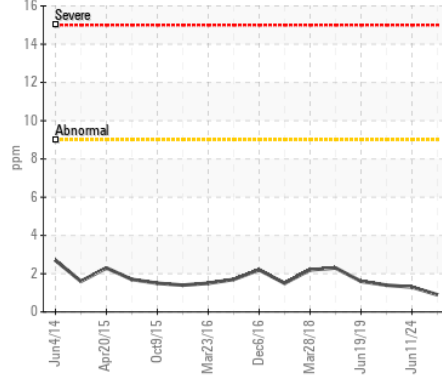
Viscosity @ 100°C



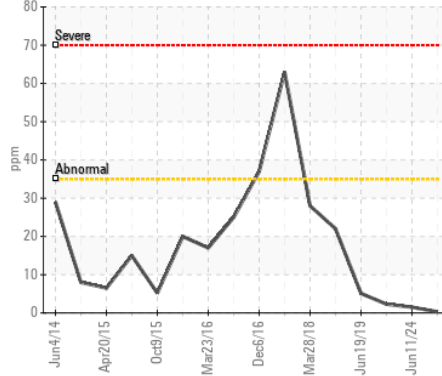
Iron (ppm)



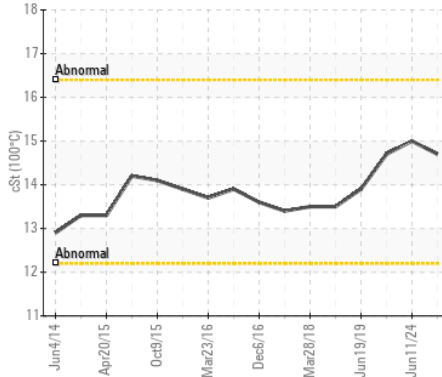
Aluminum (ppm)



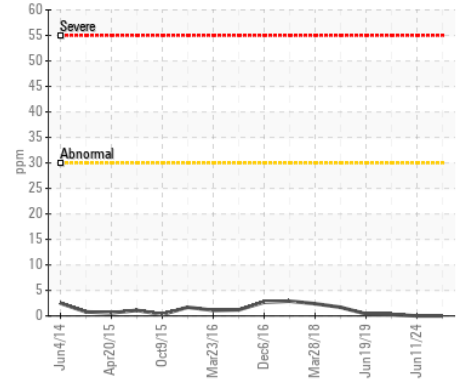
Copper (ppm)



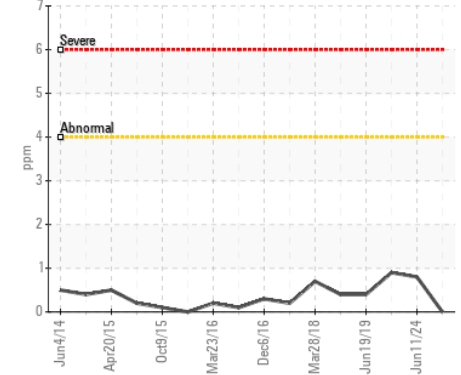
Viscosity @ 100°C



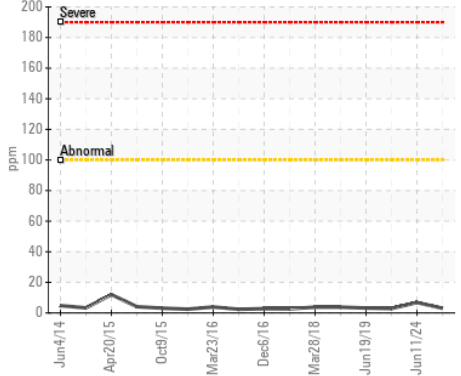
Lead (ppm)



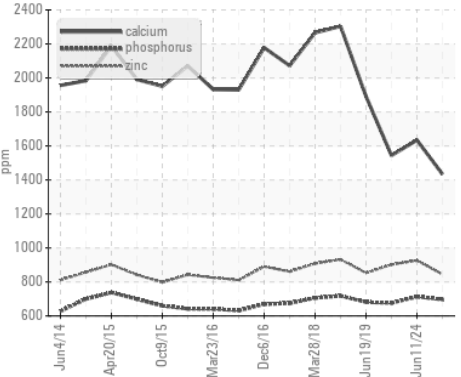
Chromium (ppm)



Silicon (ppm)



Additives



ISO 17025:2017  
Accredited  
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

Sample No. : GFL0100770

Lab Number : 02644749

Unique Number : 5802288

Test Package : MOB 1

Received : 02 Jul 2024

Tested : 02 Jul 2024

Diagnosed : 02 Jul 2024 - Kevin Marson

GFL Environmental - 277 - Niagara Regional

C/O Metro Truck Niagara Inc., 411 Glendale Avenue

St. Catharines, ON

CA L2P 3Y1

Contact: Kelly Bremner

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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.