

OIL ANALYSIS REPORT

Area MAGENTA NTX [46004111] D622137

Wind Turbine Gearbox Fluic SHELL OMALA S5 WIND 320 (--- LTR)

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Fluid Condition

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





NORMAL

SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		NX011750		
Sample Date		Client Info		07 Dec 2022		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		Not Changd		
Sample Status				NORMAL		
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184	>40	7		
Iron	ppm	ASTM D5185m	>55	0		
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	<1		
Lead	ppm	ASTM D5185m	>3	0		
Copper	ppm	ASTM D5185m	>7	0		
Tin	ppm	ASTM D5185m	>3	<1		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0		
Barium	ppm	ASTM D5185m		0		
Molybdenum	ppm	ASTM D5185m		0		
Manganese	ppm	ASTM D5185m		<1		
Magnesium	ppm	ASTM D5185m		0		
Calcium	ppm	ASTM D5185m		0		
Phosphorus	ppm	ASTM D5185m		472		
Zinc	ppm	ASTM D5185m		<1		
Sulfur	ppm	ASTM D5185m		3753		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>35	<1		
Sodium	ppm	ASTM D5185m		0		
Potassium	ppm	ASTM D5185m		0		
Water	%	ASTM D6304		0.036		
ppm Water	ppm	ASTM D6304	>200	364.6		
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		4197		
Particles >6µm		ASTM D7647		604		
Particles >14µm		ASTM D7647	>160	30		
Particles >21µm		ASTM D7647	>40	4		
Particles >38µm		ASTM D7647	>10	0		
Particles >71µm		ASTM D7647	>3	0		
Oil Cleanliness		ISO 4406 (c)	>17/14	16/12		
	TION					11

FLUID DEGRADATION method Acid Number (AN)

mg KOH/g ASTM D8045

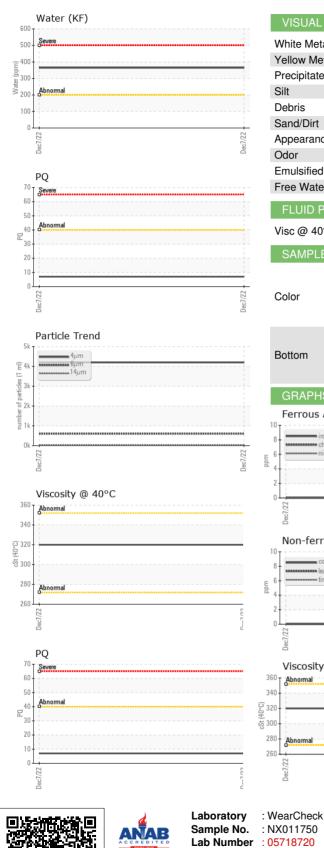
Report Id: NORDEX [WUSCAR] 05718720 (Generated: 05/22/2024 09:22:33) Rev: 1

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Sample Rating Trend



OIL ANALYSIS REPORT



		method	limit/base	current	history1	histor
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 PROPER	RTIES	method	limit/base	current	history1	histo
Visc @ 40°C	cSt	ASTM D445		320		
SAMPLE IMAG	ES	method	limit/base	current	history1	histo
Color					no image	no ima
Bottom					no image	no ima
20110111				$\langle - j \rangle$	no mago	
GRAPHS						
Ferrous Alloys				Particle Count		
10 iron			491,520	Ι		
o t			122,880	-		
E 4			00.700			
			30,720	1		
1						
2			7,680			
2				N '.		
Dec)/23					•	
Non-ferrous Me	tals				•	
Non-ferrous Met	tals				• •	
Non-ferrous Mei	tals		22/232 0 c 1 ml) 22/24 0 c 1 ml) 1200 120		•	
Non-ferrous Met	tals		1,920 (Im [1:0,920 (27)[2:0] (27)[2		•	
Non-ferrous Met	tals		1,920 (Im [1:0,920 (27)[2:0] (27)[2			
Non-ferrous Met	tals		1,920 (Im [1=0 1,920 (27)[290] (27)			
Non-ferrous Met	tals		122/LCan 122/LCan 120/Can 1			
Non-ferrous Met			1,920 (Im [1=0 1,920 (27)[290] (27)	Bibrosemal	14μ 21μ	38μ
Non-ferrous Met			727/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 7000 7000 7000 7000 70000 70000 70000 700000 7000000	Bioresemal Acid Number	14μ 21μ	38μ
Non-ferrous Met			727/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 7000 7000 7000 7000 70000 70000 70000 700000 7000000	Bioresemal Acid Number	14μ 21μ	З8µ
Non-ferrous Met			727/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 7000 7000 7000 7000 70000 70000 70000 700000 7000000	Bioresemal Acid Number	14μ 21μ	38μ
Non-ferrous Met			727/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 707/C300 7000 7000 7000 7000 70000 70000 70000 700000 7000000	Bioresemal Acid Number	14μ 21μ	38µ
Non-ferrous Met Non-ferrous Met lead Viscosity @ 40° Viscosity @ 40° Abnomal 200 200 200 200 200 200 200 20			100 View Part of the second se	Bioresemal Acid Number	14μ 21μ	38μ
Non-ferrous Met			1,22/LC300 122/LC300 122/LC300 1220 1220 1220 1220 1220 1220 1220 1	Bioresemal Acid Number	14μ 21μ	38µ

Certificate 12367

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.

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