

OIL ANALYSIS REPORT

Area AZURE SKY [200007684] Machine Id T-29 Component

Wind Turbine Gearbox

FUCHS RENOLIN UNISYN CLP 320 (--- LTR)

DIAGNOSIS

Recommendation

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

Wear

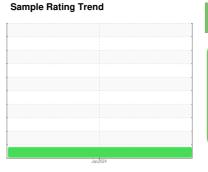
All component wear rates are normal.

Contamination

There is a moderate 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.





ISO

| SAMPLE INFORM | MATION | method | limit/base | current | history1 | history2 |
|-----------------|---------------|--------------|------------|-----------------|----------|----------|
| Sample Number | | Client Info | | NX06054824 | | |
| Sample Date | | Client Info | | 07 Jan 2024 | | |
| Machine Age | hrs | Client Info | | 0 | | |
| Oil Age | hrs | Client Info | | 0 | | |
| Oil Changed | | Client Info | | N/A | | |
| Sample Status | | | | ATTENTION | | |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| PQ | | ASTM D8184 | >40 | 14 | | |
| Iron | ppm | ASTM D5185m | >55 | 8 | | |
| Chromium | ppm | ASTM D5185m | >2 | 0 | | |
| Nickel | ppm | ASTM D5185m | >2 | 0 | | |
| Titanium | ppm | ASTM D5185m | >10 | 0 | | |
| Silver | ppm | ASTM D5185m | | 0 | | |
| Aluminum | ppm | ASTM D5185m | >15 | 0 | | |
| Lead | ppm | | >3 | 0 | | |
| Copper | ppm | ASTM D5185m | >7 | 0 | | |
| Tin | ppm | ASTM D5185m | | 0 | | |
| Vanadium | ppm | ASTM D5185m | | 0 | | |
| Cadmium | ppm | ASTM D5185m | | 0 | | |
| | ррш | | | Ū | | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | | 6 | | |
| Barium | ppm | ASTM D5185m | | 0 | | |
| Molybdenum | ppm | ASTM D5185m | | 0 | | |
| Manganese | ppm | ASTM D5185m | | 0 | | |
| Magnesium | ppm | ASTM D5185m | | 0 | | |
| Calcium | ppm | ASTM D5185m | | 14 | | |
| Phosphorus | ppm | ASTM D5185m | | 203 | | |
| Zinc | ppm | ASTM D5185m | | 0 | | |
| Sulfur | ppm | ASTM D5185m | | 4733 | | |
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >35 | 4 | | |
| Sodium | ppm | ASTM D5185m | | 3 | | |
| Potassium | ppm | ASTM D5185m | >20 | 0 | | |
| Water | % | ASTM D6304 | >0.02 | 0.003 | | |
| ppm Water | ppm | ASTM D6304 | >200 | 35 | | |
| FLUID CLEANLIN | IESS | method | limit/base | current | history1 | history2 |
| Particles >4µm | | ASTM D7647 | | 2841 | | |
| Particles >6µm | | ASTM D7647 | >320 | 463 | | |
| Particles >14µm | | ASTM D7647 | >40 | 30 | | |
| Particles >21µm | | ASTM D7647 | >10 | 8 | | |
| Particles >38µm | | ASTM D7647 | >3 | 1 | | |
| Particles >71µm | | ASTM D7647 | >3 | 1 | | |
| Oil Cleanliness | | ISO 4406 (c) | >/15/12 | 19/16/12 | | |
| FLUID DEGRADA | TION | method | limit/base | current | history1 | history2 |

Acid Number (AN) mg KOH/g ASTM D8045 0.6

6 **0.32**

Report Id: NORDEX [WUSCAR] 06054824 (Generated: 01/10/2024 10:56:28) Rev: 1

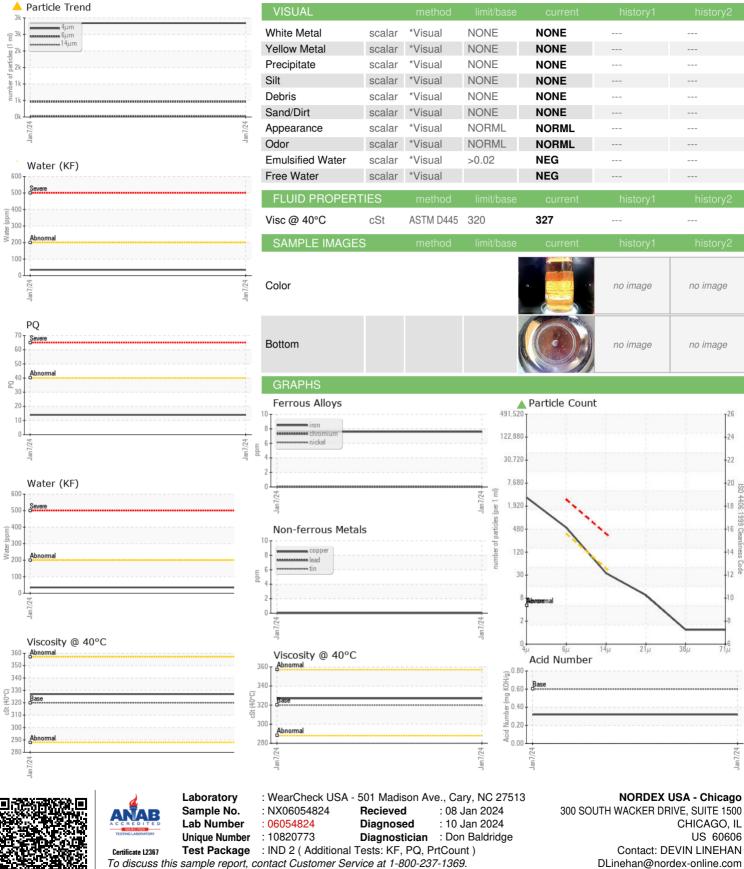
Contact/Location: DEVIN LINEHAN - NORDEX



Water

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OIL ANALYSIS REPORT



* - 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)

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