

Machine Id
259005
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

We advise that you check for faulty combustion and a possible overheat condition. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0089798	---	---
Sample Date		Client Info		10 Apr 2024	---	---
Machine Age	kms	Client Info		141473	---	---
Oil Age	kms	Client Info		0	---	---
Filter Age	kms	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	65	---	---
Chromium	ppm	ASTM D5185(m)	>20	2	---	---
Nickel	ppm	ASTM D5185(m)	>4	1	---	---
Titanium	ppm	ASTM D5185(m)		<1	---	---
Silver	ppm	ASTM D5185(m)	>3	0	---	---
Aluminum	ppm	ASTM D5185(m)	>20	12	---	---
Lead	ppm	ASTM D5185(m)	>40	2	---	---
Copper	ppm	ASTM D5185(m)	>330	61	---	---
Tin	ppm	ASTM D5185(m)	>15	0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---

CONTAMINATION

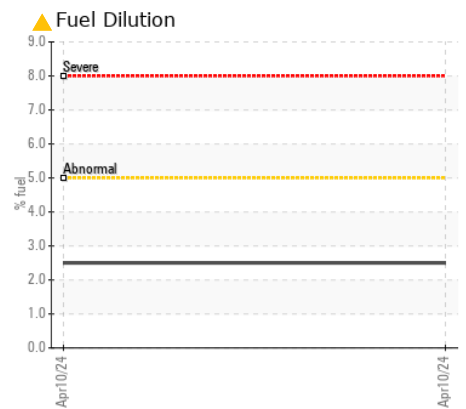
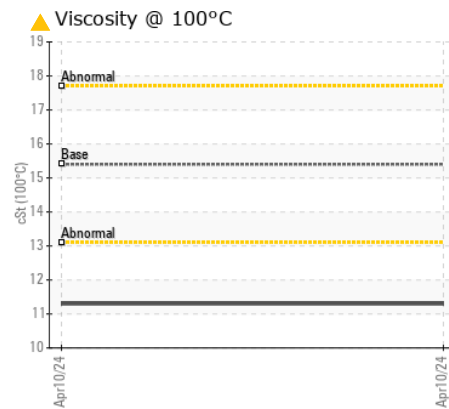
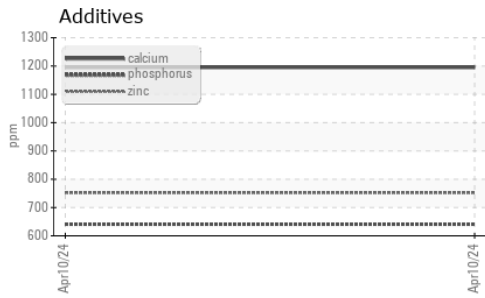
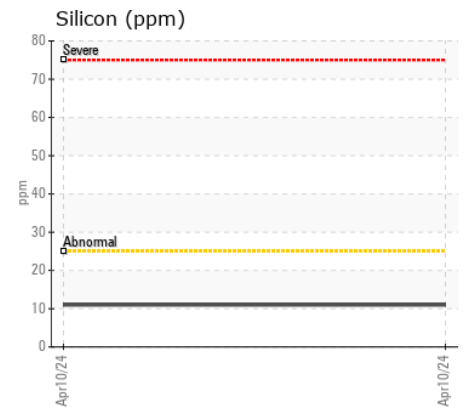
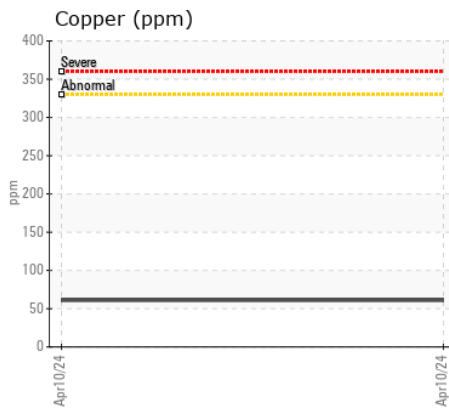
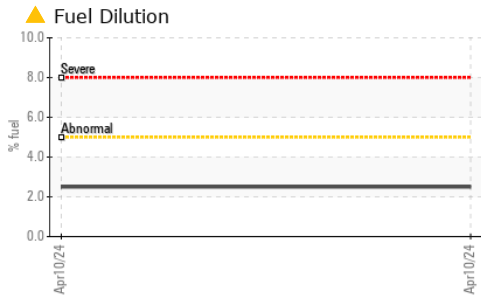
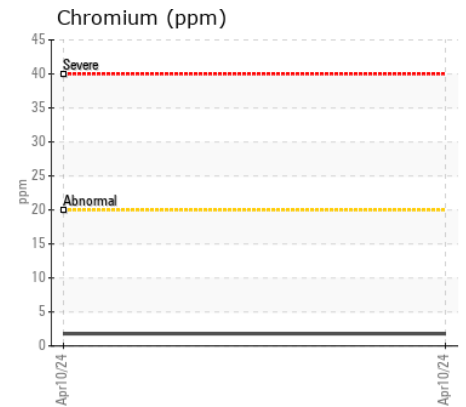
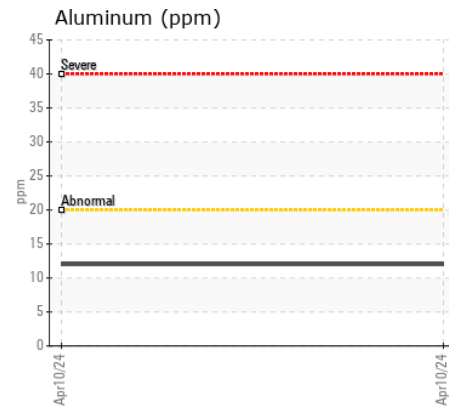
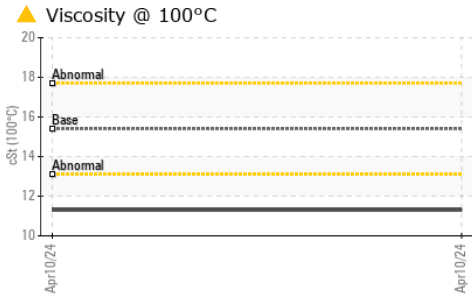
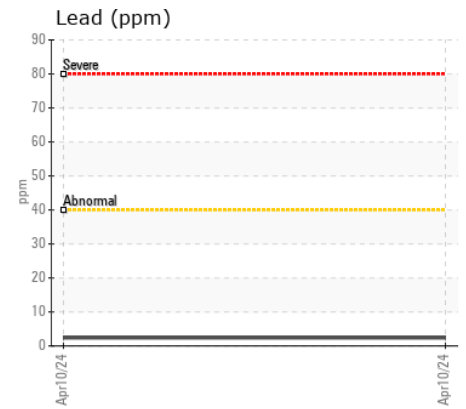
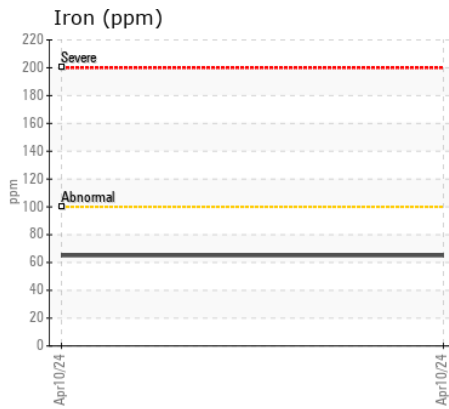
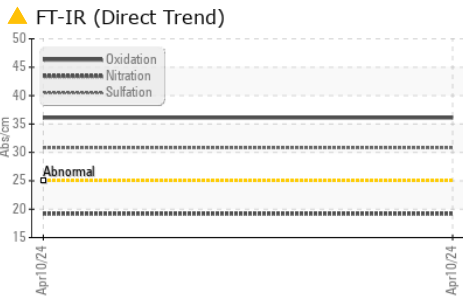
Light fuel dilution occurring.

Silicon	ppm	ASTM D5185(m)	>25	11	---	---
Potassium	ppm	ASTM D5185(m)	>20	1	---	---
Fuel	%	ASTM D7593*	>5	▲ 2.5	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	ASTM D7844*	>3	0	---	---
Nitration	Abs/cm	ASTM D7624*	>20	19.2	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	30.8	---	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---

FLUID CONDITION

A small degree of oil oxidation was indicated. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable.

Sodium	ppm	ASTM D5185(m)		8	---	---
Boron	ppm	ASTM D5185(m)	0	35	---	---
Barium	ppm	ASTM D5185(m)	0	0	---	---
Molybdenum	ppm	ASTM D5185(m)	60	195	---	---
Manganese	ppm	ASTM D5185(m)	0	2	---	---
Magnesium	ppm	ASTM D5185(m)	1010	507	---	---
Calcium	ppm	ASTM D5185(m)	1070	1195	---	---
Phosphorus	ppm	ASTM D5185(m)	1150	641	---	---
Zinc	ppm	ASTM D5185(m)	1270	752	---	---
Sulfur	ppm	ASTM D5185(m)	2060	1950	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	▲ 36.1	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	▲ 11.3	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0089798 **Received** : 16 Apr 2024
Lab Number : 02629104 **Tested** : 17 Apr 2024
Unique Number : 5762236 **Diagnosed** : 17 Apr 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - DO NOT USE **GFL582**
 9401 Trans Canada Hwy
 Chemainus, BC
 CA V0R 1K4
 Contact: service

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.

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F: