WEAR CONTAMINATION **FLUID CONDITION**

NORMAL NORMAL NORMAL

DARRYL THOMAS [7717048] **VOLVO PENTA A1051010**

Port Diesel Engine

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		VPA036247		
Resample at the next service interval to monitor.	Sample Date		Client Info		03 Oct 2023		
	Machine Age	hrs	Client Info		276		
	Oil Age	hrs	Client Info		0		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		N/A		
	Filter Changed		Client Info		N/A		
	Sample Status				NORMAL		
A/E A D			40TM DE40E				
WEAR	Iron	ppm	ASTM D5185m		24		
All component wear rates are normal.	Chromium	ppm	ASTM D5185m		1		
	Nickel	ppm	ASTM D5185m		2		
	Titanium	ppm	ASTM D5185m		0		
	Silver	ppm	ASTM D5185m		0		
	Aluminum	ppm	ASTM D5185m		10		
	Lead	ppm	ASTM D5185m		2		
	Copper	ppm	ASTM D5185m		9		
	Tin	ppm	ASTM D5185m	>9	<1		
	Vanadium White Metal	ppm	*Visual	NONE	0 NONE		
	Yellow Metal	scalar scalar	*Visual	NONE	NONE NONE		
<u></u>		Scalai	visuai	NONL	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	17		
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	0		
	Fuel		WC Method	>4.0	<1.0		
	Water		WC Method	>0.1	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844		0.5		
	Nitration	Abs/cm	*ASTM D7624	>20	7.3		
	Sulfation	Abs/.1mm	*ASTM D7415	>30	21.5		
	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	Sodium	nnm	ASTM D5185m		3		
LOID CONDITION	Boron	ppm	ASTM D5185m		226		
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.	Barium	ppm	ASTM D5185m		0		
	Molybdenum	ppm	ASTM D5185m		92		
	Manganese	ppm	ASTM D5185m		<1		
	Magnesium	ppm	ASTM D5185m		760		
	Calcium	ppm	ASTM D5185m		1365		
	Phosphorus	ppm	ASTM D5185m		640		
	Zinc	ppm	ASTM D5185m		931		
	Sulfur	ppm	ASTM D5185m		3414		
	Oxidation	Abs/.1mm	*ASTM D7414	>25	15.3		
	Base Number (BN)		ASTM D2896		9.4		
	Visc @ 100°C	cSt	ASTM D445		13.5		





Certificate L2367

Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513

: VPA036247 Lab Number : 05988916 Unique Number : 10711578

Received **Tested** Diagnosed

Test Package : MOB 1 (Additional Tests: TBN)

: 25 Oct 2023

: 26 Oct 2023

: 27 Oct 2023 - Sean Felton

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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Report Id: VP99031103 [WUSCAR] 05988916 (Generated: 02/21/2024 18:17:01) Rev: 1

Contact/Location: PAT RYAN - VP99031103