GREASE ANALYSIS

Sample Rating Trend

WEAR PARTICLES

Area
MILL
Machine Id
450.1005E Press Bottom Infeed Drum Bearing EAST
Component
Grease
Fluid
KLUBER KLUBERLUB PHB 71-461 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. No other corrective action is recommended at this time. Analytical Ferrography: Similar to the other sample submitted, this sample has red oxide (rust) present. The exact source is unknown, so consider investigating the source for possible correction. Iron in metals analysis is elevated due to the red oxide, as there is only nominal amounts of ferrous wear present. Other than red oxide, only normal amounts of external contamination and ferrous rubbing wear is present.

Wear

Wear particle analysis indicates that the ferrous red oxides particles are marginal. Iron ppm levels are marginal. All other component wear rates are normal.

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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC05653051**	---	---
Sample Date		Client Info		**19 Sep 2022**	---	---
Machine Age	hrs	Client Info		**0**	---	---
Grease Age	hrs	Client Info		**0**	---	---
Grease Serviced		Client Info		**N/A**	---	---
Sample Status				**MARGINAL**	---	---

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184	>200	**93**	---	---
Iron	ppm	ASTM D5185m	>250	▲ **257**	---	---
Chromium	ppm	ASTM D5185m	>10	**3**	---	---
Nickel	ppm	ASTM D5185m	>5	**<1**	---	---
Cadmium	ppm	ASTM D5185m		**0**	---	---
Titanium	ppm	ASTM D5185m		**<1**	---	---
Vanadium	ppm	ASTM D5185m		**0**	---	---
Lead	ppm	ASTM D5185m	>25	**1**	---	---
Copper	ppm	ASTM D5185m	>75	**45**	---	---
Tin	ppm	ASTM D5185m	>5	**0**	---	---
Silver	ppm	ASTM D5185m	>5	**<1**	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	650	**142**	---	---
Magnesium	ppm	ASTM D5185m		**2**	---	---
Manganese	ppm	ASTM D5185m		**2**	---	---
Molybdenum	ppm	ASTM D5185m		**4**	---	---
Phosphorus	ppm	ASTM D5185m	860	**901**	---	---
Zinc	ppm	ASTM D5185m	1030	**1112**	---	---

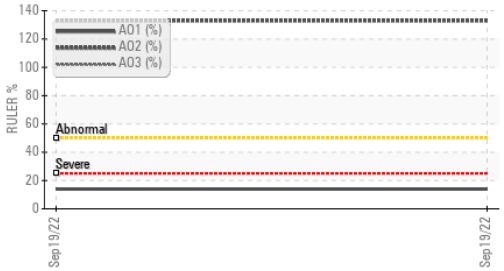
THICKENER/SOAP		method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185m		**3**	---	---
Barium	ppm	ASTM D5185m		**0**	---	---
Calcium	ppm	ASTM D5185m	30	**218**	---	---
Sodium	ppm	ASTM D5185m		**11**	---	---
Lithium	ppm	ASTM D5185m		**1**	---	---
Sulfur	ppm	ASTM D5185m	11650	**4225**	---	---

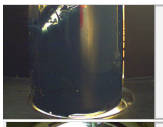
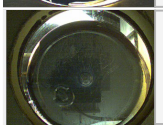
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>150	**6**	---	---
Potassium	ppm	ASTM D5185m		**1**	---	---
Water	%	ASTM D6304	>0.1	**0.012**	---	---
ppm Water	ppm	ASTM D6304	>1000	**126.6**	---	---

GREASE CONDITION		method	limit/base	current	history1	history2
Grease Color		*Visual		**Green**	---	---
Texture		*In-house		**Long fiber**	---	---
NLGI Consistency	NLGI Scale	*SKF Method		**0-1**	---	---
Anti-Oxidant 1	%	ASTM D6971	<25%	**14**	---	---
Anti-Oxidant 2	%	ASTM D6971	<25%	**133**	---	---

GREASE ANALYSIS

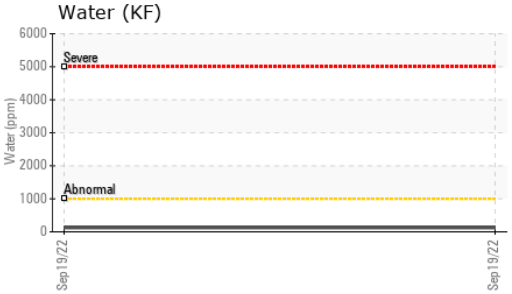
Remaining Life (RULER)



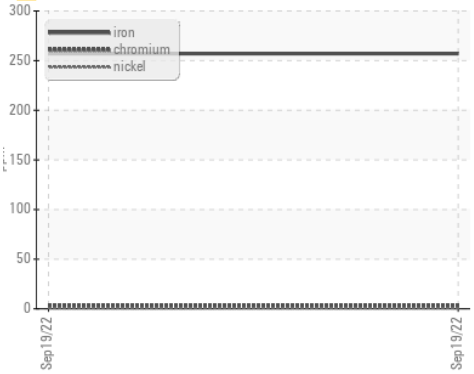
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				no image	no image
Bottom				no image	no image

GRAPHS

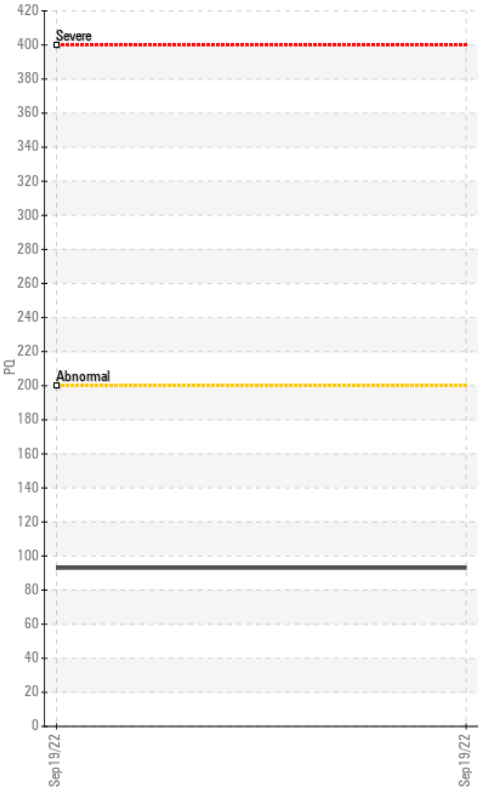
Water (KF)



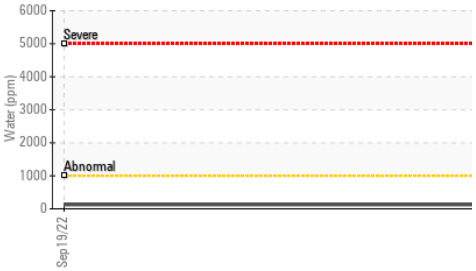
Ferrous Alloys



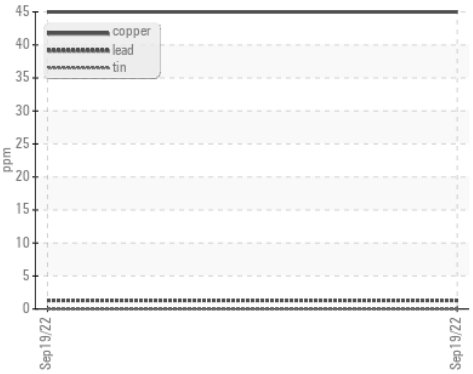
PQ



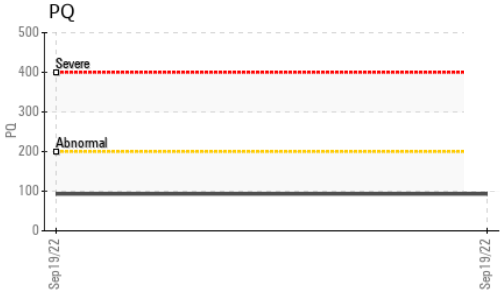
Water (KF)



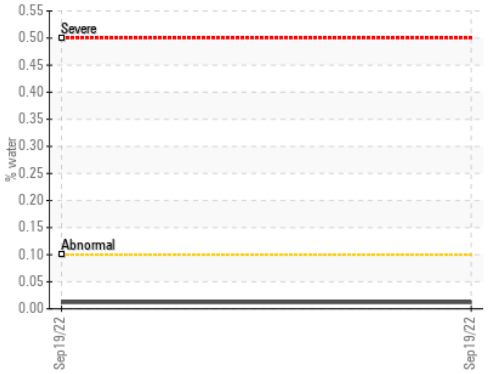
Non-ferrous Metals



PQ



Water



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC05653051 **Recieved** : 28 Sep 2022
Lab Number : 05653051 **Diagnosed** : 06 Oct 2022
Unique Number : 10152603 **Diagnostician** : Aaron Black
Test Package : GRS 3 (Additional Tests: 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)

ARAUCO-Carolina Particleboard-BENNETTSVILLE
582 WILLIAMETTE ROAD HWY 912
BENNETTSVILLE, SC
US 29512
Contact: JEFF SCOTT
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FERROGRAPHY REPORT

Area
MILL
Machine Id
450.1005E Press Bottom Infeed Drum Bearing EAST
Component
Grease
Fluid
KLUBER KLUBERLUB PHB 71-461 (--- GAL)

Magn: 500x Illum: RW

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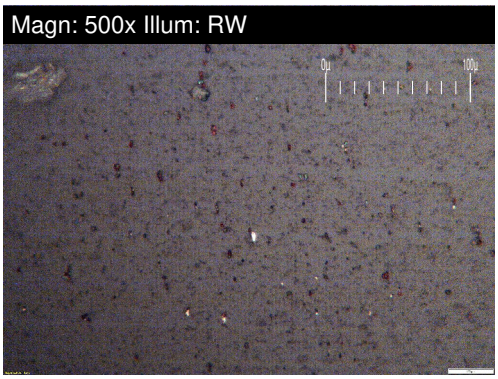
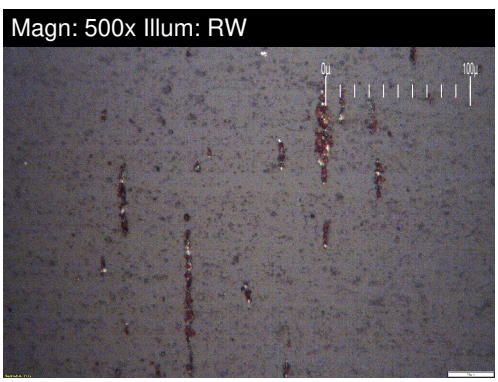


Magn: 500x Illum: RW



FERROGRAPHY		method	limit/base	current	history1	history2
Ferrous Rubbing	Scale 0-10	*ASTM D7684		2		
Ferrous Sliding	Scale 0-10	*ASTM D7684				
Ferrous Cutting	Scale 0-10	*ASTM D7684				
Ferrous Rolling	Scale 0-10	*ASTM D7684				
Ferrous Break-in	Scale 0-10	*ASTM D7684				
Ferrous Spheres	Scale 0-10	*ASTM D7684				
Ferrous Black Oxides	Scale 0-10	*ASTM D7684				
Ferrous Red Oxides	Scale 0-10	*ASTM D7684		5		
Ferrous Corrosive	Scale 0-10	*ASTM D7684				
Ferrous Other	Scale 0-10	*ASTM D7684				
Nonferrous Rubbing	Scale 0-10	*ASTM D7684				
Nonferrous Sliding	Scale 0-10	*ASTM D7684				
Nonferrous Cutting	Scale 0-10	*ASTM D7684				
Nonferrous Rolling	Scale 0-10	*ASTM D7684				
Nonferrous Other	Scale 0-10	*ASTM D7684				
Carbonaceous Material	Scale 0-10	*ASTM D7684				
Lubricant Degradation	Scale 0-10	*ASTM D7684				
Sand/Dirt	Scale 0-10	ASTM D7684				
Fibres	Scale 0-10	*ASTM D7684				
Spheres	Scale 0-10	*ASTM D7684				
Other	Scale 0-10	*ASTM D7684		2		

WEAR

Wear particle analysis indicates that the ferrous red oxides particles are marginal. Iron ppm levels are marginal. All other component wear rates are normal.

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