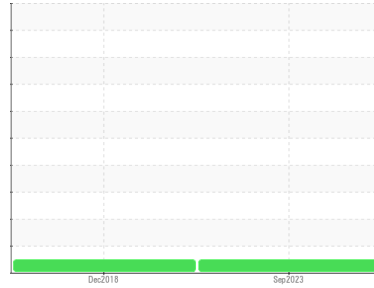


# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**SPARTAN 25084**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON HP 15W40 (24 LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

Metal levels are typical for a new component breaking in.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>PC0075229</b>	AP109947	---
Sample Date	Client Info		<b>19 Sep 2023</b>	11 Dec 2018	---
Machine Age	kms	Client Info	<b>5573</b>	5777	---
Oil Age	kms	Client Info	<b>0</b>	5777	---
Oil Changed	Client Info		<b>Not Chngd</b>	Changed	---
Sample Status			<b>NORMAL</b>	NORMAL	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<b>&lt;1.0</b>	<1.0	---
Glycol	WC Method		<b>NEG</b>	NEG	---

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>90	<b>54</b>	29	---
Chromium	ppm	ASTM D5185(m)	>20	<b>1</b>	<1	---
Nickel	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	---
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	2	---
Silver	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	---
Aluminum	ppm	ASTM D5185(m)	>20	<b>3</b>	5	---
Lead	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	4	---
Copper	ppm	ASTM D5185(m)	>330	<b>4</b>	180	---
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	---
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	0	<b>10</b>	162	---
Barium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	8	---
Molybdenum	ppm	ASTM D5185(m)	60	<b>62</b>	78	---
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	4	---
Magnesium	ppm	ASTM D5185(m)	1010	<b>954</b>	543	---
Calcium	ppm	ASTM D5185(m)	1070	<b>1035</b>	1316	---
Phosphorus	ppm	ASTM D5185(m)	1150	<b>979</b>	813	---
Zinc	ppm	ASTM D5185(m)	1270	<b>1196</b>	942	---
Sulfur	ppm	ASTM D5185(m)	2060	<b>2336</b>	2460	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	---

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	<b>10</b>	32	---
Sodium	ppm	ASTM D5185(m)		<b>4</b>	4	---
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	4	---

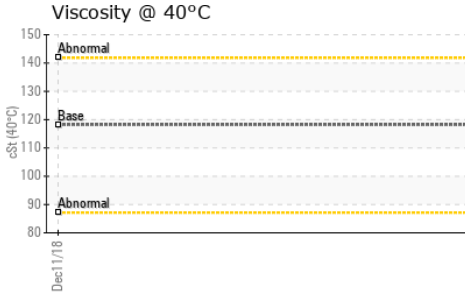
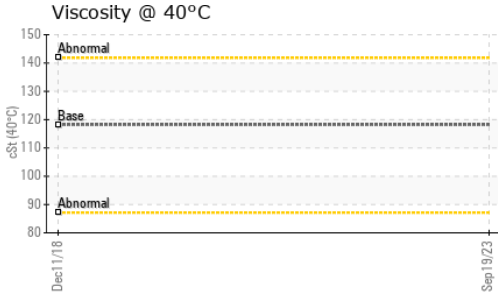
## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>6	<b>1.4</b>	0.2	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>14.5</b>	8.4	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>33.2</b>	22.4	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>36.0</b>	17.2	---

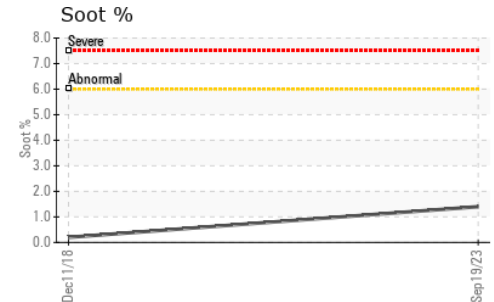
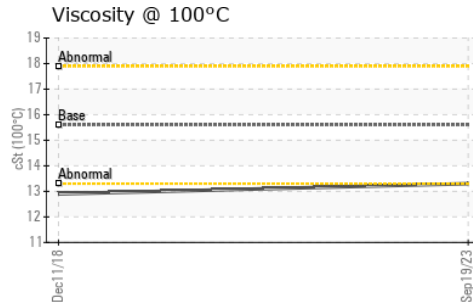
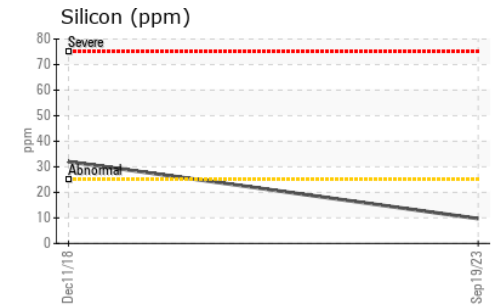
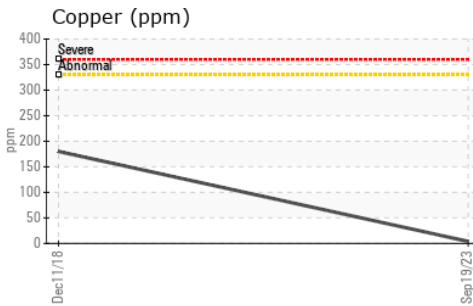
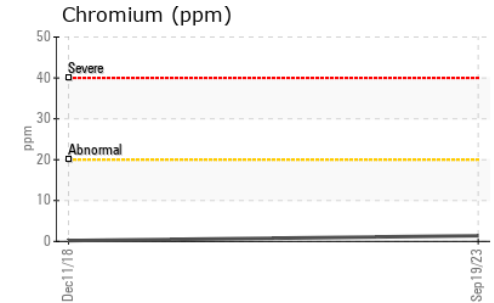
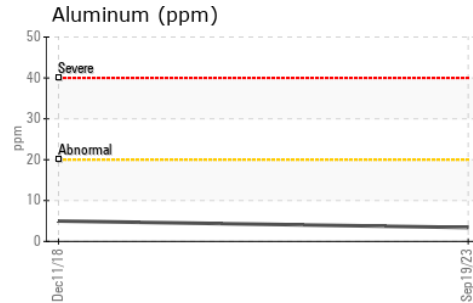
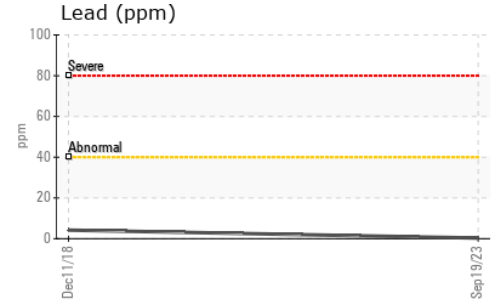
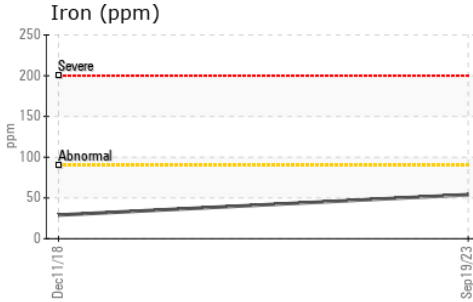
# OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	118.2	<b>92.4</b>	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	<b>13.3</b>	12.9
Viscosity Index (VI)	Scale	ASTM D2270*	139	<b>143</b>	---

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0075229 **Received** : 06 Nov 2023  
**Lab Number** : **02594129** **Diagnosed** : 07 Nov 2023  
**Unique Number** : 5671208 **Diagnostician** : Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI )

**TORONTO FIRE SERVICES**  
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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.