



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
GFL216
Machine Id
227064
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0121947	GFL0080273	GFL0049604
Sample Date		Client Info		05 May 2024	08 May 2023	11 May 2022
Machine Age	kms	Client Info		244431	221558	199156
Oil Age	kms	Client Info		0	0	0
Filter Age	kms	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>80	13	14	5
Chromium	ppm	ASTM D5185(m)	>5	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	0	<1
Titanium	ppm	ASTM D5185(m)		0	<1	0
Silver	ppm	ASTM D5185(m)	>3	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>30	4	6	4
Lead	ppm	ASTM D5185(m)	>30	0	<1	0
Copper	ppm	ASTM D5185(m)	>150	11	12	7
Tin	ppm	ASTM D5185(m)	>5	<1	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

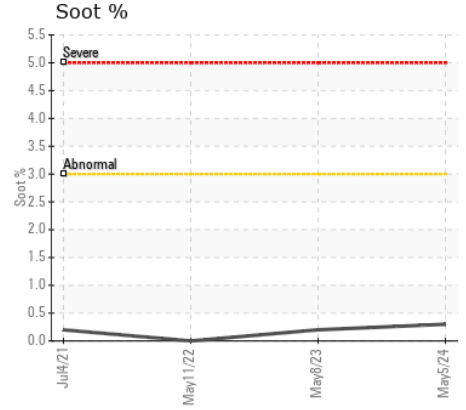
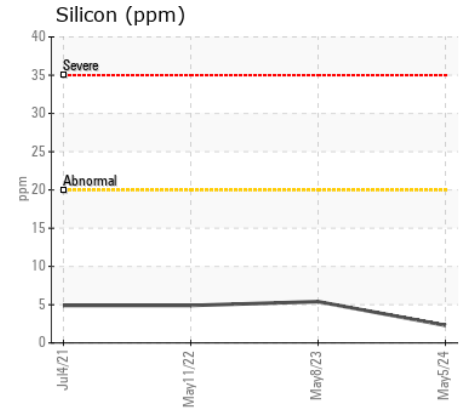
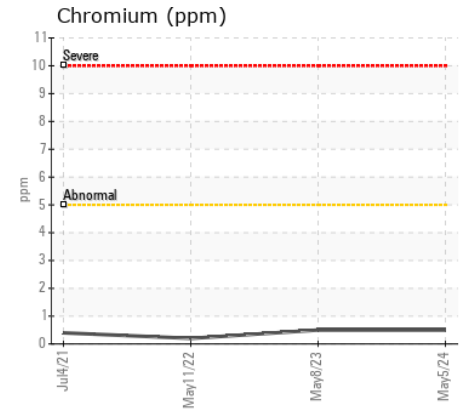
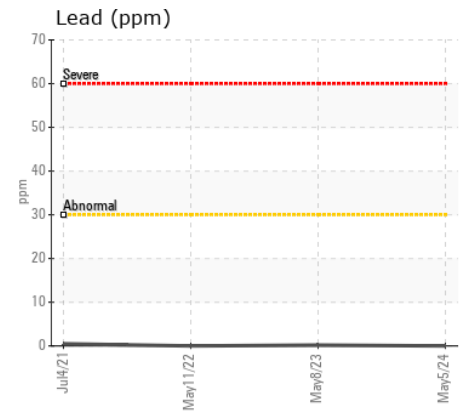
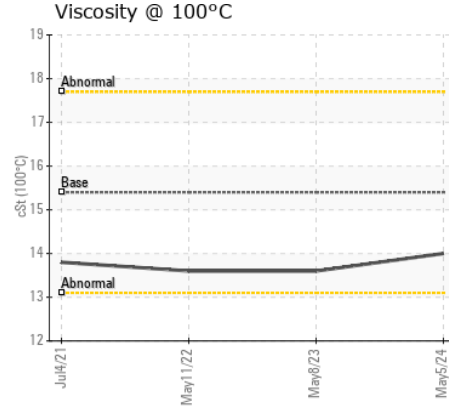
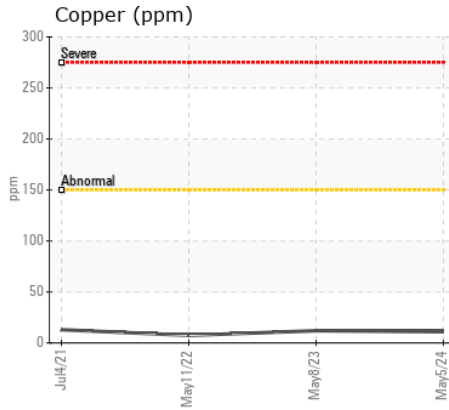
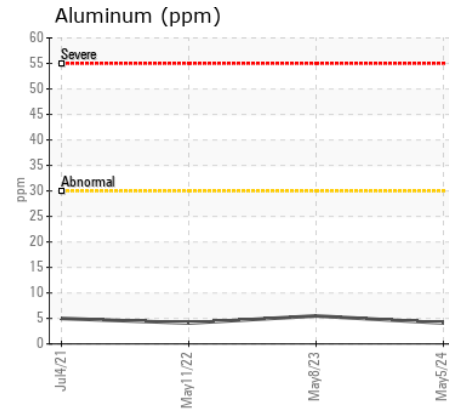
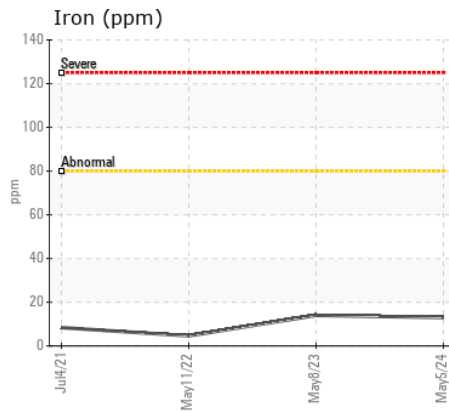
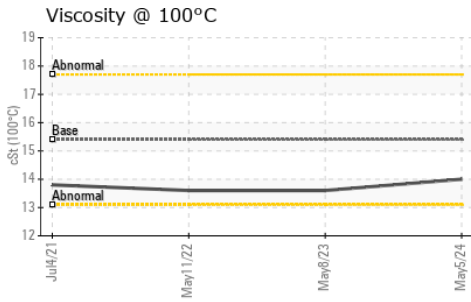
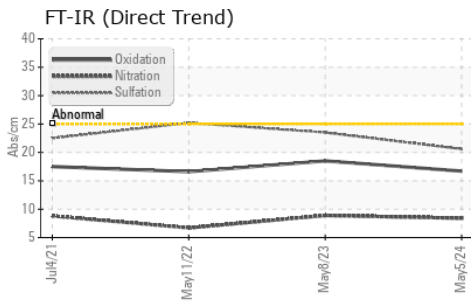
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>20	2	5	5
Potassium	ppm	ASTM D5185(m)	>20	2	2	1
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.3	0.2	0
Nitration	Abs/cm	ASTM D7624*	>20	8.4	8.9	6.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.6	23.5	25.2
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)		3	3	1
Boron	ppm	ASTM D5185(m)	0	26	229	297
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	72	120	119
Manganese	ppm	ASTM D5185(m)	0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	927	648	678
Calcium	ppm	ASTM D5185(m)	1070	1124	1463	1495
Phosphorus	ppm	ASTM D5185(m)	1150	912	673	725
Zinc	ppm	ASTM D5185(m)	1270	1121	770	806
Sulfur	ppm	ASTM D5185(m)	2060	2144	1882	2097
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.7	18.5	16.6
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	14.0	13.6	13.6



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0121947
Lab Number : 02635550
Unique Number : 5776703
Test Package : MOB 1

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.