

# OIL ANALYSIS REPORT

Sample Rating Trend



**DIRT**



Machine Id  
**2227123**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 10W30 (--- QTS)**

## DIAGNOSIS

### Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

Metal levels are typical for a new component breaking in.

### Contamination

Elemental level of silicon (Si) above normal indicating ingress of seal material. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. 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>PCA0099544</b>	---	---
Sample Date	Client Info	<b>25 Dec 2023</b>	---	---
Machine Age	mls	<b>20000</b>	---	---
Oil Age	mls	<b>20000</b>	---	---
Oil Changed	Client Info	<b>Changed</b>	---	---
Sample Status		<b>ABNORMAL</b>	---	---

## CONTAMINATION

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

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>100	<b>35</b>	---
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	---
Nickel	ppm	ASTM D5185m	>4	<b>2</b>	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	---
Silver	ppm	ASTM D5185m	>3	<b>17</b>	---
Aluminum	ppm	ASTM D5185m	>20	<b>33</b>	---
Lead	ppm	ASTM D5185m	>40	<b>0</b>	---
Copper	ppm	ASTM D5185m	>330	<b>193</b>	---
Tin	ppm	ASTM D5185m	>15	<b>4</b>	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	---

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	2	<b>228</b>	---
Barium	ppm	ASTM D5185m	0	<b>0</b>	---
Molybdenum	ppm	ASTM D5185m	50	<b>108</b>	---
Manganese	ppm	ASTM D5185m	0	<b>4</b>	---
Magnesium	ppm	ASTM D5185m	950	<b>639</b>	---
Calcium	ppm	ASTM D5185m	1050	<b>1406</b>	---
Phosphorus	ppm	ASTM D5185m	995	<b>696</b>	---
Zinc	ppm	ASTM D5185m	1180	<b>817</b>	---
Sulfur	ppm	ASTM D5185m	2600	<b>2317</b>	---

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	<b>▲ 57</b>	---
Sodium	ppm	ASTM D5185m		<b>4</b>	---
Potassium	ppm	ASTM D5185m	>20	<b>85</b>	---
Fuel	%	ASTM D3524	>5	<b>0.2</b>	---

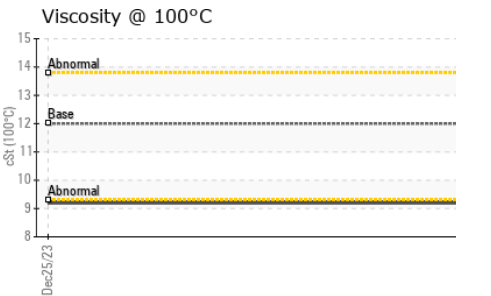
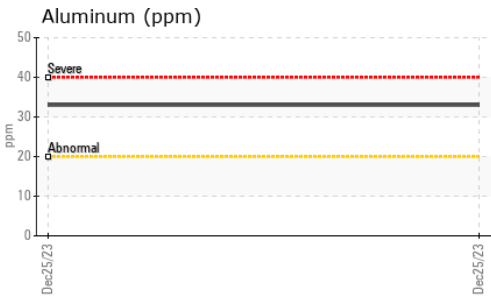
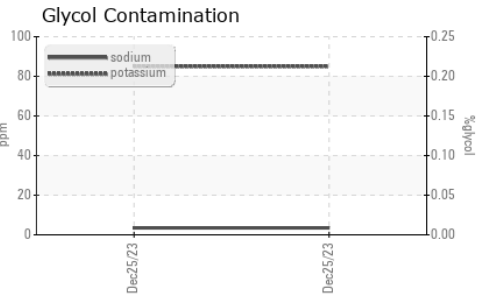
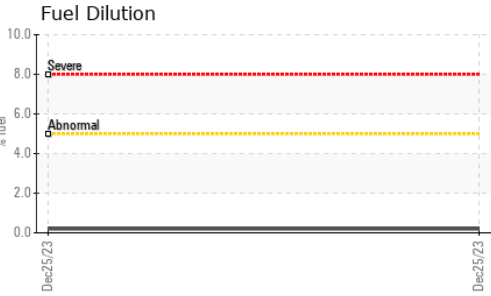
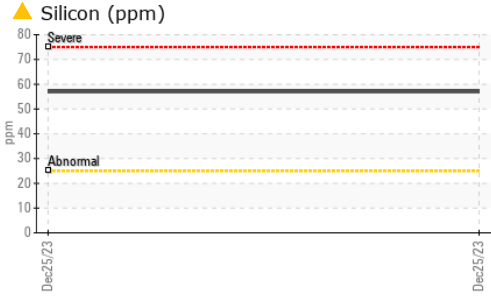
## INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.9</b>	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.0</b>	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>21.4</b>	---
Base Number (BN)	mg KOH/g	ASTM D2896		<b>7.7</b>	---

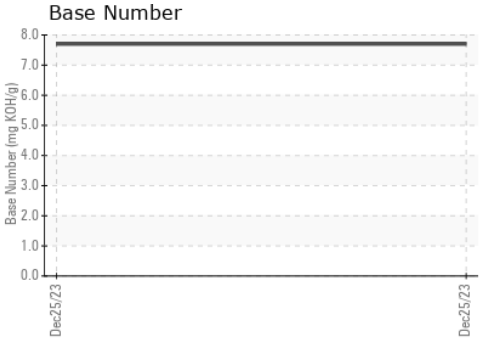
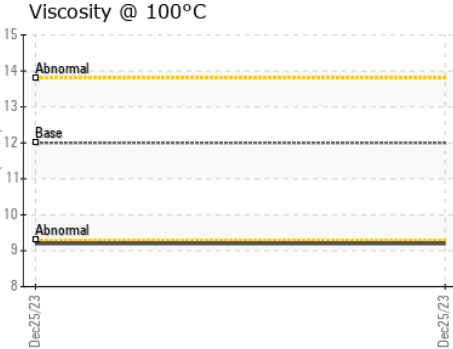
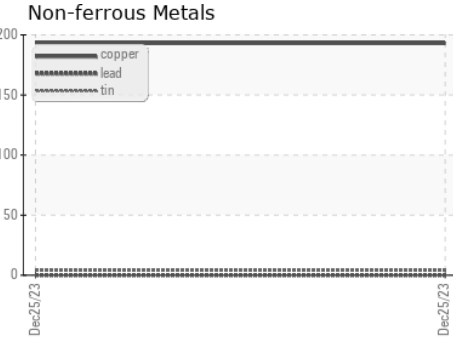
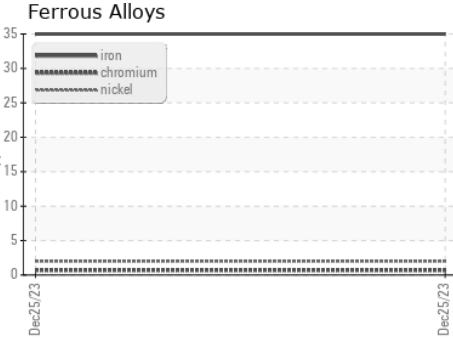
# OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	12.00	<b>9.2</b>	---	---

### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0099544 **Recieved** : 10 Jan 2024  
**Lab Number** : **06056402** **Diagnosed** : 14 Jan 2024  
**Unique Number** : 10822351 **Diagnostician** : Don Baldrige  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

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)

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