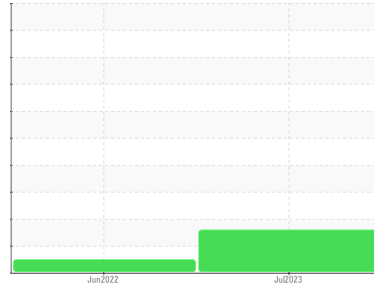




# PROBLEM SUMMARY

## Sample Rating Trend



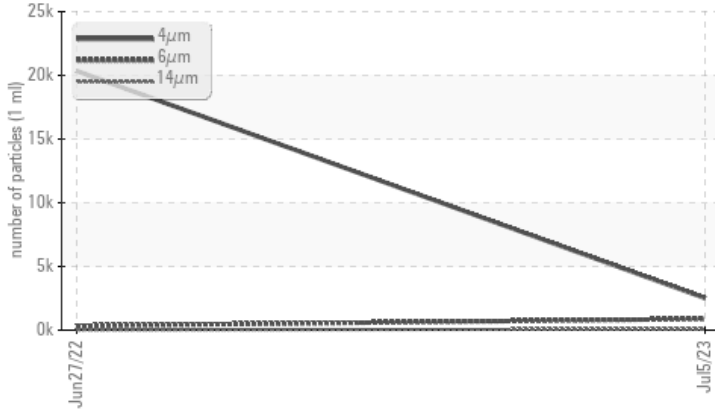
ISO



Area  
**PRIDY [20005313]**  
 Machine Id  
**H2**  
 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			ABNORMAL	NORMAL	---
Particles >6µm	ASTM D7647	>320	▲ <b>879</b>	343	---
Particles >14µm	ASTM D7647	>40	▲ <b>73</b>	29	---
Particles >21µm	ASTM D7647	>10	▲ <b>17</b>	8	---
Oil Cleanliness	ISO 4406 (c)	>--/15/12	▲ <b>19/17/13</b>	22/16/12	---

Customer Id: NORDEX  
 Sample No.: NX010218  
 Lab Number: 05933562  
 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

27 Jun 2022 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

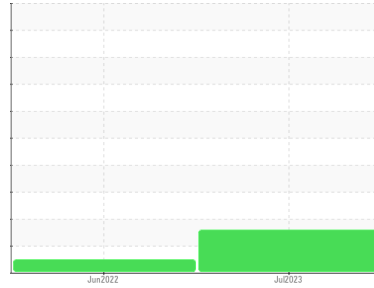
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area  
**PRIDDY [200005313]**

Machine Id  
**H2**

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>NX010218</b>	NX05596466	---
Sample Date	Client Info		<b>05 Jul 2023</b>	27 Jun 2022	---
Machine Age	hrs	Client Info	<b>0</b>	0	---
Oil Age	hrs	Client Info	<b>0</b>	0	---
Oil Changed	Client Info		<b>N/A</b>	N/A	---
Sample Status			<b>ABNORMAL</b>	NORMAL	---

## WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184	>50	<b>14</b>	20	---
Iron	ppm	ASTM D5185m	>30	<b>15</b>	8
Chromium	ppm	ASTM D5185m	>3	<b>0</b>	0
Nickel	ppm	ASTM D5185m	>3	<b>0</b>	0
Titanium	ppm	ASTM D5185m	>10	<b>0</b>	0
Silver	ppm	ASTM D5185m		<b>0</b>	<1
Aluminum	ppm	ASTM D5185m	>30	<b>0</b>	0
Lead	ppm	ASTM D5185m	>15	<b>2</b>	1
Copper	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>7</b>	11
Barium	ppm	ASTM D5185m		<b>2</b>	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	<1
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1
Magnesium	ppm	ASTM D5185m		<b>&lt;1</b>	<1
Calcium	ppm	ASTM D5185m		<b>25</b>	21
Phosphorus	ppm	ASTM D5185m		<b>206</b>	175
Zinc	ppm	ASTM D5185m		<b>9</b>	2
Sulfur	ppm	ASTM D5185m		<b>5015</b>	4677

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+15	<b>4</b>	4
Sodium	ppm	ASTM D5185m		<b>0</b>	<1
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	<1
Water	%	ASTM D6304	>0.02	<b>0.003</b>	0.010
ppm Water	ppm	ASTM D6304	>200	<b>30.0</b>	102.8

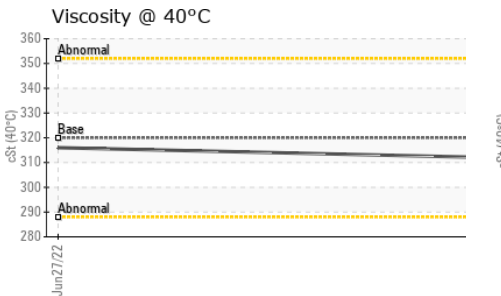
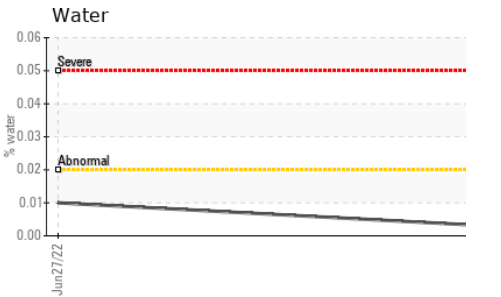
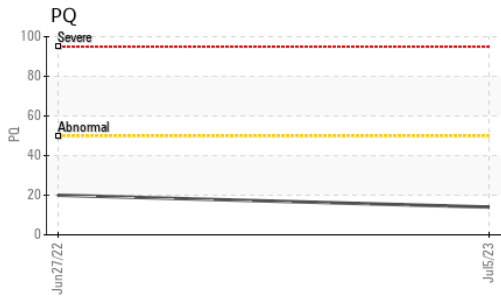
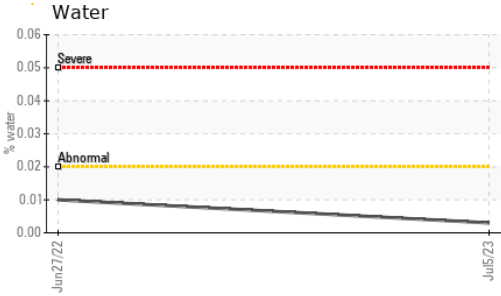
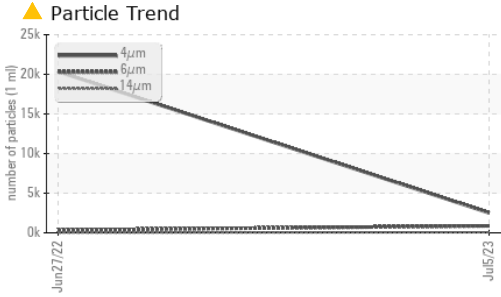
## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		<b>2515</b>	20345	---
Particles >6µm	ASTM D7647	>320	<b>▲ 879</b>	343	---
Particles >14µm	ASTM D7647	>40	<b>▲ 73</b>	29	---
Particles >21µm	ASTM D7647	>10	<b>▲ 17</b>	8	---
Particles >38µm	ASTM D7647	>3	<b>1</b>	1	---
Particles >71µm	ASTM D7647	>3	<b>0</b>	1	---
Oil Cleanliness	ISO 4406 (c)	>--/15/12	<b>▲ 19/17/13</b>	22/16/12	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.6	<b>0.36</b>	0.09

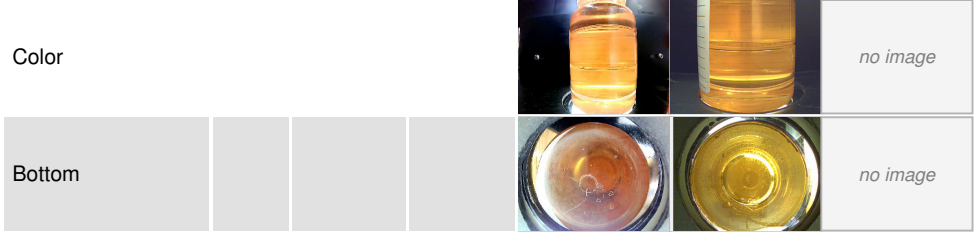
# OIL ANALYSIS REPORT



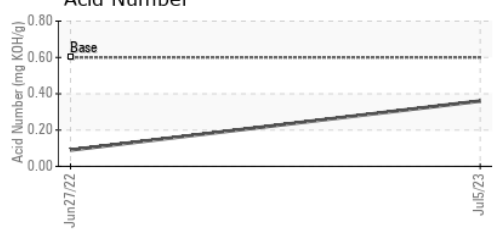
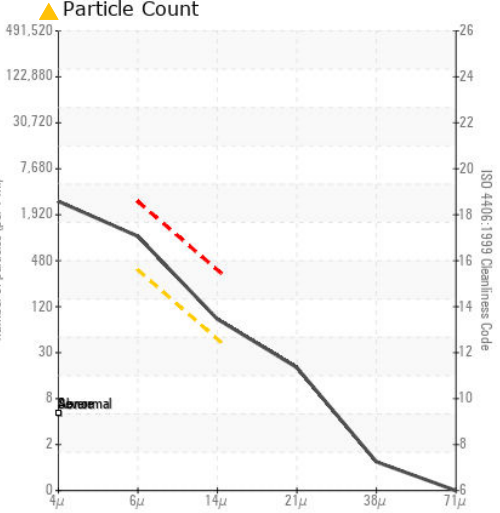
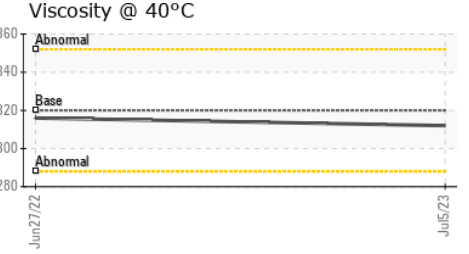
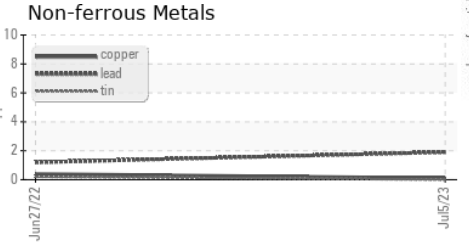
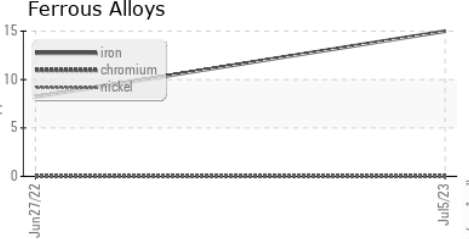
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*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	312	316	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : NX010218 **Received** : 24 Aug 2023  
**Lab Number** : 05933562 **Diagnosed** : 25 Aug 2023  
**Unique Number** : 10618833 **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)