



Machine Id
833030

Component
Natural Gas Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

RECOMMENDATION

Oil and filter 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		GFL0098075	---	---
Sample Date		Client Info		19 Feb 2024	---	---
Machine Age	hrs	Client Info		1171	---	---
Oil Age	hrs	Client Info		1171	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ATTENTION	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	32	---	---
Chromium	ppm	ASTM D5185m	>4	1	---	---
Nickel	ppm	ASTM D5185m	>2	<1	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>9	3	---	---
Lead	ppm	ASTM D5185m	>30	7	---	---
Copper	ppm	ASTM D5185m	>35	13	---	---
Tin	ppm	ASTM D5185m	>4	2	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

There is no indication of any contamination in the oil.

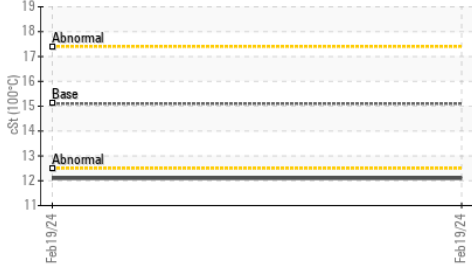
Silicon	ppm	ASTM D5185m	>+100	90	---	---
Potassium	ppm	ASTM D5185m	>20	10	---	---
Water		WC Method	>0.1	NEG	---	---
Soot %	%	*ASTM D7844		0.1	---	---
Nitration	Abs/cm	*ASTM D7624	>20	14.0	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	26.3	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.1	NEG	---	---

FLUID CONDITION

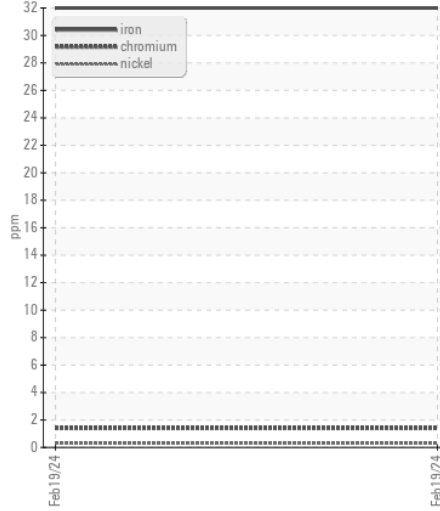
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		6	---	---
Boron	ppm	ASTM D5185m	50	8	---	---
Barium	ppm	ASTM D5185m	5	3	---	---
Molybdenum	ppm	ASTM D5185m	50	56	---	---
Manganese	ppm	ASTM D5185m	0	4	---	---
Magnesium	ppm	ASTM D5185m	560	775	---	---
Calcium	ppm	ASTM D5185m	1510	1169	---	---
Phosphorus	ppm	ASTM D5185m	780	689	---	---
Zinc	ppm	ASTM D5185m	870	860	---	---
Sulfur	ppm	ASTM D5185m	2040	2094	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	24.0	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	2.9	---	---
Visc @ 100°C	cSt	ASTM D445	15.1	▲ 12.1	---	---

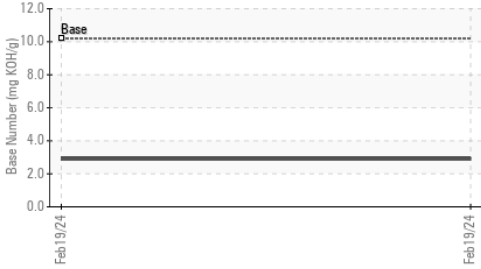
▲ Viscosity @ 100°C



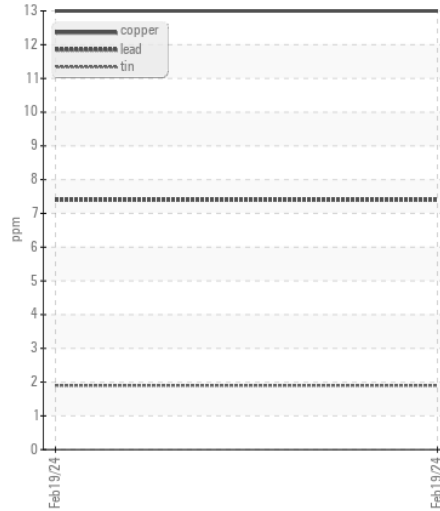
Ferrous Alloys



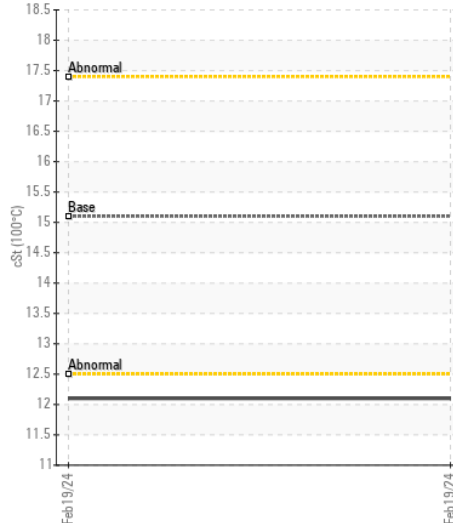
Base Number



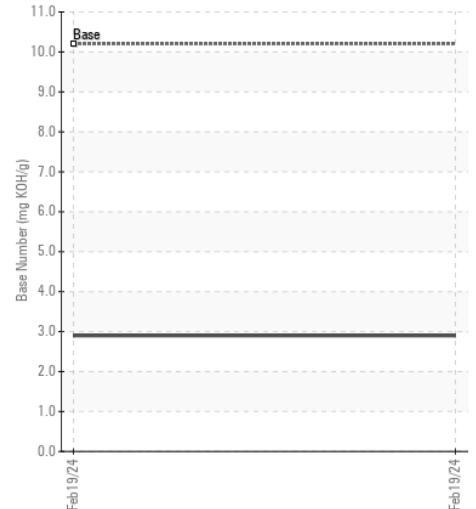
Non-ferrous Metals



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : GFL0098075

Lab Number : 06098148

Unique Number : 10896378

Test Package : FLEET (Additional Tests: FUELDILUTION, PercentFuel)

Received : 23 Feb 2024

Tested : 27 Feb 2024

Diagnosed : 27 Feb 2024 - Jonathan Hester

GFL Environmental - 932 - Muskego HC

W144 S6400 College Ct.

Muskego, WI

US 53150

Contact: Brian Schломann

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F:

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)