



# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area

**BEKEVAR [46004111]**

Machine Id

**D622350 (S/N CM0082)**

Component

**Wind Turbine Gearbox**

Fluid

**SHELL OMALA S5 WIND 320 (--- LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

The amount and size of particulates present in the system are acceptable. 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		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>NX014244</b>	---	---
Sample Date	Client Info			<b>25 Apr 2024</b>	---	---
Machine Age	hrs	Client Info		<b>0</b>	---	---
Oil Age	hrs	Client Info		<b>0</b>	---	---
Oil Changed	Client Info			<b>Not Chngd</b>	---	---
Sample Status				<b>NORMAL</b>	---	---

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		<b>16</b>	---	---
Iron	ppm	ASTM D5185m	>200	<b>2</b>	---	---
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	---	---
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	---	---
Titanium	ppm	ASTM D5185m		<b>0</b>	---	---
Silver	ppm	ASTM D5185m		<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m		<b>1</b>	---	---
Lead	ppm	ASTM D5185m		<b>0</b>	---	---
Copper	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Tin	ppm	ASTM D5185m		<b>0</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	---	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>0</b>	---	---
Barium	ppm	ASTM D5185m		<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m		<b>0</b>	---	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185m		<b>0</b>	---	---
Calcium	ppm	ASTM D5185m		<b>0</b>	---	---
Phosphorus	ppm	ASTM D5185m		<b>473</b>	---	---
Zinc	ppm	ASTM D5185m		<b>0</b>	---	---
Sulfur	ppm	ASTM D5185m		<b>3842</b>	---	---

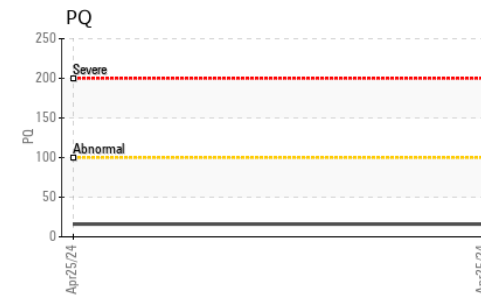
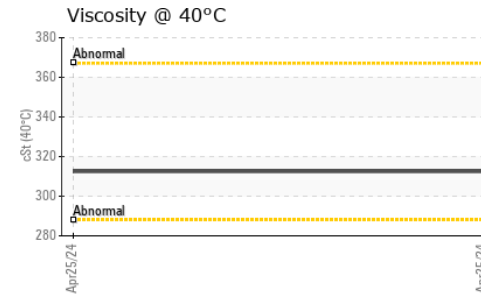
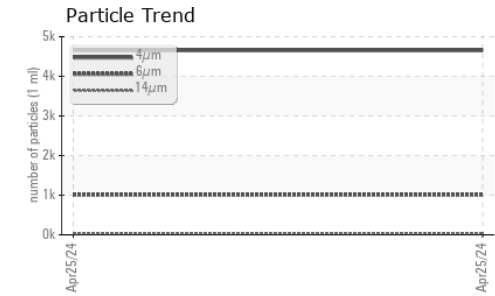
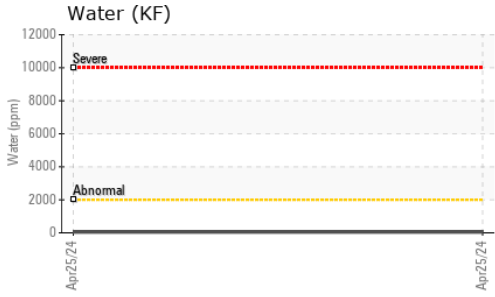
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m		<b>2</b>	---	---
Sodium	ppm	ASTM D5185m		<b>1</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	---	---
Water	%	ASTM D6304	>0.2	<b>0.004</b>	---	---
ppm Water	ppm	ASTM D6304	>2000	<b>47</b>	---	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		<b>4653</b>	---	---
Particles >6µm		ASTM D7647	>1300	<b>1011</b>	---	---
Particles >14µm		ASTM D7647	>160	<b>36</b>	---	---
Particles >21µm		ASTM D7647	>40	<b>5</b>	---	---
Particles >38µm		ASTM D7647	>10	<b>1</b>	---	---
Particles >71µm		ASTM D7647	>3	<b>1</b>	---	---
Oil Cleanliness		ISO 4406 (c)	>17/14	<b>17/12</b>	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.97</b>	---	---



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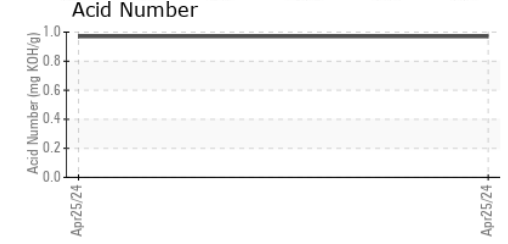
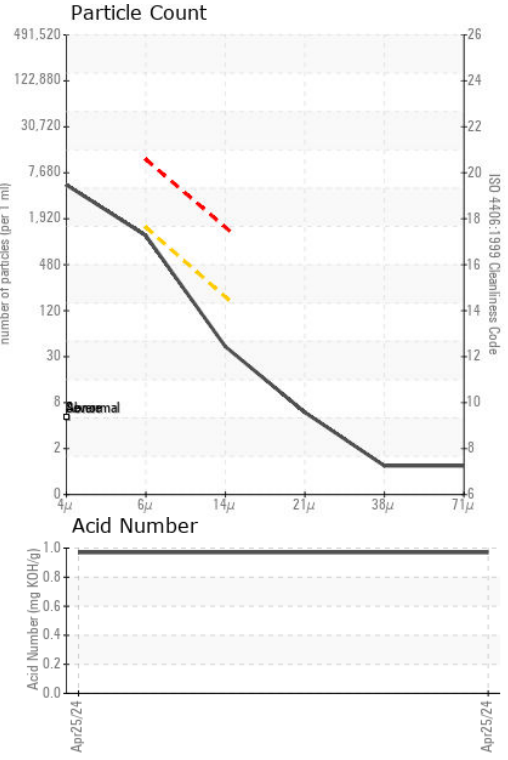
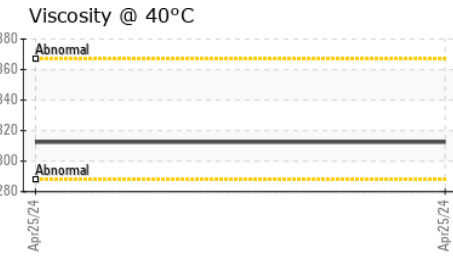
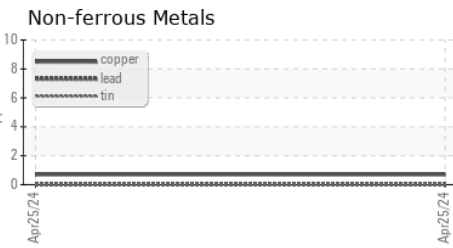
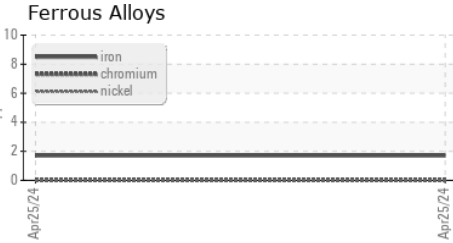
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	312.5	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color		no image	no image
Bottom		no image	no image

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : NX014244      **Received** : 16 May 2024  
**Lab Number** : 06181861      **Tested** : 20 May 2024  
**Unique Number** : 11033187      **Diagnosed** : 20 May 2024 - Angela Borella  
**Test Package** : IND 2 ( Additional Tests: KF, PQ, PrtCount )

**NORDEX USA - Chicago**  
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 CHICAGO, IL  
 US 60606  
 Contact: KEVIN REGAN  
 KRegan@nordex-online.com

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)