



OIL ANALYSIS REPORT

Sample Rating Trend

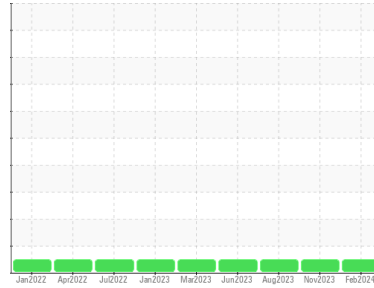
NORMAL



Area
[1226081]
Machine Id
810046

Component
Diesel Engine
Fluid

DIESEL ENGINE OIL SAE 40 (--- 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		GFL0093951	GFL0093944	GFL0062940
Sample Date	Client Info		15 Feb 2024	14 Nov 2023	21 Aug 2023
Machine Age	hrs	Client Info	5266	4704	4202
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<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)	>80	30	24	18
Chromium	ppm	ASTM D5185(m)	>5	2	1	1
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>30	4	4	4
Lead	ppm	ASTM D5185(m)	>30	<1	<1	0
Copper	ppm	ASTM D5185(m)	>150	3	3	2
Tin	ppm	ASTM D5185(m)	>5	<1	<1	0
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)	250	5	6	5
Barium	ppm	ASTM D5185(m)	10	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	100	59	61	59
Manganese	ppm	ASTM D5185(m)		0	0	<1
Magnesium	ppm	ASTM D5185(m)	450	933	971	953
Calcium	ppm	ASTM D5185(m)	3000	1119	1101	1077
Phosphorus	ppm	ASTM D5185(m)	1150	980	994	1054
Zinc	ppm	ASTM D5185(m)	1350	1158	1223	1201
Sulfur	ppm	ASTM D5185(m)	4250	2501	2452	2514
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

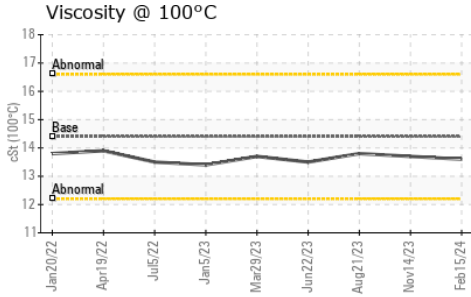
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>20	4	5	5
Sodium	ppm	ASTM D5185(m)	>216	8	8	8
Potassium	ppm	ASTM D5185(m)	>20	4	6	8

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0.6	0.5	0.4
Nitration	Abs/cm	ASTM D7624*	>20	10.6	9.9	9.3
Sulfation	Abs.1mm	ASTM D7415*	>30	22.1	21.4	21.2



OIL ANALYSIS REPORT

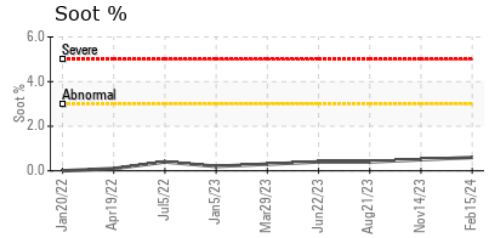
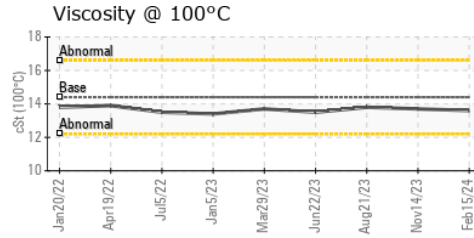
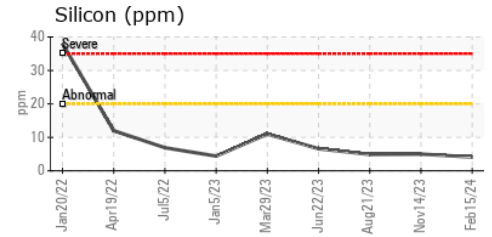
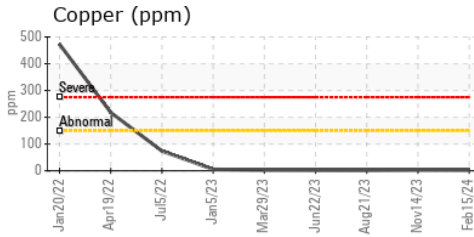
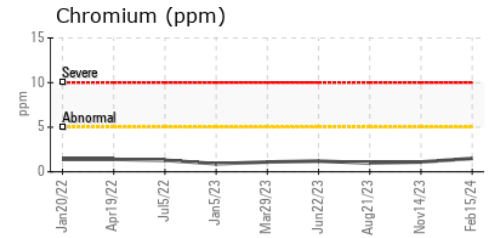
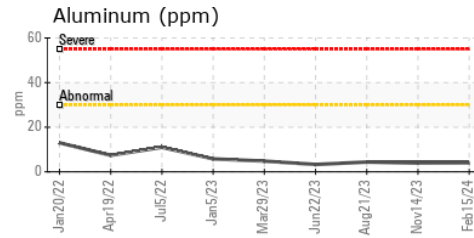
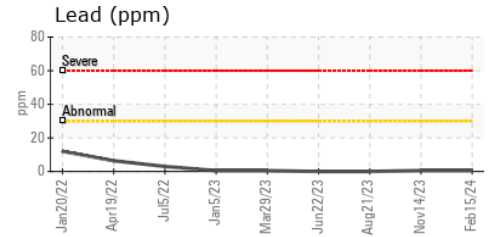
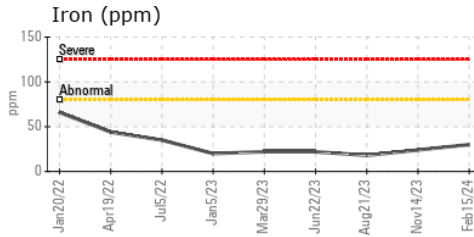


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	19.0	18.0	17.1

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	VLITE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Precipitate	scalar	Visual*	NONE	NONE	---	---
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*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	13.6	13.7	13.8

GRAPHS



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 777 - Belleville-Municipal waste**
Sample No. : GFL0093951 **Received** : 16 Feb 2024 **197 Putman Industrial Road**
Lab Number : **02616139** **Tested** : 16 Feb 2024 **Belleville, ON**
Unique Number : 5733249 **Diagnosed** : 16 Feb 2024 - Kevin Marson **CA K8N 4Z6**
Test Package : MOB 1 (Additional Tests: Visual) **Contact: Andrea Michael**
amichael@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.

T: (613)962-7144
F: (613)962-1994