



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
5596
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (--- LTR)

RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0112492	GFL0102663	---
Sample Date		Client Info		07 May 2024	05 Mar 2024	---
Machine Age	hrs	Client Info		0	0	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		N/A	N/A	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				ABNORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>80	10	30	---
Chromium	ppm	ASTM D5185(m)	>5	<1	1	---
Nickel	ppm	ASTM D5185(m)	>2	0	<1	---
Titanium	ppm	ASTM D5185(m)		0	0	---
Silver	ppm	ASTM D5185(m)	>3	0	0	---
Aluminum	ppm	ASTM D5185(m)	>30	2	2	---
Lead	ppm	ASTM D5185(m)	>30	1	5	---
Copper	ppm	ASTM D5185(m)	>150	3	9	---
Tin	ppm	ASTM D5185(m)	>5	0	<1	---
Vanadium	ppm	ASTM D5185(m)		0	0	---

CONTAMINATION

There is a moderate concentration of dirt present in the oil.

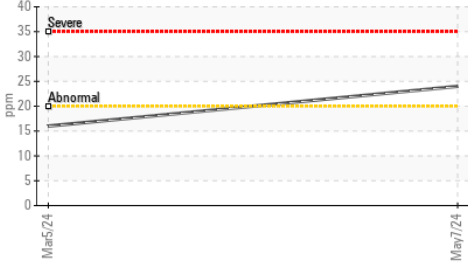
Silicon	ppm	ASTM D5185(m)	>20	▲ 24	16	---
Potassium	ppm	ASTM D5185(m)	>20	0	2	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	ASTM D7844*	>3	0	0	---
Nitration	Abs/cm	ASTM D7624*	>20	6.3	9.2	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.2	21.4	---
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	---

FLUID CONDITION

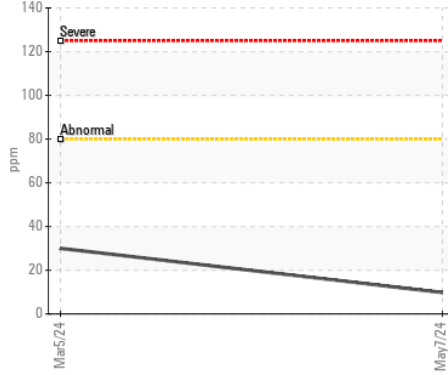
The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		6	13	---
Boron	ppm	ASTM D5185(m)	2	8	6	---
Barium	ppm	ASTM D5185(m)	0	0	5	---
Molybdenum	ppm	ASTM D5185(m)	50	60	60	---
Manganese	ppm	ASTM D5185(m)	0	0	0	---
Magnesium	ppm	ASTM D5185(m)	950	979	955	---
Calcium	ppm	ASTM D5185(m)	1050	1092	1112	---
Phosphorus	ppm	ASTM D5185(m)	995	1013	1003	---
Zinc	ppm	ASTM D5185(m)	1180	1182	1196	---
Sulfur	ppm	ASTM D5185(m)	2600	2612	2597	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	14.8	19.0	---
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	11.3	11.4	---

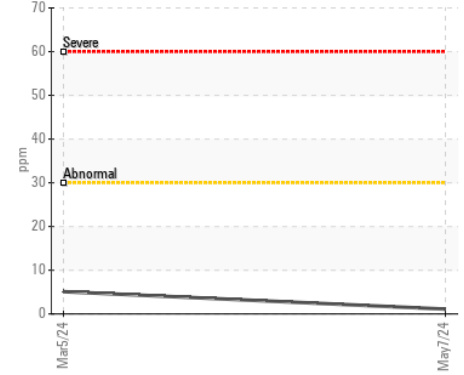
▲ Silicon (ppm)



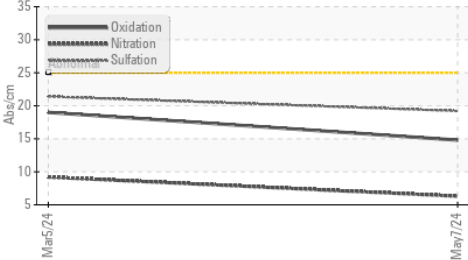
Iron (ppm)



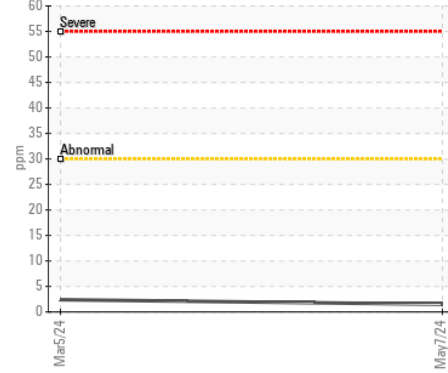
Lead (ppm)



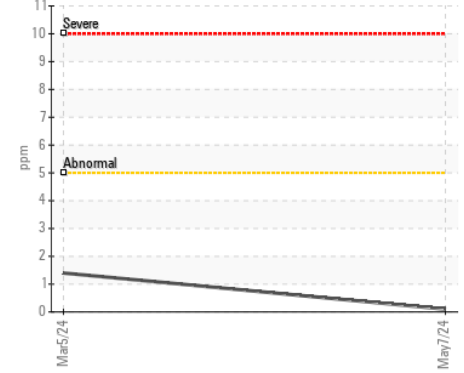
FT-IR (Direct Trend)



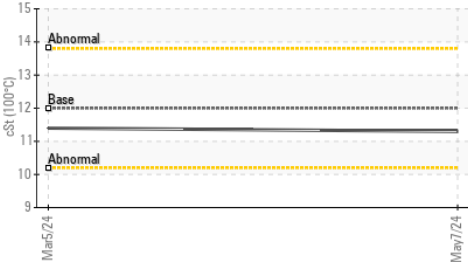
Aluminum (ppm)



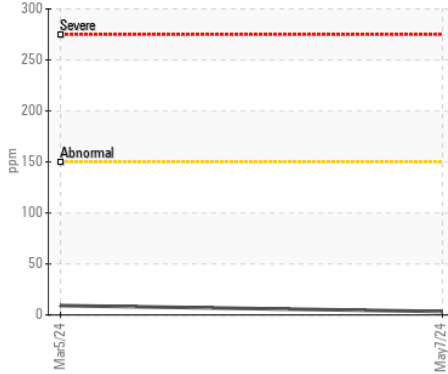
Chromium (ppm)



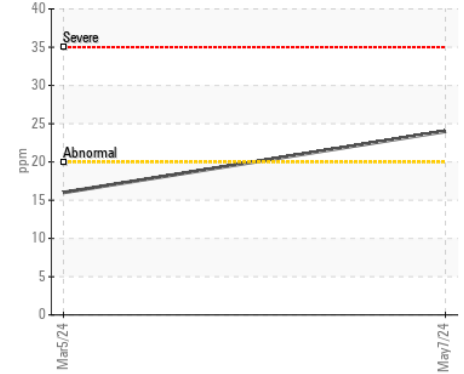
Viscosity @ 100°C



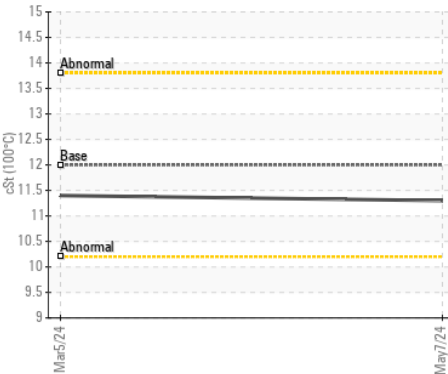
Copper (ppm)



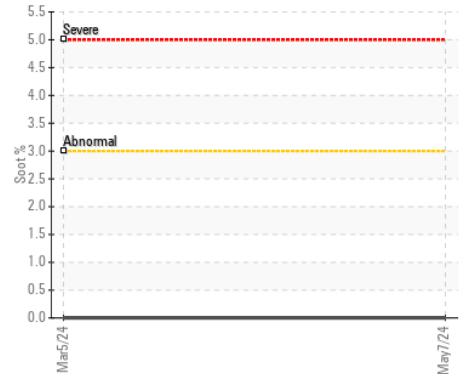
▲ Silicon (ppm)



Viscosity @ 100°C



Soot %



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0112492
Lab Number : 02634077
Unique Number : 5775230
Test Package : MOB 1
Received : 08 May 2024
Tested : 08 May 2024
Diagnosed : 08 May 2024 - Kevin Marson

GFL Environmental - 554 - Edmonton SW
 8409 -15th Street NW
 Edmonton, AB
 CA T6P 0B8
 Contact: Tim Greig
 tgreig@gflenv.com
 T: (780)231-0521
 F:

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.