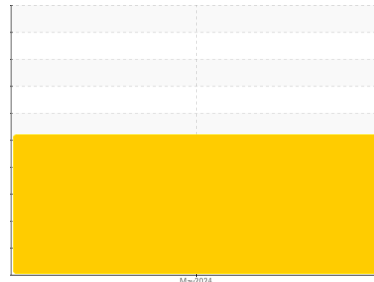


OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id
FREIGHTLINER 20
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (13 LTR)

DIAGNOSIS

- Recommendation**
 The oil is near the end of its useful service life, recommend schedule an oil change. Resample at the next service interval to monitor.
- Wear**
 Cylinder, crank, or cam shaft wear is indicated. Bearing and/or bushing wear is indicated.
- Contamination**
 Elemental level of silicon (Si) above normal indicating ingress of dirt/seal material.
- Fluid Condition**
 The BN level is low.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PCA0102618	---	---
Sample Date	Client Info	22 May 2024	---	---
Machine Age	hrs Client Info	0	---	---
Oil Age	hrs Client Info	0	---	---
Oil Changed	Client Info	N/A	---	---
Sample Status		ABNORMAL	---	---

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	---	---
Water	WC Method >0.2	NEG	---	---
Glycol	WC Method	NEG	---	---

WEAR METALS

method	limit/base	current	history1	history2
Iron ppm	ASTM D5185m >80	▲ 109	---	---
Chromium ppm	ASTM D5185m >5	▲ 8	---	---
Nickel ppm	ASTM D5185m >2	<1	---	---
Titanium ppm	ASTM D5185m	<1	---	---
Silver ppm	ASTM D5185m >3	<1	---	---
Aluminum ppm	ASTM D5185m >30	3	---	---
Lead ppm	ASTM D5185m >30	▲ 60	---	---
Copper ppm	ASTM D5185m >150	6	---	---
Tin ppm	ASTM D5185m >5	2	---	---
Vanadium ppm	ASTM D5185m	<1	---	---
Cadmium ppm	ASTM D5185m	0	---	---

ADDITIVES

method	limit/base	current	history1	history2
Boron ppm	ASTM D5185m 0	13	---	---
Barium ppm	ASTM D5185m 0	0	---	---
Molybdenum ppm	ASTM D5185m 60	64	---	---
Manganese ppm	ASTM D5185m 0	1	---	---
Magnesium ppm	ASTM D5185m 1010	837	---	---
Calcium ppm	ASTM D5185m 1070	1407	---	---
Phosphorus ppm	ASTM D5185m 1150	1023	---	---
Zinc ppm	ASTM D5185m 1270	1429	---	---
Sulfur ppm	ASTM D5185m 2060	2973	---	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm	ASTM D5185m >20	▲ 23	---	---
Sodium ppm	ASTM D5185m	6	---	---
Potassium ppm	ASTM D5185m >20	6	---	---

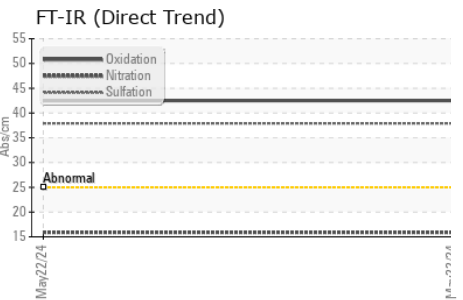
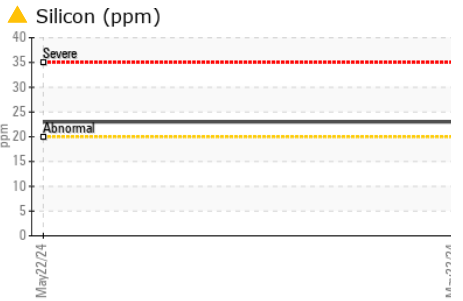
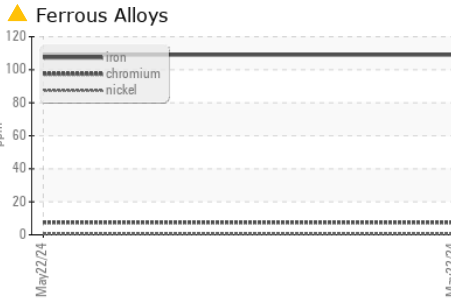
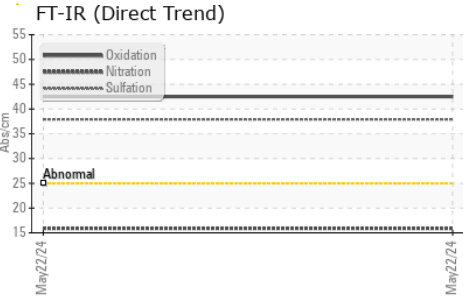
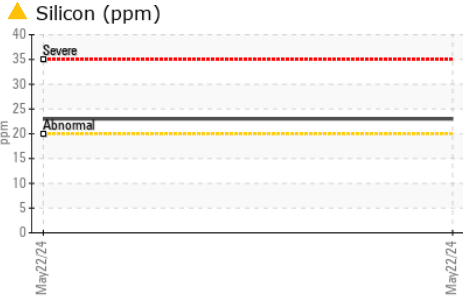
INFRA-RED

method	limit/base	current	history1	history2
Soot %	*ASTM D7844 >3	1.9	---	---
Nitration	*ASTM D7624 >20	15.9	---	---
Sulfation	*ASTM D7415 >30	37.9	---	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs./1mm *ASTM D7414 >25	42.5	---	---
Base Number (BN)	mg KOH/g ASTM D2896 9.8	▲ 2.0	---	---

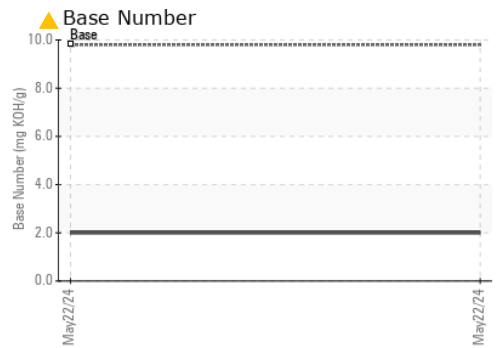
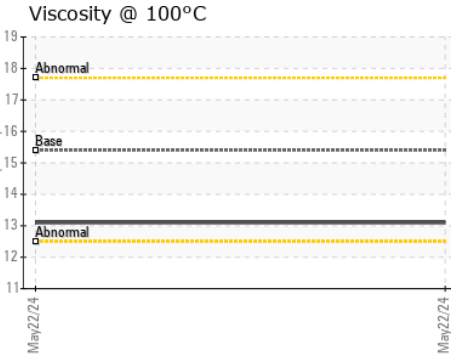
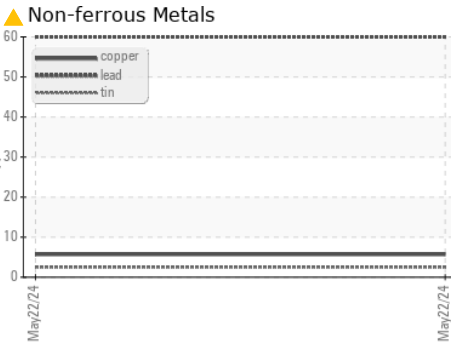
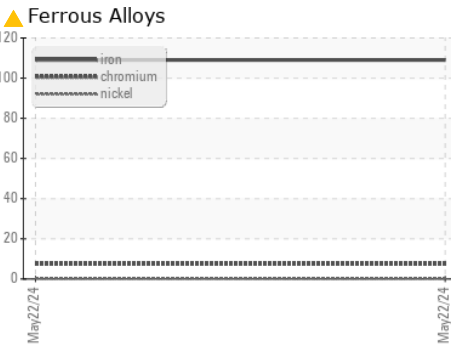
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
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	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.1	---

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0102618 **Received** : 23 May 2024
Lab Number : 06188596 **Tested** : 24 May 2024
Unique Number : 11045348 **Diagnosed** : 28 May 2024 - Don Baldrige
Test Package : FLEET

A Truck Repair
 9349 China Grove Church Road
 Pineville, NC
 US 28134
 Contact: Vlad Melnichuk
 shop@migway.com
 T: (980)255-3200
 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)