

No relevant graphs to display

RECOMMENDATION	PROBLEMATIC TEST RESULTS				
We recommend an early resample to monitor this	Sample Status		SEVERE	ABNORMAL	NORMAL
condition.	NLGI Consistency	NLGI Scale SKF Method* 1	000-00	▲ 000-00	00-0
	PrtFilter				.0.

Customer Id: VESTAS Sample No.: PP0835230 Lab Number: 02590805 Test Package: GRS 1



To manage this report scan the QR code

To discuss the diagnosis or test data: Bill Quesnel CLS,OMA II,MLA-III,LLA-I +1 (289)291-4641 x4641 Bill.Quesnel@wearcheck.com

To change component or sample information: Gloria Gonzalez +1 (289)291-4643 x4643 gloria.gonzalez@wearcheck.com

RECOMMENDED AC	TIONS			
Action	Status	Date	Done By	Description
Resample			?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

25 Aug 2022 Diag: Bill Quesnel



We recommend that you re-grease the gear/bearing. We recommend an early resample to monitor this condition.All component wear rates are normal. There is no indication of any contamination in the grease. The grease NLGI grade has changed from 1 to 000-00.



25 Aug 2021 Diag: Bill Quesnel



Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the grease. The condition of the grease is acceptable for the time in service.





GREASE ANALYSIS

Sample Rating Trend

VISCOSITY

Area Saugeen Shores SP-17701 11K10 Component

Grease Fluic SKF LGWM 1 (--- LTR)

DIAGNOSIS

Recommendation

We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Grease Condition

Grease consistency has changed by 2-1/2 NLGI grades from NLGI 1 to 000-00.

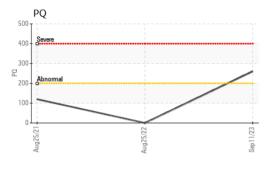
Contaminants

There is no indication of any contamination in the grease.

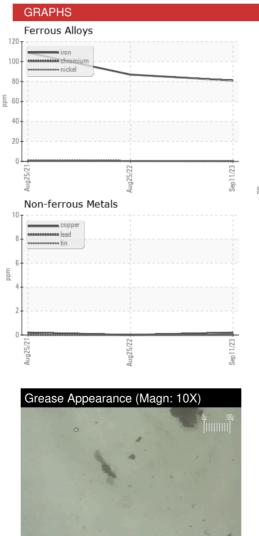
				Aug2022 Sep20		history.0
SAMPLE INFORM	VIATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PP0835230	WC0632868	PP0546466
Sample Date		Client Info		11 Sep 2023	25 Aug 2022	25 Aug 2021
Machine Age	yrs	Client Info Client Info		15	14 14	0
Grease Age Grease Serviced	yrs	Client Info		1 Changed	Not Changd	N/A
Sample Status		Cilent Inio		SEVERE	ABNORMAL	NORMAL
-	_					
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*	>200	260	0	120
Iron	ppm	ASTM D5185(m)	>250	81	87	109
Chromium	ppm	ASTM D5185(m)	>10	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	<1
Cadmium	ppm	ASTM D5185(m)		0	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Lead	ppm	ASTM D5185(m)		0	0	0
Copper	ppm	ASTM D5185(m)	>75	<1	0	<1
Tin	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>5	<1	0	<1
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	<1	<1	3
Magnesium	ppm	ASTM D5185(m)	0	<1	0	0
Vanganese	10 10 100	ASTM D5185(m)	0	0	.4	<1
	ppm	ASTIVI DSTOS(III)	0	•	<1	< 1
Volybdenum	ppm	ASTM D5185(m)		0	0	<1
Phosphorus		ASTM D5185(m) ASTM D5185(m)	0 5	0 4	0 5	<1 6
Phosphorus Zinc	ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0	0	0 5 21	<1
Phosphorus Zinc	ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 5	0 4	0 5	<1 6
Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 5 20	0 4 17	0 5 21	<1 6 20
Phosphorus Zinc Antimony THICKENER/SO/	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 5 20 0 limit/base	0 4 17 0	0 5 21 0	<1 6 20 0
Phosphorus Zinc Antimony THICKENER/SO/ Aluminum	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method	0 5 20 0 limit/base 0	0 4 17 0 current	0 5 21 0 history1	<1 6 20 0 history2
Phosphorus Zinc Antimony THICKENER/SO/ Aluminum Barium Calcium	ppm ppm ppm ppm AP	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 5 20 0 limit/base 0 0 0 40	0 4 17 0 <u>current</u> 0 <1 24	0 5 21 0 <u>history1</u> <1 0 24	<1 6 20 0 history2 <1 0 29
Phosphorus Zinc Antimony THICKENER/SO/ Aluminum Barium Calcium Sodium	ppm ppm ppm ppm AP	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 5 20 0 limit/base 0 0 40 2	0 4 17 0 <u>current</u> 0 <1 24 3	0 5 21 0 <u>history1</u> <1 0 24 2	<1 6 20 0 history2 <1 0 29 2
Phosphorus Zinc Antimony THICKENER/SO/ Aluminum Barium Calcium Sodium Lithium	ppm ppm ppm ppm AP	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 5 20 0 limit/base 0 0 0 40	0 4 17 0 <u>current</u> 0 <1 24 3 105	0 5 21 0 <u>history1</u> <1 0 24 2 2 101	<1 6 20 0 history2 <1 0 29 2 2 115
Phosphorus Zinc Antimony THICKENER/SO/ Aluminum Barium Calcium Sodium Lithium	ppm ppm ppm ppm AP ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 5 20 0 limit/base 0 0 40 2	0 4 17 0 <u>current</u> 0 <1 24 3	0 5 21 0 <u>history1</u> <1 0 24 2	<1 6 20 0 history2 <1 0 29 2
Phosphorus Zinc Antimony THICKENER/SO/ Aluminum Barium Calcium Sodium Lithium	ppm ppm ppm ppm AP ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 5 20 0 limit/base 0 0 40 2 120	0 4 17 0 <u>current</u> 0 <1 24 3 105	0 5 21 0 <u>history1</u> <1 0 24 2 2 101	<1 6 20 0 history2 <1 0 29 2 2 115
Phosphorus Zinc Antimony THICKENER/SO/ Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINANTS	ppm ppm ppm ppm AP ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 5 20 0 limit/base 0 0 40 2 120 650	0 4 17 0 current 0 <1 24 3 105 622	0 5 21 0 <u>history1</u> <1 0 24 2 2 101 658	<1 6 20 0 history2 <1 0 29 2 2 115 695
Phosphorus Zinc Antimony THICKENER/SO/ Aluminum Barium Calcium Calcium Sodium Lithium Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm AP ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 5 20 0 limit/base 0 0 0 40 2 120 650 limit/base	0 4 17 0 <u>current</u> 0 <1 24 3 105 622 <u>current</u>	0 5 21 0 history1 <1 0 24 2 2 101 658 history1	<1 6 20 0 history2 <1 0 29 2 115 695 history2
Phosphorus Zinc Antimony THICKENER/SO/ Aluminum Barium Calcium Calcium Sodium Lithium Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 5 20 0 limit/base 0 0 0 40 2 120 650 limit/base	0 4 17 0 <u>current</u> 0 <1 24 3 105 622 <u>current</u> <1	0 5 21 0 history1 <1 0 24 2 101 658 history1 <1	<1 6 20 0 history2 <1 0 29 2 115 695 history2 <1
Phosphorus Zinc Antimony THICKENER/SO/ Aluminum Barium Calcium Calcium Sodium Lithium Sulfur CONTAMINANTS Silicon Potassium GREASE CONDI	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 5 20 0 limit/base 0 0 40 2 120 650 limit/base >150	0 4 17 0 current 0 <1 24 3 105 622 current <1 10	0 5 21 0 history1 <1 0 24 2 2 101 658 history1 <1 <1	<1 6 20 0 history2 <1 0 29 2 115 695 history2 <1 1
Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINANTS Silicon Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 5 20 0 Imit/base 0 40 2 120 650 Imit/base >150 Imit/base	0 4 17 0 current 0 <1 24 3 105 622 current <1 10 20 current	0 5 21 0 history1 <1 0 24 2 101 658 history1 <1 <1 <1 history1	<1 6 20 0 history2 <1 0 29 2 115 695 history2 <1 1 1 history2

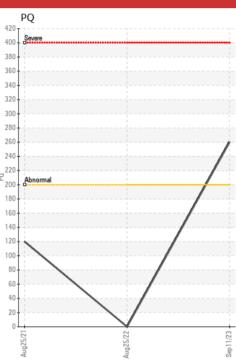


GREASE ANALYSIS









: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Vestas American Wind Technology Inc. Laboratory CALA Sample No. : PP0835230 Received : 20 Oct 2023 1417 NW Everett Street Lab Number : 02590805 Diagnosed : 23 Oct 2023 Portland, OR ISO 17025:2017 Accredited Laboratory Unique Number : 5659871 Diagnostician : Bill Quesnel US 97209 Test Package : GRS 1 (Additional Tests: BottomAnalysis) Contact: Nicole Philippi To discuss this sample report, contact Customer Service at 1-800-268-2131. NiPhi@vestas.com Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T: (503)327-7683 Validity of results and interpretation are based on the sample and information as supplied. F: (503)327-0247