



OIL ANALYSIS REPORT

Sample Rating Trend

WEAR



Area
MAGENTA NTX
Machine Id
23WEA91130 - E-12

Component
Wind Turbine Gearbox
Fluid
SHELL OMALA S5 WIND 320 (--- LTR)



DIAGNOSIS

Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear

The iron level is abnormal. All other component wear rates are normal.

Contamination

Moderate concentration of visible dirt/debris present 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

method	limit/base	current	history1	history2
Sample Number	Client Info	NX012230	---	---
Sample Date	Client Info	06 Mar 2024	---	---
Machine Age	hrs Client Info	0	---	---
Oil Age	hrs Client Info	0	---	---
Oil Changed	Client Info	N/A	---	---
Sample Status		ABNORMAL	---	---

WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184 >50	27	---	---
Iron	ppm ASTM D5185m >30	▲ 44	---	---
Chromium	ppm ASTM D5185m >3	0	---	---
Nickel	ppm ASTM D5185m >3	0	---	---
Titanium	ppm ASTM D5185m >10	0	---	---
Silver	ppm ASTM D5185m	0	---	---
Aluminum	ppm ASTM D5185m >30	0	---	---
Lead	ppm ASTM D5185m >15	0	---	---
Copper	ppm ASTM D5185m >10	2	---	---
Tin	ppm ASTM D5185m >10	0	---	---
Vanadium	ppm ASTM D5185m	0	---	---
Cadmium	ppm ASTM D5185m	0	---	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	0	---	---
Barium	ppm ASTM D5185m	0	---	---
Molybdenum	ppm ASTM D5185m	0	---	---
Manganese	ppm ASTM D5185m	<1	---	---
Magnesium	ppm ASTM D5185m	<1	---	---
Calcium	ppm ASTM D5185m	2	---	---
Phosphorus	ppm ASTM D5185m	461	---	---
Zinc	ppm ASTM D5185m	<1	---	---
Sulfur	ppm ASTM D5185m	3884	---	---

CONTAMINANTS

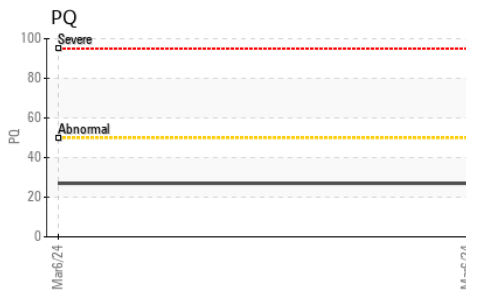
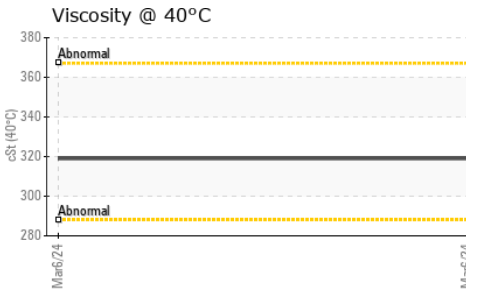
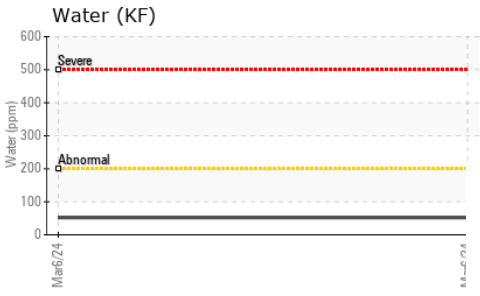
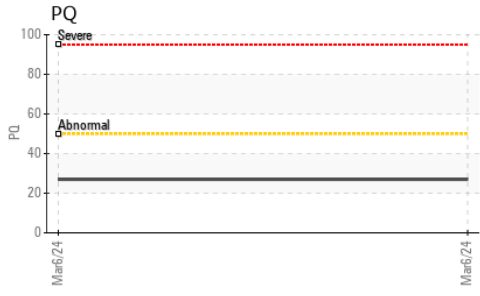
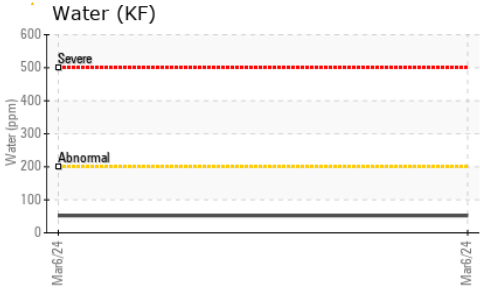
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >+15	9	---	---
Sodium	ppm ASTM D5185m	2	---	---
Potassium	ppm ASTM D5185m >20	<1	---	---
Water	% ASTM D6304 >0.02	0.005	---	---
ppm Water	ppm ASTM D6304 >200	52	---	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D8045	0.97	---	---



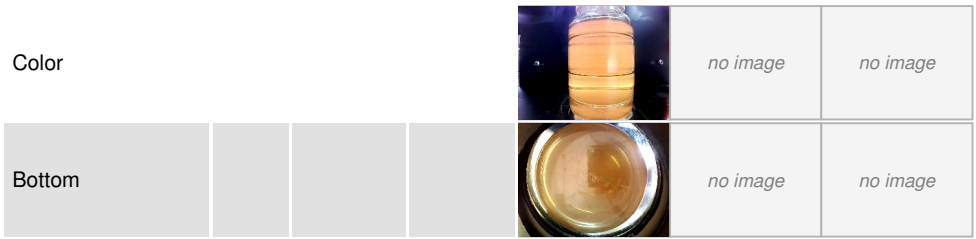
OIL ANALYSIS REPORT



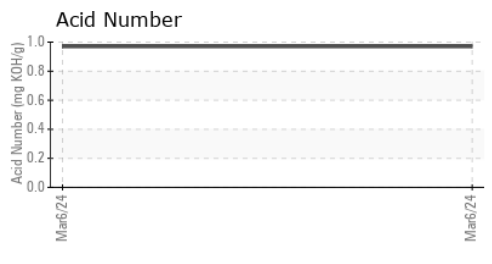
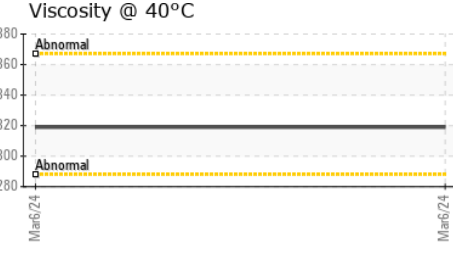
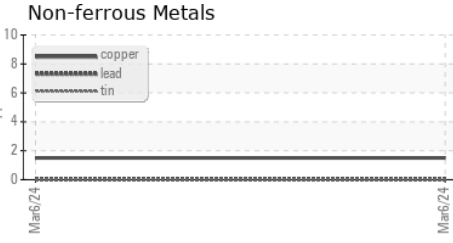
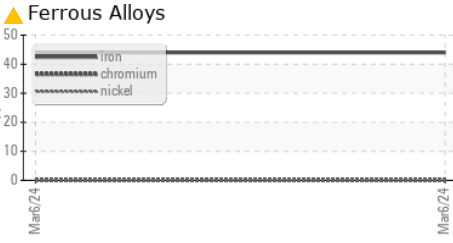
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	LIGHT	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	▲ MODER	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.02	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	319	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : NX012230 **Received** : 21 Mar 2024
Lab Number : **06125629** **Tested** : 25 Mar 2024
Unique Number : 10939780 **Diagnosed** : 25 Mar 2024 - Don Baldrige
Test Package : IND 2 (Additional Tests: KF, PQ, PrtCount)

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Certificate L2367
 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)