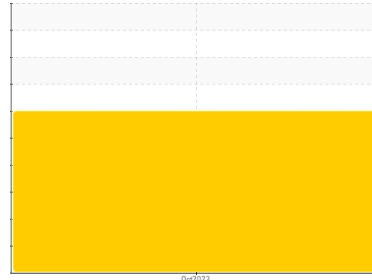


Area
SHARP BUS LINES
Machine Id
INTERNATIONAL 1258

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 the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil from the component if this has not already been done. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear
Chromium ppm levels are abnormal. Aluminum ppm levels are noted. Ring wear is indicated.

Contamination
There is a high amount of fuel present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. Tests confirm the presence of fuel in the oil. High amount of ingressed dirt has caused abrasive wear to the component.

Fluid Condition
Fuel is present in the oil and is lowering the viscosity. 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	PC0081555	---	---
Sample Date	Client Info	04 Oct 2023	---	---
Machine Age	kms Client Info	222645	---	---
Oil Age	kms Client Info	1500	---	---
Oil Changed	Client Info	Changed	---	---
Sample Status		SEVERE	---	---

CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	NEG	---	---

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >127	33	---	---
Chromium	ppm ASTM D5185(m) >3	5	---	---
Nickel	ppm ASTM D5185(m) >30	<1	---	---
Titanium	ppm ASTM D5185(m) >2	0	---	---
Silver	ppm ASTM D5185(m) >2	<1	---	---
Aluminum	ppm ASTM D5185(m) >59	8	---	---
Lead	ppm ASTM D5185(m) >29	10	---	---
Copper	ppm ASTM D5185(m) >135	8	---	---
Tin	ppm ASTM D5185(m) >2	2	---	---
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	4	---	---
Barium	ppm ASTM D5185(m) 0	<1	---	---
Molybdenum	ppm ASTM D5185(m) 60	55	---	---
Manganese	ppm ASTM D5185(m) 0	<1	---	---
Magnesium	ppm ASTM D5185(m) 1010	871	---	---
Calcium	ppm ASTM D5185(m) 1070	946	---	---
Phosphorus	ppm ASTM D5185(m) 1150	891	---	---
Zinc	ppm ASTM D5185(m) 1270	1058	---	---
Sulfur	ppm ASTM D5185(m) 2060	2353	---	---
Lithium	ppm ASTM D5185(m)	<1	---	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >18	19	---	---
Sodium	ppm ASTM D5185(m)	4	---	---
Potassium	ppm ASTM D5185(m) >20	3	---	---
Fuel	% ASTM D7593* >2.0	8.6	---	---

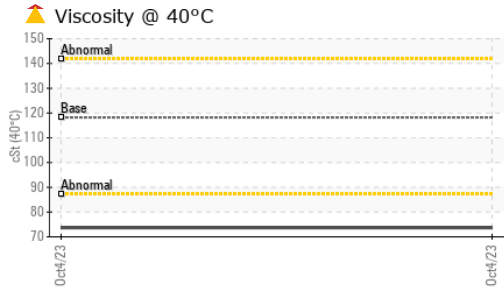
INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	0.3	---	---
Nitration	Abs/cm ASTM D7624* >20	8.2	---	---
Sulfation	Abs/.1mm ASTM D7415* >30	21.8	---	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm ASTM D7414* >25	19.8	---	---

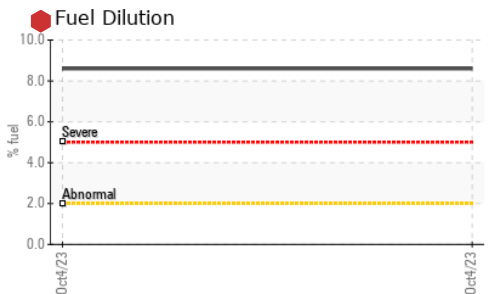
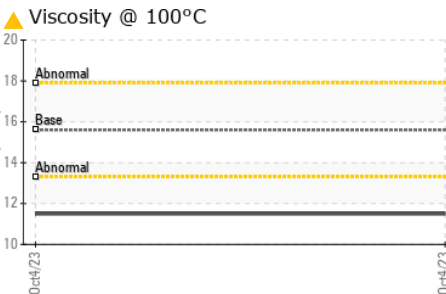
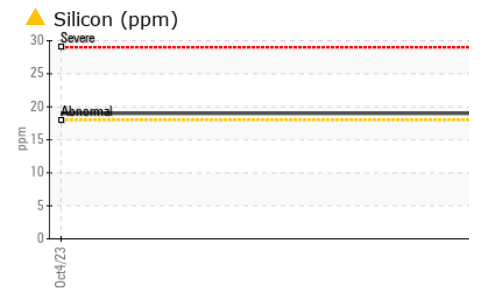
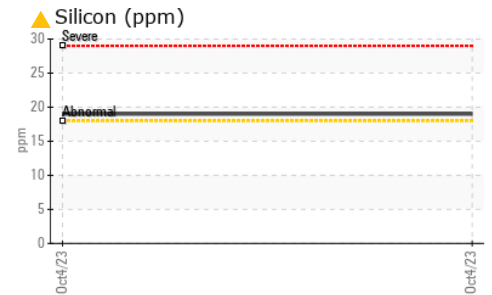
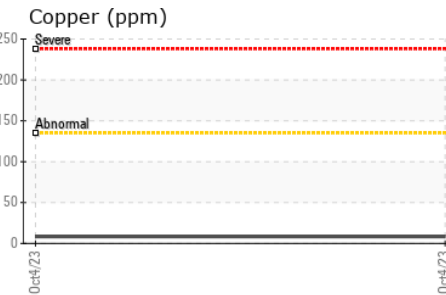
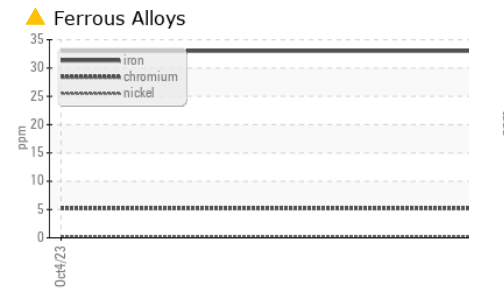
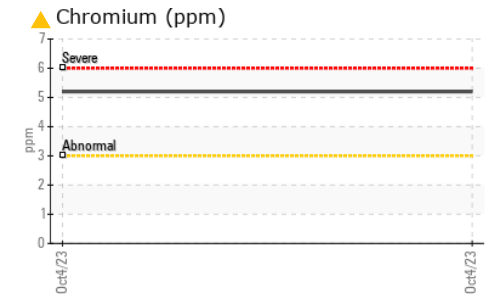
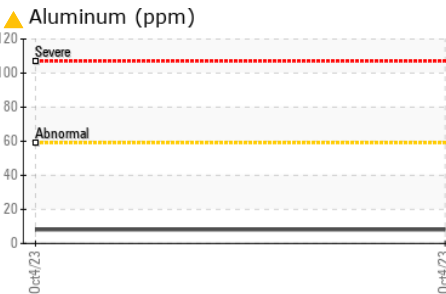
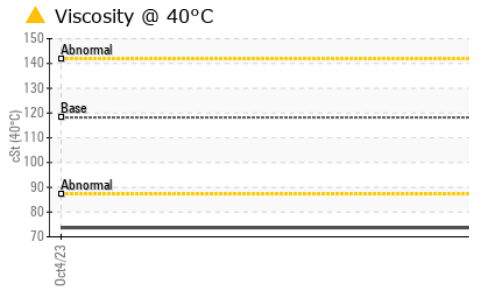
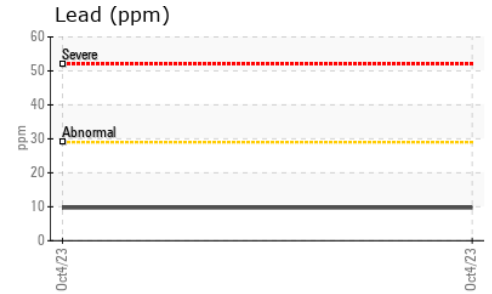
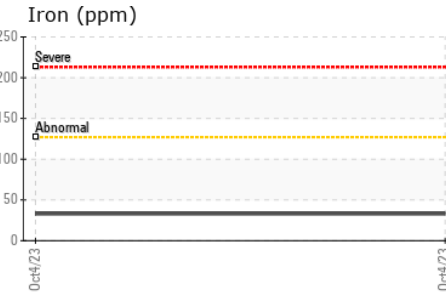
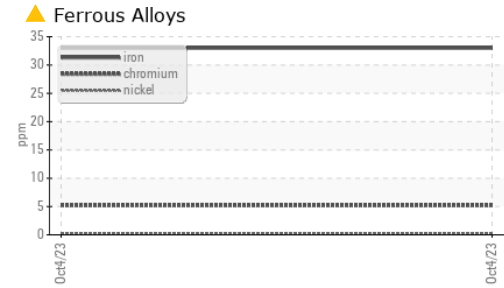
OIL ANALYSIS REPORT



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	▲ 73.7	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	▲ 11.5	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	139	149	---	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0081555 **Received** : 13 Oct 2023
Lab Number : 02588824 **Diagnosed** : 16 Oct 2023
Unique Number : 5657890 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: FuelDilution, 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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