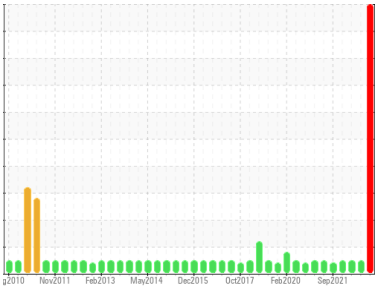
PROBLEM SUMMARY

Sample Rating Trend

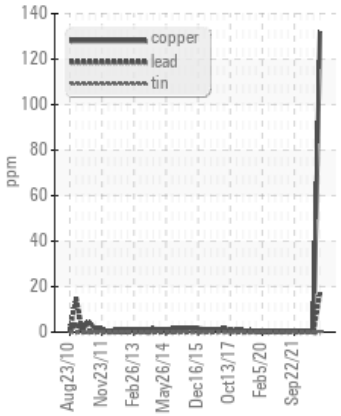


WEAR

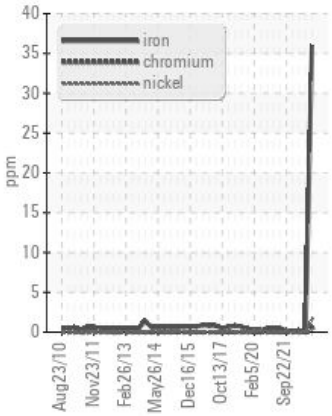
Area
TC02
Machine Id
TC02
Component
Hydraulic System
Fluid
TRIBOL HYDRAULIC 943AW-68 (--- LTR)

COMPONENT CONDITION SUMMARY

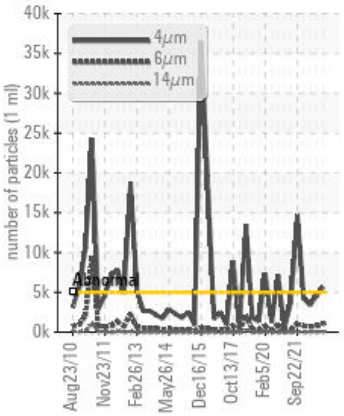
Non-ferrous Metals



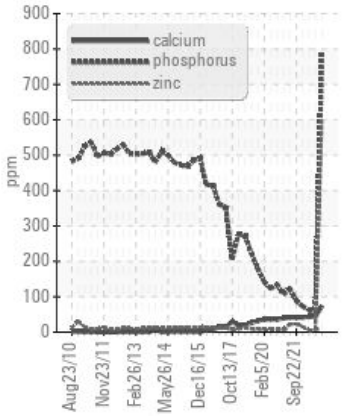
Ferrous Alloys



Particle Trend



Additives



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				SEVERE	NORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>20	▲ **36**	<1	<1
Lead	ppm	ASTM D5185(m)	>20	▲ **17**	0	<1
Copper	ppm	ASTM D5185(m)	>20	⬢ **132**	<1	<1
Magnesium	ppm	ASTM D5185(m)		▲ **36**	<1	0
Calcium	ppm	ASTM D5185(m)		▲ **74**	44	43
Phosphorus	ppm	ASTM D5185(m)		▲ **793**	60	62
Zinc	ppm	ASTM D5185(m)		▲ **601**	7	5
Sulfur	ppm	ASTM D5185(m)		▲ **2363**	198	292
Particles >4µm		ASTM D7647	>5000	▲ **5668**	4562	3383
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **20/17/13**	19/17/13	19/17/13

Customer Id: GOONAP
Sample No.: WC22128057
Lab Number: 02553618
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
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

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. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. 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

NORMAL

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. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

05 Nov 2021 Diag: Kevin Marson

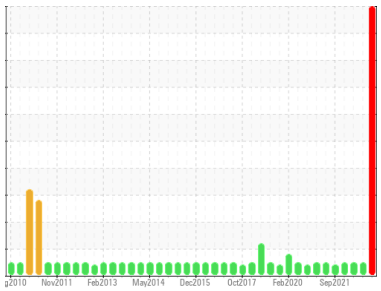
NORMAL

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. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. 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
Component
Hydraulic System
Fluid
TRIBOL HYDRAULIC 943AW-68 (--- 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 severe. Iron and lead ppm levels are abnormal. Bearing wear is indicated. Oil cooler core leaching or motor piston wear is indicated. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion.

Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

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. NOTE: The color of the oil is darker then previous samples.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC22128057**	WC0754408	WC0664097
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				**SEVERE**	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		**0**	---	---
Iron	ppm	ASTM D5185(m)	>20	▲ **36**	<1	<1
Chromium	ppm	ASTM D5185(m)	>20	**<1**	0	0
Nickel	ppm	ASTM D5185(m)	>20	**2**	<1	0
Titanium	ppm	ASTM D5185(m)		**<1**	<1	<1
Silver	ppm	ASTM D5185(m)		**0**	0	0
Aluminum	ppm	ASTM D5185(m)	>20	**8**	0	<1
Lead	ppm	ASTM D5185(m)	>20	▲ **17**	0	<1
Copper	ppm	ASTM D5185(m)	>20	⬢ **132**	<1	<1
Tin	ppm	ASTM D5185(m)	>20	**<1**	0	0
Antimony	ppm	ASTM D5185(m)		**<1**	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

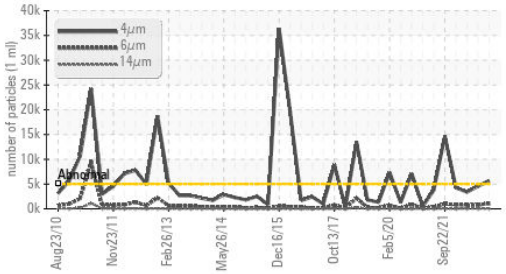
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**<1**	<1	0
Barium	ppm	ASTM D5185(m)		**<1**	0	0
Molybdenum	ppm	ASTM D5185(m)		**0**	0	0
Manganese	ppm	ASTM D5185(m)		**<1**	0	0
Magnesium	ppm	ASTM D5185(m)		▲ **36**	<1	0
Calcium	ppm	ASTM D5185(m)		▲ **74**	44	43
Phosphorus	ppm	ASTM D5185(m)		▲ **793**	60	62
Zinc	ppm	ASTM D5185(m)		▲ **601**	7	5
Sulfur	ppm	ASTM D5185(m)		▲ **2363**	198	292
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	**14**	0	0
Sodium	ppm	ASTM D5185(m)		**2**	0	0
Potassium	ppm	ASTM D5185(m)	>20	**<1**	0	<1

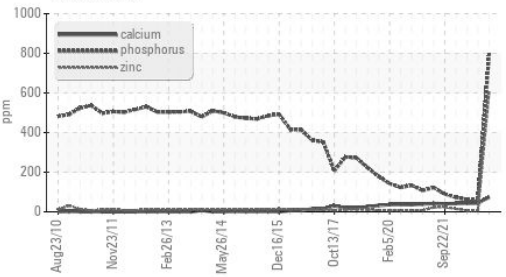
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **5668**	4562	3383
Particles >6µm		ASTM D7647	>1300	**1055**	791	712
Particles >14µm		ASTM D7647	>160	**57**	51	64
Particles >21µm		ASTM D7647	>40	**13**	13	22
Particles >38µm		ASTM D7647	>10	**1**	1	2
Particles >71µm		ASTM D7647	>3	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **20/17/13**	19/17/13	19/17/13

OIL ANALYSIS REPORT

Particle Trend



Additives



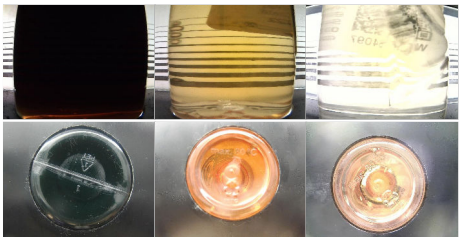
PQ

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		**0.93**	0.12	0.12

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	**NONE**	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Appearance	scalar	Visual*	NORML	**NORML**	NORML	NORML
Odor	scalar	Visual*	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	Visual*	>0.05	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

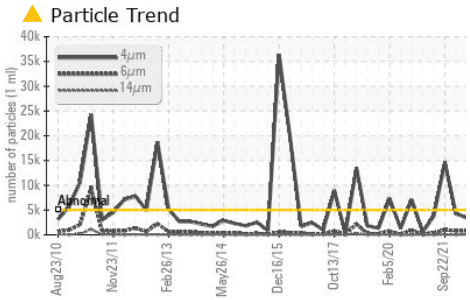
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	68	**64.3**	65.9	65.7

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

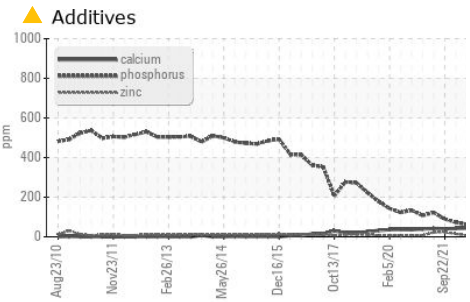


GRAPHS

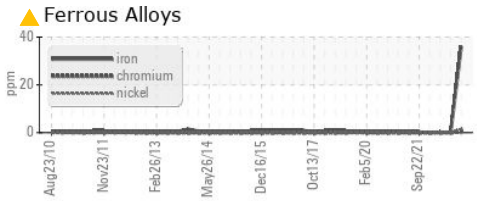
Particle Trend



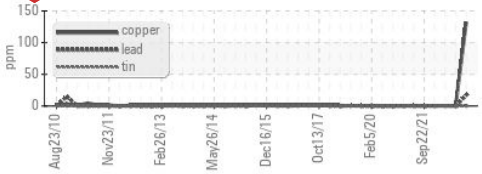
Additives



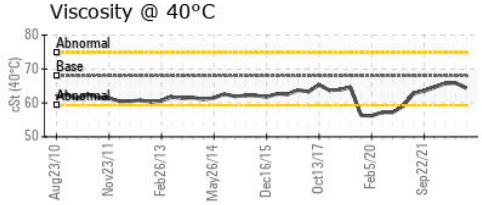
Ferrous Alloys



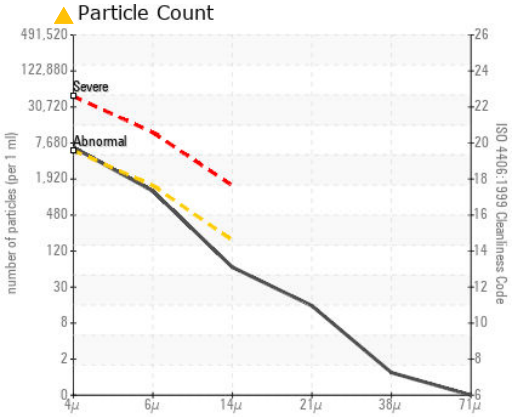
Non-ferrous Metals



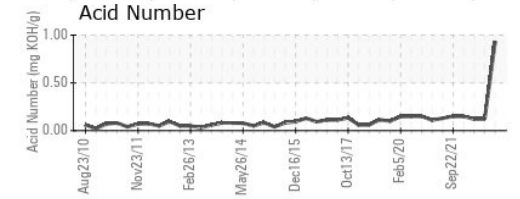
Viscosity @ 40°C



Particle Count



Acid Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC22128057 **Received** : 26 Apr 2023
Lab Number : 02553618 **Diagnosed** : 27 Apr 2023
Unique Number : 5566633 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: PQ)

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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