



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
934037
Component
Diesel Engine
Fluid
PETRO CANADA 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0108318	GFL0098210	---
Sample Date		Client Info		16 Jan 2024	30 Dec 2023	---
Machine Age	hrs	Client Info		344	250	---
Oil Age	hrs	Client Info		344	250	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Not Chngd	N/A	---
Filter Changed		Client Info		Not Chngd	N/A	---
Sample Status				NORMAL	NORMAL	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>90	60	46	---
Chromium	ppm	ASTM D5185m	>20	1	<1	---
Nickel	ppm	ASTM D5185m	>2	1	<1	---
Titanium	ppm	ASTM D5185m	>2	0	<1	---
Silver	ppm	ASTM D5185m	>2	<1	<1	---
Aluminum	ppm	ASTM D5185m	>20	6	5	---
Lead	ppm	ASTM D5185m	>40	<1	0	---
Copper	ppm	ASTM D5185m	>330	17	16	---
Tin	ppm	ASTM D5185m	>15	1	1	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

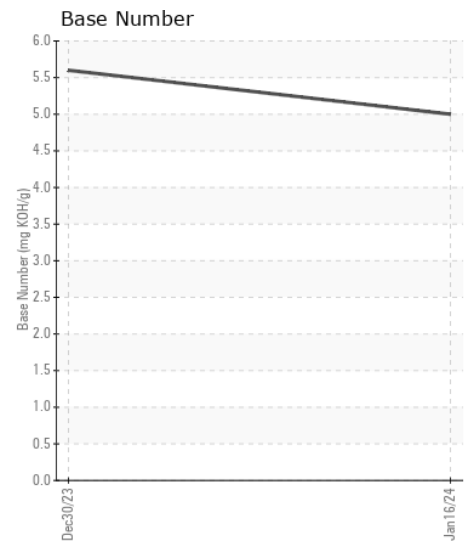
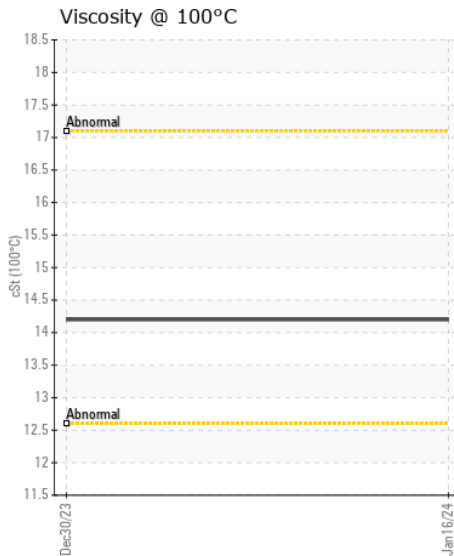
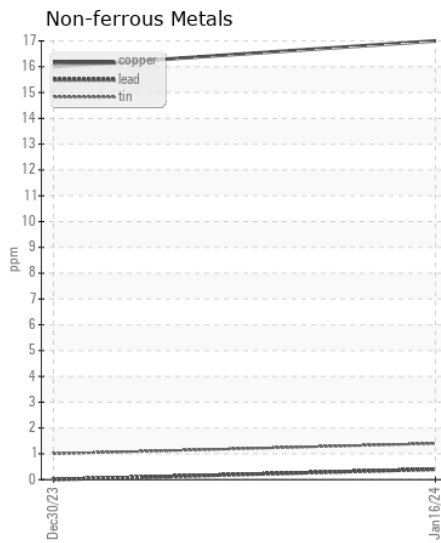
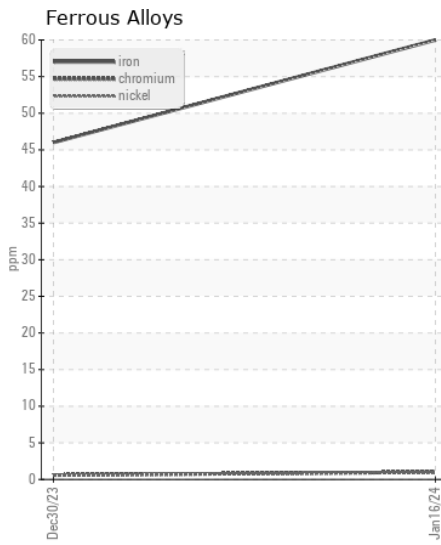
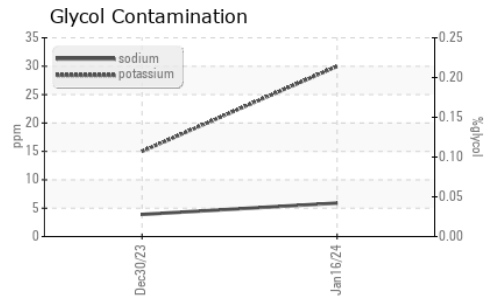
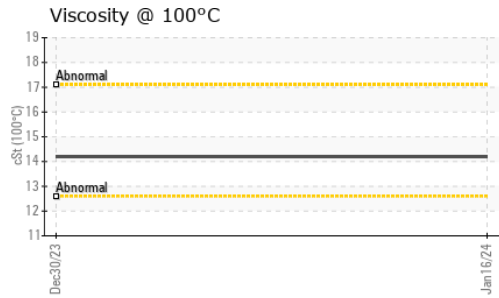
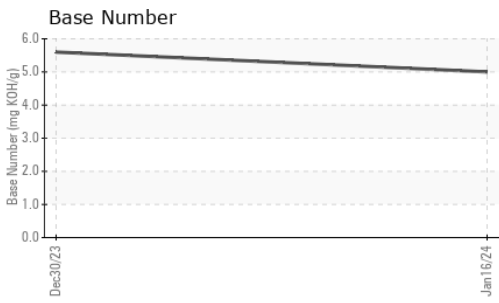
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	39	33	---
Potassium	ppm	ASTM D5185m	>20	30	15	---
Fuel		WC Method	>3.0	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol	%	*ASTM D2982		NEG	NEG	---
Soot %	%	*ASTM D7844	>6	0	0	---
Nitration	Abs/cm	*ASTM D7624	>20	12.2	10.9	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.4	20.3	---
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		6	4	---
Boron	ppm	ASTM D5185m		10	14	---
Barium	ppm	ASTM D5185m		4	0	---
Molybdenum	ppm	ASTM D5185m		56	49	---
Manganese	ppm	ASTM D5185m		17	15	---
Magnesium	ppm	ASTM D5185m		850	730	---
Calcium	ppm	ASTM D5185m		1126	1001	---
Phosphorus	ppm	ASTM D5185m		790	717	---
Zinc	ppm	ASTM D5185m		1008	854	---
Sulfur	ppm	ASTM D5185m		2592	2153	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.4	18.7	---
Base Number (BN)	mg KOH/g	ASTM D2896		5.0	5.6	---
Visc @ 100°C	cSt	ASTM D445		14.2	14.2	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0108318 **Received** : 19 Jan 2024
Lab Number : 06065392 **Diagnosed** : 23 Jan 2024
Unique Number : 10836774 **Diagnostician** : Sean Felton
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 652 - Fredericksburg Hauling
 10954 Houser Drive
 Fredericksburg, VA
 US 22408
 Contact: WILLIAM MILO
 wmilo@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: