WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL NORMAL

EPIC

VOLVO PENTA A1115049

Port Diesel Engine

DECOMMENDATION.	- .	11611		11 5741	(<u> </u>		1.0
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		VPA049911		
	Sample Date		Client Info		17 Oct 2023		
	Machine Age	hrs	Client Info		520		
	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		
VEAR	Iron	ppm	ASTM D5185m	\ 80	23		
VLAN	Chromium		ASTM D5185m		<1		
All component wear rates are normal.	Nickel	ppm			3		
	Titanium	ppm	ASTM D5185m		0		
		ppm	ASTM D5185m				
	Silver	ppm	ASTM D5185m		0		
	Aluminum	ppm	ASTM D5185m		5		
	Lead	ppm	ASTM D5185m		3		
	Copper	ppm	ASTM D5185m		7		
	Tin	ppm	ASTM D5185m	>9	1		
	Vanadium	ppm	ASTM D5185m	NONE	0		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	7		
7511174IIII177111511	Potassium	ppm	ASTM D5185m		3		
There is no indication of any contamination in the oil.	Fuel	ρρ	WC Method	>4.0	<1.0		
	Water		WC Method		NEG		
	Glycol		WC Method	, 0	NEG		
	Soot %	%	*ASTM D7844		0.4		
	Nitration	Abs/cm	*ASTM D7624	>20	8.4		
	Sulfation	Abs/.1mm	*ASTM D7415		20.1		
	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				NEG		
	Liliuisilleu vvalei	Scalai	*Visual	>0.1			
LUID CONDITION	Sodium	ppm	ASTM D5185m	>158	4		
	Boron	ppm	ASTM D5185m		29		
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0		
	Molybdenum	ppm	ASTM D5185m		44		
	Manganese	ppm	ASTM D5185m		<1		
	Magnesium	ppm	ASTM D5185m	450	792		
	Calcium	ppm	ASTM D5185m		1197		
	Phosphorus	ppm	ASTM D5185m		761		
	Zinc	ppm	ASTM D5185m		930		
	Sulfur	ppm	ASTM D5185m		2435		
	Oxidation	Abs/.1mm	*ASTM D7414		16.9		
	Base Number (BN)				8.9		
		my Norry	, 10 HVI D2000	0.0	0.0		







Certificate L2367

Laboratory Sample No.

Lab Number : 05987109 Unique Number : 10709771

: VPA049911

To discuss this sample report, contact Customer Service at 1-800-237-1369.

0ct17/23

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

Received **Tested** Diagnosed Test Package : MOB 1 (Additional Tests: TBN)

: 23 Oct 2023 : 24 Oct 2023

: 25 Oct 2023 - Jonathan Hester

US 33314 Contact: ASHANTI BURKE aburke@midiflorida.com T: (954)761-1086

Marine International Diesels Inc.

3600 HACIENDA BLVD UNIT G

* - 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)

F: (954)761-1186

DAVIE, FL