



# PROBLEM SUMMARY

Sample Rating Trend



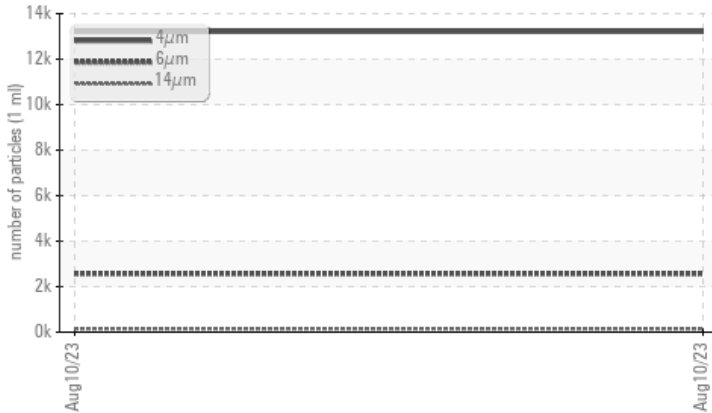
ISO



Area  
**EL SAUZ [US-SAUZ-01-US-5]**  
 Machine Id  
**D01-WEA90037 (S/N W-122996)**  
 Component  
**Wind Turbine Gearbox**  
 Fluid  
**FUCHS RENOLIN UNISYN CLP 320 (--- LTR)**

## COMPONENT CONDITION SUMMARY

### ▲ Particle Trend



## RECOMMENDATION

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status			<b>ABNORMAL</b>	---	---
Particles >6µm	ASTM D7647	>320	▲ <b>2567</b>	---	---
Particles >14µm	ASTM D7647	>40	▲ <b>142</b>	---	---
Particles >21µm	ASTM D7647	>10	▲ <b>37</b>	---	---
Oil Cleanliness	ISO 4406 (c)	>--/15/12	▲ <b>21/19/14</b>	---	---

Customer Id: NORDEX  
 Sample No.: NX014501  
 Lab Number: 05933554  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component if applicable.

## HISTORICAL DIAGNOSIS



# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area  
**EL SAUZ [US-SAUZ-01-US-5]**  
 Machine Id  
**D01-WEA90037 (S/N W-122996)**  
 Component  
**Wind Turbine Gearbox**  
 Fluid  
**FUCHS RENOLIN UNISYN CLP 320 (--- LTR)**

## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is a high amount of particulates 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		<b>NX014501</b>	---	---
Sample Date	Client Info		<b>10 Aug 2023</b>	---	---
Machine Age	hrs	Client Info	<b>0</b>	---	---
Oil Age	hrs	Client Info	<b>0</b>	---	---
Oil Changed	Client Info		<b>N/A</b>	---	---
Sample Status			<b>ABNORMAL</b>	---	---

WEAR METALS	method	limit/base	current	history1	history2
PQ	ASTM D8184	>40	<b>9</b>	---	---
Iron	ppm	ASTM D5185m	>55	<b>21</b>	---
Chromium	ppm	ASTM D5185m	>2	<b>0</b>	---
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	---
Titanium	ppm	ASTM D5185m	>10	<b>0</b>	---
Silver	ppm	ASTM D5185m		<b>0</b>	---
Aluminum	ppm	ASTM D5185m	>15	<b>0</b>	---
Lead	ppm	ASTM D5185m	>3	<b>2</b>	---
Copper	ppm	ASTM D5185m	>7	<b>&lt;1</b>	---
Tin	ppm	ASTM D5185m	>3	<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>2</b>	---
Barium	ppm	ASTM D5185m		<b>2</b>	---
Molybdenum	ppm	ASTM D5185m		<b>0</b>	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	---
Magnesium	ppm	ASTM D5185m		<b>&lt;1</b>	---
Calcium	ppm	ASTM D5185m		<b>18</b>	---
Phosphorus	ppm	ASTM D5185m		<b>221</b>	---
Zinc	ppm	ASTM D5185m		<b>4</b>	---
Sulfur	ppm	ASTM D5185m		<b>5293</b>	---

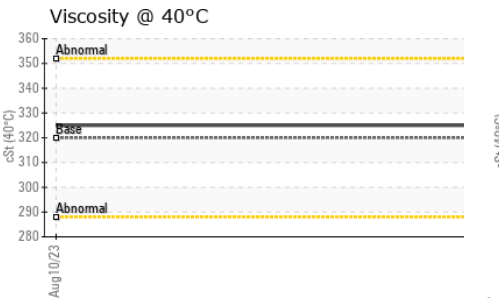
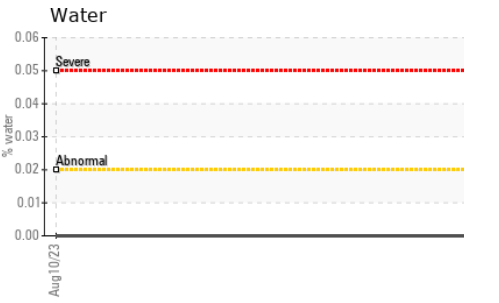
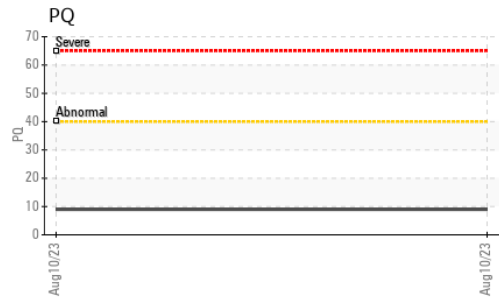
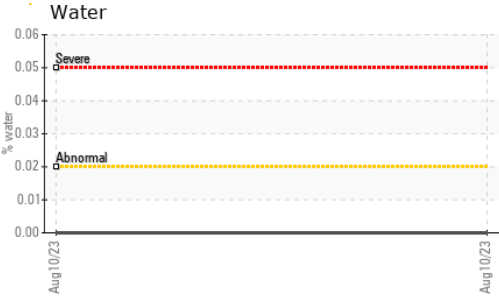
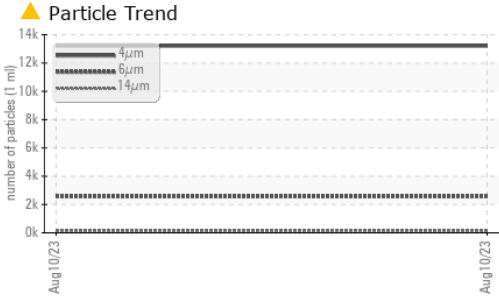
CONTAMINANTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>35	<b>8</b>	---
Sodium	ppm	ASTM D5185m		<b>0</b>	---
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	---
Water	%	ASTM D6304	>0.02	<b>0.00</b>	---
ppm Water	ppm	ASTM D6304	>200	<b>0.00</b>	---

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		<b>13207</b>	---	---
Particles >6µm	ASTM D7647	>320	<b>▲ 2567</b>	---	---
Particles >14µm	ASTM D7647	>40	<b>▲ 142</b>	---	---
Particles >21µm	ASTM D7647	>10	<b>▲ 37</b>	---	---
Particles >38µm	ASTM D7647	>3	<b>1</b>	---	---
Particles >71µm	ASTM D7647	>3	<b>0</b>	---	---
Oil Cleanliness	ISO 4406 (c)	>--/15/12	<b>▲ 21/19/14</b>	---	---

FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.6	<b>0.38</b>	---



# OIL ANALYSIS REPORT



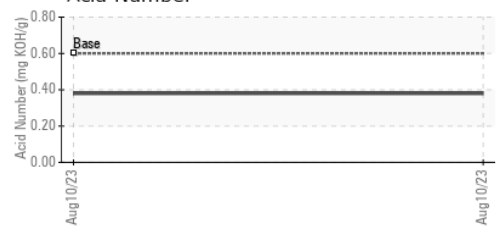
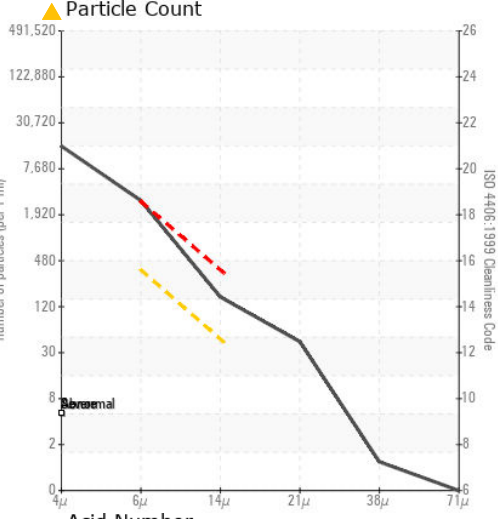
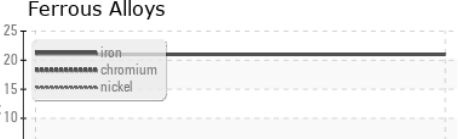
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	320	325	---

### SAMPLE IMAGES

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

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : NX014501 **Received** : 24 Aug 2023  
**Lab Number** : 05933554 **Diagnosed** : 25 Aug 2023  
**Unique Number** : 10618825 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF, PQ, PrtCount )

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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)