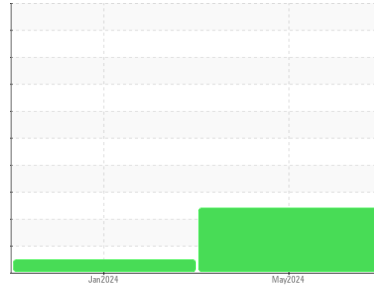




# OIL ANALYSIS REPORT

## Sample Rating Trend



DEGRADATION



Machine Id  
**INTERNATIONAL 2018**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON HP 15W40 (10 GAL)**

### DIAGNOSIS

#### Recommendation

We advise that you check for faulty combustion, plugged air filters, or aftercoolers. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. NOTE: High solids (carbon/soot) in the sample have limited the accuracy of Infra-Red data including Total Base Number (TBN) value.

#### Wear

All component wear rates are normal.

#### Contamination

There is an abnormal amount of solids and carbon present in the oil.

#### Fluid Condition

The oil viscosity is higher than normal. The BN level is low.

### SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>SBP0006623</b>	SBP0004113	---
Sample Date	Client Info		<b>10 May 2024</b>	19 Jan 2024	---
Machine Age	mls	Client Info	<b>588787</b>	552720	---
Oil Age	mls	Client Info	<b>36067</b>	0	---
Oil Changed	Client Info		<b>Changed</b>	Changed	---
Sample Status			<b>ABNORMAL</b>	NORMAL	---

### CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol	WC Method		<b>NEG</b>	NEG	---

### WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>86</b>	40	---
Chromium	ppm	ASTM D5185m >20	<b>4</b>	2	---
Nickel	ppm	ASTM D5185m >4	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m	<b>0</b>	0	---
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m >20	<b>&lt;1</b>	2	---
Lead	ppm	ASTM D5185m >40	<b>2</b>	1	---
Copper	ppm	ASTM D5185m >330	<b>0</b>	0	---
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	---

### ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>4</b>	7	---
Barium	ppm	ASTM D5185m	<b>0</b>	<1	---
Molybdenum	ppm	ASTM D5185m	<b>69</b>	63	---
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m	<b>1054</b>	927	---
Calcium	ppm	ASTM D5185m	<b>1188</b>	1062	---
Phosphorus	ppm	ASTM D5185m	<b>1046</b>	983	---
Zinc	ppm	ASTM D5185m	<b>1331</b>	1212	---
Sulfur	ppm	ASTM D5185m	<b>2598</b>	2582	---

### CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>4</b>	3	---
Sodium	ppm	ASTM D5185m	<b>3</b>	<1	---
Potassium	ppm	ASTM D5185m >20	<b>0</b>	<1	---
Fuel	%	ASTM D3524 >2.0	<b>&lt;1.0</b>	<1.0	---

### INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>▲ 4.5</b>	2.6	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>11.6</b>	9.4	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>29.0</b>	22.9	---

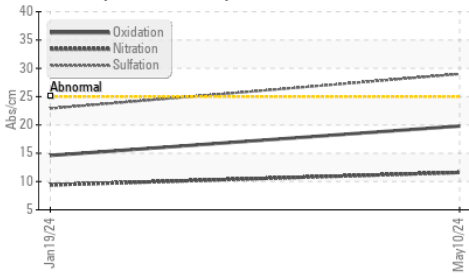
### FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>19.8</b>	14.6	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>▲ 3.7</b>	9.00	---

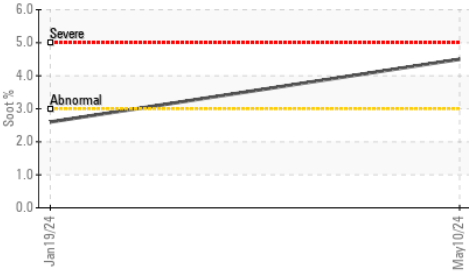


# OIL ANALYSIS REPORT

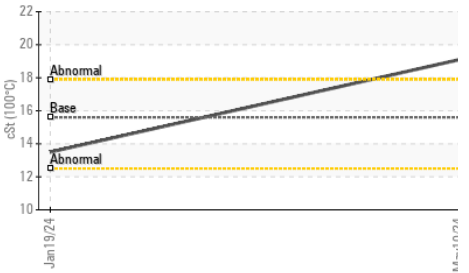
▲ FT-IR (Direct Trend)



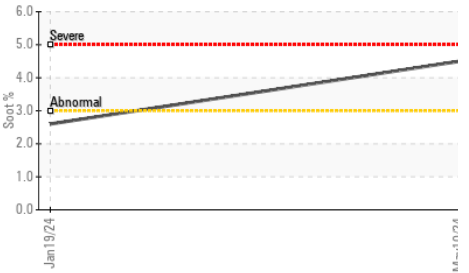
▲ Soot %



▲ Viscosity @ 100°C



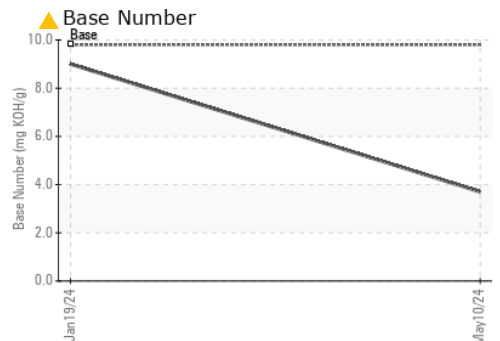
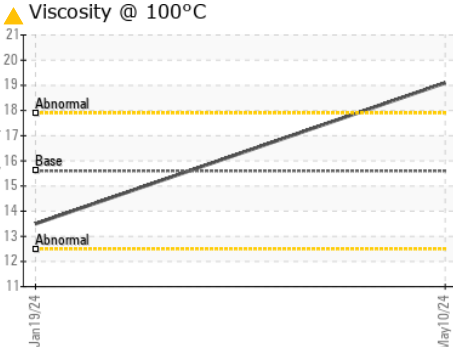
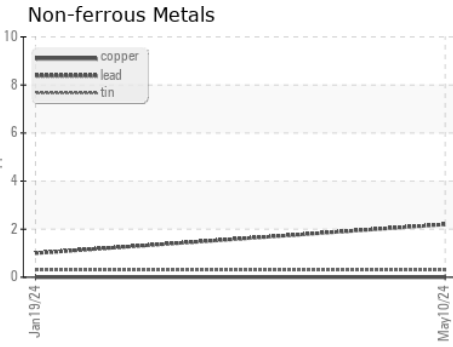
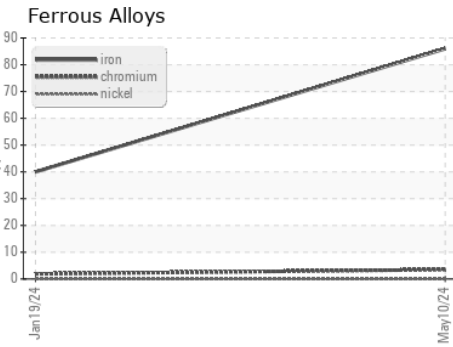
▲ Soot %



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.6 ▲ <b>19.1</b>	13.5	---

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : SBP0006623      **Received** : 30 May 2024  
**Lab Number** : **06195234**      **Tested** : 31 May 2024  
**Unique Number** : 11057357      **Diagnosed** : 02 Jun 2024 - Don Baldrige  
**Test Package** : FLEET ( Additional Tests : FuelDilution )

**RODNEY BROWN**  
 8834 587TH AVE  
 PONCA, NE  
 US 68770

Contact: TRAVIS GARRISON  
 garrison092012@gmail.com

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)

T:  
F: