## **OIL ANALYSIS REPORT**

## FRED LOPATIN LOPATIN VOLVO PENTA 7008453402 - PORT DIESEL ENGINE

Sample No: VPA056414

Oil Type: VALVOLINE PREMIUM BLUE 2000 15W40

Sample Number		VPA056414	VPA042924	 	
Sample Date		04 Mar 2024	21 Mar 2023	 	Jefferson Beach Yacht Sales Inc
Machine Hours		618	505	 	24400 Jefferson Ave.
Oil Hours		110	287	 	SAINT CLAIR SHORES, MI
Oil Changed		Changed	Changed	 	US 48080
Sample Status		ATTENTION	ATTENTION	 	Contact: DAVID LESH
OIL CONDITION					DLESH@JBYS.COM T:
Visc @ 100°C	cSt	<b>14.8</b>	14.8	 	F:
Base Number (BN)	mg KOH/g	9.2	9.2	 	
Oxidation (PA)	%	68	64	 	
CONTAMINATION					Oil and filter change at the time sampling has been noted. No
Water	%	NEG	NEG	 	corrective action is recommende this time. Resample at the next
Soot %	%	1.4	1.9	 	service interval to monitor. The
Nitration (PA)	%	78	77	 	copper level is abnormal. All oth
Sulfation (PA)	%	62	65	 	component wear rates are norma
Glycol	%	NEG	NEG	 	There is no indication of any
Fuel	%	<1.0	<1.0	 	contamination in the oil. The BN
Silicon	ppm	23	26	 	result indicates that there is suita
Sodium	ppm	2	2	 	alkalinity remaining in the oil. Th
					condition of the oil is accontable
Potassium	ppm	2	1	 	condition of the oil is acceptable the time in service.
Potassium WEAR METALS	ppm	2	1		
Potassium WEAR METALS Iron	ppm	2 36	□ 1 □ 42		the time in service.
Potassium WEAR METALS Iron Copper	ppm ppm ppm	2 36 99	□ 1 □ 42 ● 108	 	
Potassium WEAR METALS Iron Copper Lead	ppm ppm ppm ppm	2 36 99 <1	□ 1 □ 42 ● 108 □ 0	 	the time in service.
Potassium WEAR METALS Iron Copper Lead Tin	ppm ppm ppm ppm ppm	2 36 99 <1 <1 <1	□ 1 □ 42 ● 108 □ 0 □ <1	 	the time in service.
Potassium WEAR METALS Iron Copper Lead Tin Aluminum	ppm ppm ppm ppm ppm ppm	2 36 99 <1 <1 <1 3	□ 1 □ 42 ○ 108 □ 0 □ <1 □ 3	   	the time in service.
Potassium WEAR METALS Iron Copper Lead Tin Aluminum Chromium	ppm ppm ppm ppm ppm ppm ppm	2 36 99 <1 <1 3 3 3	□ 1 □ 42 ○ 108 □ 0 □ <1 □ 3 □ 4		the time in service.
Potassium WEAR METALS Iron Copper Lead Tin Aluminum Chromium Molybdenum	ppm ppm ppm ppm ppm ppm ppm ppm	2 36 99 <1 <1 3 3 3 53	□ 1 □ 42 ○ 108 □ 0 ○ <1 □ 3 □ 4 □ 49	    	the time in service.
Potassium WEAR METALS Iron Copper Lead Tin Aluminum Chromium Molybdenum Nickel	ppm ppm ppm ppm ppm ppm ppm ppm	2 36 99 <1 <1 3 3 53 3 3	■ 1 ■ 42 ● 108 ■ 0 ■ <1 ■ 3 ■ 4 ■ 49 ■ 3	      	the time in service.
Potassium WEAR METALS Iron Copper Lead Tin Aluminum Chromium Molybdenum Nickel Titanium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	2 36 99 <1 <1 3 3 53 3 <1	□ 1 □ 42 ○ 108 □ 0 □ < 1 □ 3 □ 4 □ 49 □ 3 □ < 1		the time in service.
Potassium WEAR METALS Iron Copper Lead Tin Aluminum Chromium Molybdenum Nickel Titanium Silver	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	2 36 99 <1 <1 3 3 53 3 <1 2	□ 1 □ 42 ○ 108 □ 0 □ <1 □ 3 □ 4 □ 49 □ 3 □ <1 □ 2 □ 2 □ 2 □ 2 □ 2 □ 2 □ 2 □ 2		the time in service.
Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	2 36 99 <1 <1 3 3 53 3 <1	□ 1 □ 42 ○ 108 □ 0 □ < 1 □ 3 □ 4 □ 49 □ 3 □ < 1		the time in service.
Potassium WEAR METALS Iron Copper Lead Tin Aluminum Chromium Molybdenum Nickel Titanium Silver Manganese	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	2 36 99 <1 <1 3 3 53 3 <1 2 <1 2 <1	□ 1 □ 42 ○ 108 □ 0 □ <1 □ 3 □ 4 □ 49 □ 3 □ <1 □ 2 □ 1 □ 2 □ 1		the time in service.
Potassium WEAR METALS ron Copper Lead Tin Aluminum Chromium Molybdenum Nickel Titanium Silver Manganese Vanadium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	2 36 99 <1 <1 3 3 53 3 <1 2 <1 2 <1	□ 1 □ 42 ○ 108 □ 0 □ <1 □ 3 □ 4 □ 49 □ 3 □ <1 □ 2 □ 1 □ 2 □ 1		the time in service.
Potassium WEAR METALS ron Copper Lead Tin Aluminum Chromium Molybdenum Nickel Titanium Silver Manganese Vanadium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	2 36 99 <1 <1 3 3 53 3 <1 2 <1 2 <1 0	<ul> <li>□ 1</li> <li>□ 42</li> <li>○ 108</li> <li>□ 0</li> <li>□ &lt; 1</li> <li>□ 3</li> <li>□ 4</li> <li>□ 49</li> <li>□ 3</li> <li>□ &lt; 1</li> <li>□ 2</li> <li>□ 1</li> <li>&lt; 1</li> </ul>		the time in service.
Potassium WEAR METALS ron Copper ead Tin Aluminum Chromium Molybdenum Nickel Titanium Silver Manganese Vanadium ADDITIVES Calcium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	2 36 99 <1 <1 3 3 53 3 <1 2 <1 0 1422	■ 1 ■ 42 ● 108 ■ 0 ■ <1 ■ 3 ■ 4 ■ 49 ■ 3 ■ <1 ■ 2 ■ 1 ■ 2 ■ 1 ■ <1 ■ 2 ■ 1 ■ 1 ■ 3 ■ <1 ■ 2 ■ 1 ■ 1 ■ 3 ■ <1 ■ 2 ■ 1 ■ 1 ■ 1 ■ 3 ■ <1 ■ 2 ■ 1 ■ 1 ■ 3 ■ <1 ■ 1 ■ 1 ■ 1 ■ 1 ■ 3 ■ <1 ■ 1 ■ 1 ■ 1 ■ 1 ■ 1 ■ 1 ■ 1 ■		the time in service.
Potassium WEAR METALS ron Copper ead Tin Aluminum Chromium Molybdenum Nickel Titanium Silver Manganese Vanadium ADDITIVES Calcium Magnesium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	2 36 99 <1 <1 3 3 53 3 <1 2 <1 2 <1 0 1422 828	<ul> <li>□ 1</li> <li>□ 42</li> <li>□ 108</li> <li>□ 0</li> <li>□ &lt; 1</li> <li>□ 3</li> <li>□ 4</li> <li>□ 49</li> <li>□ 3</li> <li>□ &lt; 1</li> <li>□ 2</li> <li>□ 1</li> <li>&lt; 1</li> <li>1418</li> <li>732</li> </ul>		the time in service.
Potassium WEAR METALS ron Copper ead Tin Aluminum Chromium Molybdenum Molybdenum Nickel Titanium Silver Manganese Vanadium ADDITIVES Calcium Magnesium Zinc	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	2 36 99 <1 <1 3 3 53 3 <1 2 <1 0 1422 828 1151	□ 1 □ 42 ○ 108 □ 0 □ <1 □ 3 □ 4 □ 49 □ 3 □ <1 □ 2 □ 1 □ <1 □ 1 □ 1 □ 2 □ 1 □ <1 □ 1 □ 2 □ 1 □ 1 □ 2 □ 2 □ 2 □ 2 □ 2 □ 2 □ 2 □ 2		the time in service.

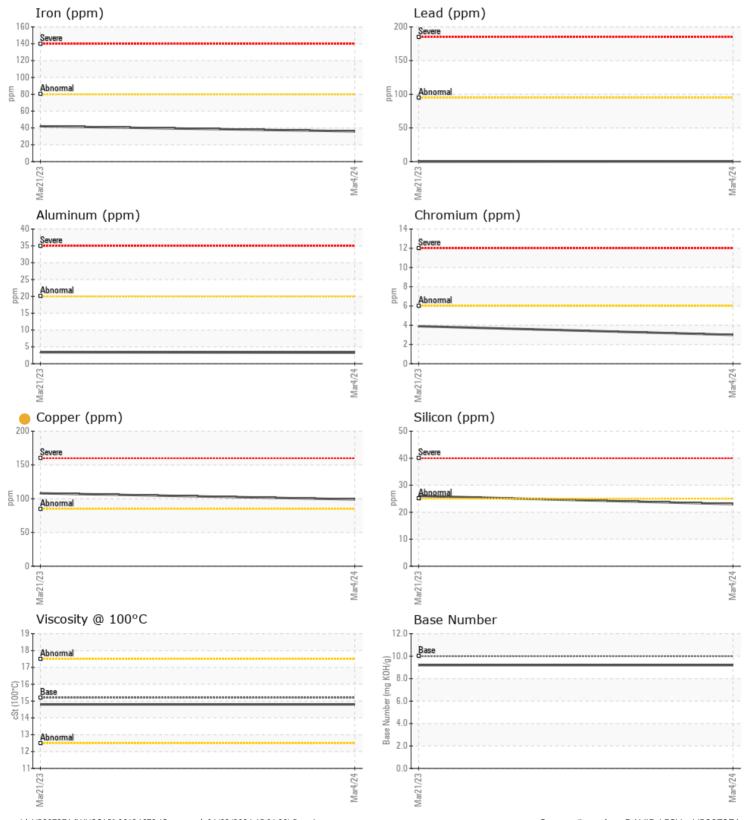
Report Date:03 Apr 2024Contact/Location:DAVID LESH - VP297371



## **OIL ANALYSIS REPORT**



## GRAPHS



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Contact/Location: DAVID LESH - VP297371