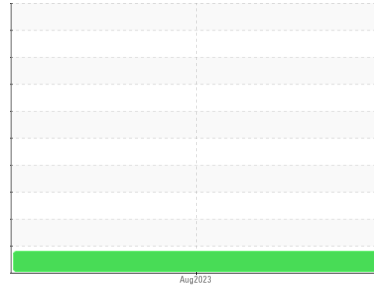




# PROBLEM SUMMARY

Sample Rating Trend

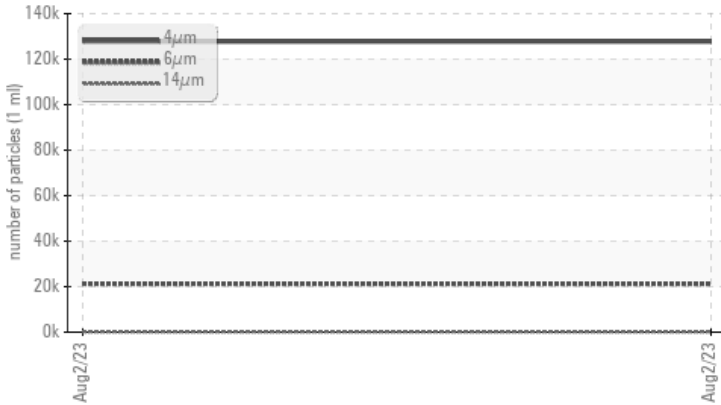
ISO



Area  
**EL SAUZ**  
 Machine Id  
**Q04WEA90359 (S/N W-123222)**  
 Component  
**Wind Turbine Gearbox**  
 Fluid  
**FUCHS RENOLIN CLP ISO 320 (--- LTR)**

## COMPONENT CONDITION SUMMARY

### ▲ Particle Trend



## RECOMMENDATION

No corrective action is recommended at this time.  
 Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status			<b>ABNORMAL</b>	---	---
Particles >6µm	ASTM D7647	>2500	▲ 21257	---	---
Oil Cleanliness	ISO 4406 (c)	>--/18/15	▲ 24/22/15	---	---

Customer Id: NORDEX  
 Sample No.: NX014536  
 Lab Number: 05924847  
 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

*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS



# OIL ANALYSIS REPORT

Sample Rating Trend

ISO

Area  
**EL SAUZ**  
 Machine Id  
**Q04WEA90359 (S/N W-123222)**  
 Component  
**Wind Turbine Gearbox**  
 Fluid  
**FUCHS RENOLIN CLP ISO 320 (--- LTR)**



## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is a high amount of silt (particulates < 14 microns in size) 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>NX014536</b>	---	---
Sample Date	Client Info	<b>02 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	>80	<b>20</b>	---
Iron	ppm	ASTM D5185m	>150	<b>25</b>
Chromium	ppm	ASTM D5185m	>5	<b>0</b>
Nickel	ppm	ASTM D5185m	>10	<b>0</b>
Titanium	ppm	ASTM D5185m	>10	<b>0</b>
Silver	ppm	ASTM D5185m		<b>0</b>
Aluminum	ppm	ASTM D5185m	>10	<b>&lt;1</b>
Lead	ppm	ASTM D5185m	>20	<b>&lt;1</b>
Copper	ppm	ASTM D5185m	>50	<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>3</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>&lt;1</b>
Calcium	ppm	ASTM D5185m		<b>19</b>
Phosphorus	ppm	ASTM D5185m		<b>218</b>
Zinc	ppm	ASTM D5185m		<b>2</b>
Sulfur	ppm	ASTM D5185m		<b>4784</b>

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	<b>8</b>
Sodium	ppm	ASTM D5185m	>20	<b>0</b>
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>
Water	%	ASTM D6304	>0.05	<b>0.004</b>
ppm Water	ppm	ASTM D6304	>500	<b>43.1</b>

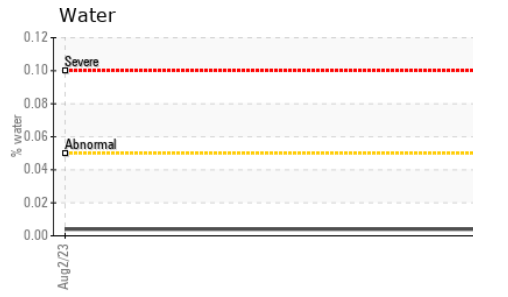
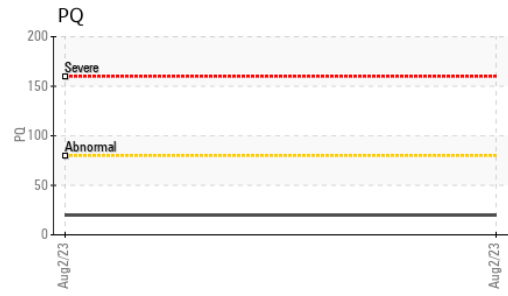
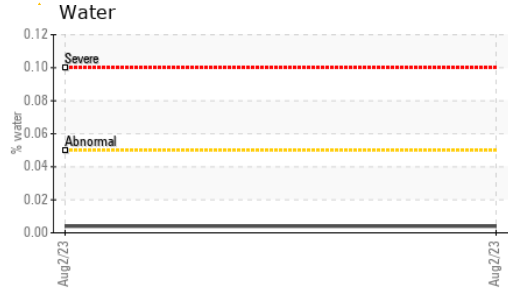
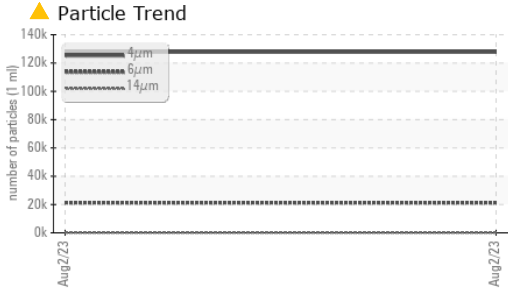
## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		<b>127742</b>	---
Particles >6µm	ASTM D7647	>2500	<b>21257</b>	---
Particles >14µm	ASTM D7647	>320	<b>181</b>	---
Particles >21µm	ASTM D7647	>80	<b>35</b>	---
Particles >38µm	ASTM D7647	>20	<b>3</b>	---
Particles >71µm	ASTM D7647	>4	<b>2</b>	---
Oil Cleanliness	ISO 4406 (c)	>--/18/15	<b>24/22/15</b>	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.37</b>	---

# OIL ANALYSIS REPORT



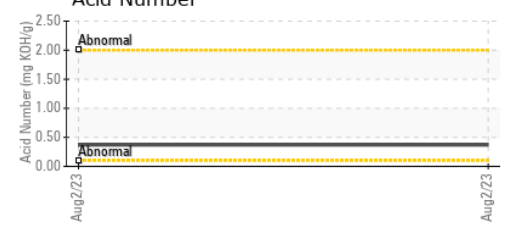
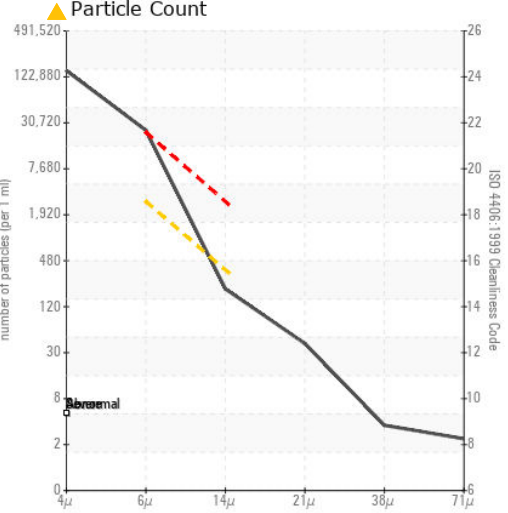
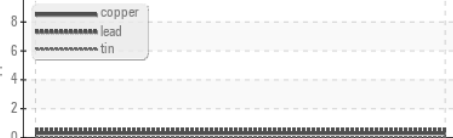
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.05	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	320	<b>328</b>	---

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.** : NX014536 **Received** : 15 Aug 2023  
**Lab Number** : 05924847 **Diagnosed** : 18 Aug 2023  
**Unique Number** : 10604794 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF, PQ, PrtCount )

**NORDEX USA - Chicago**  
 300 SOUTH WACKER DRIVE, SUITE 1500  
 CHICAGO, IL  
 US 60606  
 Contact: DEVIN LINEHAN  
 DLinehan@nordex-online.com  
 T: (312)386-4124  
 F: (312)386-7102

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)