



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
913098
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0100596	GFL0077017	GFL0077033
Sample Date		Client Info		08 Jan 2024	15 Oct 2023	16 Jul 2023
Machine Age	hrs	Client Info		3203	2557	1953
Oil Age	hrs	Client Info		0	600	751
Filter Age	hrs	Client Info		0	600	751
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	11	14	13
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	3	4	2
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	<1	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	2	1	1
Lead	ppm	ASTM D5185(m)	>40	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>330	2	5	11
Tin	ppm	ASTM D5185(m)	>15	<1	1	1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

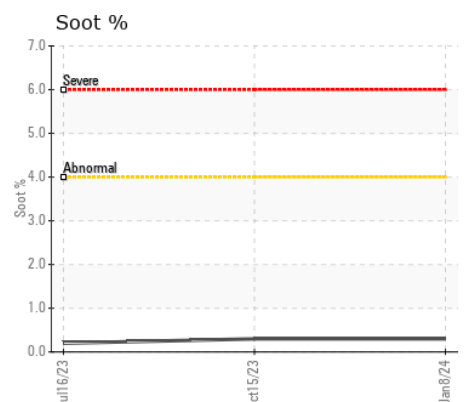
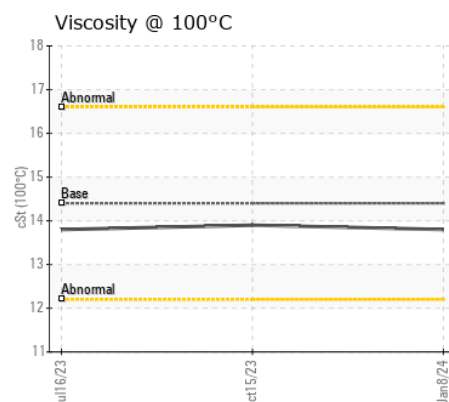
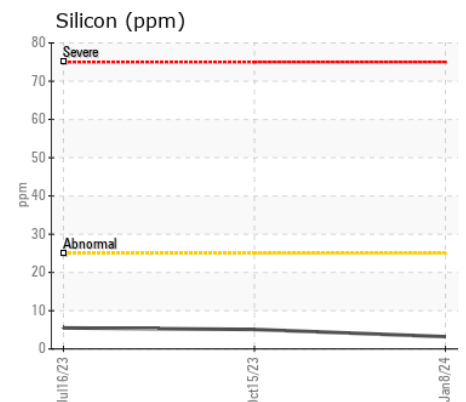
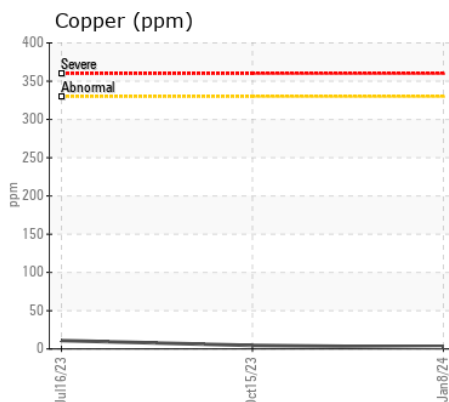
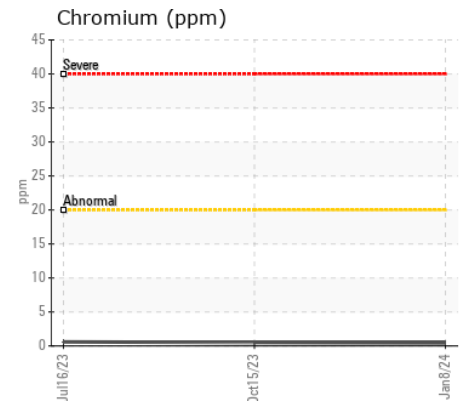
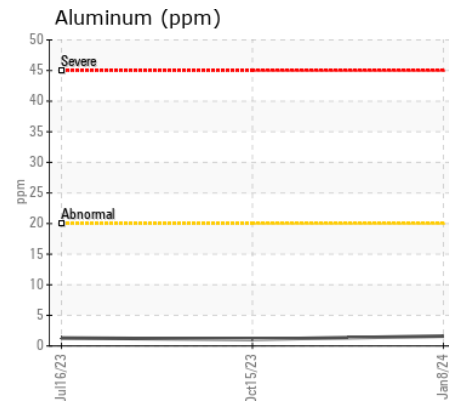
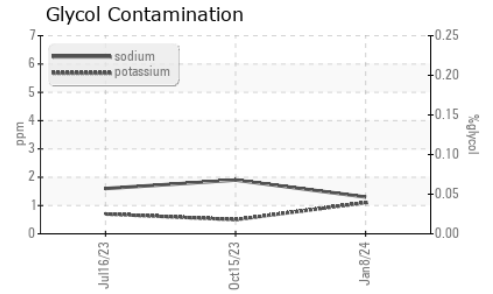
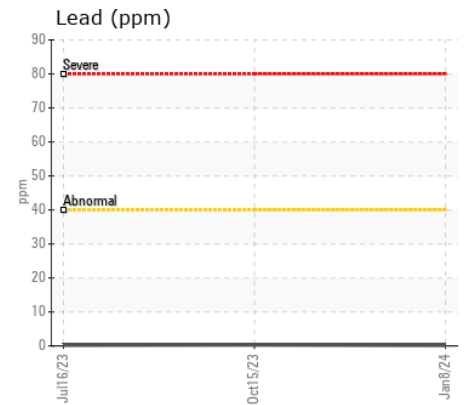
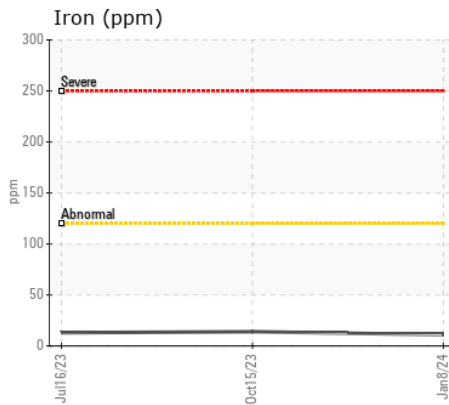
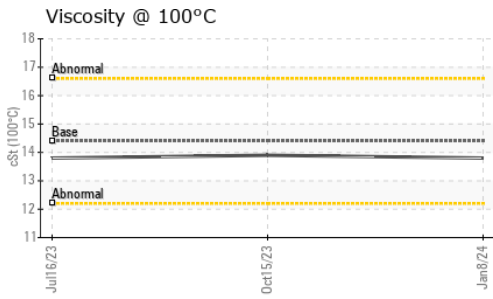
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	3	5	6
Potassium	ppm	ASTM D5185(m)	>20	1	<1	<1
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	ASTM D7922*		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>4	0.3	0.3	0.2
Nitration	Abs/cm	ASTM D7624*	>20	10.0	8.9	8.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.9	20.7	20.9
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)	>158	1	2	2
Boron	ppm	ASTM D5185(m)	250	3	3	4
Barium	ppm	ASTM D5185(m)	10	0	0	0
Molybdenum	ppm	ASTM D5185(m)	100	60	64	60
Manganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)	450	974	1022	989
Calcium	ppm	ASTM D5185(m)	3000	1097	1128	1041
Phosphorus	ppm	ASTM D5185(m)	1150	1001	1014	1037
Zinc	ppm	ASTM D5185(m)	1350	1183	1253	1182
Sulfur	ppm	ASTM D5185(m)	4250	2488	2458	2337
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.9	16.6	16.2
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	13.8	13.9	13.8



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 575 - Squamish Hauling
Sample No. : GFL0100596 **Received** : 12 Jan 2024 38950 Queens Way,
Lab Number : 02608362 **Diagnosed** : 15 Jan 2024 Squamish, BC
Unique Number : 5709448 **Diagnostician** : Kevin Marson CA V8B 0K8
Test Package : MOB 1 (Additional Tests: Glycol) Contact: Jonas Araujo
 jaraujo@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.

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F: