



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
VPF8654
 Component
Diesel Engine
 Fluid
PETRO CANADA 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0120945	PCA0120971	---
Sample Date		Client Info		31 May 2024	15 May 2024	---
Machine Age	mls	Client Info		45795	22515	---
Oil Age	mls	Client Info		25505	22515	---
Filter Age	mls	Client Info		25505	22515	---
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	>100	25	48	---
Chromium	ppm	ASTM D5185m	>20	<1	<1	---
Nickel	ppm	ASTM D5185m	>4	<1	<1	---
Titanium	ppm	ASTM D5185m		2	<1	---
Silver	ppm	ASTM D5185m	>3	<1	<1	---
Aluminum	ppm	ASTM D5185m	>20	30	40	---
Lead	ppm	ASTM D5185m	>40	0	0	---
Copper	ppm	ASTM D5185m	>330	6	9	---
Tin	ppm	ASTM D5185m	>15	0	1	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

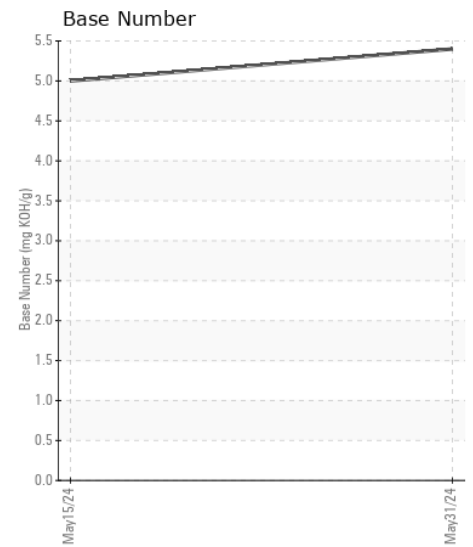
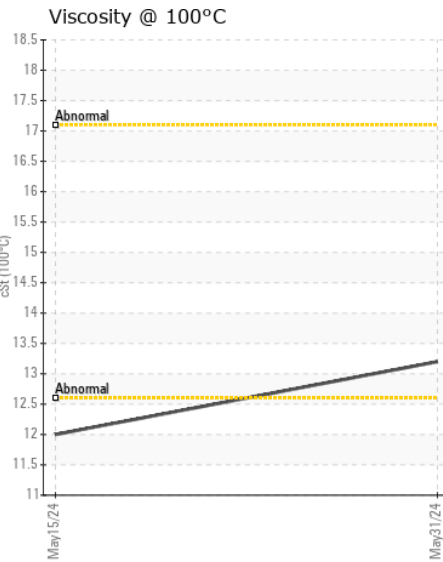
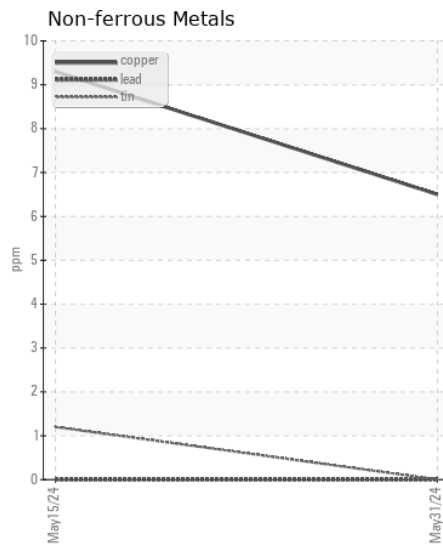
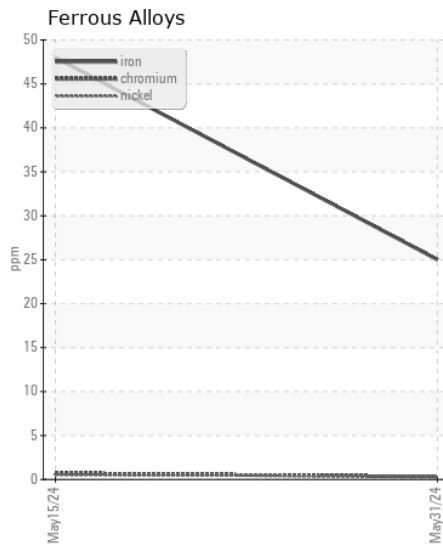
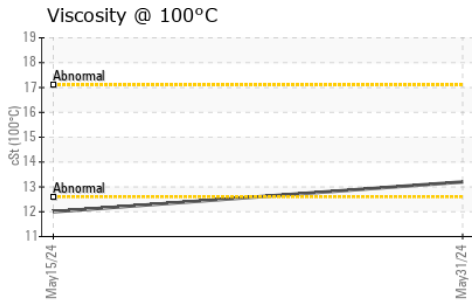
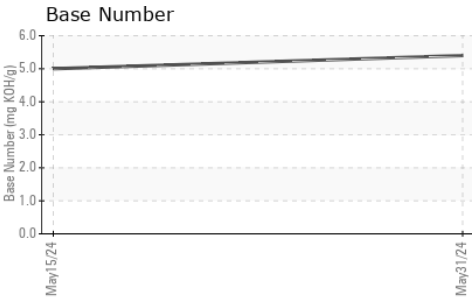
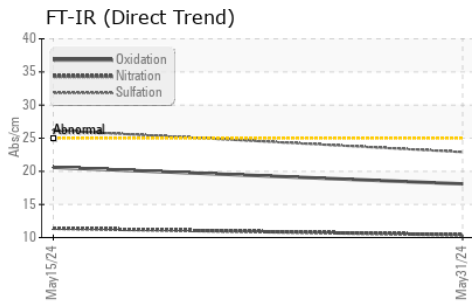
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	9	---
Potassium	ppm	ASTM D5185m	>20	70	92	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.5	0.7	---
Nitration	Abs/cm	*ASTM D7624	>20	10.4	11.4	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.9	26.2	---
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	5	---
Boron	ppm	ASTM D5185m		5	14	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		46	4	---
Manganese	ppm	ASTM D5185m		1	3	---
Magnesium	ppm	ASTM D5185m		846	720	---
Calcium	ppm	ASTM D5185m		1032	1239	---
Phosphorus	ppm	ASTM D5185m		879	709	---
Zinc	ppm	ASTM D5185m		1088	801	---
Sulfur	ppm	ASTM D5185m		2955	3106	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.1	20.6	---
Base Number (BN)	mg KOH/g	ASTM D2896		5.4	5.0	---
Visc @ 100°C	cSt	ASTM D445		13.2	12.0	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0120945 **Received** : 17 Jun 2024
Lab Number : 06211289 **Tested** : 19 Jun 2024
Unique Number : 11084153 **Diagnosed** : 19 Jun 2024 - Wes Davis
Test Package : FLEET

TROIL ENTERPRISES
 2485 E STATE RD
 TRENTON, NJ
 US 08619
 Contact: JOHN RUBLE

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: