



OIL ANALYSIS REPORT

Sample Rating Trend

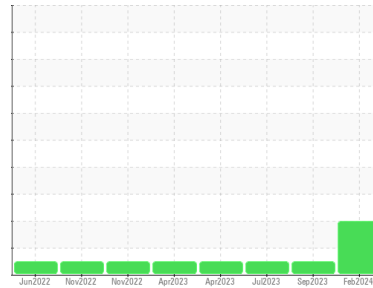
WEAR



Machine Id
WL0056

Component
Diesel Engine
Fluid

DIESEL ENGINE OIL SAE 10W30 (--- GAL)



DIAGNOSIS

Recommendation

Nous vous recommandons de vidanger l'huile de ce composant si vous ne l'avez pas déjà fait. Nous vous recommandons d'échantillonner de nouveau dès que possible afin de contrôler la situation.

Wear

Usure de cylindre, de vilebrequin ou d'arbre à cames.

Contamination

Légère concentration de carbone/suie dans l'huile. La teneur en eau est négligeable.

Fluid Condition

La viscosité de l'huile est supérieure à la normale. La viscosité de l'échantillon se situe dans la portée de l'SAE 40; nous vous conseillons de vérifier. l'huile n'est plus en état de service en raison d'une usure anormale et/ou sévère.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0067515	GFL0067491	GFL0071885
Sample Date	Client Info		27 Feb 2024	01 Sep 2023	19 Jul 2023
Machine Age	hrs	Client Info	0	17700	17361
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>2.1	<1.0	<1.0	<1.0

WEAR METALS

	method	limit/base	current	history1	history2	
PQ	ASTM D8184*	>50	0	---	---	
Iron	ppm	ASTM D5185(m)	>51	▲ 88	25	29
Chromium	ppm	ASTM D5185(m)	>11	1	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>31	4	2	1
Lead	ppm	ASTM D5185(m)	>26	3	<1	<1
Copper	ppm	ASTM D5185(m)	>26	3	<1	2
Tin	ppm	ASTM D5185(m)	>4	<1	0	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	2	2	2
Barium	ppm	ASTM D5185(m)	10	0	0	0
Molybdenum	ppm	ASTM D5185(m)	100	58	52	58
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	450	926	852	963
Calcium	ppm	ASTM D5185(m)	3000	1214	1245	1099
Phosphorus	ppm	ASTM D5185(m)	1150	992	1040	1054
Zinc	ppm	ASTM D5185(m)	1350	1195	1149	1173
Sulfur	ppm	ASTM D5185(m)	4250	2527	2583	2516
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>22	4	4	3
Sodium	ppm	ASTM D5185(m)		2	2	2
Potassium	ppm	ASTM D5185(m)	>20	<1	2	<1
Water	%	ASTM D6304*	>0.21	0.159	---	---
ppm Water	ppm	ASTM D6304*	>2100	1593	---	---
Glycol	%	ASTM D7922*		0.0	NEG	NEG

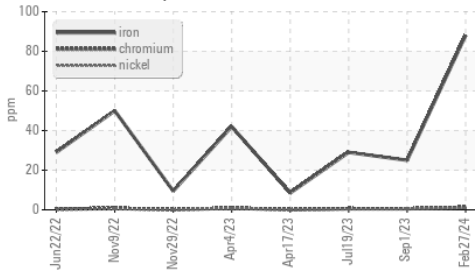
INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	▲ 3.8	1.1	1.3
Nitration	Abs/cm	ASTM D7624*	>20	11.4	6.4	6.8
Sulfation	Abs./1mm	ASTM D7415*	>30	26.7	20.6	20.5

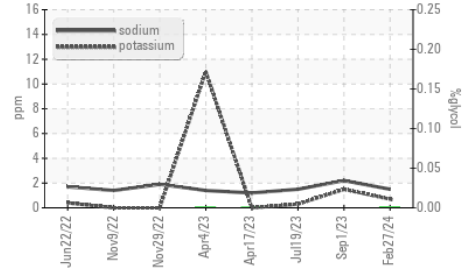


OIL ANALYSIS REPORT

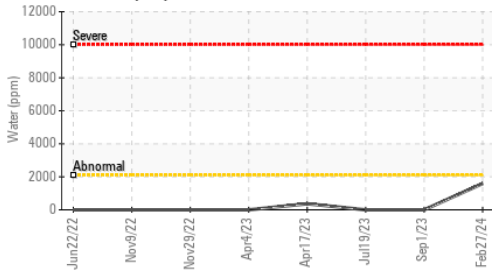
▲ Ferrous Alloys



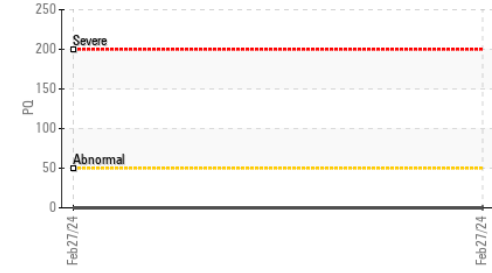
▲ Glycol Contamination



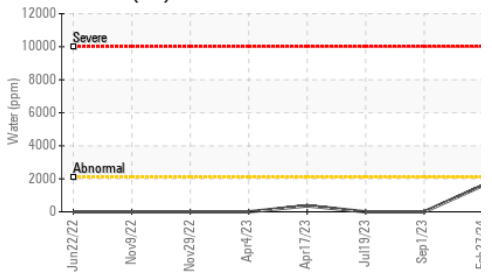
▲ Water (KF)



▲ PQ



▲ Water (KF)



FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs./1mm ASTM D7414*	>25	16.1	12.3	13.5

VISUAL

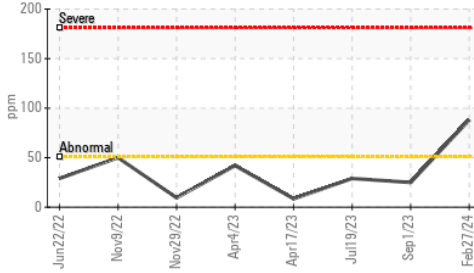
method	limit/base	current	history1	history2	
Emulsified Water	scalar Visual*	>0.21	.2%	NEG	NEG
Free Water	scalar Visual*		NEG	NEG	NEG

FLUID PROPERTIES

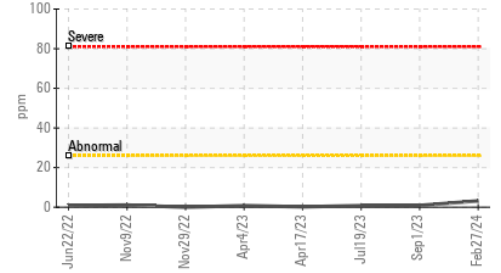
method	limit/base	current	history1	history2	
Visc @ 100°C	cSt ASTM D7279(m)	10.9	▲ 13.4	10.6	12.0

GRAPHS

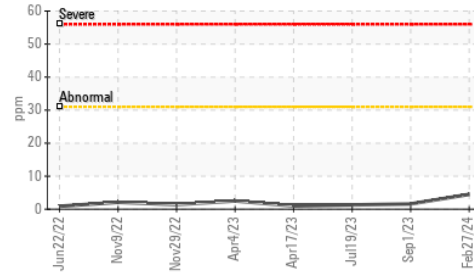
▲ Iron (ppm)



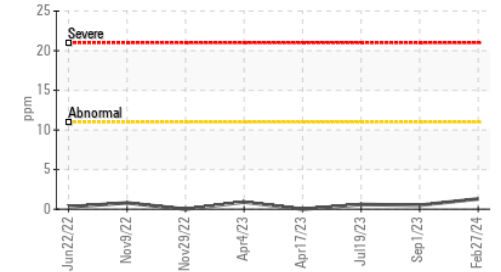
▲ Lead (ppm)



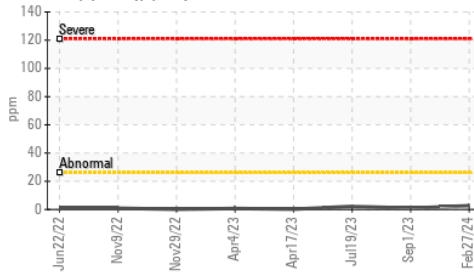
▲ Aluminum (ppm)



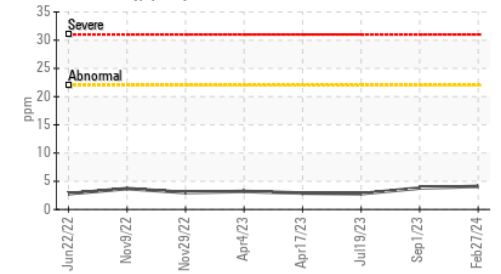
▲ Chromium (ppm)



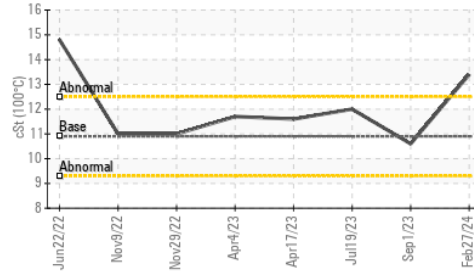
▲ Copper (ppm)



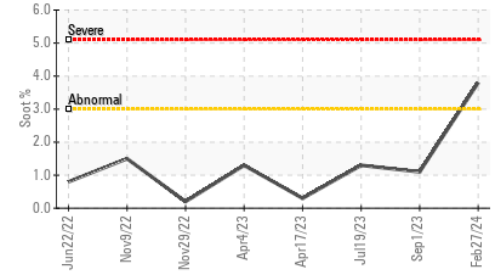
▲ Silicon (ppm)



▲ Viscosity @ 100°C



▲ Soot %



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0067515
Lab Number : 02618617
Unique Number : 5735727
Test Package : MOB 1 (Additional Tests: Glycol, KF, PQ)
Received : 28 Feb 2024
Tested : 29 Feb 2024
Diagnosed : 01 Mar 2024 - Kevin Marson

GFL Environmental - 743 - Montreal Est CD Processing
 10930 rue Sherbrooke
 Montreal, QC
 CA H1B 1B4
 Contact: Patrick Beaulieu
 patrick.beaulieu@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.