



# VOLVO PENTA

## OIL ANALYSIS REPORT

WEAR	<b>SEVERE</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Area

**DAVE DAVENPORT [6652]**

Machine Id

**VOLVO PENTA D6-2801-B BT 2006018794**

Component

**Starboard Diesel Engine**

Fluid

**{not provided} (--- GAL)**

### RECOMMENDATION

We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VPA055816</b>	---	---
Sample Date		Client Info		<b>28 May 2024</b>	---	---
Machine Age	hrs	Client Info		<b>1253</b>	---	---
Oil Age	hrs	Client Info		<b>0</b>	---	---
Filter Age	hrs	Client Info		<b>0</b>	---	---
Oil Changed		Client Info		<b>Not Chngd</b>	---	---
Filter Changed		Client Info		<b>Not Chngd</b>	---	---
Sample Status				<b>SEVERE</b>	---	---

### WEAR

The aluminum level is severe. Piston wear is indicated.

Iron	ppm	ASTM D5185m	>80	<b>18</b>	---	---
Chromium	ppm	ASTM D5185m	>6	<b>2</b>	---	---
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	---	---
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	---	---
Silver	ppm	ASTM D5185m	>2	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>20	<b>▲ 144</b>	---	---
Lead	ppm	ASTM D5185m	>95	<b>2</b>	---	---
Copper	ppm	ASTM D5185m	>85	<b>7</b>	---	---
Tin	ppm	ASTM D5185m	>9	<b>&lt;1</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

### CONTAMINATION

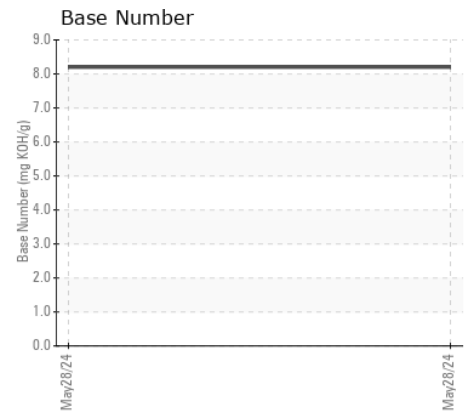
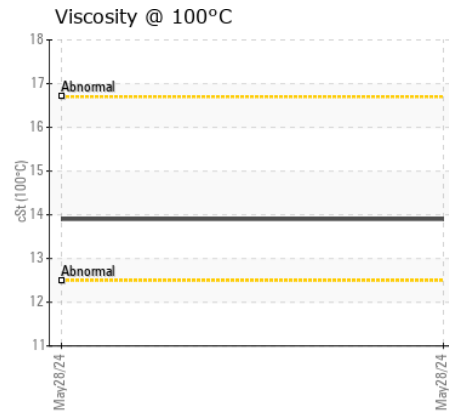
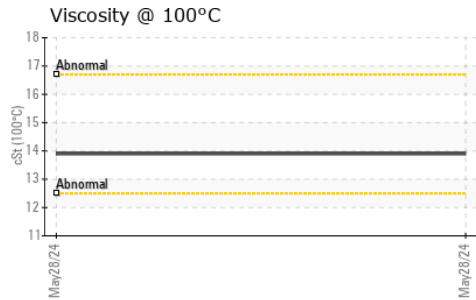
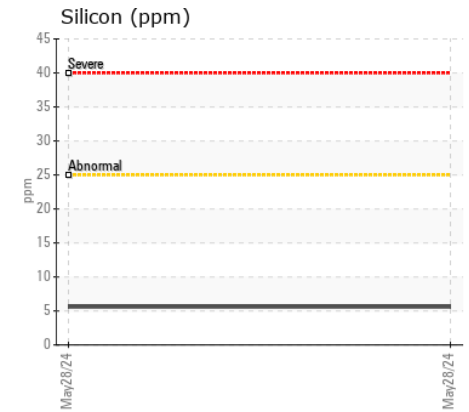
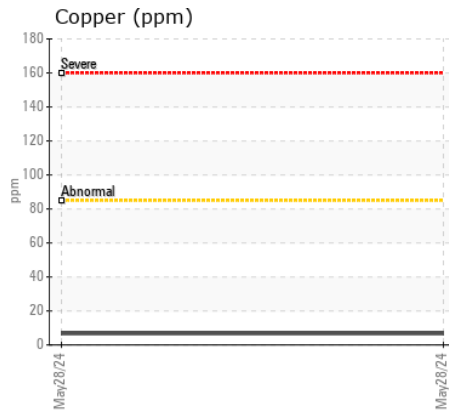
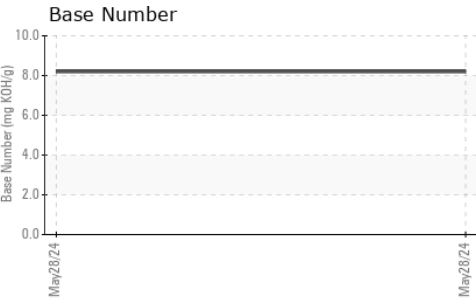
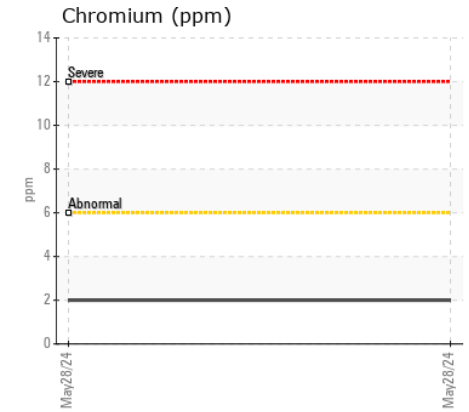
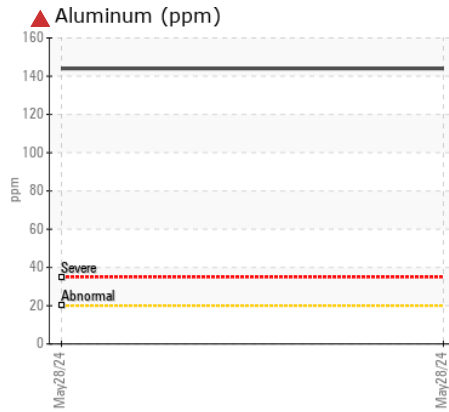
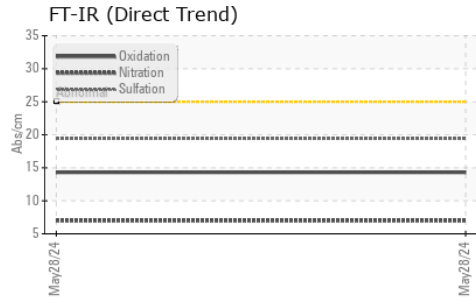
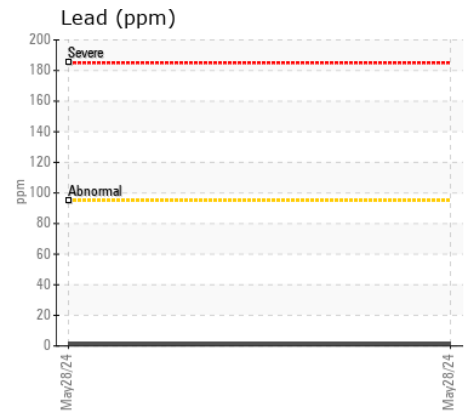
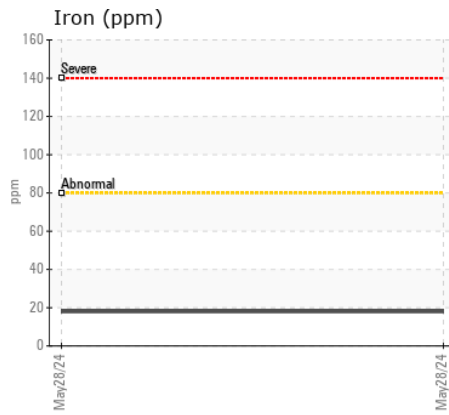
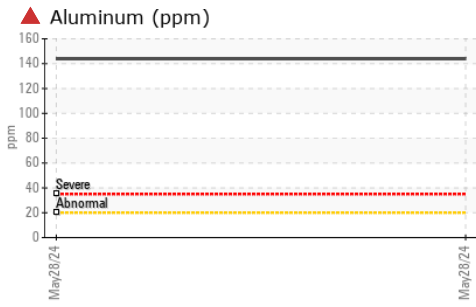
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	---	---
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	---	---
Water		WC Method	>0.1	<b>NEG</b>	---	---
Glycol		WC Method		<b>NEG</b>	---	---
Soot %	%	*ASTM D7844		<b>0.1</b>	---	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.0</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.4</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	---	---

### FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185m		<b>4</b>	---	---
Boron	ppm	ASTM D5185m		<b>190</b>	---	---
Barium	ppm	ASTM D5185m		<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m		<b>47</b>	---	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185m		<b>601</b>	---	---
Calcium	ppm	ASTM D5185m		<b>1305</b>	---	---
Phosphorus	ppm	ASTM D5185m		<b>642</b>	---	---
Zinc	ppm	ASTM D5185m		<b>732</b>	---	---
Sulfur	ppm	ASTM D5185m		<b>2811</b>	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.3</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		<b>8.2</b>	---	---
Visc @ 100°C	cSt	ASTM D445		<b>13.9</b>	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VPA055816 **Received** : 30 May 2024  
**Lab Number** : 06196092 **Tested** : 31 May 2024  
**Unique Number** : 11058215 **Diagnosed** : 04 Jun 2024 - Jonathan Hester  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**Northwest Diesel Power**  
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 BELLINGHAM, WA  
 US 98225  
 Contact: BRANDON ROBERTSON  
 parts@nwdieselpower.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)

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F: