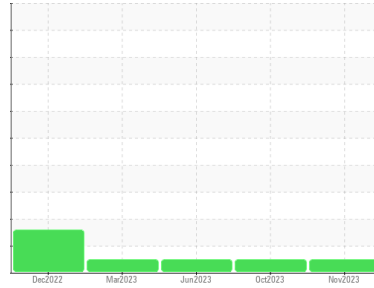




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
900120
 Component
Diesel Engine
 Fluid
CASTROL 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

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

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0093117	GFL0093115	GFL0070453
Sample Date	Client Info		29 Nov 2023	03 Oct 2023	12 Jun 2023
Machine Age	kms	Client Info	532275	526141	511858
Oil Age	kms	Client Info	0	0	0
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<1.0	<1.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>120	6	12	9
Chromium	ppm	ASTM D5185(m)	>20	0	0	<1
Nickel	ppm	ASTM D5185(m)	>5	<1	0	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	3	5	5
Lead	ppm	ASTM D5185(m)	>40	0	1	<1
Copper	ppm	ASTM D5185(m)	>330	<1	1	1
Tin	ppm	ASTM D5185(m)	>15	0	<1	<1
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)		10	6	12
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		49	49	34
Manganese	ppm	ASTM D5185(m)		0	0	<1
Magnesium	ppm	ASTM D5185(m)		751	780	539
Calcium	ppm	ASTM D5185(m)		1206	1286	1539
Phosphorus	ppm	ASTM D5185(m)		970	973	1019
Zinc	ppm	ASTM D5185(m)		1125	1194	1177
Sulfur	ppm	ASTM D5185(m)		2747	2452	2753
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

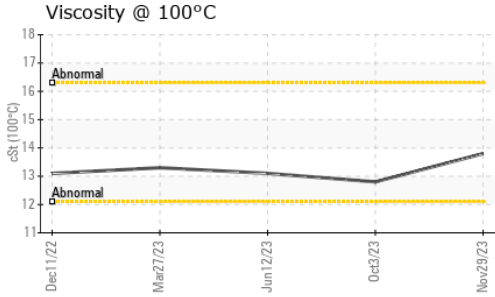
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	4	6	5
Sodium	ppm	ASTM D5185(m)	>406	1	2	2
Potassium	ppm	ASTM D5185(m)	>20	1	2	1

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>4	0.1	0.3	0.2
Nitration	Abs/cm	ASTM D7624*	>20	6.6	8.4	8.9
Sulfation	Abs./1mm	ASTM D7415*	>30	18.6	20.9	20.6



OIL ANALYSIS REPORT



FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	13.8	16.5

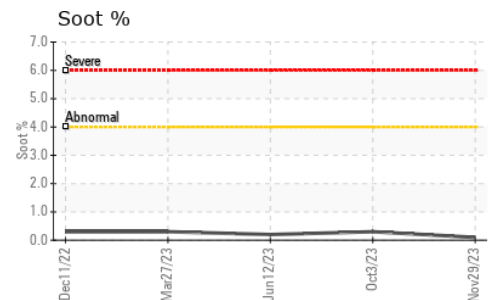
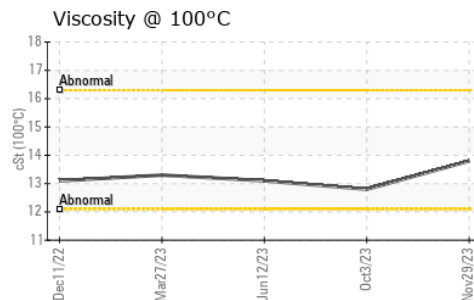
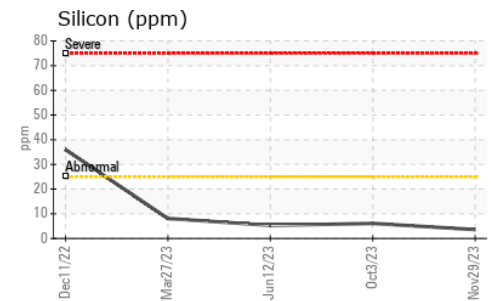
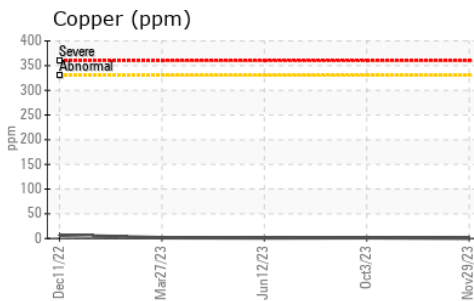
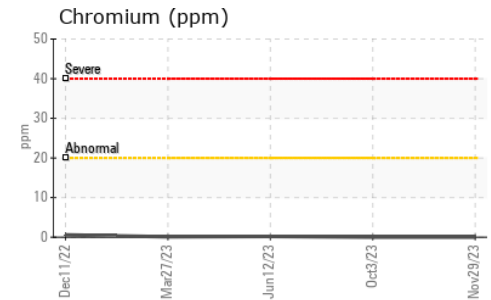
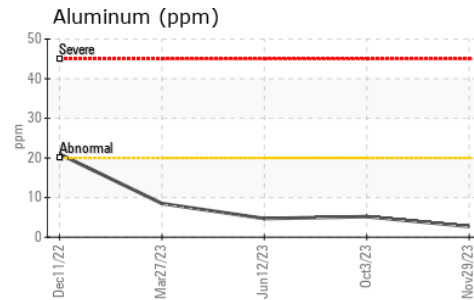
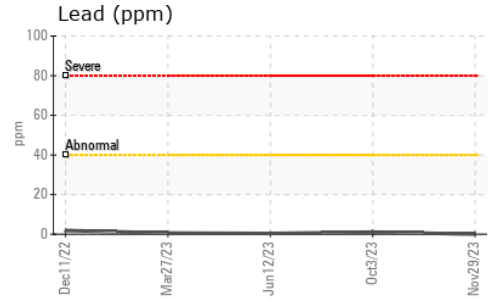
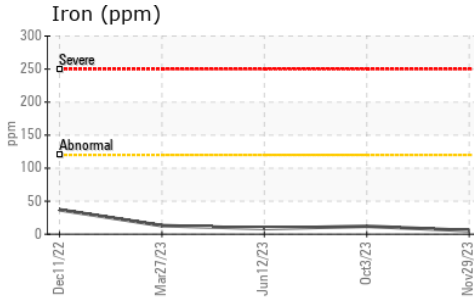
VISUAL

	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES

	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	13.8	12.8	13.1

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 860 - Fredericton**
Sample No. : GFL0093117 **Received** : 24 Jan 2024 **160 BLIZZARD ST**
Lab Number : 02610841 **Diagnosed** : 24 Jan 2024 **FREDERICTON, NB**
Unique Number : 5719936 **Diagnostician** : Wes Davis **CA E3B 8K2**
Test Package : MOB 1 **Contact: Crystal Beach-Nassuai**
cbeachnassuai@gflenv.com

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.