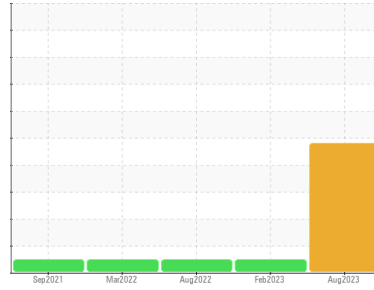


PROBLEM SUMMARY

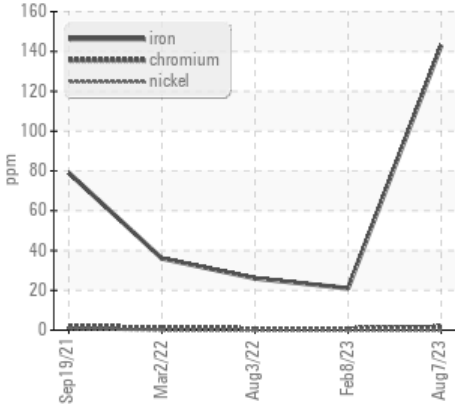
Sample Rating Trend



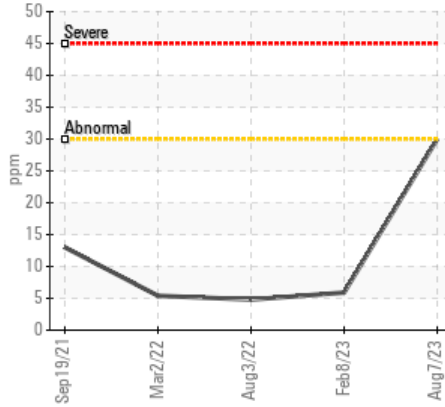
Machine Id
DT799
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (36 QTS)

COMPONENT CONDITION SUMMARY

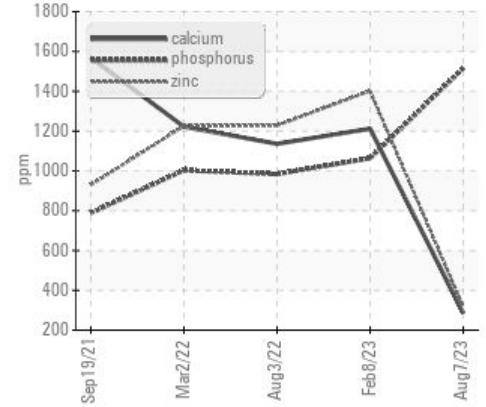
▲ Ferrous Alloys



▲ Silicon (ppm)



▲ Additives



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>110	▲ 143	21	26
Boron	ppm	ASTM D5185m	2	▲ 246	5	7
Magnesium	ppm	ASTM D5185m	950	▲ 226	1009	931
Calcium	ppm	ASTM D5185m	1050	▲ 286	1212	1136
Phosphorus	ppm	ASTM D5185m	995	▲ 1515	1064	984
Zinc	ppm	ASTM D5185m	1180	▲ 320	1402	1228
Sulfur	ppm	ASTM D5185m	2600	▲ 25565	3452	2671
Silicon	ppm	ASTM D5185m	>30	▲ 30	6	5

Customer Id: NWWPIE
 Sample No.: PCA0096956
 Lab Number: 05923038
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

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.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

08 Feb 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



03 Aug 2022 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



02 Mar 2022 Diag: Wes Davis

NORMAL



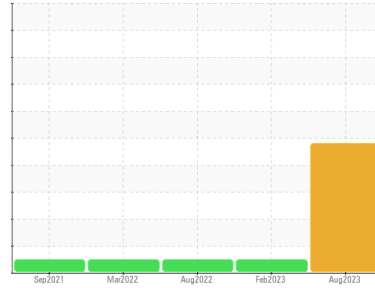
Resample at the next service interval to monitor. All component wear rates are normal. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id
DT799
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (36 QTS)

DIAGNOSIS

- ▲ Recommendation**
 Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.
- ▲ Wear**
 Cylinder, crank, or cam shaft wear is indicated.
- ▲ Contamination**
 Elemental level of silicon (Si) above normal indicating ingress of seal material.
- ▲ Fluid Condition**
 Additive levels indicate the addition of a different brand, or type of oil. 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		PCA0096956	PCA0091196	PCA0074795
Sample Date	Client Info		07 Aug 2023	08 Feb 2023	03 Aug 2022
Machine Age	mls	Client Info	129394	102857	76712
Oil Age	mls	Client Info	26537	26145	24639
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			ABNORMAL	NORMAL	NORMAL

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >110	▲ 143	21	26
Chromium	ppm	ASTM D5185m >4	2	<1	<1
Nickel	ppm	ASTM D5185m >2	0	0	0
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m >2	0	<1	<1
Aluminum	ppm	ASTM D5185m >25	5	12	16
Lead	ppm	ASTM D5185m >45	0	<1	0
Copper	ppm	ASTM D5185m >85	<1	2	4
Tin	ppm	ASTM D5185m >4	0	<1	<1
Antimony	ppm	ASTM D5185m	---	---	---
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 2	▲ 246	5	7
Barium	ppm	ASTM D5185m 0	2	<1	0
Molybdenum	ppm	ASTM D5185m 50	21	65	63
Manganese	ppm	ASTM D5185m 0	4	<1	<1
Magnesium	ppm	ASTM D5185m 950	▲ 226	1009	931
Calcium	ppm	ASTM D5185m 1050	▲ 286	1212	1136
Phosphorus	ppm	ASTM D5185m 995	▲ 1515	1064	984
Zinc	ppm	ASTM D5185m 1180	▲ 320	1402	1228
Sulfur	ppm	ASTM D5185m 2600	▲ 25565	3452	2671

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >30	▲ 30	6	5
Sodium	ppm	ASTM D5185m	2	2	1
Potassium	ppm	ASTM D5185m >20	2	17	35

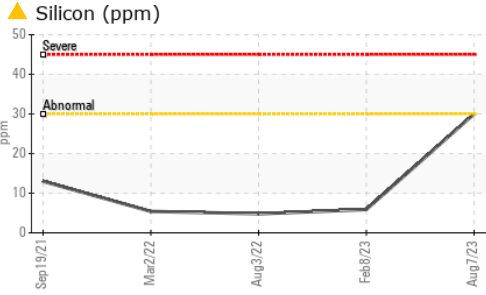
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.1	0.6	0.7
Nitration	Abs/cm	*ASTM D7624 >20	4.4	9.6	10.5
Sulfation	Abs/.1mm	*ASTM D7415 >30	72.8	22.0	23.8

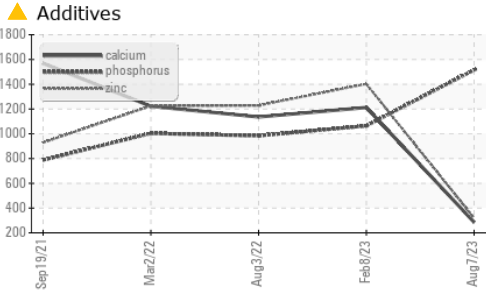
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	71.5	18.1	19.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.1	6.3	7.0

OIL ANALYSIS REPORT

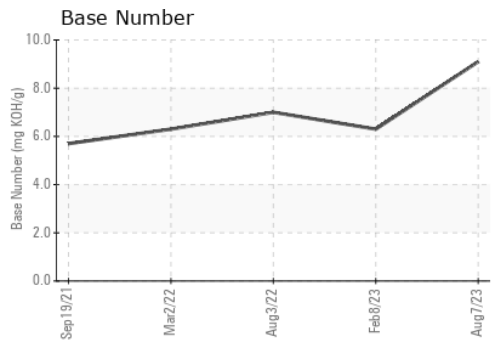
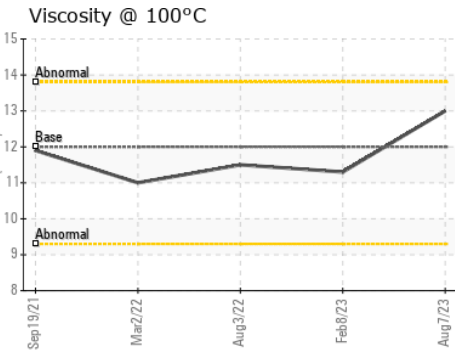
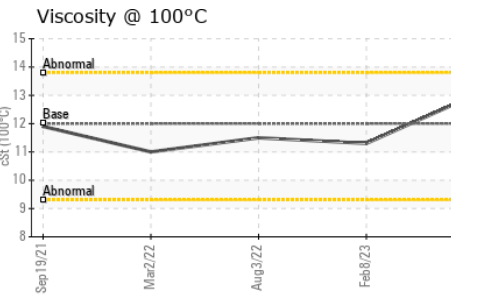
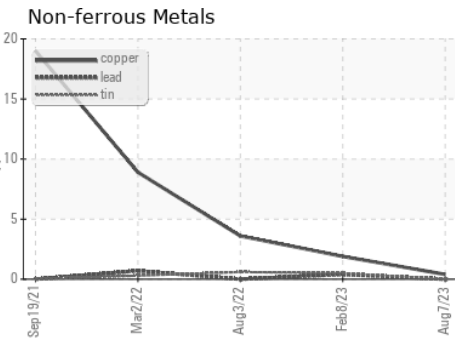
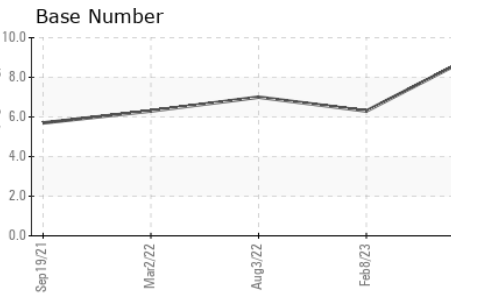
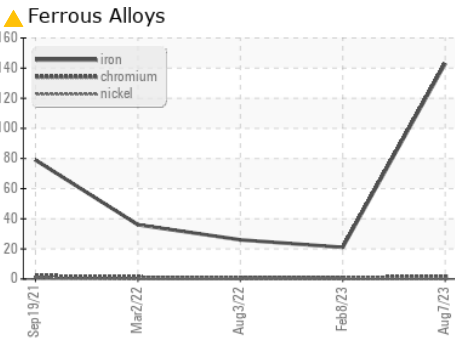
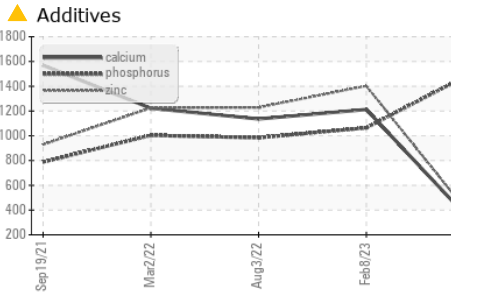


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG



FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	13.0	11.3

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : PCA0096956
 Lab Number : 05923038
 Unique Number : 10602985
 Test Package : FLEET

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 PIEDMONT, SC
 US 29673
 Contact: James Threatt
 jthreatt@nwwhite.com
 T: (864)918-4646
 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)