

PROBLEM SUMMARY

Sample Rating Trend

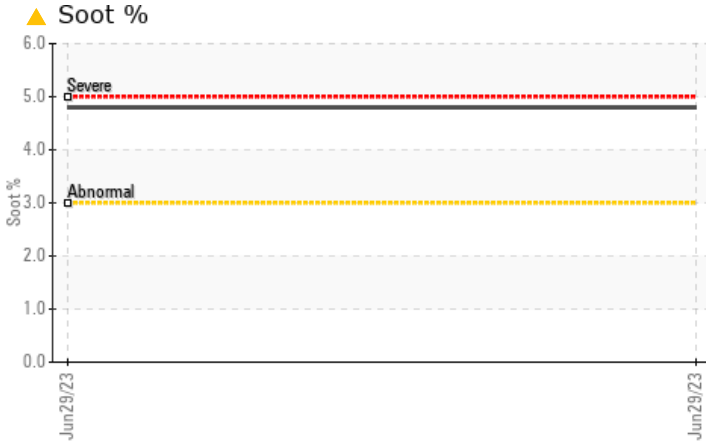


DEGRADATION



Machine Id
FREIGHTLINER 79
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (13 LTR)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check for faulty combustion, plugged air filters, or aftercoolers. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. NOTE: High solids (carbon/soot) in the sample have limited the accuracy of Infra-Red data including Total Base Number (TBN) value.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	---	---
Soot %	%	*ASTM D7844	>3	▲ 4.8	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	▲ 0.0	---	---

Customer Id: ATRPIN
 Sample No.: PCA0100682
 Lab Number: 05889870
 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.
Alert	---	---	?	NOTE: High solids (carbon/soot) in the sample have limited the accuracy of Infra-Red data including Total Base Number (TBN) value.
Check Combustion	---	---	?	We advise that you check for faulty combustion, plugged air filters, or aftercoolers.

HISTORICAL DIAGNOSIS



Machine Id
FREIGHTLINER 79
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (13 LTR)

DIAGNOSIS

Recommendation

We advise that you check for faulty combustion, plugged air filters, or aftercoolers. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. NOTE: High solids (carbon/soot) in the sample have limited the accuracy of Infra-Red data including Total Base Number (TBN) value.

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

The BN level is low.

SAMPLE INFORMATION method limit/base current history 1 history 2

Sample Number	Client Info		PCA0100682	---	---
Sample Date	Client Info		29 Jun 2023	---	---
Machine Age	mls	Client Info	422347	---	---
Oil Age	mls	Client Info	29158	---	---
Oil Changed	Client Info		Changed	---	---
Sample Status			ABNORMAL	---	---

CONTAMINATION method limit/base current history 1 history 2

Fuel	WC Method	>5	<1.0	---	---
Glycol	WC Method		NEG	---	---

WEAR METALS method limit/base current history 1 history 2

Iron	ppm	ASTM D5185m	>80	35	---	---
Chromium	ppm	ASTM D5185m	>5	2	---	---
Nickel	ppm	ASTM D5185m	>2	<1	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>30	12	---	---
Lead	ppm	ASTM D5185m	>30	25	---	---
Copper	ppm	ASTM D5185m	>150	2	---	---
Tin	ppm	ASTM D5185m	>5	2	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
Cadmium	ppm	ASTM D5185m		0	---	---

ADDITIVES method limit/base current history 1 history 2

Boron	ppm	ASTM D5185m	0	0	---	---
Barium	ppm	ASTM D5185m	0	0	---	---
Molybdenum	ppm	ASTM D5185m	60	57	---	---
Manganese	ppm	ASTM D5185m	0	<1	---	---
Magnesium	ppm	ASTM D5185m	1010	831	---	---
Calcium	ppm	ASTM D5185m	1070	1025	---	---
Phosphorus	ppm	ASTM D5185m	1150	885	---	---
Zinc	ppm	ASTM D5185m	1270	1081	---	---
Sulfur	ppm	ASTM D5185m	2060	2688	---	---

CONTAMINANTS method limit/base current history 1 history 2

Silicon	ppm	ASTM D5185m	>20	4	---	---
Sodium	ppm	ASTM D5185m		0	---	---
Potassium	ppm	ASTM D5185m	>20	26	---	---

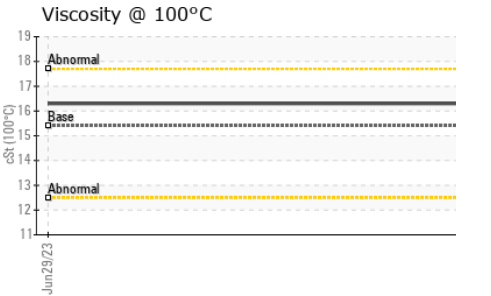
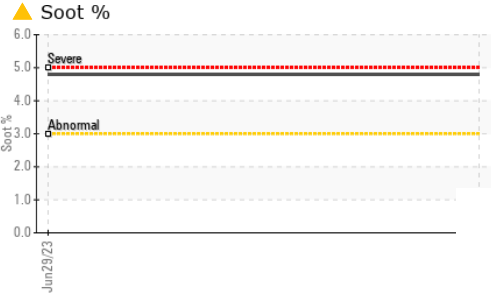
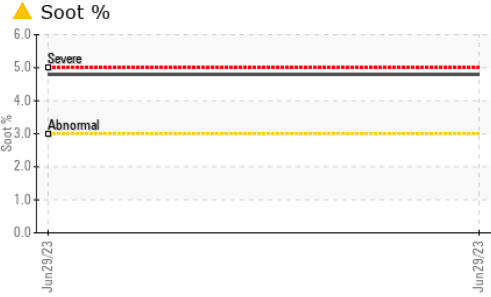
INFRA-RED method limit/base current history 1 history 2

Soot %	%	*ASTM D7844	>3	▲ 4.8	---	---
Nitration	Abs/cm	*ASTM D7624	>20	13.9	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	33.5	---	---

FLUID DEGRADATION method limit/base current history 1 history 2

Oxidation	Abs/.1mm	*ASTM D7414	>25	22.3	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	▲ 0.0	---	---

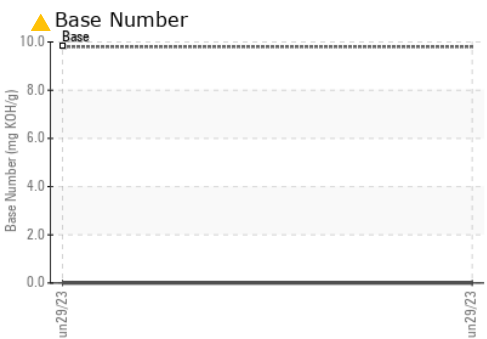
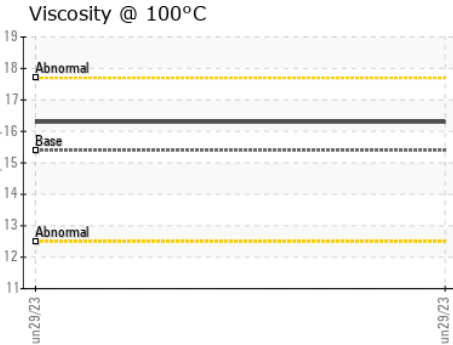
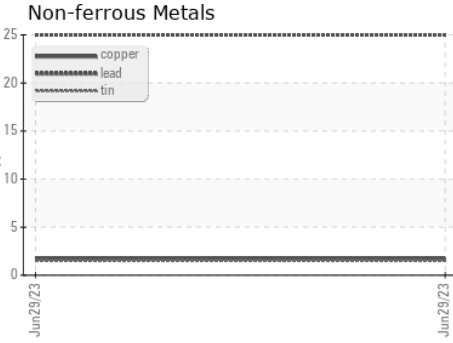
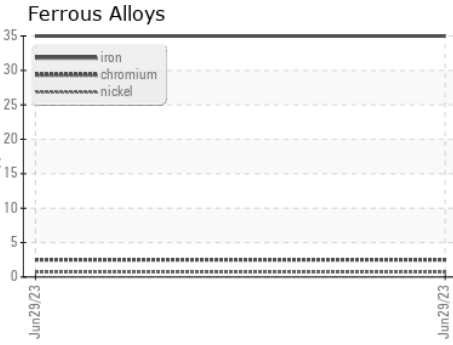
OIL ANALYSIS REPORT



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	16.3	---	---

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0100682 **Received** : 05 Jul 2023
Lab Number : **05889870** **Diagnosed** : 06 Jul 2023
Unique Number : 10545680 **Diagnostician** : Don Baldrige
Test Package : FLEET

A Truck Repair
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 Pineville, NC
 US 28134
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 shop@migway.com
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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)