**WEAR** CONTAMINATION **FLUID CONDITION** 

**NORMAL NORMAL NORMAL** 

Machine Id

## GWYNETH ANNE

**Starboard Main Engine** 

{not provided} ( GAL)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.	Sample Number	OOW	Client Info	LIIIIU/ADII	LW0008467		
	Sample Date		Client Info		29 Mar 2024		
	Machine Age	hrs	Client Info		1000		
	Oil Age	hrs	Client Info		1000		
	Filter Age	hrs	Client Info		1000		
	Oil Changed	1110	Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				NORMAL		
WEAR	Iron	ppm	ASTM D5185m	>75	10		
WEAR	Chromium	ppm	ASTM D5185m		1		
All component wear rates are normal.	Nickel	ppm	ASTM D5185m		1		
	Titanium	ppm	ASTM D5185m		<1		
	Silver	ppm	ASTM D5185m		<1		
	Aluminum	ppm	ASTM D5185m		1		
	Lead	ppm	ASTM D5185m		2		
	Copper	ppm	ASTM D5185m		2		
	Tin	ppm	ASTM D5185m		1		
	Vanadium	ppm	ASTM D5185m		<1		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m	>20	6		
	Potassium	ppm	ASTM D5185m		1		
There is no indication of any contamination in the oil.	Fuel	le le · · ·	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	6.1		
	Sulfation	Abs/.1mm	*ASTM D7415	>30	18.6		
	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	>75	<1		
	Boron	ppm	ASTM D5185m		6		
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		61		
	Manganese	ppm	ASTM D5185m		1		
	Magnesium	ppm	ASTM D5185m		946		
	Calcium	ppm	ASTM D5185m		1083		
	Phosphorus	ppm	ASTM D5185m		1140		
	Zinc	ppm	ASTM D5185m		1239		
	Sulfur	ppm	ASTM D5185m		3627		
	Oxidation	Abs/.1mm	*ASTM D7414	>25	13.8		
		1/011/	A OTA A DOGGO		0.2		
	Base Number (BN)	mg KOH/g	ASTM D2896		9.3		







Certificate L2367

Report Id: MIDMOKIL [WUSCAR] 06152723 (Generated: 04/18/2024 16:38:09) Rev: 1

Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : LW0008467 Lab Number : 06152723

**Tested** Unique Number: 10982801 Diagnosed Test Package : MOB 1 ( Additional Tests: TBN )

Received : 18 Apr 2024 : 18 Apr 2024

: 18 Apr 2024 - Wes Davis

18861 S 90TH AVE MOKENA, IL US 60448 Contact: JEFFREY CAGWIN

MIDDLE RIVER MARINE

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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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