

GREASE ANALYSIS

Sample Rating Trend

WEAR

Machine Id

TURBINA 04 - REAR BEARING (S/N 101282) Grease

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

DIAGNOSIS

Recommendation

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

A Wear

All component wear rates appear stable.

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.

R)		0ct2014 0	let2016 Oct2018 Jul20	19 Apr2021 Apr2022 Aug2023	3 May2024	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0881151	WC0831538	WC05582744
Sample Date		Client Info		03 May 2024	12 Aug 2023	04 Apr 2022
Machine Age	yrs	Client Info		12	11	6
Grease Age	yrs	Client Info		1	1	0
Grease Serviced		Client Info		N/A	N/A	N/A
Sample Status				MARGINAL	ABNORMAL	MARGINAL
CONTAMINATIO	N	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	6 5192	4006	▲ 3888
ron	ppm	ASTM D5185m	>250	<u> </u>	6 5337	4 333
Chromium	ppm	ASTM D5185m	>10	 70	<u> </u>	A 31
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		>25	0	0	0
Copper	ppm	ASTM D5185m	>75	37	52	38
Fin	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>5	<1	0	<1
ADDITIVES		method	limit/base	ourropt	la la tanun d	history2
ABBIIII EO		methou	iiiiii/base	current	history1	Thistoryz
	ppm		IIIIII/Dase	194	219	178
Boron	ppm ppm	ASTM D5185m	iiiiii/base			
Boron Magnesium	ppm	ASTM D5185m	IIIII/Dase	194	219	178
Boron Magnesium Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		194 0	219 2 31	178 3
Boron Magnesium Manganese Molybdenum	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		194 0 26 3793	219 2 31 3107	178 3 27 2036
Boron Magnesium Manganese Molybdenum Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		194 0 26 3793 710	219 2 31 3107 661	178 3 27 2036 430
Boron Magnesium Manganese Molybdenum Phosphorus Zinc	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		194 0 26 3793	219 2 31 3107	178 3 27 2036
Boron Magnesium Manganese Molybdenum Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	194 0 26 3793 710 312	219 2 31 3107 661 313	178 3 27 2036 430 274
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SO	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		194 0 26 3793 710 312 	219 2 31 3107 661 313 	178 3 27 2036 430 274
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SO/ Aluminum	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		194 0 26 3793 710 312 current	219 2 31 3107 661 313 history1	178 3 27 2036 430 274 history2
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SO/ Aluminum Barium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		194 0 26 3793 710 312 current 0	219 2 31 3107 661 313 history1 0	178 3 27 2036 430 274 history2 9
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SO Aluminum Barium Calcium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		194 0 26 3793 710 312 current 0 5	219 2 31 3107 661 313 history1 0 15	178 3 27 2036 430 274 history2 9 13
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SO/ Aluminum Barium Calcium Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		194 0 26 3793 710 312 current 0 5 95	219 2 31 3107 661 313 history1 0 15 167	178 3 27 2036 430 274 history2 9 13 167
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SO/ Aluminum Barium Calcium Sodium Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		194 0 26 3793 710 312 current 0 5 95 26	219 2 31 3107 661 313 history1 0 15 167 24	178 3 27 2036 430 274 history2 9 13 167 20
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SO/ Aluminum Barium Calcium Sodium Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m		194 0 26 3793 710 312 current 0 5 95 26 2923 5606	219 2 31 3107 661 313 history1 0 15 167 24 2919	178 3 27 2036 430 274 history2 9 13 167 20 1966
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SO/ Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base	194 0 26 3793 710 312 current 0 5 95 26 2923 5606	219 2 31 3107 661 313 history1 0 15 167 24 2919 6508	178 3 27 2036 430 274 history2 9 13 167 20 1966 5156
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SO/ Aluminum Barium Calcium Calcium Sodium Lithium Sodium Lithium Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base	194 0 26 3793 710 312 current 0 5 95 26 2923 5606 current	219 2 31 3107 661 313 history1 0 15 167 24 2919 6508 history1	178 3 27 2036 430 274 history2 9 13 167 20 1966 5156 history2
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SO/ Aluminum Barium Calcium Sodium Lithium Sodium Lithium Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base	194 0 26 3793 710 312 current 0 5 95 26 2923 5606 current 260	219 2 31 3107 661 313 history1 0 15 167 24 2919 6508 history1 ▲ 647	178 3 27 2036 430 274 history2 9 13 167 20 1966 5156 history2 103
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SOM Aluminum Barium Calcium Calcium Sodium Lithium Sulfur CONTAMINANTS Silicon Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base limit/base >150	194 0 26 3793 710 312 current 0 5 95 26 2923 5606 current 260 6	219 2 31 3107 661 313 history1 0 15 167 24 2919 6508 history1 ▲ 647 5	178 3 27 2036 430 274 history2 9 13 167 20 1966 5156 history2 103 3
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SO/ Aluminum Barium Calcium Calcium Sodium Lithium Sulfur CONTAMINANTS Silicon Potassium GREASE CONDI Grease Color	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >150 limit/base	194 0 26 3793 710 312 current 0 5 95 26 2923 5606 2923 5606 current 260 6 current Brown	219 2 31 3107 661 313 history1 0 15 167 24 2919 6508 history1 ▲ 647 5 history1	178 3 27 2036 430 274 history2 9 13 167 20 1966 5156 5156 history2 103 3 history2
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SO/ Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINANTS Silicon Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >150 limit/base	194 0 26 3793 710 312 current 0 5 95 26 2923 5606 2923 5606 current 260 6 current	219 2 31 3107 661 313 history1 0 15 167 24 2919 6508 history1 ▲ 647 5 history1	178 3 27 2036 430 274 history2 9 13 167 20 1966 5156 1966 5156 history2 103 3 history2



0.5

Dct30/1

10000 800

600 ppm

400

200

0

-0 5

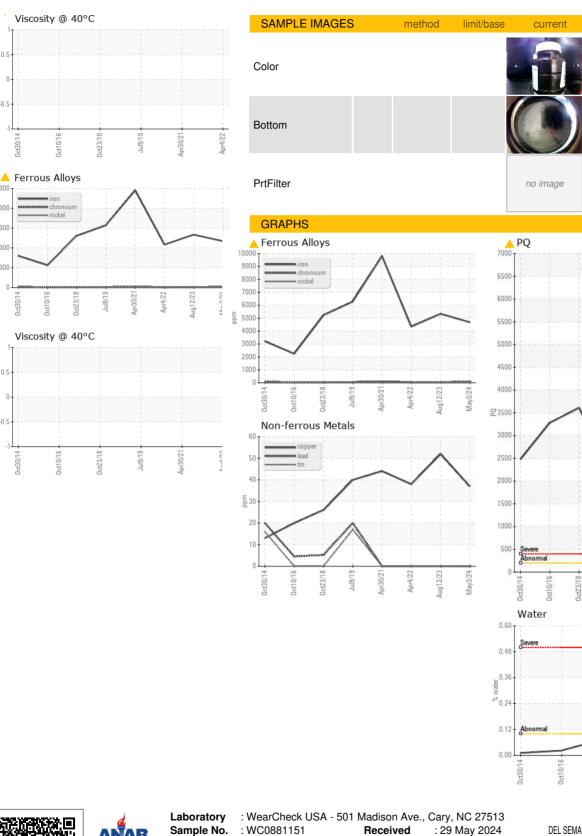
Dct30/1

cSt (40°C)

Dct30/1

cSt (40°C) -0.5

GREASE ANALYSIS



EOLO DE NICARAGUA S.A. DEL SEMAFORO DEL CLUB TERRAZA, 1 CUADRA AL SUR MANAGUA, ZZ : 13 Jun 2024 - Doug Bogart NI

19/19

Contact: Rafael Bermudez

nr30/71

Apr4/22

30/71

ug12/23

May3/24

pr4/22

T:

F:

Test Package : GRS 1 (Additional Tests: KV40, SCREEN) Certificate 12367 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.

Lab Number : 06194922

Unique Number : 11057045

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

Tested

Diagnosed

: 13 Jun 2024

Report Id: EOLOMAN [WUSCAR] 06194922 (Generated: 06/15/2024 09:06:16) Rev: 1

Contact/Location: Rafael Bermudez - EOLOMAN

lct23/18

history2

no image

history1

no image