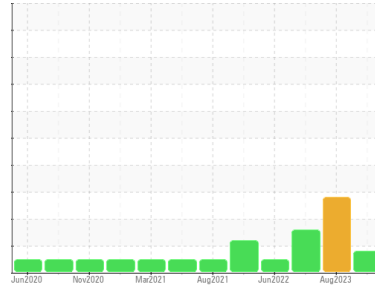


PROBLEM SUMMARY

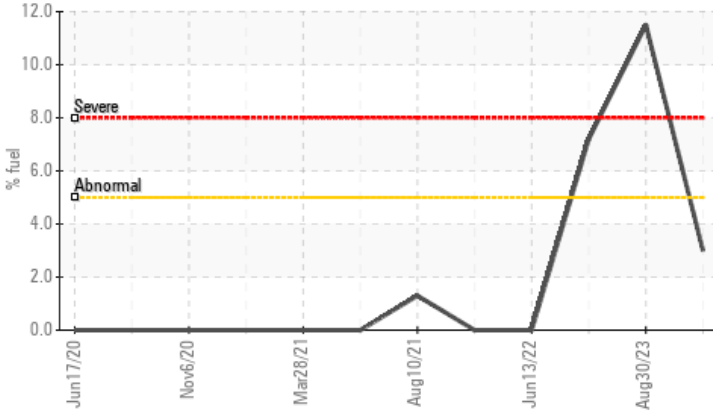
Sample Rating Trend



Machine Id
1522
Component
Diesel Engine
Fluid
PETRO CANADA DURON HP 15W40 (24 LTR)

COMPONENT CONDITION SUMMARY

▲ Fuel Dilution



RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time. (Customer Sample Comment: Oil interval over by 2758 km.)

PROBLEMATIC TEST RESULTS

Sample Status				MARGINAL	SEVERE	ABNORMAL
Fuel	%	ASTM D7593*	>5	▲ 3	● 11.5	▲ 7.2

Customer Id: STJNEW
Sample No.: PC0076649
Lab Number: 02601469
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Kevin Marson +1 (289)291-4644 x4644
Kevin.Marson@wearcheck.com

To change component or sample information:
Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

30 Aug 2023 Diag: Wes Davis

FUEL



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

view report



13 Jun 2023 Diag: Kevin Marson

FUEL



The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

view report



13 Jun 2022 Diag: Kevin Marson

NORMAL

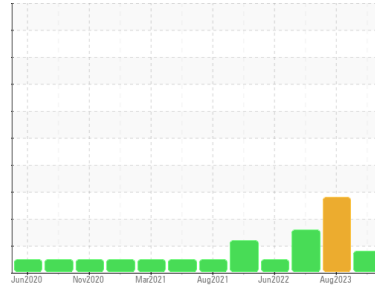


Resample at the next service interval to monitor. All component wear rates are normal. Test for glycol is negative. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

view report



Machine Id
1522
Component
Diesel Engine
Fluid
PETRO CANADA DURON HP 15W40 (24 LTR)



DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time. (Customer Sample Comment: Oil interval over by 2758 km.)

Wear

All component wear rates are normal.

Contamination

Light fuel dilution occurring. No other contaminants were detected in the oil.

Fluid Condition

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

SAMPLE INFORMATION	method	limit/base	current	history1	history2
Sample Number	Client Info		PC0076649	PC0031846	PC0031886
Sample Date	Client Info		15 Nov 2023	30 Aug 2023	13 Jun 2023
Machine Age	kms	Client Info	533366	520798	505734
Oil Age	kms	Client Info	14758	520798	17561
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			MARGINAL	SEVERE	ABNORMAL

CONTAMINATION	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	0.0

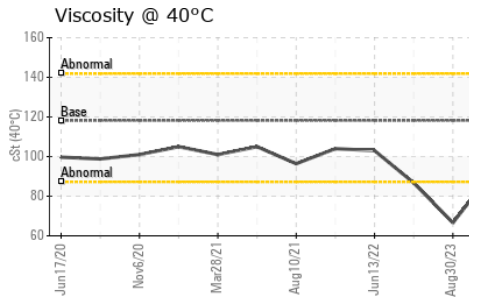
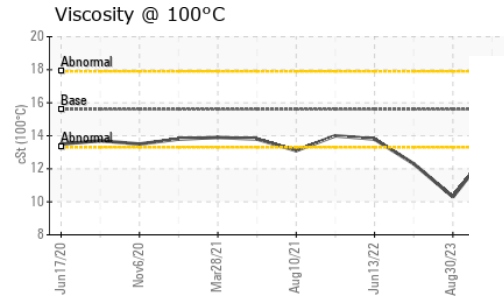
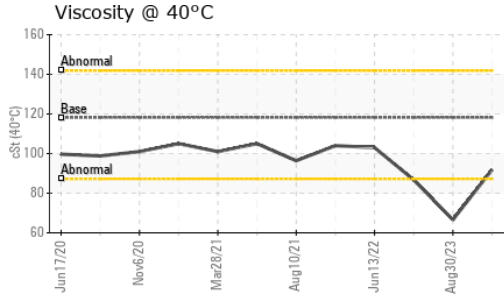
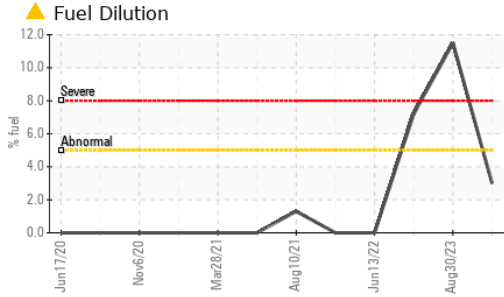
WEAR METALS	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>100	10	45	30
Chromium	ppm	ASTM D5185(m)	>20	<1	2	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>20	1	3	3
Lead	ppm	ASTM D5185(m)	>40	0	<1	<1
Copper	ppm	ASTM D5185(m)	>330	1	2	1
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

ADDITIVES	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	0	3	15	48
Barium	ppm	ASTM D5185(m)	0	<1	0	0
Molybdenum	ppm	ASTM D5185(m)	60	57	35	5
Manganese	ppm	ASTM D5185(m)	0	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	935	534	29
Calcium	ppm	ASTM D5185(m)	1070	1029	1324	2201
Phosphorus	ppm	ASTM D5185(m)	1150	963	898	993
Zinc	ppm	ASTM D5185(m)	1270	1160	1040	1120
Sulfur	ppm	ASTM D5185(m)	2060	2475	2133	2643
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	8	8	7
Sodium	ppm	ASTM D5185(m)		5	21	31
Potassium	ppm	ASTM D5185(m)	>20	0	3	8
Fuel	%	ASTM D7593*	>5	▲ 3	◆ 11.5	▲ 7.2

INFRA-RED	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0.1	0	0.4
Nitration	Abs/cm	ASTM D7624*	>20	6.8	2.9	10.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.9	7.4	26.8

OIL ANALYSIS REPORT

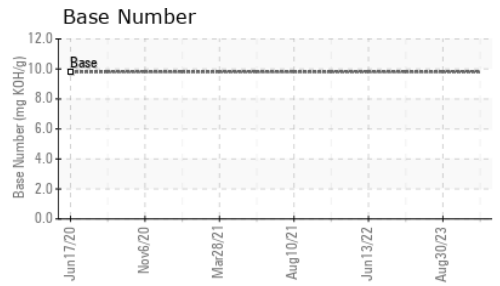
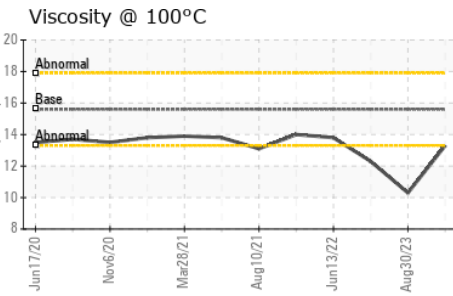
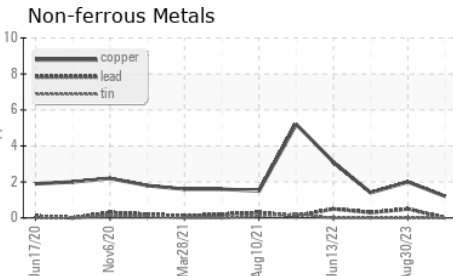
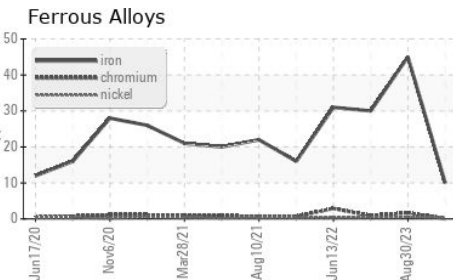


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	15.0	5.5	23.9
Base Number (BN)	mg KOH/g	ASTM D2896*	9.8	10.07	---	---

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	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	118.2	91.9	▲ 66.6	▲ 86.7
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	13.3	▲ 10.3	▲ 12.3
Viscosity Index (VI)	Scale	ASTM D2270*	139	144	141	137

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0076649 **Received** : 07 Dec 2023
Lab Number : **02601469** **Diagnosed** : 13 Dec 2023
Unique Number : 5694554 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: KV40, PercentFuel, VI)

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

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