



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**VOLVO PENTA 1012453406**  
 Component  
**Starboard Diesel Engine**  
 Fluid  
**MOBIL DELVAC 1300 SUPER15W40 (8 GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VPA060882	---	---
Sample Date		Client Info		15 Mar 2024	---	---
Machine Age	hrs	Client Info		1141	---	---
Oil Age	hrs	Client Info		41	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Not Chngd	---	---
Filter Changed		Client Info		Not Chngd	---	---
Sample Status				NORMAL	---	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	6	---	---
Chromium	ppm	ASTM D5185m	>6	<1	---	---
Nickel	ppm	ASTM D5185m	>2	<1	---	---
Titanium	ppm	ASTM D5185m	>2	0	---	---
Silver	ppm	ASTM D5185m	>2	0	---	---
Aluminum	ppm	ASTM D5185m	>20	2	---	---
Lead	ppm	ASTM D5185m	>95	<1	---	---
Copper	ppm	ASTM D5185m	>85	<1	---	---
Tin	ppm	ASTM D5185m	>9	<1	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

### CONTAMINATION

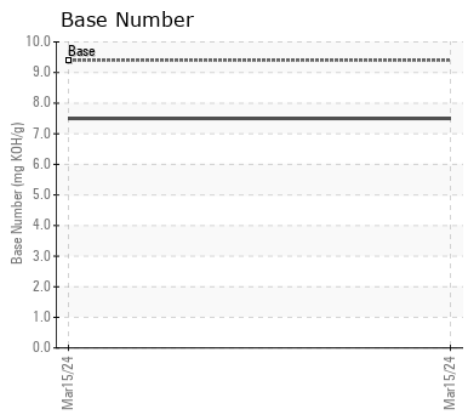
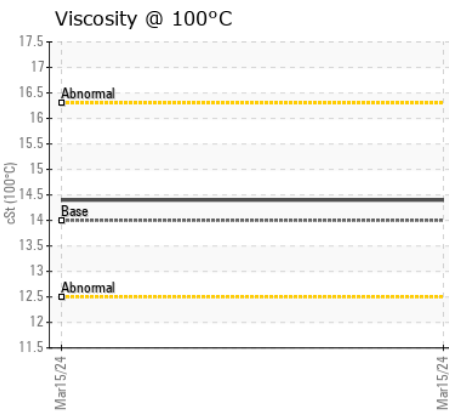
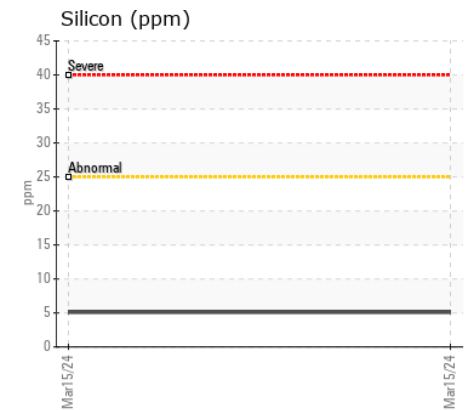
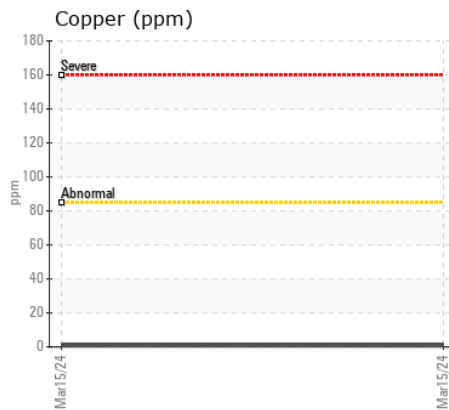
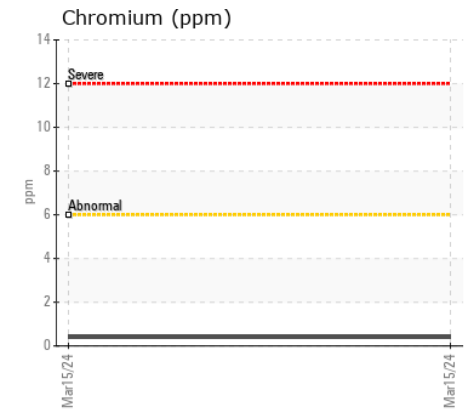
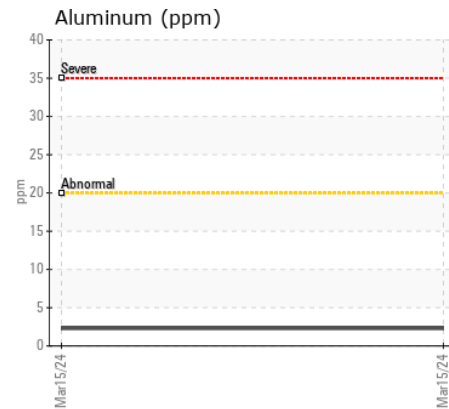
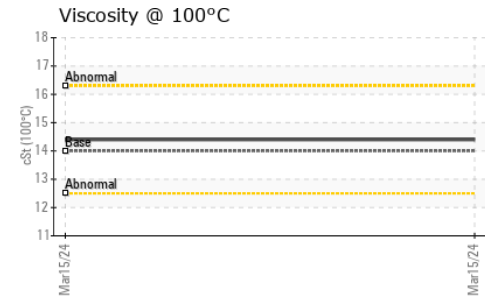
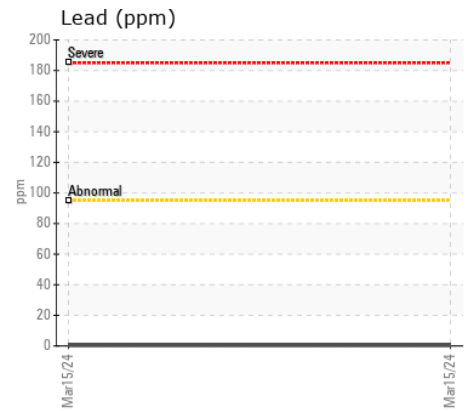
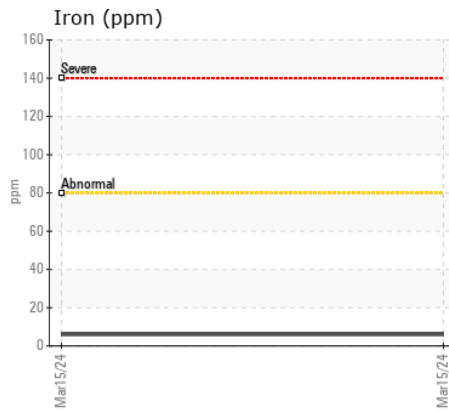
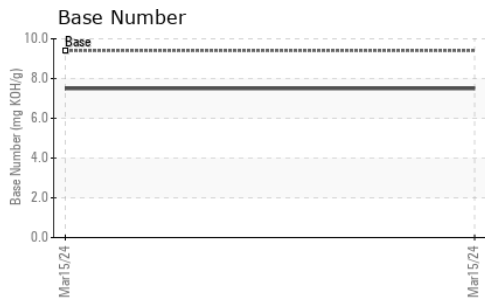
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	5	---	---
Potassium	ppm	ASTM D5185m	>20	4	---	---
Fuel		WC Method	>4.0	<1.0	---	---
Water		WC Method	>0.1	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844		0.6	---	---
Nitration	Abs/cm	*ASTM D7624	>20	6.8	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.9	---	---
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	>0.1	NEG	---	---

### 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.

Sodium	ppm	ASTM D5185m		3	---	---
Boron	ppm	ASTM D5185m	0	102	---	---
Barium	ppm	ASTM D5185m	0	0	---	---
Molybdenum	ppm	ASTM D5185m	0	29	---	---
Manganese	ppm	ASTM D5185m		0	---	---
Magnesium	ppm	ASTM D5185m	0	332	---	---
Calcium	ppm	ASTM D5185m		1793	---	---
Phosphorus	ppm	ASTM D5185m		1050	---	---
Zinc	ppm	ASTM D5185m		1228	---	---
Sulfur	ppm	ASTM D5185m		3634	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.9	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.4	7.5	---	---
Visc @ 100°C	cSt	ASTM D445	14	14.4	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VPA060882 **Received** : 18 Mar 2024  
**Lab Number** : 06121350 **Tested** : 19 Mar 2024  
**Unique Number** : 10930183 **Diagnosed** : 20 Mar 2024 - Don Baldrige  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**CAROLINA MARINE DIESEL**  
 PO BOX 24159  
 HILTON HEAD, SC  
 US 29925  
 Contact: KEVIN JACKSON  
 cmdieselsc@gmail.com  
 T: (843)830-9202  
 F: (843)681-9976

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)