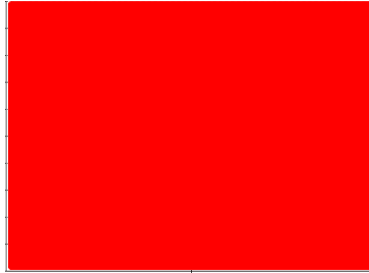



 Machine Id
735673

 Component
Diesel Engine

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

DIAGNOSIS
Recommendation

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Wear

Piston, ring and cylinder wear is indicated.

Contamination

Sodium and/or potassium levels are high. Test for glycol is positive.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PCA0102876	---	---
Sample Date	Client Info		11 Aug 2023	---	---
Machine Age	mls	Client Info	87232	---	---
Oil Age	mls	Client Info	87232	---	---
Oil Changed	Client Info		Changed	---	---
Sample Status			SEVERE	---	---

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	---	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	▲ 193	---	---
Chromium	ppm	ASTM D5185m >20	18	---	---
Nickel	ppm	ASTM D5185m >4	2	---	---
Titanium	ppm	ASTM D5185m	1	---	---
Silver	ppm	ASTM D5185m >3	0	---	---
Aluminum	ppm	ASTM D5185m >20	▲ 196	---	---
Lead	ppm	ASTM D5185m >40	1	---	---
Copper	ppm	ASTM D5185m >330	166	---	---
Tin	ppm	ASTM D5185m >15	6	---	---
Vanadium	ppm	ASTM D5185m	<1	---	---
Cadmium	ppm	ASTM D5185m	<1	---	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 2	22	---	---
Barium	ppm	ASTM D5185m 0	0	---	---
Molybdenum	ppm	ASTM D5185m 50	49	---	---
Manganese	ppm	ASTM D5185m 0	5	---	---
Magnesium	ppm	ASTM D5185m 950	613	---	---
Calcium	ppm	ASTM D5185m 1050	1958	---	---
Phosphorus	ppm	ASTM D5185m 995	772	---	---
Zinc	ppm	ASTM D5185m 1180	981	---	---
Sulfur	ppm	ASTM D5185m 2600	2204	---	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	13	---	---
Sodium	ppm	ASTM D5185m	13	---	---
Potassium	ppm	ASTM D5185m >20	▲ 452	---	---
Glycol	%	*ASTM D2982	▲ 0.10	---	---

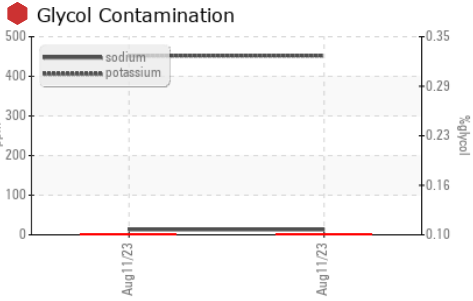
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	2.1	---	---
Nitration	Abs/cm	*ASTM D7624 >20	17.3	---	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	29.4	---	---

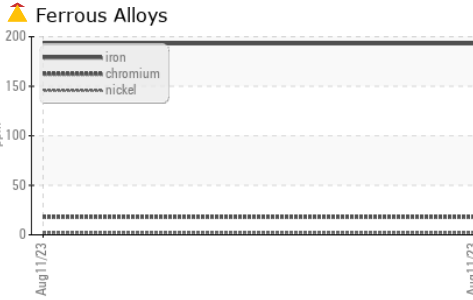
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	35.7	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	4.3	---	---

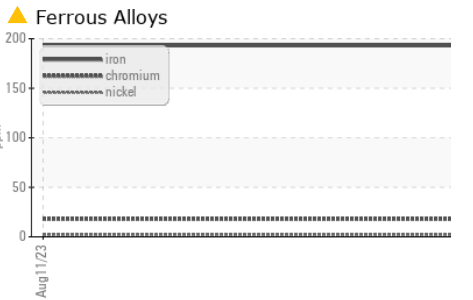
OIL ANALYSIS REPORT



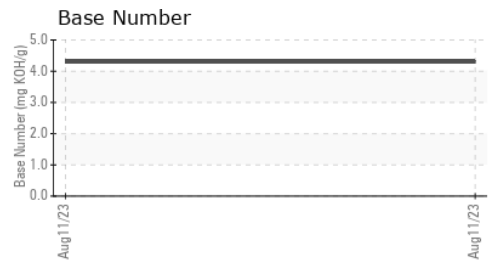
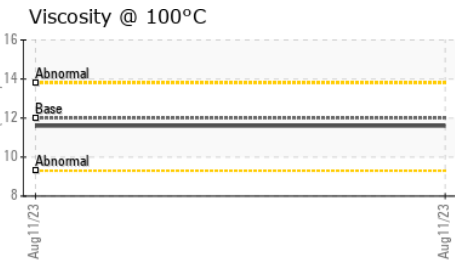
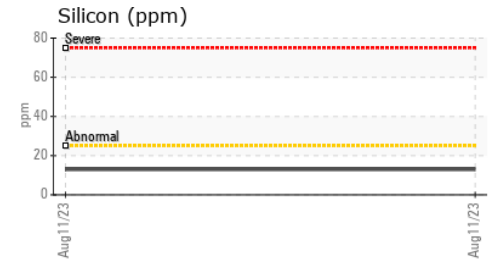
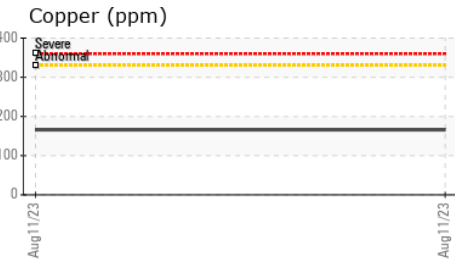
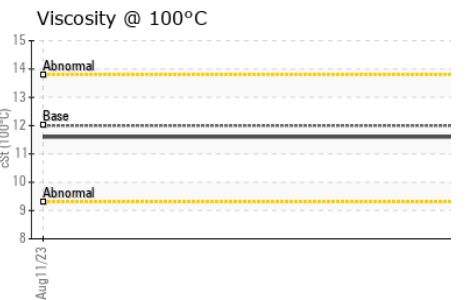
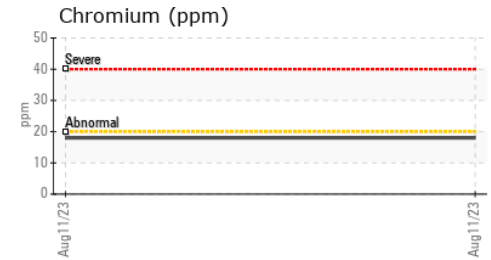
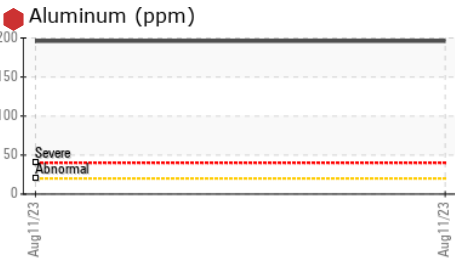
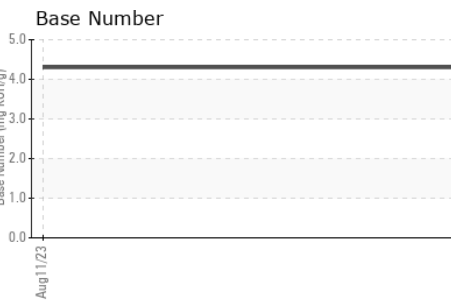
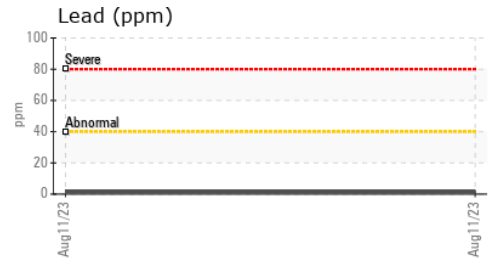
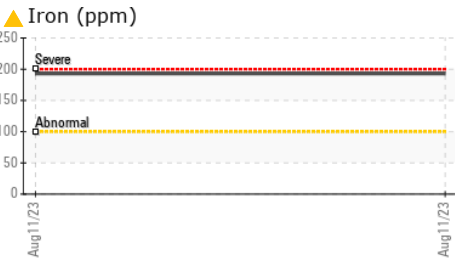
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*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	11.6	---



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0102876 **Received** : 21 Aug 2023
Lab Number : 05929239 **Diagnosed** : 24 Aug 2023
Unique Number : 10609186 **Diagnostician** : Jonathan Hester
Test Package : MOB 1 (Additional Tests: Glycol, TBN)

MILLER TRUCK LEASING #118
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 PHILADELPHIA, PA
 US 19116
 Contact: ROSTY VITER
 rviter@millertransgroup.com
 T: (215)552-9832
 F: (215)552-9892

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)