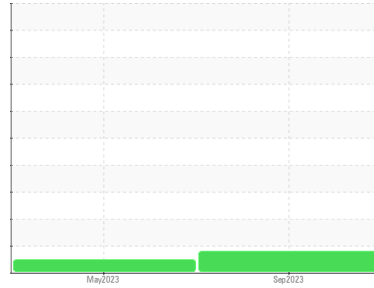


OIL ANALYSIS REPORT

Sample Rating Trend



SOOT



Machine Id
101069

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 10W30 (--- QTS)

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.

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 result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PCA0105778	PCA0097792	---
Sample Date	Client Info	29 Sep 2023	03 May 2023	---
Machine Age	mls	Client Info	94465	74915
Oil Age	mls	Client Info	19550	3738
Oil Changed	Client Info	Changed	Changed	---
Sample Status		ABNORMAL	NORMAL	---

CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	NEG	NEG	---

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	80	6
Chromium	ppm	ASTM D5185m >20	1	0
Nickel	ppm	ASTM D5185m >4	<1	0
Titanium	ppm	ASTM D5185m	0	0
Silver	ppm	ASTM D5185m >3	0	0
Aluminum	ppm	ASTM D5185m >20	4	<1
Lead	ppm	ASTM D5185m >40	2	<1
Copper	ppm	ASTM D5185m >330	230	<1
Tin	ppm	ASTM D5185m >15	<1	<1
Vanadium	ppm	ASTM D5185m	0	0
Cadmium	ppm	ASTM D5185m	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 2	2	13
Barium	ppm	ASTM D5185m 0	0	2
Molybdenum	ppm	ASTM D5185m 50	69	60
Manganese	ppm	ASTM D5185m 0	<1	<1
Magnesium	ppm	ASTM D5185m 950	1012	797
Calcium	ppm	ASTM D5185m 1050	1192	1075
Phosphorus	ppm	ASTM D5185m 995	1077	990
Zinc	ppm	ASTM D5185m 1180	1366	1132
Sulfur	ppm	ASTM D5185m 2600	2995	3159

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	8	3
Sodium	ppm	ASTM D5185m	3	0
Potassium	ppm	ASTM D5185m >20	3	2
Fuel	%	ASTM D3524 >5	<1.0	<1.0

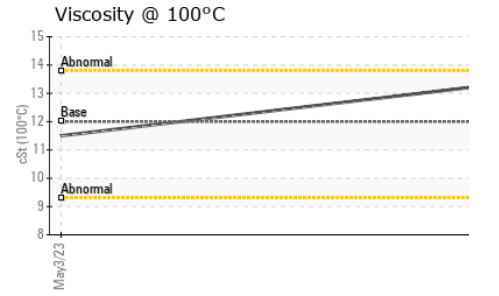
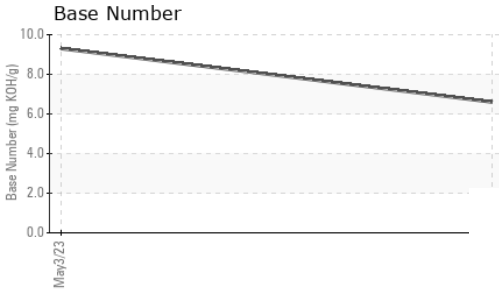
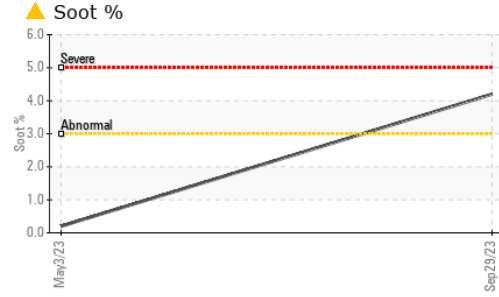
INFRA-RED

method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	▲ 4.2	0.2
Nitration	Abs/cm	*ASTM D7624 >20	17.4	5.0
Sulfation	Abs/.1mm	*ASTM D7415 >30	31.0	18.0

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	23.9	14.4
Base Number (BN)	mg KOH/g	ASTM D2896	6.6	9.3

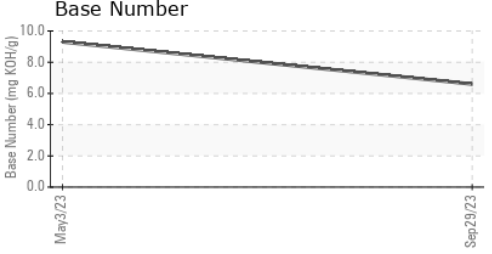
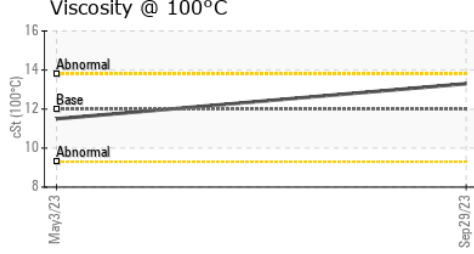
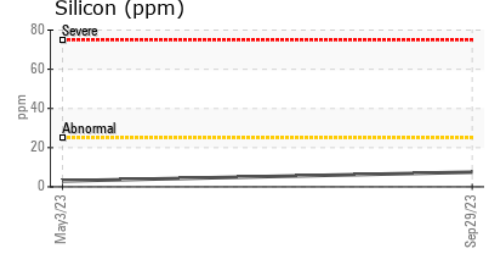
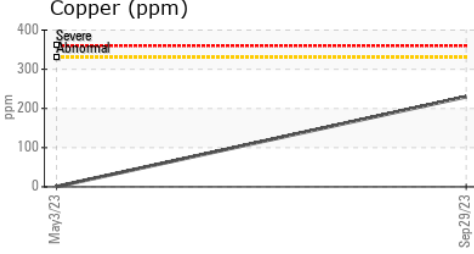
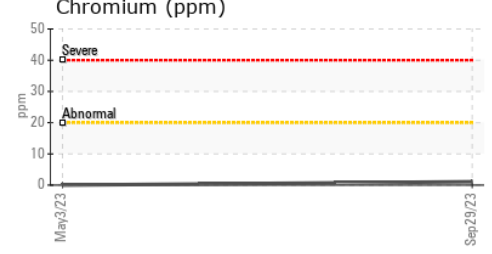
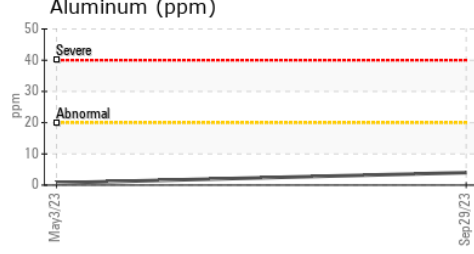
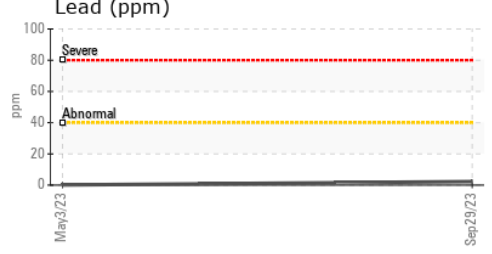
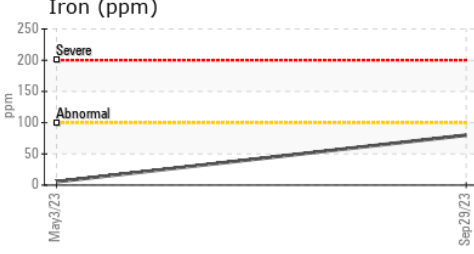
OIL ANALYSIS REPORT



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	12.00	13.3	11.5	---

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0105778 **Received** : 08 Nov 2023
Lab Number : 06001272 **Diagnosed** : 09 Nov 2023
Unique Number : 10729632 **Diagnostician** : Jonathan Hester
Test Package : MOB 1 (Additional Tests: FuelDilution, TBN)

MILLER TRUCK LEASING #114
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 LOGAN TOWNSHIP, NJ
 US 08085
 Contact: ED DAVIS
 edavis@millertransgroup.com
 T: (856)214-3521
 F: (856)214-3663

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)