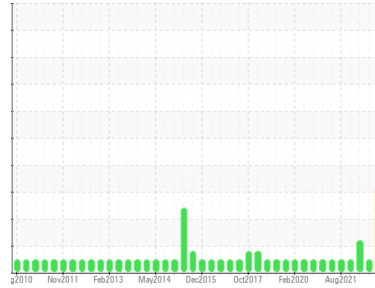




PROBLEM SUMMARY

Sample Rating Trend

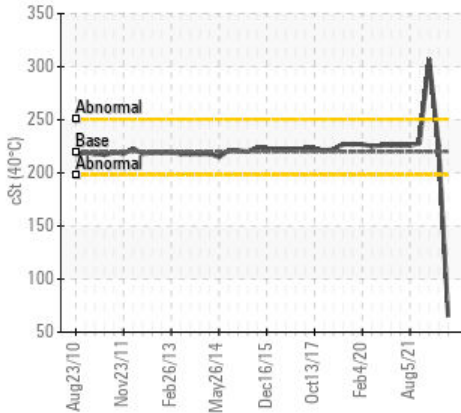
WEAR



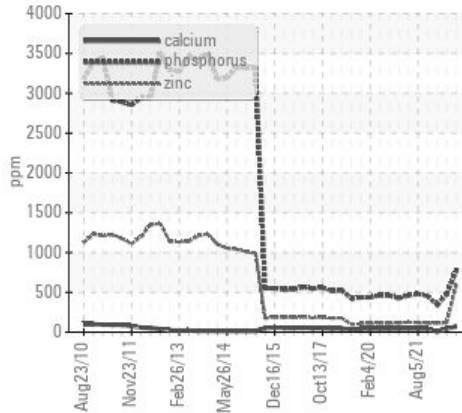
Area
TC02
Machine Id
TC02 4.5 Inch
Component
Gearbox
Fluid
SHELL OMALA S2 G 220 (--- LTR)

COMPONENT CONDITION SUMMARY

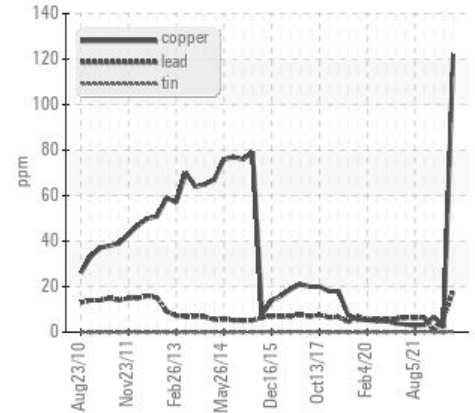
▲ Viscosity @ 40°C



▲ Additives



▲ Non-ferrous Metals



RECOMMENDATION

Due to this condition we recommend the following action... We advise an early resample to confirm this situation. NOTE: The current sample results do not match this units historical trend, indicating the sample may not be from this component/unit.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	NORMAL	ABNORMAL
Copper	ppm	ASTM D5185(m)	>200	▲ 122	2	7
Magnesium	ppm	ASTM D5185(m)	0	▲ 36	<1	<1
Calcium	ppm	ASTM D5185(m)	0	▲ 72	43	7
Phosphorus	ppm	ASTM D5185(m)	215	▲ 770	471	342
Zinc	ppm	ASTM D5185(m)	0	▲ 586	116	116
Sulfur	ppm	ASTM D5185(m)	7039	▲ 2299	9993	8880
Visc @ 40°C	cSt	ASTM D7279(m)	220	▲ 64.8	226	▲ 307

Customer Id: GOONAP
Sample No.: WC22128058
Lab Number: 02553669
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
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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
Resample	---	---	?	We advise an early resample to confirm this situation.
Alert	---	---	?	NOTE: The current sample results do not match this units historical trend, indicating the sample may not be from this component/unit.

HISTORICAL DIAGNOSIS

05 Feb 2023 Diag: Kevin Marson

NORMAL



Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is no indication of any contamination 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 condition of the oil is suitable for further service.

view report



27 Oct 2022 Diag: Kevin Marson

WEAR



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. Iron ppm levels are marginal. All other component wear rates are normal. There is no indication of any contamination in the oil. Viscosity of sample indicates oil is within ISO 320 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The AN level is acceptable for this fluid.

view report



05 Nov 2021 Diag: Kevin Marson

NORMAL



Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is no indication of any contamination 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 condition of the oil is suitable for further service.

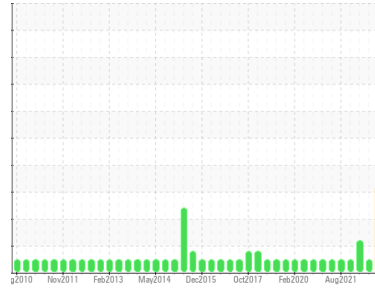
view report





OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area
TC02
 Machine Id
TC02 4.5 Inch
 Component
Gearbox
 Fluid
SHELL OMALA S2 G 220 (--- LTR)

DIAGNOSIS

▲ Recommendation

Due to this condition we recommend the following action... We advise an early resample to confirm this situation. NOTE: The current sample results do not match this units historical trend, indicating the sample may not be from this component/unit.

▲ Wear

Copper ppm levels are marginal. All other component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

▲ Fluid Condition

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The AN level is acceptable for this fluid.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC22128058	WC0754409	WC0664098
Sample Date	Client Info		25 Apr 2023	05 Feb 2023	27 Oct 2022
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	NORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		0	0	0
Iron	ppm	ASTM D5185(m) >200	38	20	▲ 193
Chromium	ppm	ASTM D5185(m) >15	<1	0	1
Nickel	ppm	ASTM D5185(m) >15	2	<1	3
Titanium	ppm	ASTM D5185(m)	<1	0	0
Silver	ppm	ASTM D5185(m)	0	0	0
Aluminum	ppm	ASTM D5185(m) >25	8	1	2
Lead	ppm	ASTM D5185(m) >100	18	6	<1
Copper	ppm	ASTM D5185(m) >200	▲ 122	2	7
Tin	ppm	ASTM D5185(m) >25	<1	0	0
Antimony	ppm	ASTM D5185(m) >5	0	0	0
Vanadium	ppm	ASTM D5185(m)	<1	0	0
Beryllium	ppm	ASTM D5185(m)	0	0	0
Cadmium	ppm	ASTM D5185(m)	<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 4.4	<1	7	0
Barium	ppm	ASTM D5185(m) 0.0	<1	0	0
Molybdenum	ppm	ASTM D5185(m) 0	0	117	102
Manganese	ppm	ASTM D5185(m)	<1	<1	2
Magnesium	ppm	ASTM D5185(m) 0	▲ 36	<1	<1
Calcium	ppm	ASTM D5185(m) 0	▲ 72	43	7
Phosphorus	ppm	ASTM D5185(m) 215	▲ 770	471	342
Zinc	ppm	ASTM D5185(m) 0	▲ 586	116	116
Sulfur	ppm	ASTM D5185(m) 7039	▲ 2299	9993	8880
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >50	16	26	4
Sodium	ppm	ASTM D5185(m)	2	2	1
Potassium	ppm	ASTM D5185(m) >20	<1	0	1

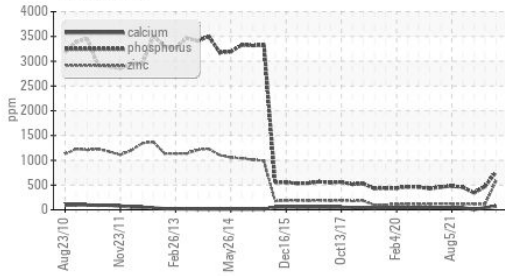
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.75	0.92	0.57

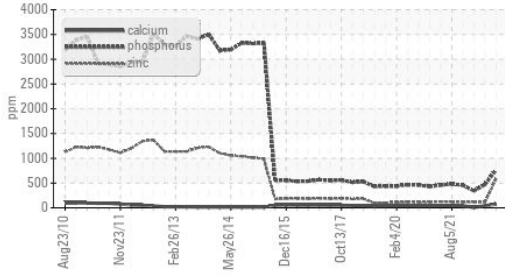


OIL ANALYSIS REPORT

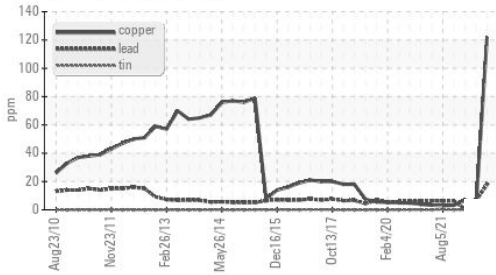
▲ Additives



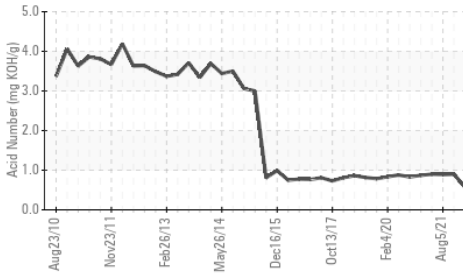
▲ Additives



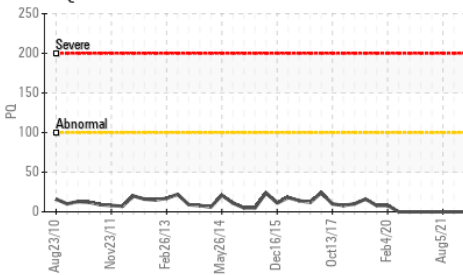
▲ Non-ferrous Metals



Acid Number



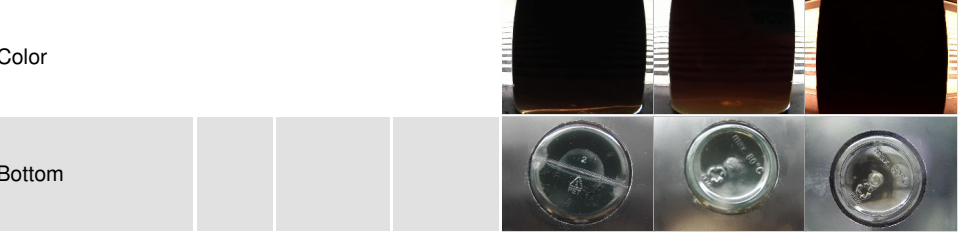
PQ



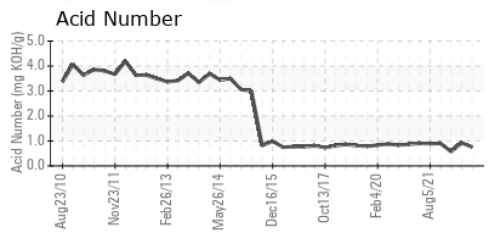
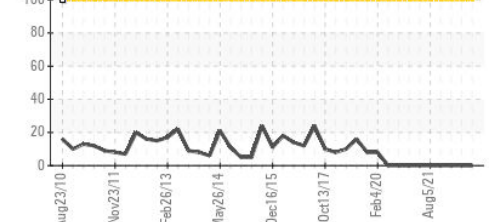
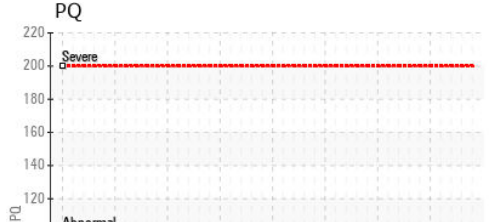
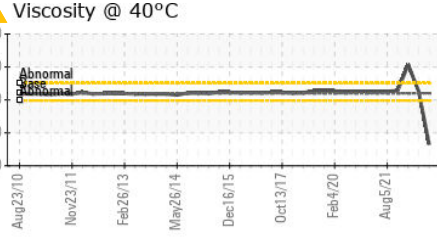
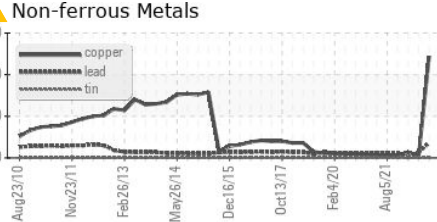
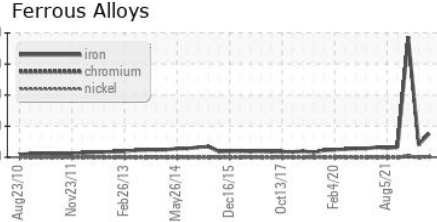
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	220 ▲ 64.8	226	▲ 307

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC22128058
Lab Number : 02553669
Unique Number : 5566684
Test Package : IND 2

Goodyear Napanee
 388 GOODYEAR ROAD
 NAPANEE, ON
 CA K7R 3L2
 Contact: Gerald Bailey
 gerald.bailey@goodyear.com
 T: (613)354-7724
 F: (613)354-9377

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.