PERFORMANCE UNDER PRESSURE	PROBLEM SUMMARY	Sample Ratin	g Trend		VIS DEBRIS
achine Id MAY_MLU1					
incont omponent utboard Pump					
OT GIVEN ( GAL)		Feb2023	Jui2023	Nov2023	

No relevant graphs to display

RECOMMENDATION
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We suspect abnormal contamination may be due to sampling method. No corrective action is recommended at this time. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS								
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL		
Debris	scalar	*Visual	NONE	🔺 MODER	🔺 MODER	A MODER		

Customer Id: ENEROL Sample No.: RP0036179 Lab Number: 06026591 Test Package: IND 2



To manage this report scan the QR code

*To discuss the diagnosis or test data:* Jonathan Hester +1 919-379-4092 x4092 <u>jhester@wearcheckusa.com</u>

*To change component or sample information:* Customer Service +1 1-800-237-1369 <u>customerservice@wearcheck.com</u>

#### **RECOMMENDED ACTIONS**

There are no recommended actions for this sample.

#### HISTORICAL DIAGNOSIS

#### 21 Jul 2023 Diag: Don Baldridge



We recommend you service the filters on this component. Resample at the next service interval to monitor.All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

#### 27 Feb 2023 Diag: Don Baldridge

condition of the oil is suitable for further service.

VIS DEBRIS

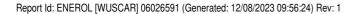


# We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The





view report





### **OIL ANALYSIS REPORT**

Sample Rating Trend



		Fe	2023	Jul2023 Nov2	023	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		RP0036179	RP0032168	RP0032789
Sample Date		Client Info		28 Nov 2023	21 Jul 2023	27 Feb 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	2	1	4
Chromium	ppm	ASTM D5185m	>5	0	0	0
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m	>3	0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>7	0	0	<1
Lead	ppm	ASTM D5185m	>12	2	2	1
Copper	ppm	ASTM D5185m	>30	31	17	29
Tin	ppm	ASTM D5185m	>9	0	1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	1	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m		70	84	77
Calcium	ppm	ASTM D5185m		1	0	0
Phosphorus	ppm	ASTM D5185m		<1	0	5
Zinc	ppm	ASTM D5185m		7	2	0
CONTAMINANTS	6	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>60	<1	0	1
Sodium	ppm	ASTM D5185m		2	0	<1
Potassium	ppm	ASTM D5185m		0	<1	0
Water	%	ASTM D6304	>.1	0.015	0.026	0.026
ppm Water	ppm	ASTM D6304	>1000	153	269.4	265.1
FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.33	0.37	0.46
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	LIGHT	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE		▲ MODER	🔺 MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>.1	NEG	NEG	NEG
3 09 Free Water	scalar	*Visual		NEG	ationEGraig Mo	organNECNEROL
						Dogo 2 of

#### Machine Id MAY MLU1 Component **Outboard Pump** Fluic NOT GIVEN (--- GAL)

#### DIAGNOSIS

#### Recommendation

We suspect abnormal contamination may sampling method. No corrective action is recommended at this time. Resample at the service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

Moderate concentration of visible dirt/deb in the oil. The water content is negligible.

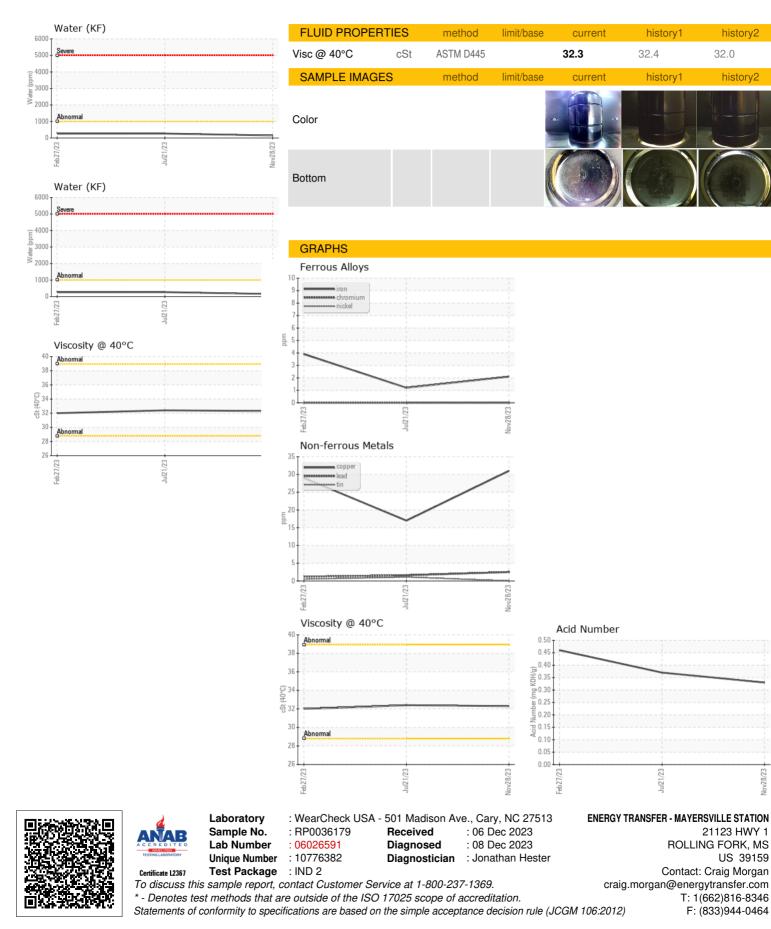
#### Fluid Condition

The AN level is acceptable for this fluid. T condition of the oil is suitable for further s

Report Id: ENEROL [WUSCAR] 06026591 (General



## **OIL ANALYSIS REPORT**



Contact/Location: Craig Morgan - ENEROL