## OLVO ENTA **IOB OIL ANALYSIS REPORT**

## NORMAL WEAR NORMAL CONTAMINATION FLUID CONDITION NORMAL

## Area **GLENN FOURIE [1610015] VOLVO PENTA 2013572770**

## Component Starboard Diesel Engine

DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		VPA056763		
	Sample Date		Client Info		18 Jan 2024		
	Machine Age	hrs	Client Info		963		
	Oil Age	hrs	Client Info		0		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				NORMAL		
WEAR	Iron	ppm	ASTM D5185m		2		
All component wear rates are normal.	Chromium	ppm	ASTM D5185m		0		
	Nickel	ppm	ASTM D5185m		<1		
	Titanium	ppm	ASTM D5185m		0		
	Silver	ppm	ASTM D5185m		0		
	Aluminum	ppm	ASTM D5185m		2		
	Lead	ppm	ASTM D5185m		1		
	Copper	ppm	ASTM D5185m	>85	2		
	Tin	ppm	ASTM D5185m	>9	<1		
	Vanadium	ppm	ASTM D5185m		<1		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
	0''''''''''''''''''''''''''''''''''''''			05			
CONTAMINATION	Silicon	ppm	ASTM D5185m		4		
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m		2		
	Fuel		WC Method		<1.0		
	Water		WC Method	>0.1	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844		0.2		
	Nitration	Abs/cm	*ASTM D7624	>20	5.8		
	Sulfation	Abs/.1mm	*ASTM D7415		18.9		
	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	Sodium	ppm	ASTM D5185m	>216	1		
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.	Boron	ppm	ASTM D5185m		3		
	Barium	ppm	ASTM D5185m		0		
	Molybdenum	ppm	ASTM D5185m		59		
	Manganese	ppm	ASTM D5185m		<1		
	Magnesium	ppm	ASTM D5185m	450	957		
	Calcium	ppm	ASTM D5185m		1003		
	Phosphorus	ppm	ASTM D5185m		1105		
	Zinc	ppm	ASTM D5185m		1288		
	Sulfur	ppm	ASTM D5185m		3371		
	Oxidation		*ASTM D5105/11		14.3		
	Ondation	1103/111111		~	17.5	i	-

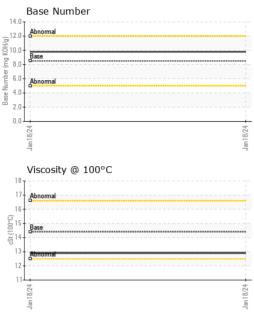
Base Number (BN) mg KOH/g ASTM D2896 8.5

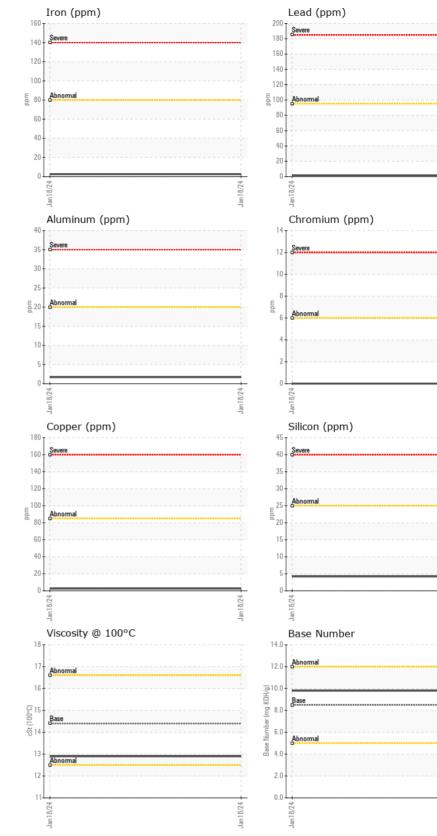
ASTM D445 14.4

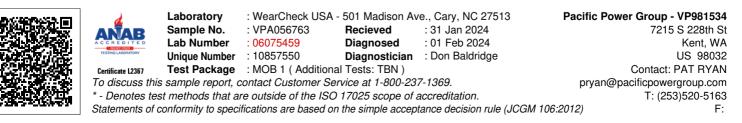
Visc @ 100°C cSt

9.8

12.9







Contact/Location: PAT RYAN - VP99031103

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