



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
411005

Component
Diesel Engine

Fluid
CASTROL TECTION EXTRA SAE 15W-40 (42 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0094405	GFL0086802	GFL0086777
Sample Date		Client Info		17 Apr 2024	12 Mar 2024	22 Dec 2023
Machine Age	hrs	Client Info		9226	9175	8714
Oil Age	hrs	Client Info		9226	600	600
Filter Age	hrs	Client Info		9226	600	600
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	3	6	9
Chromium	ppm	ASTM D5185(m)	>20	0	0	<1
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	1	<1	0
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	3	3	4
Lead	ppm	ASTM D5185(m)	>40	0	<1	<1
Copper	ppm	ASTM D5185(m)	>330	<1	1	2
Tin	ppm	ASTM D5185(m)	>15	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

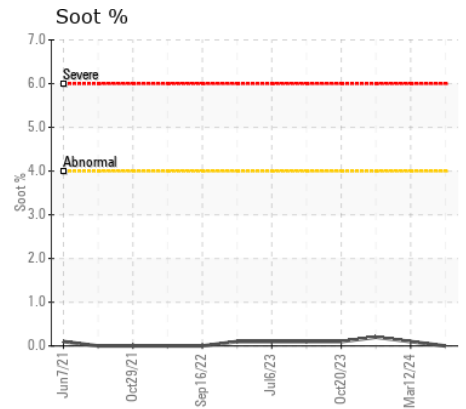
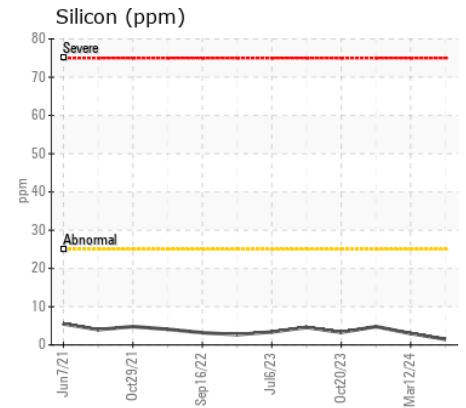
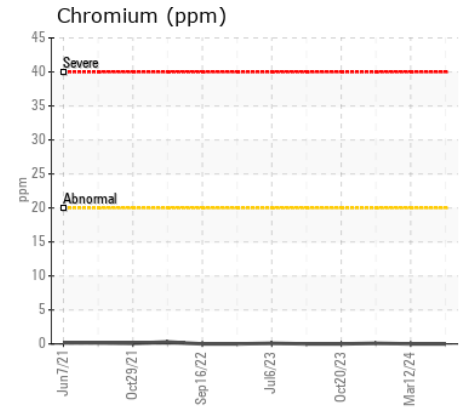
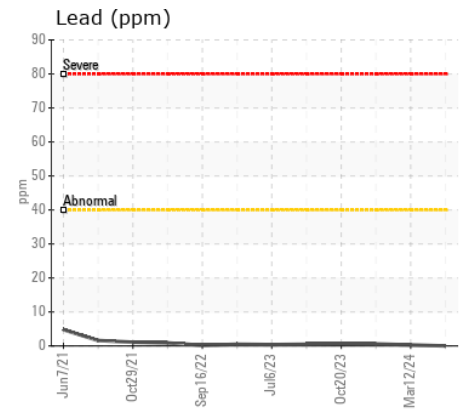
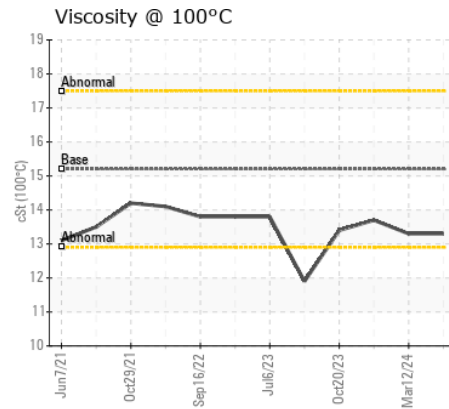
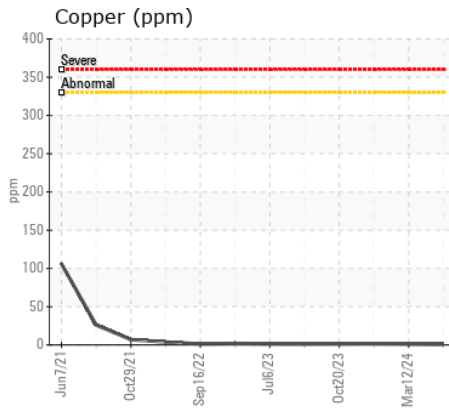
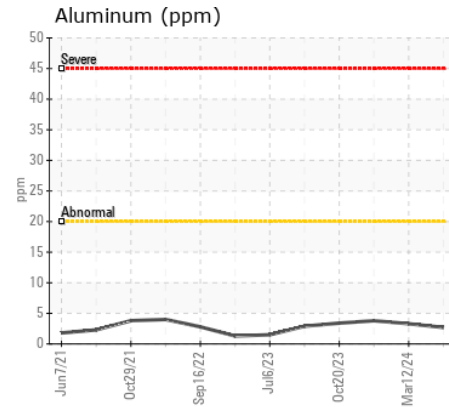
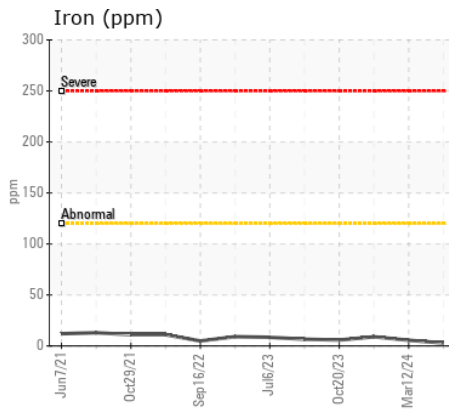
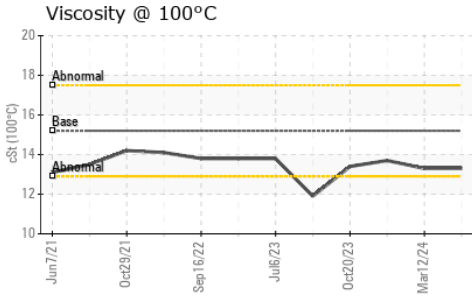
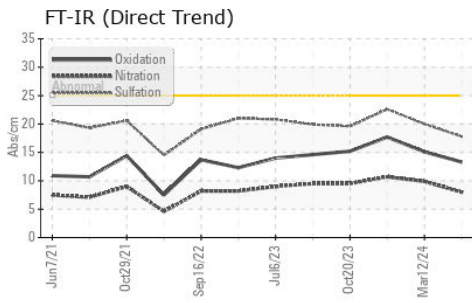
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	2	3	5
Potassium	ppm	ASTM D5185(m)	>20	1	2	3
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
Soot %	%	ASTM D7844*	>4	0	0.1	0.2
Nitration	Abs/cm	ASTM D7624*	>20	8.0	9.9	10.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	17.8	20.0	22.6
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)		2	2	2
Boron	ppm	ASTM D5185(m)	30	64	41	17
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		85	87	89
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)	110	98	78	65
Calcium	ppm	ASTM D5185(m)	2740	2042	2095	2191
Phosphorus	ppm	ASTM D5185(m)	1240	956	1016	980
Zinc	ppm	ASTM D5185(m)	1350	1108	1138	1163
Sulfur	ppm	ASTM D5185(m)	3520	3009	3172	3097
Oxidation	Abs/.1mm	ASTM D7414*	>25	13.3	15.1	17.7
Visc @ 100°C	cSt	ASTM D7279(m)	15.2	13.3	13.3	13.7



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0094405
Lab Number : 02629855
Unique Number : 5762987
Test Package : MOB 1
Received : 18 Apr 2024
Tested : 18 Apr 2024
Diagnosed : 18 Apr 2024 - Wes Davis

GFL Environmental - 222 - Sandhill
 SANDHILL DISPOSAL & RECYCLING DIVIS, 19 COMMERCE ROAD
 ORANGEVILLE, ON
 CA L9W 3X5
 Contact: GLENN COOK
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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.