



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
525017-715
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		GFL0099633	GFL0061049	---
Sample Date		Client Info		17 May 2024	10 Oct 2022	---
Machine Age	mls	Client Info		17830	420310	---
Oil Age	mls	Client Info		0	0	---
Filter Age	mls	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>120	62	53	---
Chromium	ppm	ASTM D5185m	>20	2	2	---
Nickel	ppm	ASTM D5185m	>5	1	1	---
Titanium	ppm	ASTM D5185m	>2	<1	2	---
Silver	ppm	ASTM D5185m	>2	0	<1	---
Aluminum	ppm	ASTM D5185m	>20	10	17	---
Lead	ppm	ASTM D5185m	>40	4	6	---
Copper	ppm	ASTM D5185m	>330	4	10	---
Tin	ppm	ASTM D5185m	>15	1	2	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

There is no indication of any contamination in the oil.

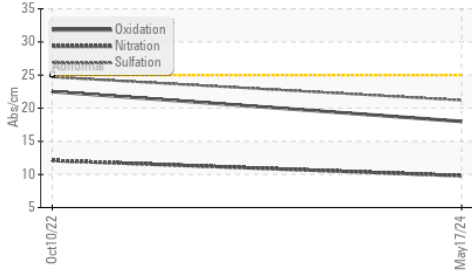
Silicon	ppm	ASTM D5185m	>25	7	8	---
Potassium	ppm	ASTM D5185m	>20	10	17	---
Fuel		WC Method	>3.0	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>4	0.4	0.5	---
Nitration	Abs/cm	*ASTM D7624	>20	9.8	12.1	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.2	24.7	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---

FLUID CONDITION

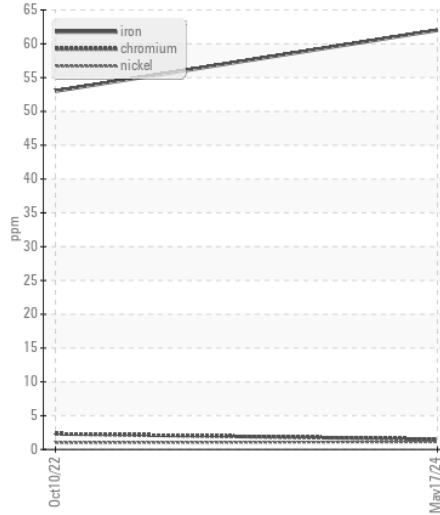
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		3	12	---
Boron	ppm	ASTM D5185m	0	2	0	---
Barium	ppm	ASTM D5185m	0	<1	0	---
Molybdenum	ppm	ASTM D5185m	60	64	60	---
Manganese	ppm	ASTM D5185m	0	<1	2	---
Magnesium	ppm	ASTM D5185m	1010	916	890	---
Calcium	ppm	ASTM D5185m	1070	1171	1068	---
Phosphorus	ppm	ASTM D5185m	1150	1122	910	---
Zinc	ppm	ASTM D5185m	1270	1276	1196	---
Sulfur	ppm	ASTM D5185m	2060	2813	2743	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.0	22.5	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	6.3	5.3	---
Visc @ 100°C	cSt	ASTM D445	15.4	13.5	13.4	---

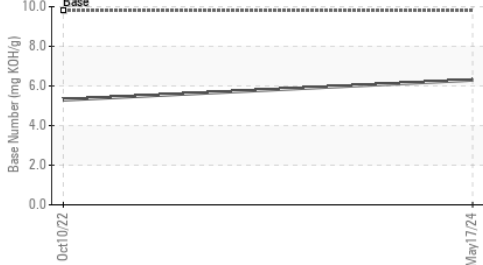
FT-IR (Direct Trend)



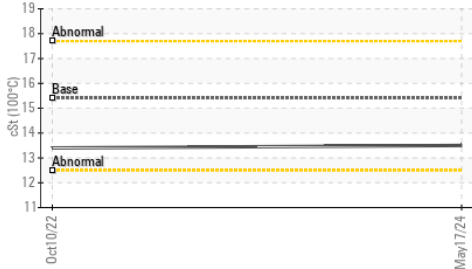
Ferrous Alloys



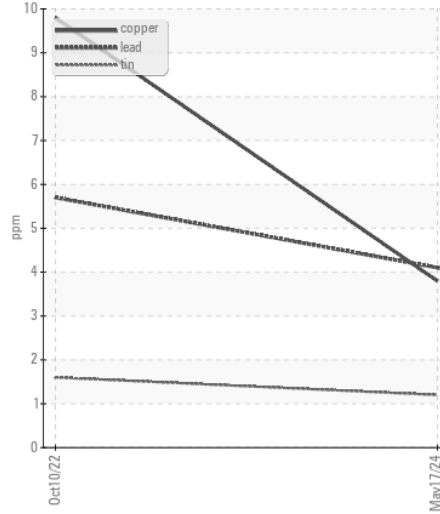
Base Number



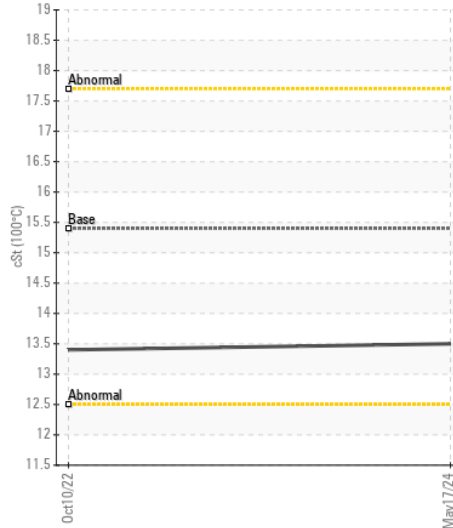
Viscosity @ 100°C



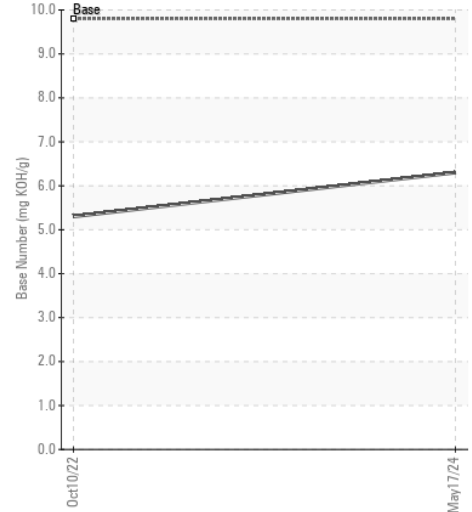
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0099633
Lab Number : 06196324
Unique Number : 11058447
Test Package : FLEET

Received : 31 May 2024
Tested : 03 Jun 2024
Diagnosed : 03 Jun 2024 - Wes Davis

GFL Environmental - 633 - Grand Haven
 1680 Peach St
 Whitehall, MI
 US 49461
 Contact: Derek Kater
 dkater@gflenv.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T:
F: