

OIL ANALYSIS REPORT

Sample Rating Trend

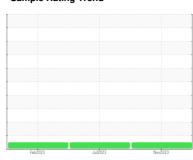






ABB MLU3 Component

Inboard Pump

NOT GIVEN (--- GAL)

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

The water content is negligible. There is no indication of any contamination in the oil.

Fluid Condition

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

SAMPLE INFORMATION		Feb.2023 Jul2023 Nov2023						
Client Info	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2	
Sample Date Client Info 30 Nov 2023 12 Jul 2023 28 Feb 2023 Machine Age hrs Client Info 0	Sample Number		Client Info		RP0036162	RP0032477	RP0032795	
Oil Age hrs Client Info NA N/A			Client Info		30 Nov 2023	12 Jul 2023	28 Feb 2023	
Oil Age hrs Client Info N/A	Machine Age	hrs	Client Info		0	0	0	
NORMAL NORMAL NORMAL NORMAL		hrs	Client Info		0	0	0	
NORMAL NORMAL NORMAL NORMAL	•		Client Info		N/A	N/A	N/A	
Iron					NORMAL	NORMAL	NORMAL	
Chromium ppm ASTM D5185m >5 0 0 0 Nickel ppm ASTM D5185m >5 0 0 0 Titanium ppm ASTM D5185m >3 <1	WEAR METALS		method	limit/base	current	history1	history2	
Nickel ppm ASTM D5185m >5 0 0 0 Titanium ppm ASTM D5185m >3 <1	Iron	ppm	ASTM D5185m	>90	<1	0	<1	
Titanium	Chromium	ppm	ASTM D5185m	>5	0	0	0	
Silver	Nickel	ppm	ASTM D5185m	>5	0	0	0	
Silver	Titanium	ppm	ASTM D5185m	>3	<1	0	0	
Aluminum	Silver		ASTM D5185m	>3	0	0	0	
Lead ppm ASTM D5185m >12 <1 0 <1 Copper ppm ASTM D5185m >30 12 10 8 Tin ppm ASTM D5185m >9 5 6 4 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 0 Magnesium ppm ASTM D5185m 0 <1	Aluminum		ASTM D5185m	>7		<1	<1	
Copper ppm ASTM D5185m >30 12 10 8 Tin ppm ASTM D5185m >9 5 6 4 Vanadium ppm ASTM D5185m <1	Lead			>12		0	<1	
Tin	Copper		ASTM D5185m	>30	12	10	8	
Vanadium ppm ASTM D5185m <1 <1 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 Barium ppm ASTM D5185m 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m 0 0 2 Calcium ppm ASTM D5185m 0 0 2 Phosphorus ppm ASTM D5185m 0 <1			ASTM D5185m	>9	5	6		
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 Barium ppm ASTM D5185m 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 Manganese ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m 0 0 2 Phosphorus ppm ASTM D5185m 0 0 2 Phosphorus ppm ASTM D5185m 0 0 2 Zinc ppm ASTM D5185m 0 0 4 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >60 0 <1	Vanadium		ASTM D5185m				0	
Boron ppm ASTM D5185m 0 0 0 0 0								
Barium	ADDITIVES		method	limit/base	current	history1	history2	
Barium	Boron	ppm	ASTM D5185m		0	0	0	
Molybdenum ppm ASTM D5185m 0 0 0 Manganese ppm ASTM D5185m 58 81 90 Calcium ppm ASTM D5185m 58 81 90 Calcium ppm ASTM D5185m 0 0 2 Phosphorus ppm ASTM D5185m 0 0 4 Zinc ppm ASTM D5185m 0 0 4 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >60 0 <1 <1 Sodium ppm ASTM D5185m >60 0 <1 <1 Potassium ppm ASTM D5185m >20 0 <1 <1 Water % ASTM D6304 >.1 0.021 0.021 0.021 Water % ASTM D6304 >.1 0.021 0.021 0.021 Previolity ASTM D6304	Barium		ASTM D5185m		0	0	0	
Manganese ppm ASTM D5185m 0 <1 0 Magnesium ppm ASTM D5185m 58 81 90 Calcium ppm ASTM D5185m 0 0 2 Phosphorus ppm ASTM D5185m 0 <1	Molybdenum		ASTM D5185m		0	0	0	
Magnesium ppm ASTM D5185m 58 81 90 Calcium ppm ASTM D5185m 0 0 2 Phosphorus ppm ASTM D5185m 0 <1	-		ASTM D5185m		0	<1	0	
Calcium ppm ASTM D5185m 0 0 2 Phosphorus ppm ASTM D5185m 0 <1	-				58		90	
Phosphorus ppm ASTM D5185m 0 <1 2 Zinc ppm ASTM D5185m 0 0 4 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m 60 0 <1 <1 Sodium ppm ASTM D5185m 1 <1 1 <1 Potassium ppm ASTM D5185m 20 0 <1 <1 Water % ASTM D5185m >20 0 <1 <1 Water % ASTM D5185m 20 0 <1 <1 Water % ASTM D5185m 20 0 <1 <1 <th colsp<="" td=""><td>-</td><td></td><td></td><td></td><th></th><td>0</td><td>2</td></th>	<td>-</td> <td></td> <td></td> <td></td> <th></th> <td>0</td> <td>2</td>	-					0	2
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Sodium ppm ASTM D5185m 1 <1 1 Potassium ppm ASTM D5185m >20 0 <1	CONTAMINANTS	\$	method	limit/base	current	history1	history2	
Potassium ppm ASTM D5185m >20 0 <1 <1 Water % ASTM D6304 >.1 0.021 0.021 0.021 ppm Water ppm ASTM D6304 >1000 210 219.3 216.7 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.38 0.34 0.38 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE Yellow Metal scalar	Silicon	ppm	ASTM D5185m	>60	0	<1	<1	
Potassium ppm ASTM D5185m >20 0 <1 <1 Water % ASTM D6304 >.1 0.021 0.021 0.021 ppm Water ppm ASTM D6304 >1000 210 219.3 216.7 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.38 0.34 0.38 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE Vellow 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 NONE NONE NONE Assum Visual NONE <td< td=""><td>Sodium</td><td></td><td>ASTM D5185m</td><td></td><th>1</th><td><1</td><td>1</td></td<>	Sodium		ASTM D5185m		1	<1	1	
Water % ASTM D6304 >.1 0.021 0.021 0.021 ppm Water ppm ASTM D6304 >1000 210 219.3 216.7 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.38 0.34 0.38 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE VLITE 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 NONE NONE NONE Sand/Dirt scalar *Visual NORML NORML NORML NORML NORML N	Potassium		ASTM D5185m	>20	0	<1	<1	
FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.38 0.34 0.38 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE LIGHT NONE VLITE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML NORML NORML	Water	%	ASTM D6304	>.1	0.021	0.021	0.021	
Acid Number (AN) mg KOHg ASTM D8045 0.38 0.34 0.38 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE Debris scalar *Visual NONE LIGHT NONE VLITE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML NORML NORML	ppm Water	ppm	ASTM D6304	>1000	210	219.3	216.7	
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White Metal scalar *Visual NONE NONE NONE VLITE 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 LIGHT NONE VLITE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML	Acid Number (AN)	mg KOH/g	ASTM D8045		0.38	0.34	0.38	
Yellow Metal scalar *Visual NONE NORML	VISUAL		method	limit/base	current	history1	history2	
Precipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONELIGHTNONEVLITESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORML	White Metal	scalar	*Visual					
Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE LIGHT NONE VLITE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML NORML NORML	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE	
Debrisscalar*VisualNONELIGHTNONEVLITESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORML	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE	
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORML	Silt	scalar	*Visual	NONE	NONE	NONE	NONE	
Appearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORML	Debris	scalar	*Visual	NONE	LIGHT	NONE	VLITE	
Odor scalar *Visual NORML NORML NORML NORML	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	

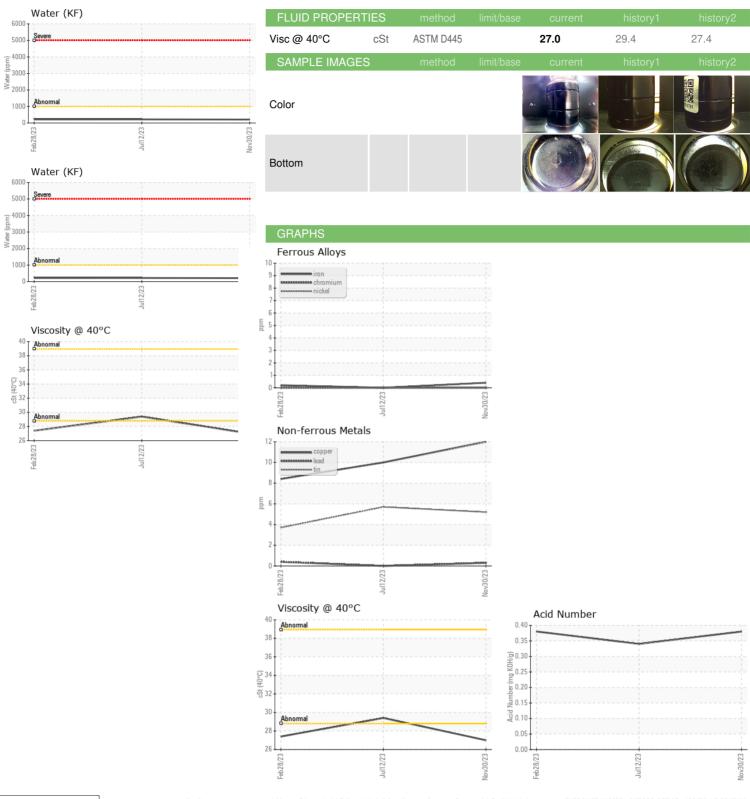
scalar *Visual

n: Sterice Manager ENEOXF

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OIL ANALYSIS REPORT







Certificate L2367

Laboratory Sample No. Lab Number **Unique Number** Test Package : IND 2

: RP0036162 : 06026563 : 10776354

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 06 Dec 2023 Diagnosed

: 08 Dec 2023 Diagnostician : Jonathan Hester ENERGY TRANSFER - OXFORD OFFICE - ABBEVILLE STATION

1001 COLLEGE HILL RD OXFORD, MS US 38655

Contact: Service Manager

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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