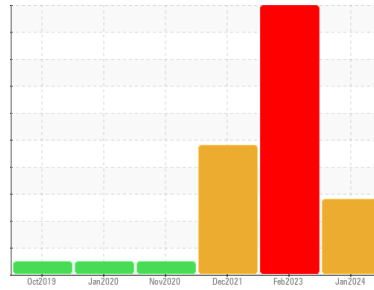


PROBLEM SUMMARY

Machine Id
International 4
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (26 QTS)

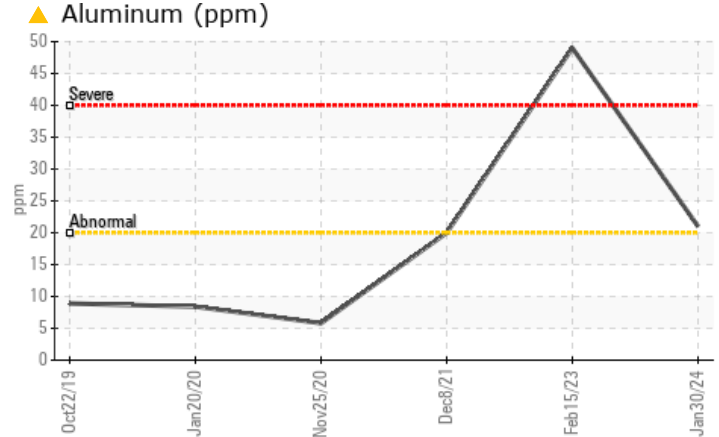
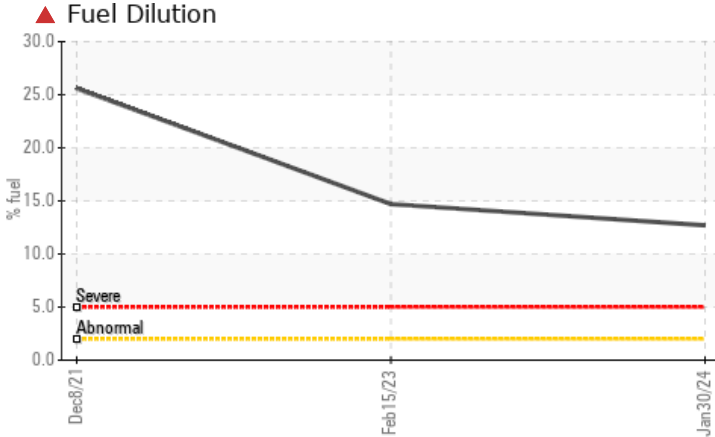
Sample Rating Trend



FUEL



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. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	SEVERE	SEVERE
Aluminum	ppm	ASTM D5185m	>20	▲ 21	▲ 49	▲ 20
Fuel	%	ASTM D3524	>2.0	▲ 12.7	▲ 14.7	▲ 25.6

Customer Id: ICSB370
 Sample No.: PCA0112682
 Lab Number: 06215345
 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.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Fuel/injector System	---	---	?	We advise that you check the fuel injection system.

HISTORICAL DIAGNOSIS

WEAR



15 Feb 2023 Diag: Jonathan Hester

We advise that you check the fuel injection system. 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. The lead level is abnormal. Piston and cylinder wear is indicated. There is a high amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN level is low. The oil is no longer serviceable due to the presence of contaminants.

view report



FUEL



08 Dec 2021 Diag: Jonathan Hester

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. The aluminum level is abnormal. All other component wear rates are normal. There is a high amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN level is low. The oil is no longer serviceable due to the presence of contaminants.

view report



NORMAL



25 Nov 2020 Diag: Wes Davis

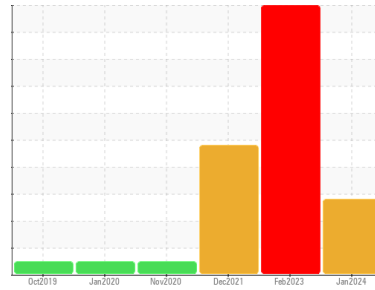
Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
International 4
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (26 QTS)

DIAGNOSIS

Recommendation

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

The aluminum level is abnormal. All other component wear rates are normal.

Contamination

There is a high amount of fuel present in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			PCA0112682	PCA0045449	PCA0045487
Sample Date	Client Info			30 Jan 2024	15 Feb 2023	08 Dec 2021
Machine Age	mls	Client Info		155868	142992	126003
Oil Age	mls	Client Info		12877	5105	7977
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				SEVERE	SEVERE	SEVERE

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.2	NEG	NEG	NEG
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	52	▲ 265	85
Chromium	ppm	ASTM D5185m	>20	<1	7	3
Nickel	ppm	ASTM D5185m	>4	<1	5	3
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	▲ 21	▲ 49	▲ 20
Lead	ppm	ASTM D5185m	>40	2	▲ 35	7
Copper	ppm	ASTM D5185m	>330	2	7	3
Tin	ppm	ASTM D5185m	>15	<1	4	1
Antimony	ppm	ASTM D5185m		---	---	<1
Vanadium	ppm	ASTM D5185m		0	<1	<1
Cadmium	ppm	ASTM D5185m		<1	0	0

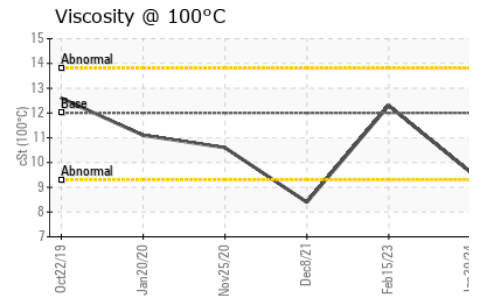
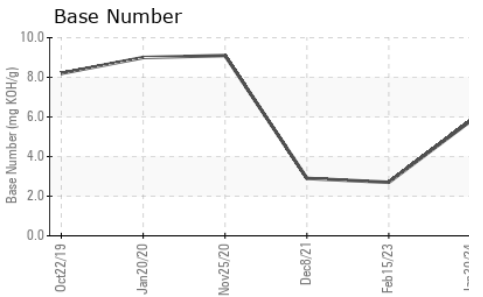
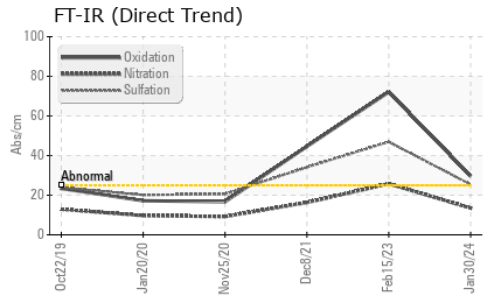
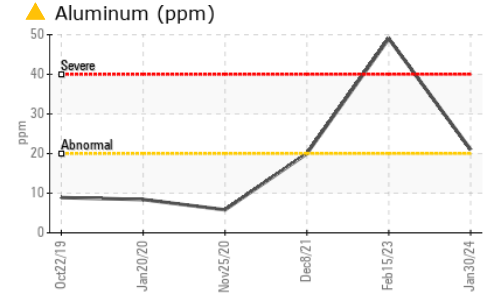
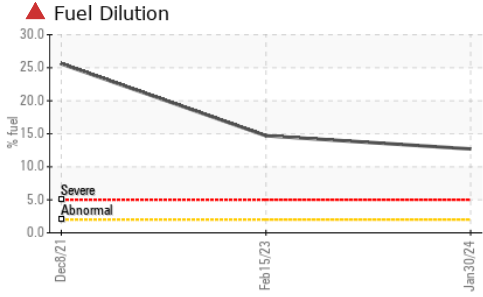
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	5	4	1
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	50	54	69	53
Manganese	ppm	ASTM D5185m	0	<1	3	<1
Magnesium	ppm	ASTM D5185m	950	868	820	772
Calcium	ppm	ASTM D5185m	1050	962	1039	887
Phosphorus	ppm	ASTM D5185m	995	925	865	805
Zinc	ppm	ASTM D5185m	1180	1105	1095	959
Sulfur	ppm	ASTM D5185m	2600	3006	2401	1942

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	4	10	6
Sodium	ppm	ASTM D5185m		3	5	4
Potassium	ppm	ASTM D5185m	>20	3	0	1
Fuel	%	ASTM D3524	>2.0	▲ 12.7	▲ 14.7	▲ 25.6

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.8	2.4	1.1
Nitration	Abs/cm	*ASTM D7624	>20	13.5	25.8	16.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.4	46.9	▲ 34.1

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	29.6	72.1	44.6
Base Number (BN)	mg KOH/g	ASTM D2896		5.8	▲ 2.7	▲ 2.9

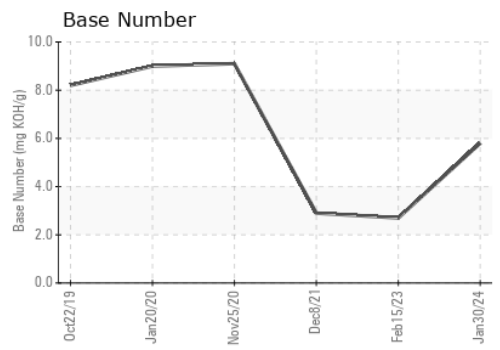
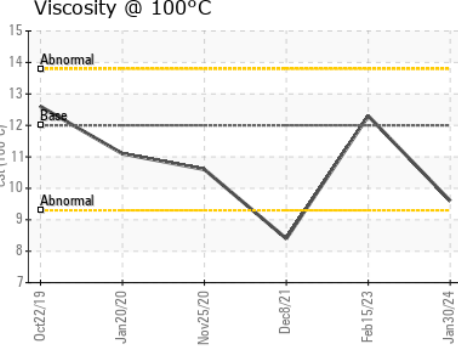
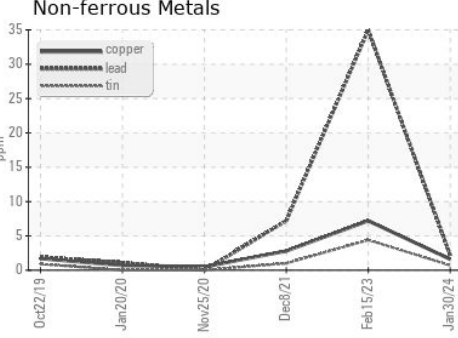
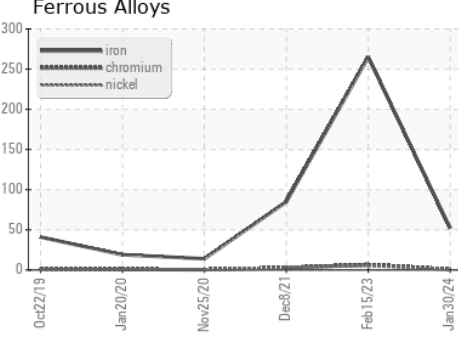
OIL ANALYSIS REPORT



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	9.6	▲ 12.3 ▲ 8.4

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0112682 **Received** : 20 Jun 2024
Lab Number : 06215345 **Tested** : 24 Jun 2024
Unique Number : 11088209 **Diagnosed** : 24 Jun 2024 - Don Baldrige
Test Package : FLEET (Additional Tests: PercentFuel)

ICSB370 - Alton
 4525 North Alby Road
 Godfrey, IL
 US 62035

To discuss this sample report, contact Customer Service at 1-800-237-1369.

Contact: Chad Ingold
 c.ingold@illinois-central.com

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

T: (618)466-5400

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

F: