

OIL ANALYSIS REPORT

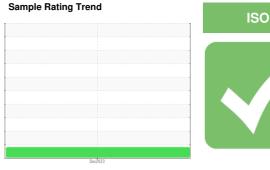
BLACKJACK CREEK [700007683]

I-05

Component

Wind Turbine Gearbox

FUCHS RENOLIN UNISYN CKC ISO 320 (--





DIAGNO	-1	N		110	415
--------	----	---	--	-----	-----

Recommendation

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

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

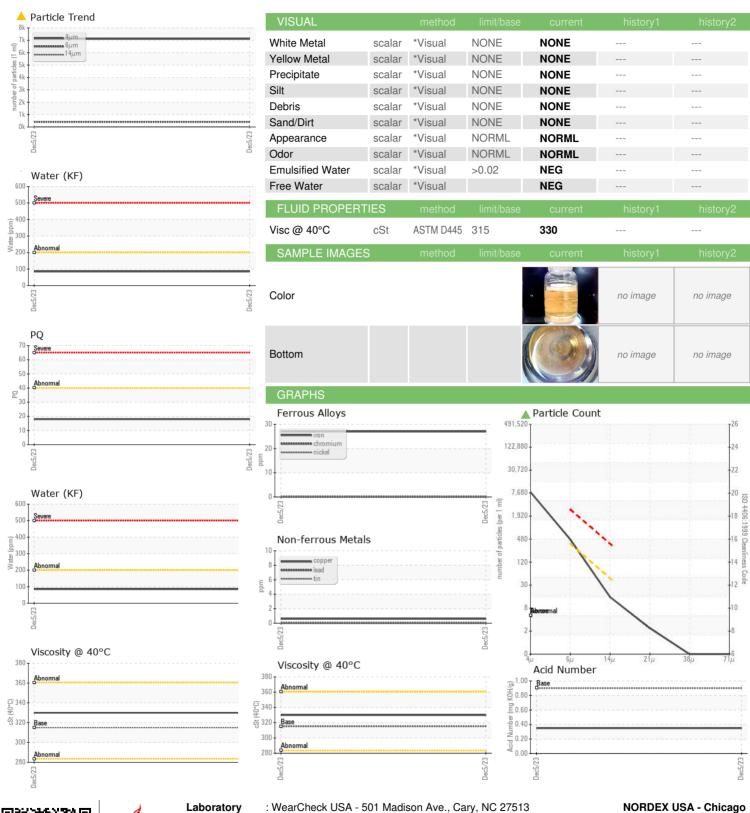
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

LTR)			Dec2023				
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2	
Sample Number		Client Info		NX015710	, .		
Sample Date		Client Info		05 Dec 2023			
Machine Age	hrs	Client Info		03 Dec 2023			
Oil Age	hrs	Client Info		0			
Oil Changed	1115	Client Info		N/A			
Sample Status		Ciletit IIIIO		ATTENTION			
			11 11 11				
WEAR METALS		method	limit/base	current	history1	history2	
PQ		ASTM D8184	>40	18			
Iron	ppm	ASTM D5185m	>55	27			
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	ASTM D5185m	>3	0			
Copper	ppm	ASTM D5185m	>7	<1			
Tin	ppm	ASTM D5185m	>3	0			
Vanadium	ppm	ASTM D5185m		0			
Cadmium	ppm	ASTM D5185m		0			
ADDITIVES		method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	25	4			
Barium	ppm	ASTM D5185m		0			
Molybdenum	ppm	ASTM D5185m		0			
Manganese	ppm	ASTM D5185m		<1			
Magnesium	ppm	ASTM D5185m		0			
Calcium	ppm	ASTM D5185m	17	14			
Phosphorus	ppm	ASTM D5185m	200	184			
Zinc	ppm	ASTM D5185m		0			
Sulfur	ppm	ASTM D5185m	5000	4930			
CONTAMINANTS	3	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>35	6			
Sodium	ppm	ASTM D5185m		3			
Potassium	ppm	ASTM D5185m	>20	0			
Water	%	ASTM D6304	>0.02	0.008			
ppm Water	ppm	ASTM D6304	>200	85			
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2	
Particles >4µm		ASTM D7647		7113			
Particles >6µm		ASTM D7647	>320	414			
Particles >14µm		ASTM D7647	>40	13			
Particles >21µm		ASTM D7647	>10	2			
Particles >38µm		ASTM D7647	>3	0			
Particles >71µm		ASTM D7647	>3	0			
Oil Cleanliness		ISO 4406 (c)	>/15/12	2 0/16/11			
FLUID DEGRADA	NOITA	method	limit/base	current	history1	history2	

Acid Number (AN) mg KOH/g ASTM D8045 0.9



OIL ANALYSIS REPORT





Certificate L2367

Laboratory Sample No. Lab Number **Unique Number**

: NX015710 : 06073848 : 10855939

Recieved Diagnosed

: 30 Jan 2024 : 31 Jan 2024

Diagnostician : Don Baldridge

Test Package: IND 2 (Additional Tests: KF, PQ, PrtCount) 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.

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

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)