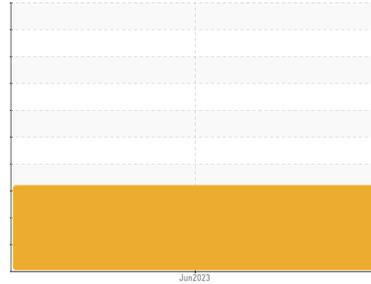


PROBLEM SUMMARY

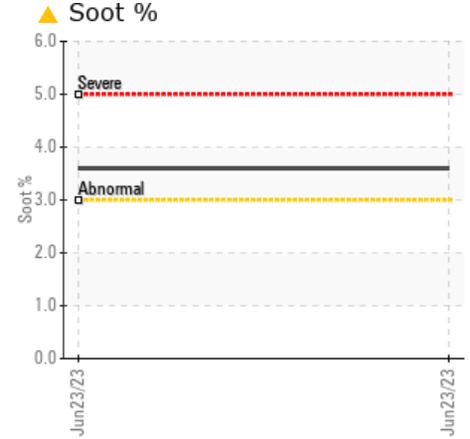
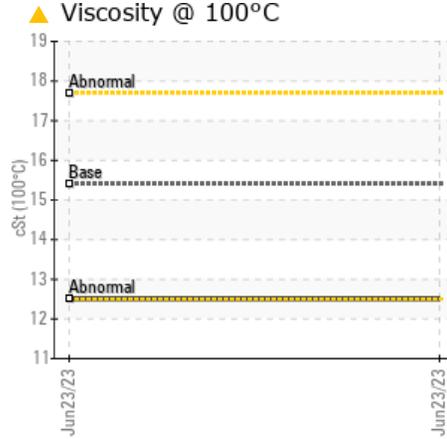
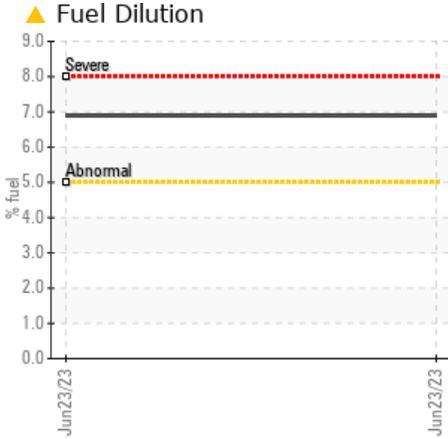
Sample Rating Trend

DEGRADATION

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



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	---	---
Fuel	%	ASTM D3524	>5	▲ 6.9	---	---
Soot %	%	*ASTM D7844	>3	▲ 3.6	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	▲ 3.4	---	---
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 12.5	---	---

Customer Id: ATRPIN
 Sample No.: PCA0100645
 Lab Number: 05885400
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Don Baldrige +1
don.b505@comcast.net

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.
Check Fuel/injector System	---	---	?	We advise that you check the fuel injection system.

HISTORICAL DIAGNOSIS

OIL ANALYSIS REPORT

Sample Rating Trend

DEGRADATION

 Machine Id
FREIGHTLINER 15

 Component
Diesel Engine

 Fluid
PETRO CANADA DURON SHP 15W40 (13 LTR)

DIAGNOSIS
Recommendation

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is an abnormal amount of solids and carbon present in the oil. There is a moderate amount of fuel present in the oil.

Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The BN level is low.

SAMPLE INFORMATION	method	limit/base	current	history 1	history 2
Sample Number	Client Info		PCA0100645	---	---
Sample Date	Client Info		23 Jun 2023	---	---
Machine Age	mls	Client Info	552513	---	---
Oil Age	mls	Client Info	29690	---	---
Oil Changed	Client Info		Changed	---	---
Sample Status			ABNORMAL	---	---

CONTAMINATION	method	limit/base	current	history 1	history 2
Glycol	WC Method		NEG	---	---

WEAR METALS	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >80	54	---	---
Chromium	ppm	ASTM D5185m >5	3	---	---
Nickel	ppm	ASTM D5185m >2	<1	---	---
Titanium	ppm	ASTM D5185m	<1	---	---
Silver	ppm	ASTM D5185m >3	0	---	---
Aluminum	ppm	ASTM D5185m >30	3	---	---
Lead	ppm	ASTM D5185m >30	8	---	---
Copper	ppm	ASTM D5185m >150	2	---	---
Tin	ppm	ASTM D5185m >5	2	---	---
Vanadium	ppm	ASTM D5185m	0	---	---
Cadmium	ppm	ASTM D5185m	<1	---	---

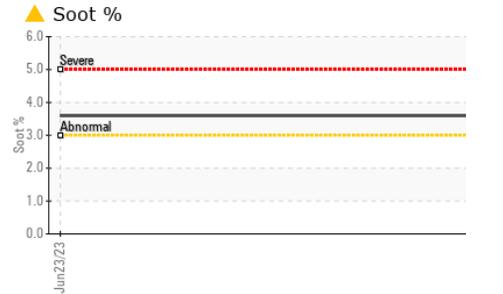
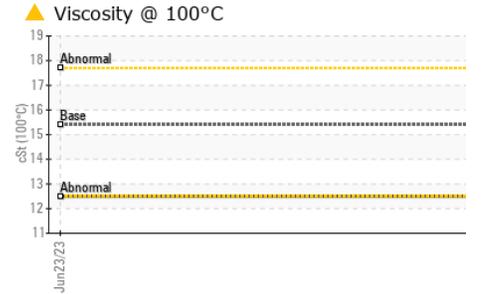
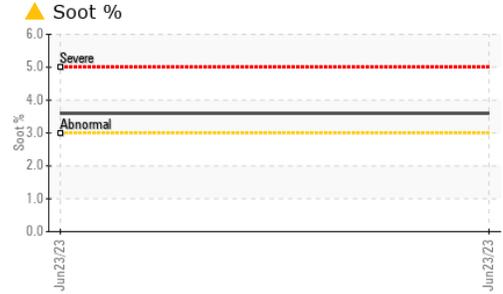
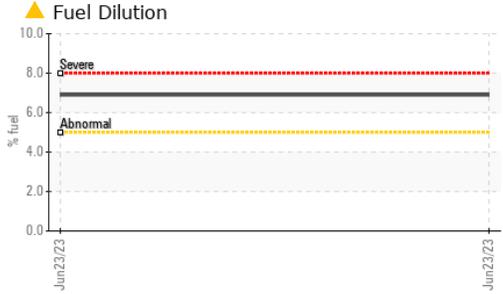
ADDITIVES	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m 0	<1	---	---
Barium	ppm	ASTM D5185m 0	<1	---	---
Molybdenum	ppm	ASTM D5185m 60	55	---	---
Manganese	ppm	ASTM D5185m 0	<1	---	---
Magnesium	ppm	ASTM D5185m 1010	853	---	---
Calcium	ppm	ASTM D5185m 1070	1085	---	---
Phosphorus	ppm	ASTM D5185m 1150	903	---	---
Zinc	ppm	ASTM D5185m 1270	1124	---	---
Sulfur	ppm	ASTM D5185m 2060	3105	---	---

CONTAMINANTS	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >20	21	---	---
Sodium	ppm	ASTM D5185m	4	---	---
Potassium	ppm	ASTM D5185m >20	11	---	---
Fuel	%	ASTM D3524 >5	▲ 6.9	---	---

INFRA-RED	method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844 >3	▲ 3.6	---	---
Nitration	Abs/cm	*ASTM D7624 >20	12.4	---	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	30.6	---	---

FLUID DEGRADATION	method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414 >25	23.0	---	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	▲ 3.4	---	---

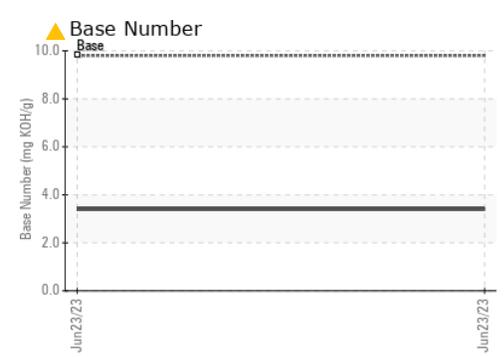
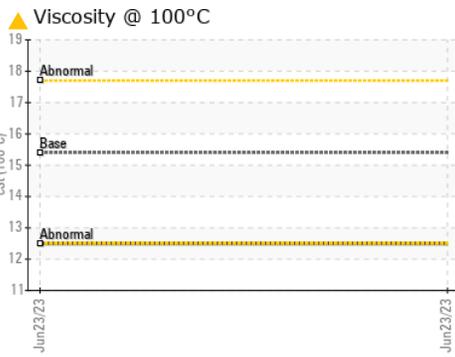
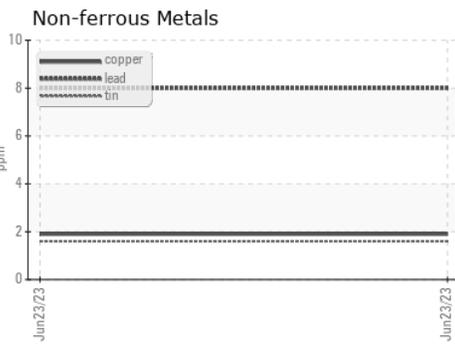
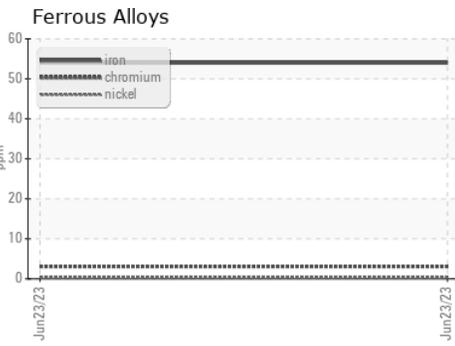
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history 1	history 2	
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	history 1	history 2	
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 12.5	---	---

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0100645 **Received** : 28 Jun 2023
Lab Number : 05885400 **Diagnosed** : 30 Jun 2023
Unique Number : 10535883 **Diagnostician** : Don Baldrige
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

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

Certificate L2367
 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)