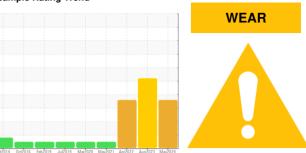


GREASE ANALYSIS

Sample Rating Trend



Machine Id

TURBINA 03 - REAR BEARING (S/N 101310)

Grease

KLUBER KLUBERPLEX BEM 41-141 (--- LTR)

DIAGNOSIS

Recommendation

Re-sample to verify the actual oil condition. Purge old grease if still abnormal and monitor the trend of iron level. No corrective action is recommended at this time.

Wear

An increase in the wear level is noted. Bearing and/or bushing wear is indicated.

Grease Condition

The condition of the grease is acceptable for the time in service.

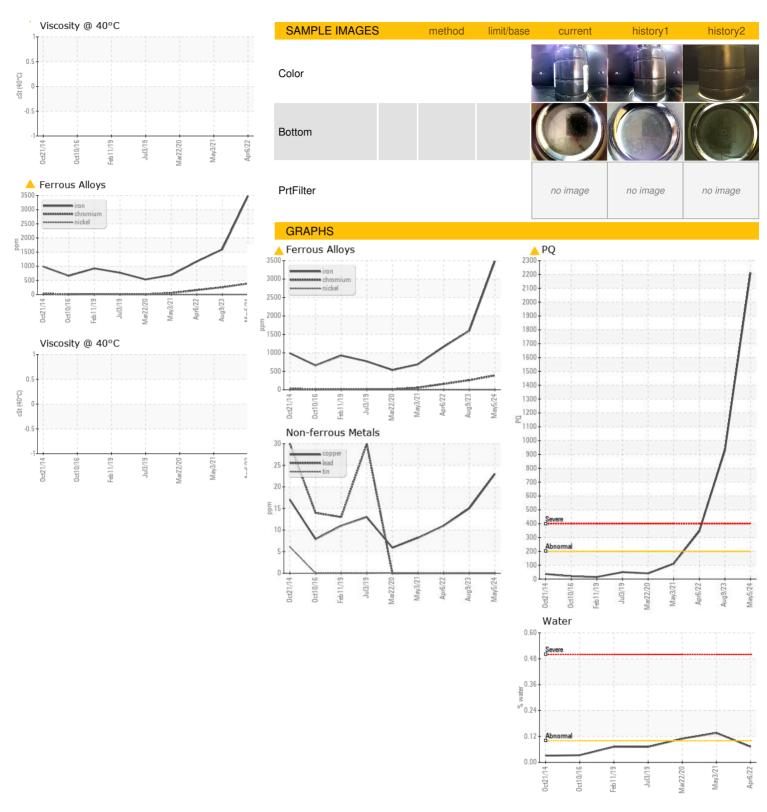
Contaminants

There is no indication of any contamination in the grease.

n)						
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0881141	WC0831521	WC05582724
Sample Date		Client Info		05 May 2024	09 Aug 2023	06 Apr 2022
Machine Age	yrs	Client Info		12	11	0
Grease Age	yrs	Client Info		1	1	6
Grease Serviced		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
CONTAMINATION	V	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184	>200	<u>2212</u>	929	△ 346
Iron	ppm	ASTM D5185m	>250	<u> </u>	<u>▲</u> 1597	<u>1164</u>
Chromium	ppm	ASTM D5185m	>10	<u>▲</u> 387	<u>^</u> 258	<u> </u>
Nickel	ppm	ASTM D5185m	>5	0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
Titanium	ppm	ASTM D5185m		1	1	<1
Vanadium	ppm	ASTM D5185m		2	<1	<1
Lead	ppm	ASTM D5185m	>25	0	0	0
Copper	ppm	ASTM D5185m	>75	23	15	11
Tin	ppm	ASTM D5185m	>5	0	0	0
Silver	ppm	ASTM D5185m	>5	0	<1	0
ADDITIVES		method	limit/base		la la tament	hiotory
ADDITIVES		memou	IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	current	history1	history2
Boron	ppm	ASTM D5185m	IIIIII/Dase	209	185	229
Boron Magnesium	ppm	ASTM D5185m ASTM D5185m	IIIIII/base	209 0	185 8	229 2
Boron Magnesium Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	IIIIII/Dase	209 0 38	185 8 20	229 2 15
Boron Magnesium Manganese Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	IIIIII/Dase	209 0 38 4180	185 8 20 2634	229 2 15 2502
Boron Magnesium Manganese Molybdenum Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	IIIIII/Dase	209 0 38 4180 691	185 8 20 2634 520	229 2 15 2502 502
Boron Magnesium Manganese Molybdenum Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	IIIIII/Oase	209 0 38 4180	185 8 20 2634 520 254	229 2 15 2502 502 131
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		209 0 38 4180 691 291	185 8 20 2634 520 254	229 2 15 2502 502 131
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	209 0 38 4180 691 291 	185 8 20 2634 520 254	229 2 15 2502 502 131
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA	ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m		209 0 38 4180 691 291 current 0	185 8 20 2634 520 254 history1 <1	229 2 15 2502 502 131 history2
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium	ppm ppm ppm ppm ppm ppm	ASTM D5185m		209 0 38 4180 691 291 current 0 7	185 8 20 2634 520 254 history1 <1	229 2 15 2502 502 131 history2 9 9
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m		209 0 38 4180 691 291 current 0 7 83	185 8 20 2634 520 254 history1 <1 14 90	229 2 15 2502 502 131 history2 9 9 134
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m		209 0 38 4180 691 291 current 0 7 83 52	185 8 20 2634 520 254 history1 <1 14 90 73	229 2 15 2502 502 131 history2 9 9 134 45
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m		209 0 38 4180 691 291 current 0 7 83 52 3173	185 8 20 2634 520 254 history1 <1 14 90 73 2400	229 2 15 2502 502 131 history2 9 9 134 45 2340
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium Lithium Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	209 0 38 4180 691 291 current 0 7 83 52	185 8 20 2634 520 254 history1 <1 44 90 73 2400 5512	229 2 15 2502 502 131 history2 9 9 134 45
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m		209 0 38 4180 691 291 current 0 7 83 52 3173	185 8 20 2634 520 254 history1 <1 14 90 73 2400	229 2 15 2502 502 131 history2 9 9 134 45 2340
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m MEthod ASTM D5185m	limit/base	209 0 38 4180 691 291 current 0 7 83 52 3173 6118 current 233	185 8 20 2634 520 254 history1 <1 14 90 73 2400 5512 history1 ▲ 941	229 2 15 2502 502 131 history2 9 9 134 45 2340 6629 history2 51
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	209 0 38 4180 691 291 current 0 7 83 52 3173 6118 current	185 8 20 2634 520 254 history1 <1 14 90 73 2400 5512 history1	229 2 15 2502 502 131 history2 9 9 134 45 2340 6629 history2
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m MEthod ASTM D5185m	limit/base	209 0 38 4180 691 291 current 0 7 83 52 3173 6118 current 233	185 8 20 2634 520 254 history1 <1 14 90 73 2400 5512 history1 ▲ 941	229 2 15 2502 502 131 history2 9 9 134 45 2340 6629 history2 51
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINANTS Silicon Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	209 0 38 4180 691 291 current 0 7 83 52 3173 6118 current 233 7	185 8 20 2634 520 254 history1 <1 14 90 73 2400 5512 history1 ▲ 941 8	229 2 15 2502 502 131 history2 9 9 134 45 2340 6629 history2 51 5
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOA Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINANTS Silicon Potassium GREASE CONDIT	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base limit/base >150	209 0 38 4180 691 291 current 0 7 83 52 3173 6118 current 233 7 current	185 8 20 2634 520 254 history1 <1 4 90 73 2400 5512 history1 ▲ 941 8 history1	229 2 15 2502 502 131 history2 9 9 134 45 2340 6629 history2 51 5



GREASE ANALYSIS





Certificate 12367

Laboratory Sample No.

: WC0881141 Lab Number : 06194903 Unique Number : 11057026

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received

: 29 May 2024 **Tested** : 13 Jun 2024 Diagnosed : 13 Jun 2024 - Doug Bogart

EOLO DE NICARAGUA S.A. DEL SEMAFORO DEL CLUB TERRAZA, 1 CUADRA AL SUR

MANAGUA, ZZ NI

Contact: Rafael Bermudez

Test Package : GRS 1 (Additional Tests: KV40, SCREEN) 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)

Report Id: EOLOMAN [WUSCAR] 06194903 (Generated: 06/15/2024 08:58:05) Rev: 1

Contact/Location: Rafael Bermudez - EOLOMAN

T:

F: