



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
GFL216
Machine Id
4459
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (40 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0121951	GFL0111709	GFL0101406
Sample Date		Client Info		27 May 2024	24 Mar 2024	05 Dec 2023
Machine Age	hrs	Client Info		422215	4596	401890
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
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	10	18	14
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>15	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	<1	1	1
Lead	ppm	ASTM D5185(m)	>40	<1	<1	1
Copper	ppm	ASTM D5185(m)	>330	<1	2	2
Tin	ppm	ASTM D5185(m)	>15	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

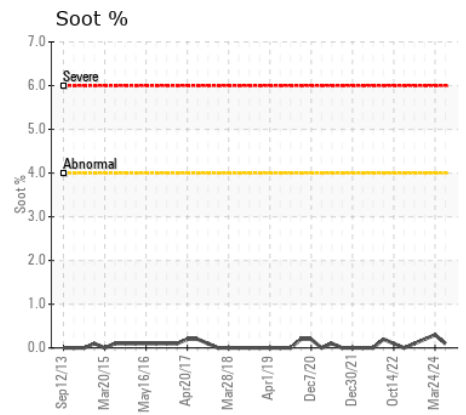
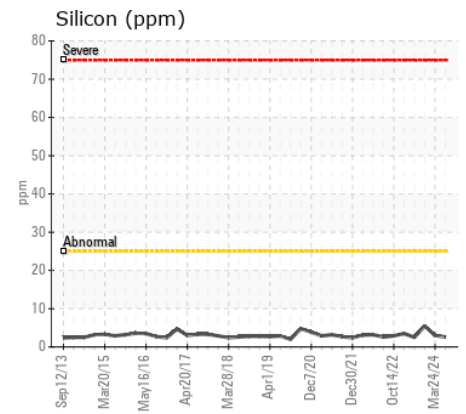
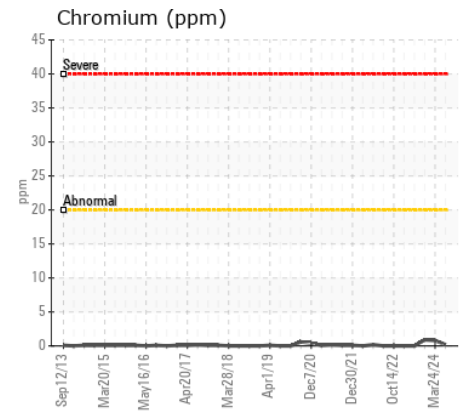
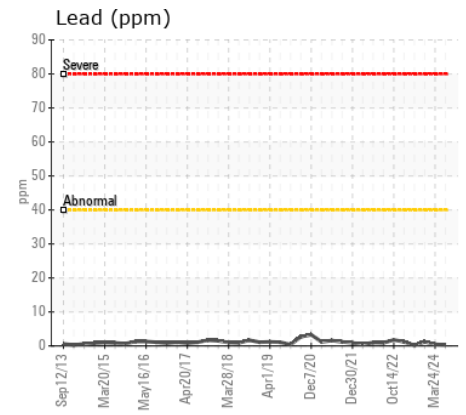
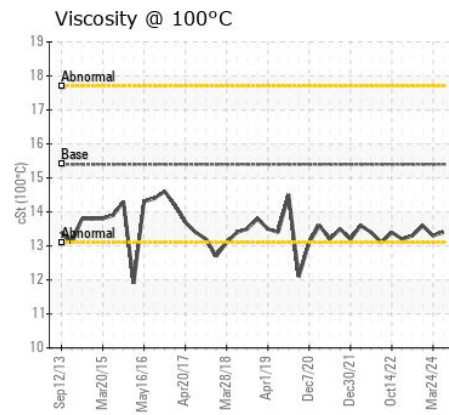
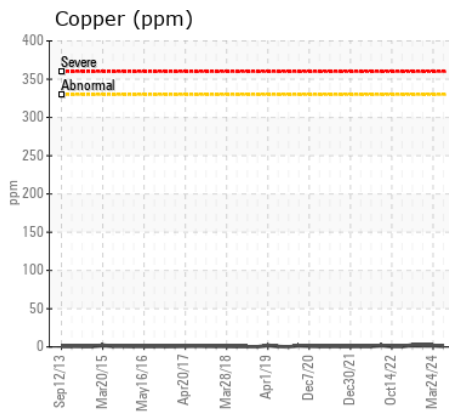
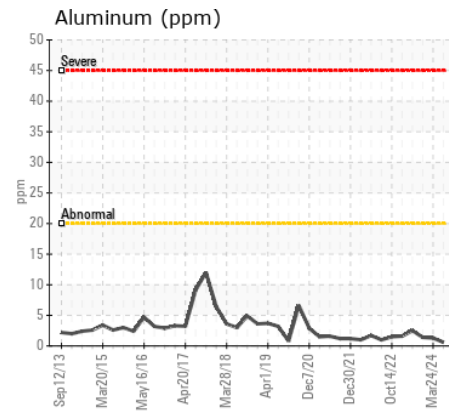
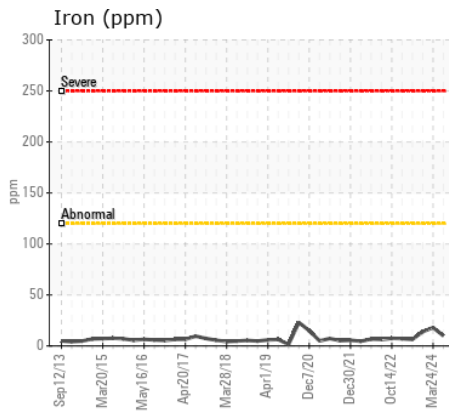
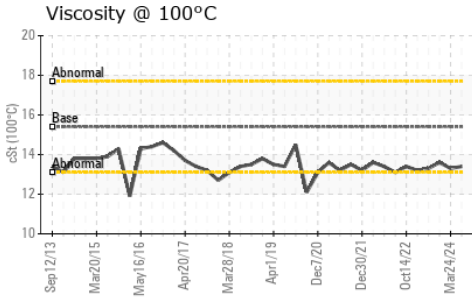
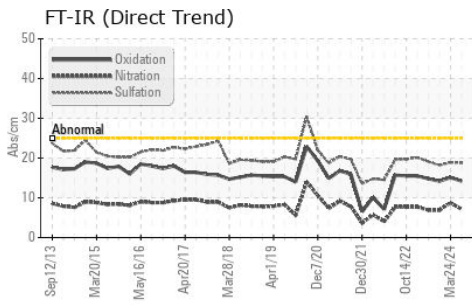
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	3	3	6
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	5
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	0.1	0.3	0.2
Nitration	Abs/cm	ASTM D7624*	>20	7.1	8.8	6.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.8	18.9	18.2
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	5	4
Boron	ppm	ASTM D5185(m)	0	3	3	4
Barium	ppm	ASTM D5185(m)	0	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	57	57	56
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	1010	938	928	897
Calcium	ppm	ASTM D5185(m)	1070	1003	1046	1100
Phosphorus	ppm	ASTM D5185(m)	1150	976	946	940
Zinc	ppm	ASTM D5185(m)	1270	1135	1159	1133
Sulfur	ppm	ASTM D5185(m)	2060	2436	2450	2483
Oxidation	Abs/.1mm	ASTM D7414*	>25	14.2	15.1	14.2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.4	13.3	13.6



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0121951
Lab Number : 02638341
Unique Number : 5787503
Test Package : MOB 1
Received : 29 May 2024
Tested : 29 May 2024
Diagnosed : 29 May 2024 - Wes Davis

GFL Environmental - 252 - GTA Hauling
 3668 Weston Road
 North York, ON
 CA M9L 1W2
 Contact: Amanda Cipollone
 acipollone@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.