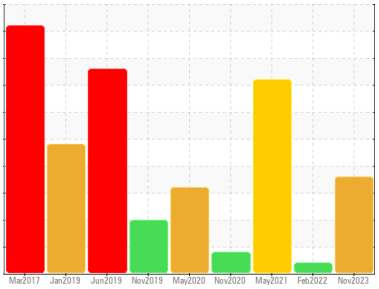
PROBLEM SUMMARY

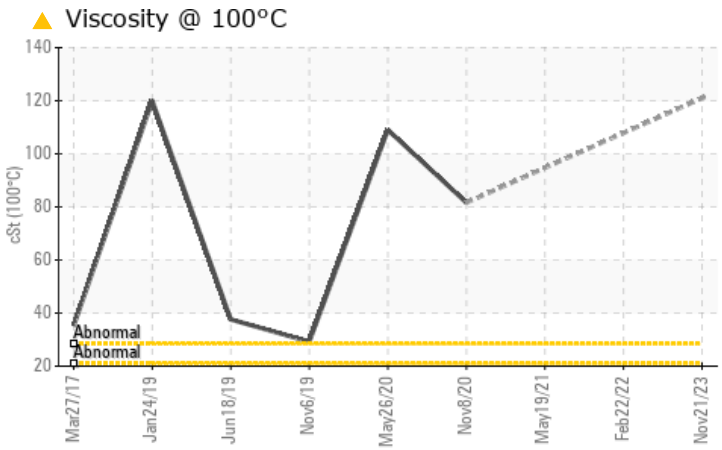
Sample Rating Trend

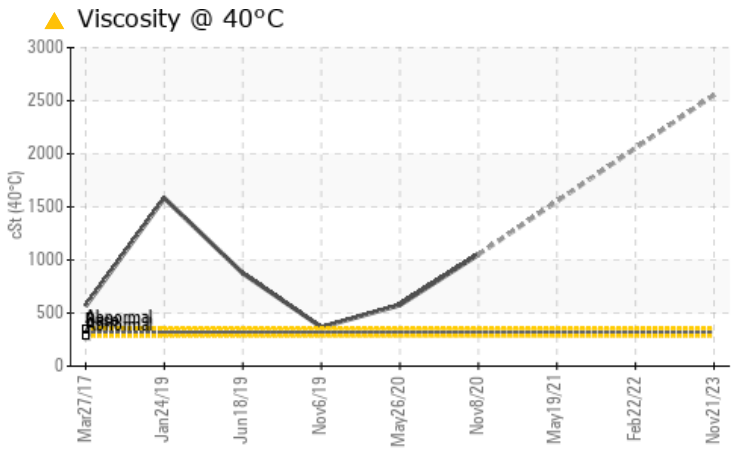


WATER

Machine Id
WASHER SPRAY RACK ELEPHANT EAR
Component
Gearbox
Fluid
EP 320 (--- GAL)

COMPONENT CONDITION SUMMARY





RECOMMENDATION

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	SEVERE
Lithium	ppm	ASTM D5185(m)		▲ **58**	▲ 90	⬢ 210
Appearance	scalar	Visual*	NORML	▲ **WGOIL**	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	▲ **.5%**	.2%	▲ 1%
Free Water	scalar	Visual*		▲ **1%**	NEG	NEG
Visc @ 40°C	cSt	ASTM D7279(m)	320	▲ **2554**	---	---
Visc @ 100°C	cSt	ASTM D7279(m)		▲ **121**	---	---

Customer Id: LABSTJ
Sample No.: PC0081250
Lab Number: 02599537
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Kevin Marson +1 (289)291-4644 x4644
Kevin.Marson@wearcheck.com

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Alert	---	---	?	Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment.
Information Required	---	---	?	Please specify the brand, type, and viscosity of the oil on your next sample. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.
Check Breathers	---	---	?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.
Check Water Access	---	---	?	We advise that you check for the source of water entry.
Check Seals	---	---	?	Check seals and/or filters for points of contaminant entry.

HISTORICAL DIAGNOSIS

ADDITIVES

22 Feb 2022 Diag: Kevin Marson

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. We advise that you check all areas where contaminants can enter the system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please note that the oil was too thick to perform some of the normal laboratory tests.All component wear rates are normal. Lithium (Li) level abnormal at 90ppm., indicates possible grease contamination. The water content is negligible. The AN level is acceptable for this fluid. The oil is no longer serviceable due to the presence of contaminants.

view report

WATER

19 May 2021 Diag: Kevin Marson

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. We advise that you check all areas where contaminants can enter the system. We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. We recommend that you drain the oil from the component if this has not already been done. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please note that the oil was too thick to perform some of the normal laboratory tests.Iron and antimony ppm levels are abnormal. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. Lithium (Li) level severe 210 ppm., indicates possible grease contamination. There is a high concentration of water present in the oil. Additive levels indicate the addition of a different brand, or type of oil. The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

view report

VISCOSITY

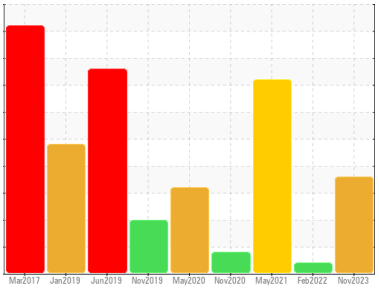
08 Nov 2020 Diag: Kevin Marson

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.All component wear rates are normal. Lithium (Li) level abnormal at 53ppm., indicates possible grease contamination. Viscosity of sample indicates oil is within ISO 1000 range, advise investigate. The AN level is acceptable for this fluid. The oil is no longer serviceable due to the presence of contaminants.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Machine Id
WASHER SPRAY RACK ELEPHANT EAR
Component
Gearbox
Fluid
EP 320 (--- GAL)

DIAGNOSIS

Recommendation

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

Lithium (Li) level abnormal at 58ppm., indicates possible grease contamination. Free water present.

Fluid Condition

Viscosity of sample indicates oil is within ISO 2200 range, advise investigate. The AN level is acceptable for this fluid. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PC0081250**	PC0016411	PC0035673
Sample Date		Client Info		**21 Nov 2023**	22 Feb 2022	19 May 2021
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	SEVERE

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	**NEG**	NEG	NEG

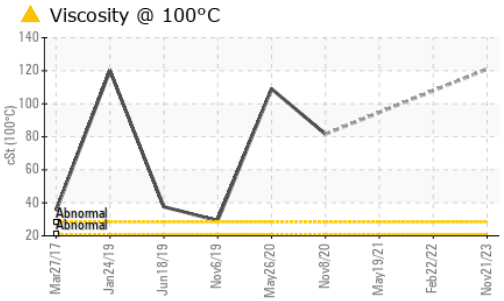
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		**85**	73	111
Iron	ppm	ASTM D5185(m)	>200	**44**	40	▲ 374
Chromium	ppm	ASTM D5185(m)	>15	**0**	0	2
Nickel	ppm	ASTM D5185(m)	>15	**<1**	0	<1
Titanium	ppm	ASTM D5185(m)		**0**	0	<1
Silver	ppm	ASTM D5185(m)		**<1**	<1	<1
Aluminum	ppm	ASTM D5185(m)	>25	**<1**	0	1
Lead	ppm	ASTM D5185(m)	>100	**0**	0	<1
Copper	ppm	ASTM D5185(m)	>200	**<1**	20	<1
Tin	ppm	ASTM D5185(m)	>25	**0**	0	0
Antimony	ppm	ASTM D5185(m)	>5	**0**	0	▲ 25
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

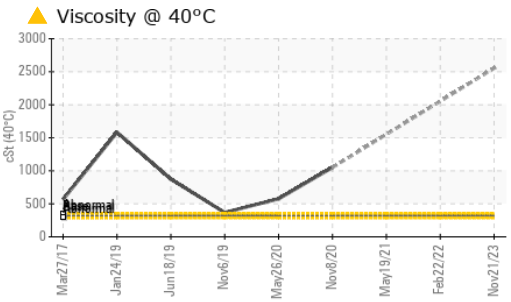
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**9**	3	<1
Barium	ppm	ASTM D5185(m)		**<1**	0	1
Molybdenum	ppm	ASTM D5185(m)		**0**	0	▲ 61
Manganese	ppm	ASTM D5185(m)		**0**	0	5
Magnesium	ppm	ASTM D5185(m)		**<1**	0	11
Calcium	ppm	ASTM D5185(m)		**16**	20	▲ 110
Phosphorus	ppm	ASTM D5185(m)		**235**	260	▲ 90
Zinc	ppm	ASTM D5185(m)		**13**	1	154
Sulfur	ppm	ASTM D5185(m)		**12034**	8810	▲ 751
Lithium	ppm	ASTM D5185(m)		▲ **58**	▲ 90	⬢ 210

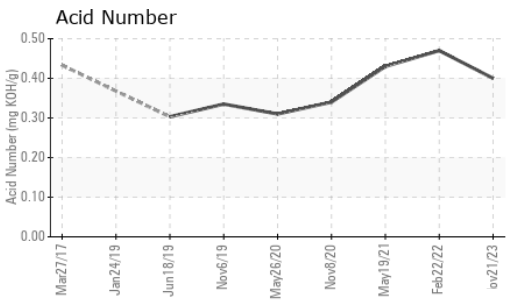
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>50	**10**	<1	4
Sodium	ppm	ASTM D5185(m)		**5**	<1	48
Potassium	ppm	ASTM D5185(m)	>20	**2**	<1	3

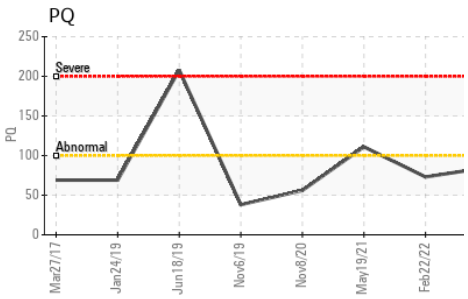
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		**0.40**	0.47	0.43

OIL ANALYSIS REPORT





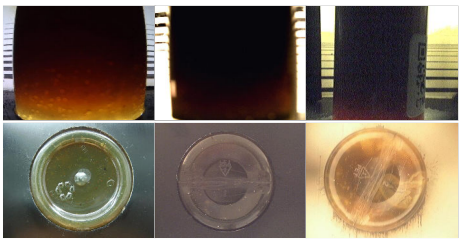




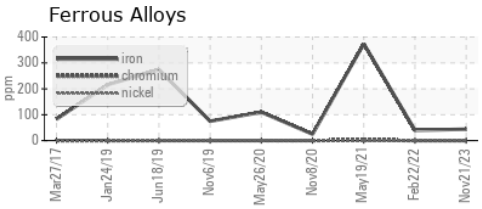
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Precipitate	scalar	Visual*	NONE	**NONE**	NONE	NONE
Silt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Debris	scalar	Visual*	NONE	**VLITE**	VLITE	LIGHT
Sand/Dirt	scalar	Visual*	NONE	**NONE**	VLITE	NONE
Appearance	scalar	Visual*	NORML	▲ **WGOIL**	NORML	NORML
Odor	scalar	Visual*	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	▲ **.5%**	.2%	▲ 1%
Free Water	scalar	Visual*		▲ **1%**	NEG	NEG

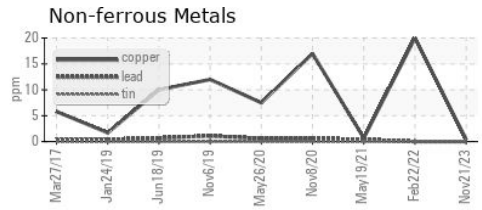
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	320	▲ **2554**	---	---
Visc @ 100°C	cSt	ASTM D7279(m)		▲ **121**	---	---
Viscosity Index (VI)	Scale	ASTM D2270*		**129**	---	---

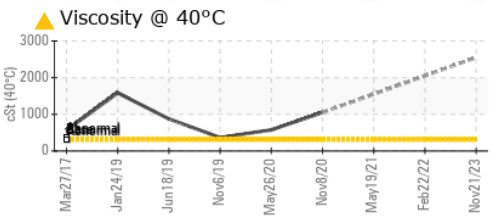
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

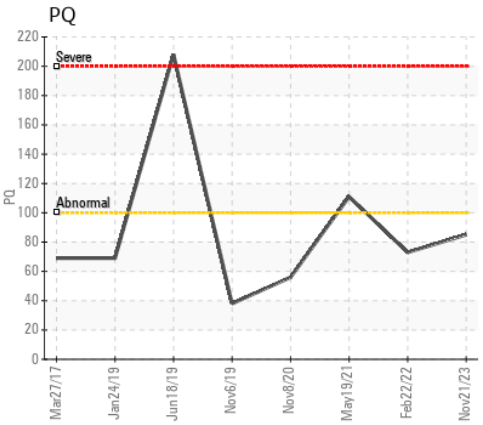


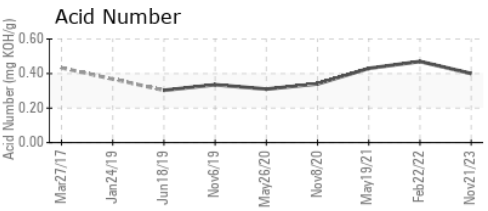
GRAPHS











CALA
ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0081250 **Received** : 28 Nov 2023
Lab Number : 02599537 **Diagnosed** : 29 Nov 2023
Unique Number : 5684617 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: KV100, TAN Man, VI)

To discuss this sample report, contact Customer Service at 1-800-268-2131.
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
Validity of results and interpretation are based on the sample and information as supplied.

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