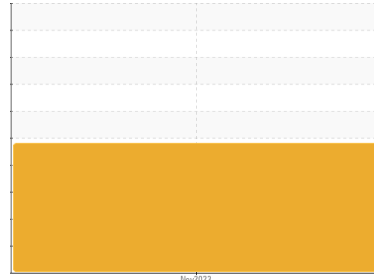


Area
SHARP BUS LINES
Machine Id
INTERNATIONAL 1335
Component
Diesel Engine
Fluid
PETRO CANADA DURON HP 15W40 (--- GAL)



DIAGNOSIS

Recommendation
We advise that you check the fuel injection system. We advise that you check for faulty combustion, plugged air filters, or aftercoolers. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Wear
Iron ppm levels are abnormal. Cylinder, crank, or cam shaft wear is indicated.

Contamination
There is a high amount of fuel present in the oil. There is an abnormal amount of solids and carbon present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition
The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION method limit/base current history1 history2

Sample Number	Client Info	PC0081502	---	---
Sample Date	Client Info	03 Nov 2023	---	---
Machine Age	kms Client Info	265252	---	---
Oil Age	kms Client Info	2000	---	---
Oil Changed	Client Info	N/A	---	---
Sample Status		SEVERE	---	---

CONTAMINATION method limit/base current history1 history2

Water	WC Method	>0.2	NEG	---	---
Glycol	WC Method		NEG	---	---

WEAR METALS method limit/base current history1 history2

PQ	ASTM D8184*		4	---	---
Iron	ppm ASTM D5185(m)	>100	100	---	---
Chromium	ppm ASTM D5185(m)	>20	3	---	---
Nickel	ppm ASTM D5185(m)	>4	1	---	---
Titanium	ppm ASTM D5185(m)		0	---	---
Silver	ppm ASTM D5185(m)	>3	<1	---	---
Aluminum	ppm ASTM D5185(m)	>20	18	---	---
Lead	ppm ASTM D5185(m)	>40	1	---	---
Copper	ppm ASTM D5185(m)	>330	1	---	---
Tin	ppm ASTM D5185(m)	>15	<1	---	---
Antimony	ppm ASTM D5185(m)		0	---	---
Vanadium	ppm ASTM D5185(m)		0	---	---
Beryllium	ppm ASTM D5185(m)		0	---	---
Cadmium	ppm ASTM D5185(m)		0	---	---

ADDITIVES method limit/base current history1 history2

Boron	ppm ASTM D5185(m)	0	2	---	---
Barium	ppm ASTM D5185(m)	0	0	---	---
Molybdenum	ppm ASTM D5185(m)	60	49	---	---
Manganese	ppm ASTM D5185(m)	0	<1	---	---
Magnesium	ppm ASTM D5185(m)	1010	735	---	---
Calcium	ppm ASTM D5185(m)	1070	807	---	---
Phosphorus	ppm ASTM D5185(m)	1150	756	---	---
Zinc	ppm ASTM D5185(m)	1270	926	---	---
Sulfur	ppm ASTM D5185(m)	2060	1858	---	---
Lithium	ppm ASTM D5185(m)		<1	---	---

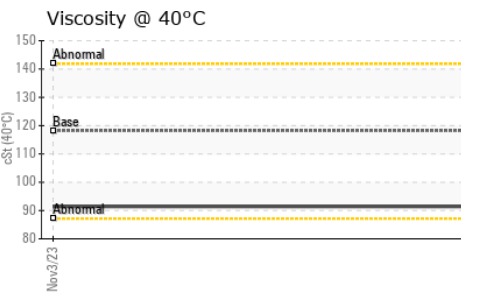
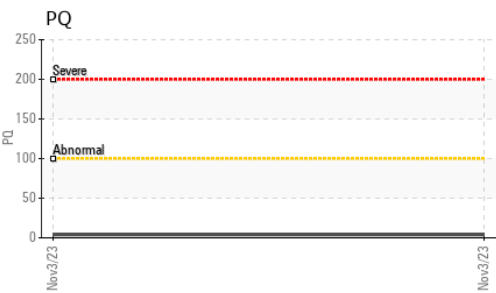
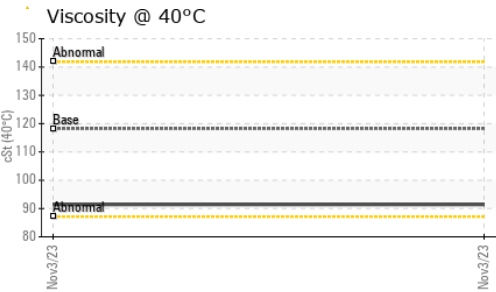
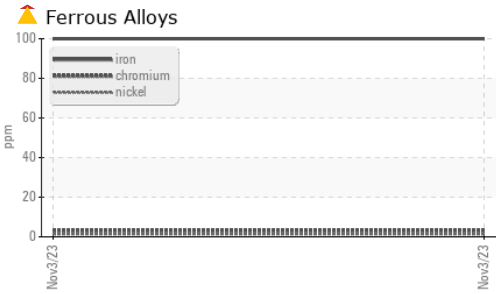
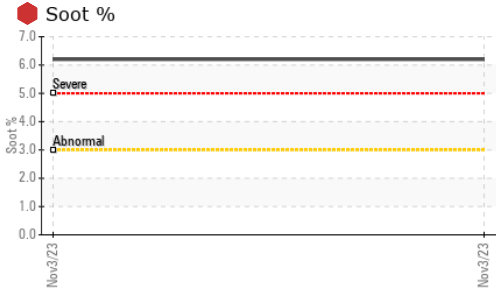
CONTAMINANTS method limit/base current history1 history2

Silicon	ppm ASTM D5185(m)	>25	14	---	---
Sodium	ppm ASTM D5185(m)		3	---	---
Potassium	ppm ASTM D5185(m)	>20	<1	---	---
Fuel	% ASTM D7593*	>2.0	13.8	---	---

INFRA-RED method limit/base current history1 history2

Soot %	% ASTM D7844*	>3	6.2	---	---
Nitration	Abs/cm ASTM D7624*	>20	19.3	---	---
Sulfation	Abs/.1mm ASTM D7415*	>30	44.6	---	---

OIL ANALYSIS REPORT

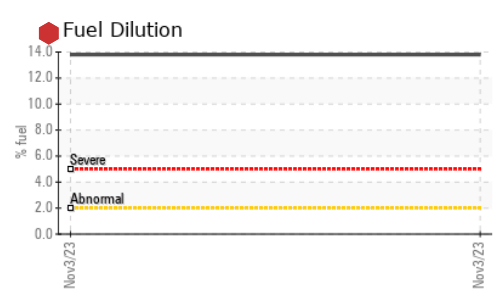
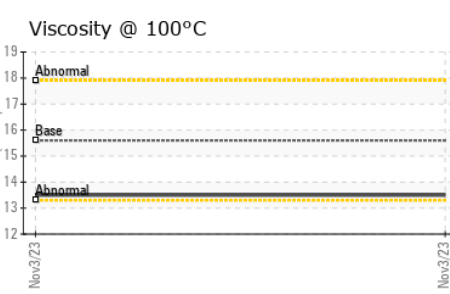
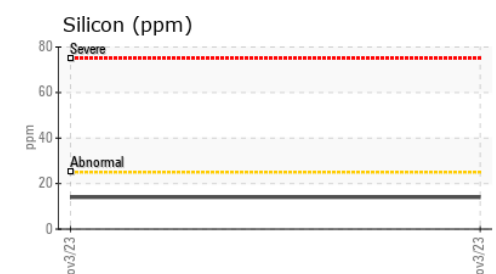
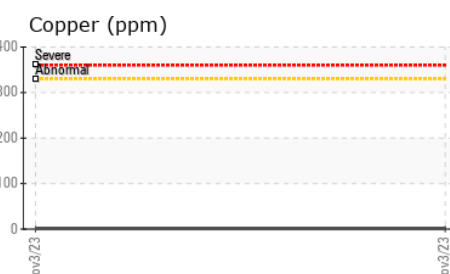
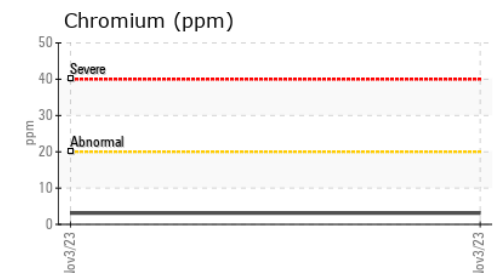
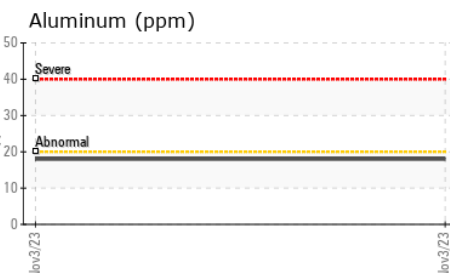
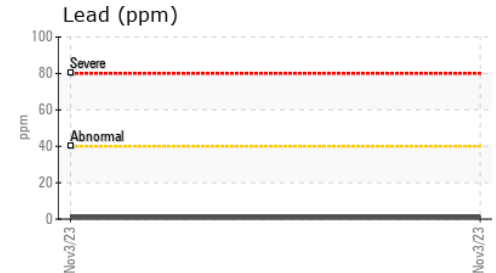
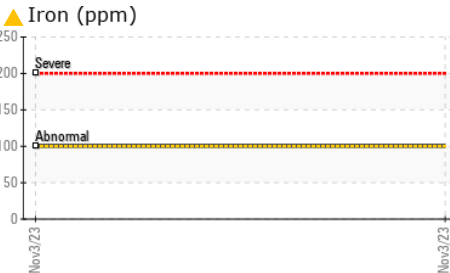


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	29.8	---	---

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---
Free Water	scalar	Visual*		NEG	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	118.2	91.4	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	13.5	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	139	149	---	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0081502 **Received** : 17 Nov 2023
Lab Number : **02597012** **Diagnosed** : 21 Nov 2023
Unique Number : 5682092 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: FUELDILUTION, KV40, PercentFuel, PQ, VI)

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 Brantford, ON
 CA N3T 5L8
 Contact: Doug Hall
 Djhall@sharpbus.com
 T: (519)751-3434
 F:

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.