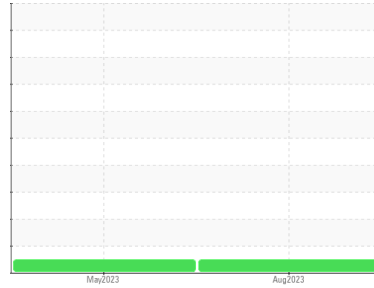


# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**VOLVO VNL 176 (S/N 4V4NC9EH4PN315465)**

Component  
**Diesel Engine**

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

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>PCA0097559</b>	PCA0097482	---
Sample Date	Client Info			<b>24 Aug 2023</b>	25 May 2023	---
Machine Age	mls	Client Info		<b>135000</b>	105000	---
Oil Age	mls	Client Info		<b>30000</b>	0	---
Oil Changed	Client Info			<b>Changed</b>	Changed	---
Sample Status				<b>NORMAL</b>	NORMAL	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method		>6.0	<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 D5185m	>100	<b>32</b>	43	---
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	2	---
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	---
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	---
Aluminum	ppm	ASTM D5185m	>25	<b>5</b>	2	---
Lead	ppm	ASTM D5185m	>40	<b>1</b>	2	---
Copper	ppm	ASTM D5185m	>330	<b>7</b>	29	---
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	---

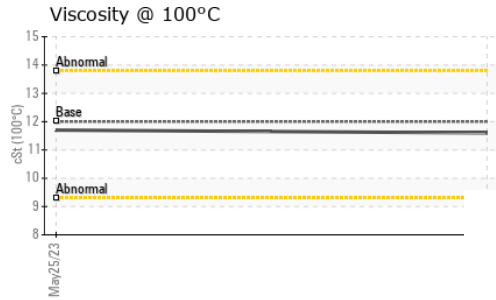
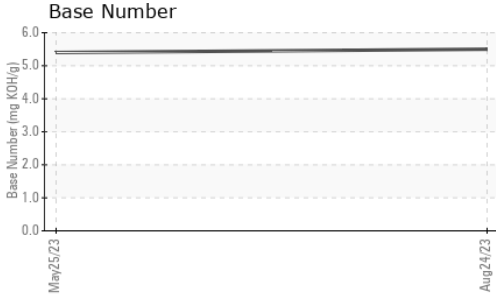
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	<b>0</b>	0	---
Barium	ppm	ASTM D5185m	0	<b>0</b>	2	---
Molybdenum	ppm	ASTM D5185m	50	<b>62</b>	72	---
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m	950	<b>931</b>	955	---
Calcium	ppm	ASTM D5185m	1050	<b>1007</b>	1149	---
Phosphorus	ppm	ASTM D5185m	995	<b>963</b>	1053	---
Zinc	ppm	ASTM D5185m	1180	<b>1229</b>	1312	---
Sulfur	ppm	ASTM D5185m	2600	<b>3032</b>	3215	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>5</b>	7	---
Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Potassium	ppm	ASTM D5185m	>20	<b>10</b>	6	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0.5</b>	0.5	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.1</b>	11.5	---
Sulfation	Abs.1mm	*ASTM D7415	>30	<b>22.4</b>	23.3	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs.1mm	*ASTM D7414	>25	<b>19.8</b>	22.8	---
Base Number (BN)	mg KOH/g	ASTM D2896		<b>5.5</b>	5.4	---

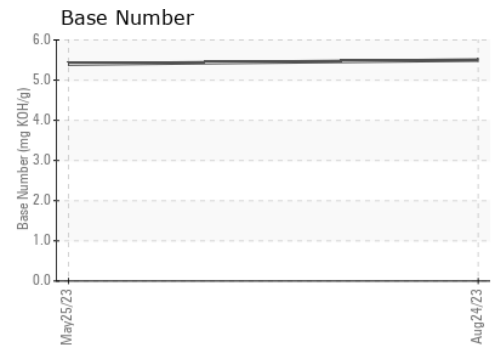
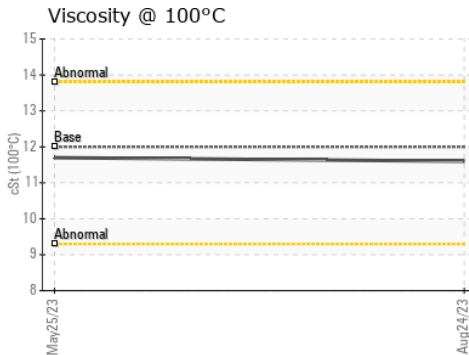
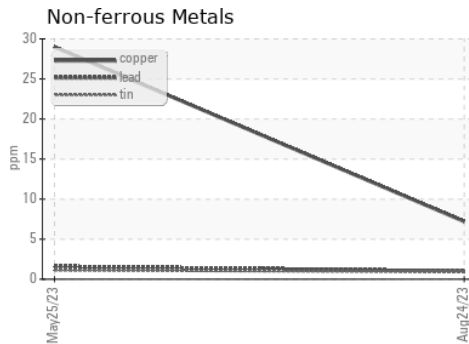
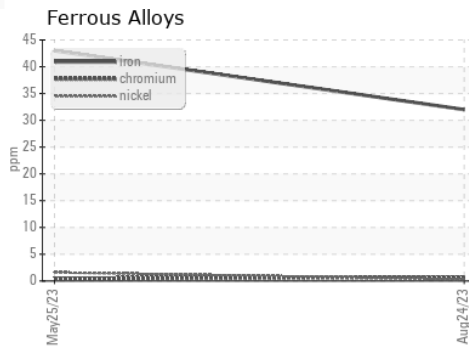
# OIL ANALYSIS REPORT



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>11.6</b>	11.7

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0097559 **Received** : 06 Oct 2023  
**Lab Number** : **05971953** **Diagnosed** : 09 Oct 2023  
**Unique Number** : 10683903 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

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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