



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
[1268645]
 Machine Id
701075
 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		GFL0120316	GFL0113090	GFL0096681
Sample Date		Client Info		23 May 2024	14 Mar 2024	14 Nov 2023
Machine Age	kms	Client Info		0	0	0
Oil Age	kms	Client Info		0	0	0
Filter Age	kms	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>90	35	53	33
Chromium	ppm	ASTM D5185(m)	>20	2	2	1
Nickel	ppm	ASTM D5185(m)	>2	0	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	<1	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	8	25	20
Lead	ppm	ASTM D5185(m)	>40	0	0	<1
Copper	ppm	ASTM D5185(m)	>330	1	2	1
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

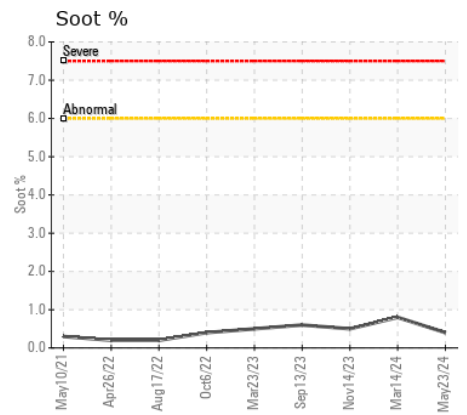
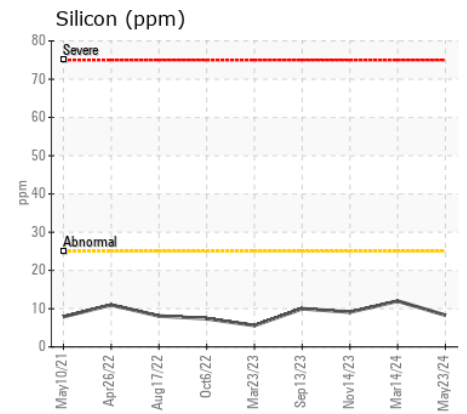
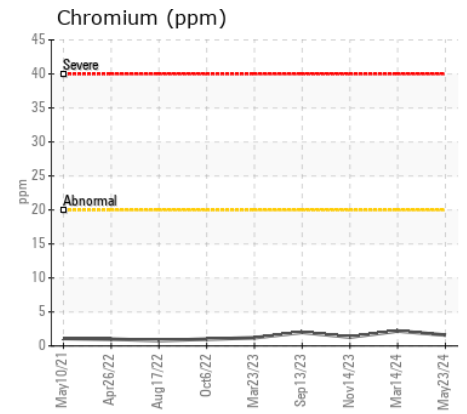
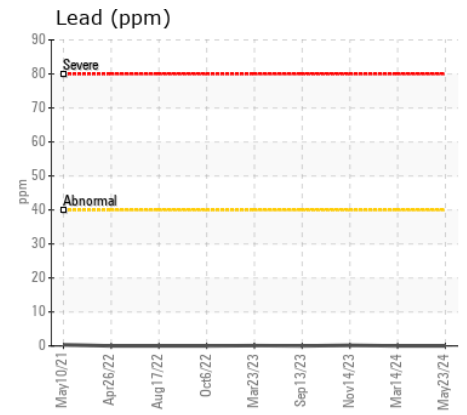
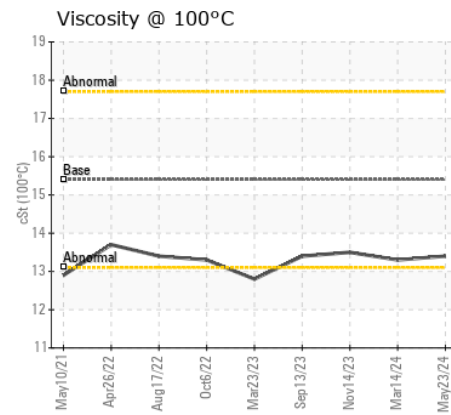
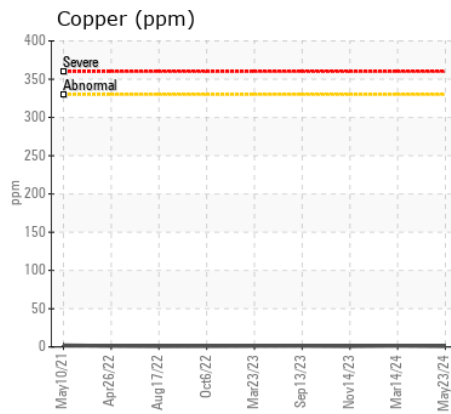
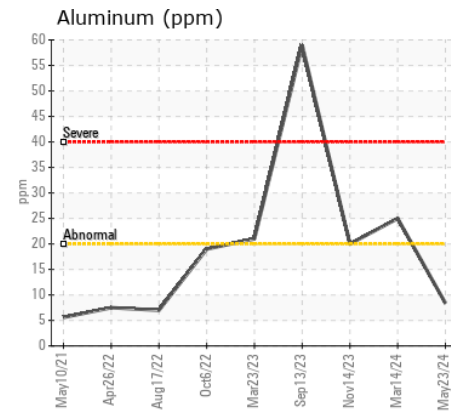
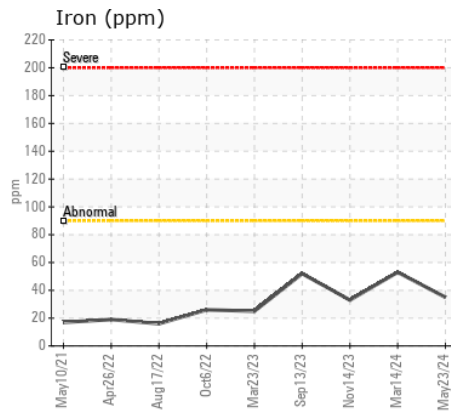
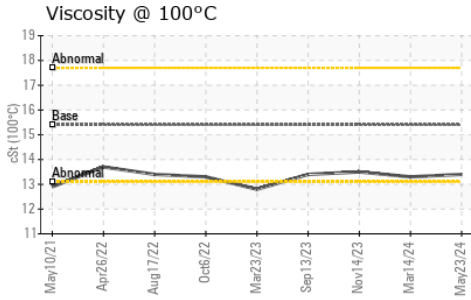
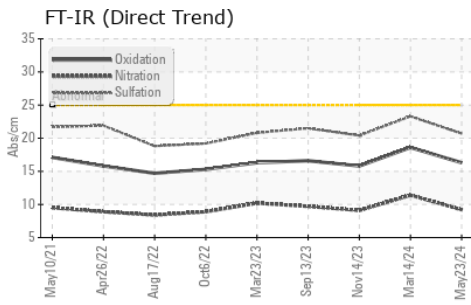
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	8	12	9
Potassium	ppm	ASTM D5185(m)	>20	11	32	46
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*	>6	0.4	0.8	0.5
Nitration	Abs/cm	ASTM D7624*	>20	9.2	11.4	9.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.7	23.3	20.4
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	5	3
Boron	ppm	ASTM D5185(m)	0	5	4	6
Barium	ppm	ASTM D5185(m)	0	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	60	65	61
Manganese	ppm	ASTM D5185(m)	0	<1	<1	0
Magnesium	ppm	ASTM D5185(m)	1010	967	1013	985
Calcium	ppm	ASTM D5185(m)	1070	1060	1135	1128
Phosphorus	ppm	ASTM D5185(m)	1150	945	1031	1019
Zinc	ppm	ASTM D5185(m)	1270	1163	1252	1217
Sulfur	ppm	ASTM D5185(m)	2060	2331	2535	2607
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.3	18.6	15.8
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.4	13.3	13.5



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0120316
Lab Number : 02637412
Unique Number : 5786574
Test Package : MOB 1

GFL Environmental - 851 - New Glasgow
 108 ACHERON COURT
 STELLARTON, NS
 CA B0K 1S0
 Contact: Lloyd Kenny
 lkenny@gflenv.com
 T: (902)755-5300
 F: (902)752-2301

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.