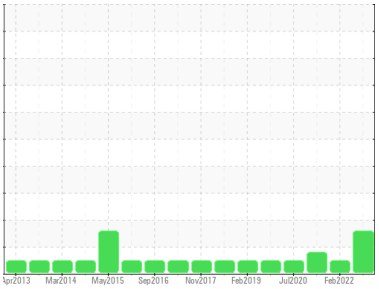
PROBLEM SUMMARY

Sample Rating Trend



SEDIMENT

Area
8
Machine Id
WINERGY GEARBOX WTG-808 (S/N W100483)
Component
Wind Turbine Gearbox
Fluid
FUCHS RENOLIN UNISYN CKC ISO 320 (340 LTR)

COMPONENT CONDITION SUMMARY

No relevant graphs to display

RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	NORMAL	ABNORMAL
Silt	scalar	*Visual	NONE	▲ **MODER**	NONE	▲ MODER
Appearance	scalar	*Visual	NORML	▲ **HAZY**	NORML	NORML

Customer Id: ENEFRA
Sample No.: WC0804497
Lab Number: 05857953
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Alert	---	---	?	We were unable to perform a particle count due to a high concentration of particles present in this sample.

HISTORICAL DIAGNOSIS

03 Feb 2022 Diag: Aaron Black

NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. Analytical ferrography: wear is normal with only typical amounts of ferrous rubbing wear present. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable. Analytical ferrography: contamination is normal with only typical amounts of contamination present. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

16 Mar 2021 Diag: Jonathan Hester

SEDIMENT

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.All component wear rates are normal. There is a moderate amount of visible silt present in the sample. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

30 Jul 2020 Diag: Doug Bogart

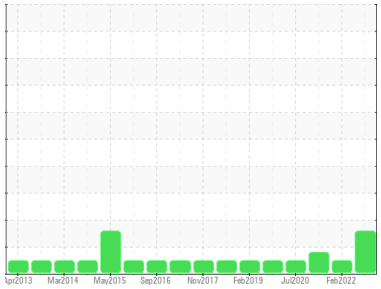
NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable. 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



SEDIMENT

Area
8
Machine Id
WINERGY GEARBOX WTG-808 (S/N W100483)
Component
Wind Turbine Gearbox
Fluid
FUCHS RENOLIN UNISYN CKC ISO 320 (340 LTR)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear

All component wear rates are normal.

Contamination

Appearance is hazy. There is a moderate amount of visible silt present in the sample.

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		**WC0804497**	WC05504531	WC0547192
Sample Date		Client Info		**28 Feb 2023**	03 Feb 2022	16 Mar 2021
Machine Age	yrs	Client Info		**8**	77	120
Oil Age	yrs	Client Info		**8**	0	65
Oil Changed		Client Info		**Not Changd**	N/A	Not Changd
Sample Status				**ABNORMAL**	NORMAL	ABNORMAL

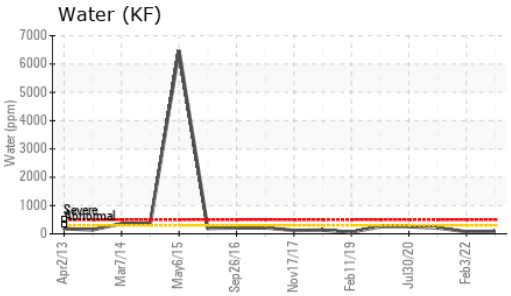
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184	>50	**13**	18	18
Iron	ppm	ASTM D5185m	>65	**23**	36	32
Chromium	ppm	ASTM D5185m	>3	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>3	**0**	0	0
Titanium	ppm	ASTM D5185m	>10	**0**	0	0
Silver	ppm	ASTM D5185m		**0**	<1	0
Aluminum	ppm	ASTM D5185m	>10	**<1**	0	0
Lead	ppm	ASTM D5185m	>5	**0**	0	<1
Copper	ppm	ASTM D5185m	>10	**0**	<1	<1
Tin	ppm	ASTM D5185m	>10	**<1**	0	<1
Antimony	ppm	ASTM D5185m	>5	**---**	---	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

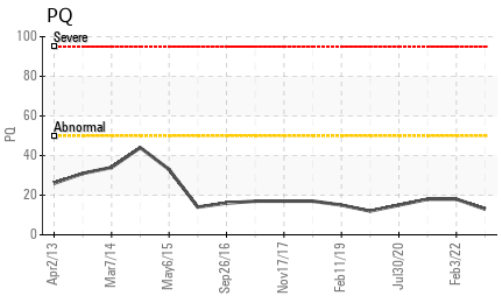
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	25	**2**	0	4
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m		**<1**	0	0
Calcium	ppm	ASTM D5185m	17	**8**	16	15
Phosphorus	ppm	ASTM D5185m	200	**110**	150	145
Zinc	ppm	ASTM D5185m		**10**	36	5
Sulfur	ppm	ASTM D5185m	5000	**5416**	4307	3941

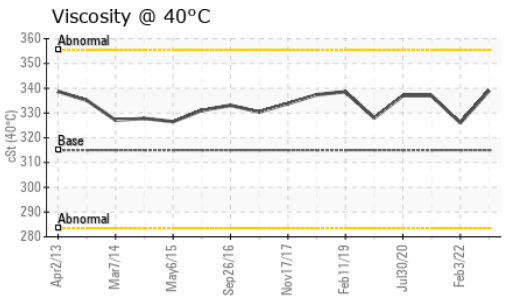
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**0**	0	0
Sodium	ppm	ASTM D5185m		**2**	1	4
Potassium	ppm	ASTM D5185m	>20	**1**	0	<1
Water	%	ASTM D6304	>0.03	**0.008**	0.007	0.020
ppm Water	ppm	ASTM D6304	>300	**89.5**	76.0	208.1

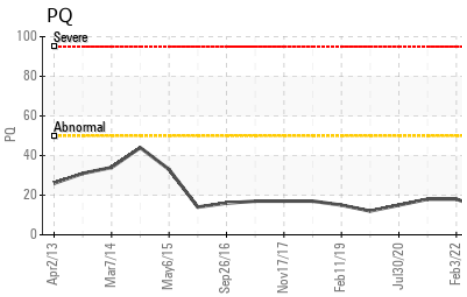
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**---**	4742	---
Particles >6µm		ASTM D7647	>5000	**---**	678	---
Particles >14µm		ASTM D7647	>640	**---**	17	---
Particles >21µm		ASTM D7647	>160	**---**	3	---
Particles >38µm		ASTM D7647	>40	**---**	0	---
Particles >71µm		ASTM D7647	>10	**---**	0	---
Oil Cleanliness		ISO 4406 (c)	>--/19/16	**---**	19/17/11	---

OIL ANALYSIS REPORT









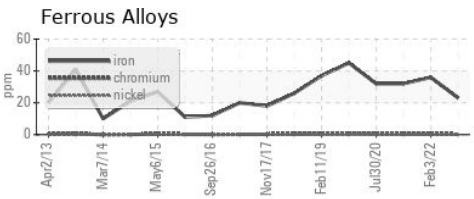
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.9	**0.80**	0.93	0.948

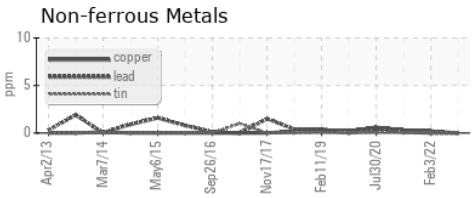
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	▲ **MODER**	NONE	▲ MODER
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	▲ **HAZY**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.03	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

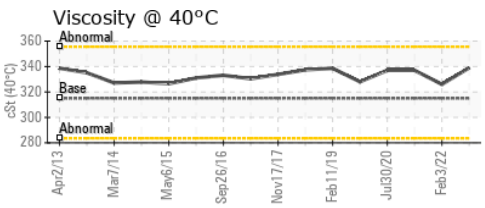
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	315	**339**	326	337

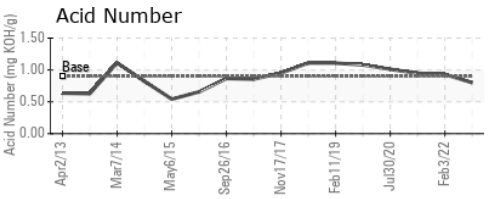
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS









Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0804497 **Received** : 26 May 2023
Lab Number : 05857953 **Diagnosed** : 30 May 2023
Unique Number : 10492418 **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.*
Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

ENERGIA EOLICA
STA ANA KM25 CARRETERA AL SUR, A 1KM DEL CRUCE
FRANCISCO MORAZAN, ZZ
HN
Contact: SANTOS DEL CID
sdelcid@dencmi.com
T: x:
F: x: