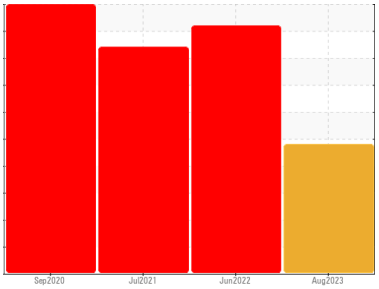
PROBLEM SUMMARY

Sample Rating Trend

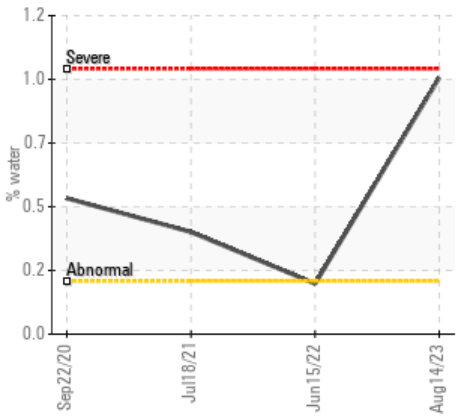


WATER

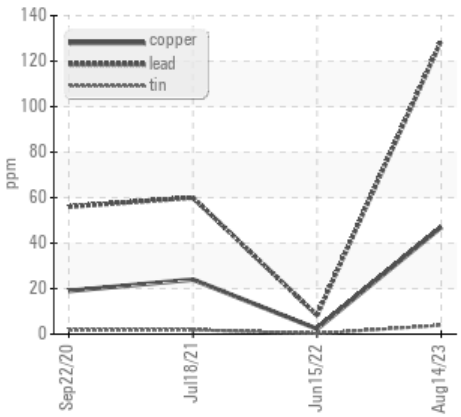
Machine Id
SAB1MONTROSEGATEWEST
Component
Gearbox
Fluid
ESSO TERESSTIC SHP 460 (--- GAL)

COMPONENT CONDITION SUMMARY

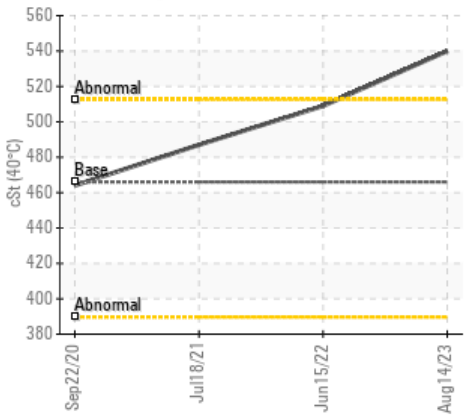
Water



Non-ferrous Metals



Viscosity @ 40°C



RECOMMENDATION

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 advise that you follow the water drain-off procedure for this component. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	SEVERE	SEVERE
Lead	ppm	ASTM D5185(m)	>100	▲ **129**	8	60
Water	%	ASTM D6304*	>0.2	▲ **0.966**	0.190	▲ 0.385
ppm Water	ppm	ASTM D6304*	>2000	▲ **9661.1**	1908.7	▲ 3853.9
Appearance	scalar	Visual*	NORML	▲ **LAYRD**	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	▲ **1%**	1%	▲ 1%
Free Water	scalar	Visual*		▲ **>10%**	▲ >10%	▲ >10%

Customer Id: ONTQUE
Sample No.: WC926113
Lab Number: 02576284
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
Water Drain-off	---	---	?	We advise that you follow the water drain-off procedure for this component.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Information Required	---	---	?	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

ISO

15 Jun 2022 Diag: Kevin Marson

Check seals and/or filters for points of contaminant entry. We advise that you check all areas where contaminants can enter the system. 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. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.All component wear rates are normal. Particles >14µm are severely high. Particles >6µm are severely high. Particles >4µm are severely high. Oil Cleanliness are severely high. Oil Cleanliness are severely high.. Particles >21µm are abnormally high. Particles >38µm are notably high. Excessive free water present. The AN level is acceptable for this fluid. The oil is no longer serviceable due to the presence of contaminants.

view report

ISO

18 Jul 2021 Diag: Kevin Marson

Check seals and/or filters for points of contaminant entry. We advise that you check all areas where contaminants can enter the system. 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 advise that you use off-line filtration with water adsorbent filters to attempt to remove the water from this oil. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.All component wear rates are normal. Particles >14µm are severely high. Particles >6µm are severely high. Particles >4µm are severely high. Particles >4µm are severely high.. ppm Water and water and water contamination levels are abnormal. Particles >21µm are abnormally high. There is a moderate concentration of water present in the oil. Free water present. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report

ISO

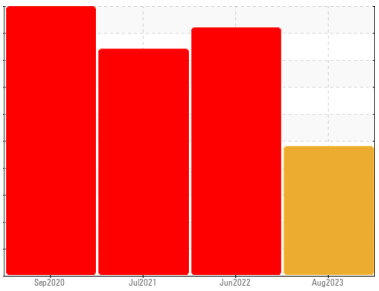
22 Sep 2020 Diag: Kevin Marson

Check seals and/or filters for points of contaminant entry. We advise that you check all areas where contaminants can enter the system. 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 advise that you use off-line filtration with water adsorbent filters to attempt to remove the water from this oil. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.All component wear rates are normal. Particles >14µm are severely high. Particles >21µm are severely high. Particles >38µm are severely high. Particles >6µm are severely high. Particles >4µm are severely high. Particles >4µm are severely high.. Particles >4µm are severely high... ppm Water and water and water contamination levels are abnormal. Particles >71µm are abnormally high. There is a moderate concentration of water present in the oil. The AN level is acceptable for this fluid.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Machine Id
SAB1MONTROSEGATEWEST
Component
Gearbox
Fluid
ESSO TERESSTIC SHP 460 (--- GAL)

DIAGNOSIS

Recommendation

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 advise that you follow the water drain-off procedure for this component. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

Lead ppm levels are abnormal. Bearing and/or bushing wear is indicated.

Contamination

There is a moderate concentration of water present in the oil. Excessive free water present.

Fluid Condition

The oil viscosity is higher than typical. The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC926113**	WC760619	WC0320641
Sample Date		Client Info		**14 Aug 2023**	15 Jun 2022	18 Jul 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**	SEVERE	SEVERE

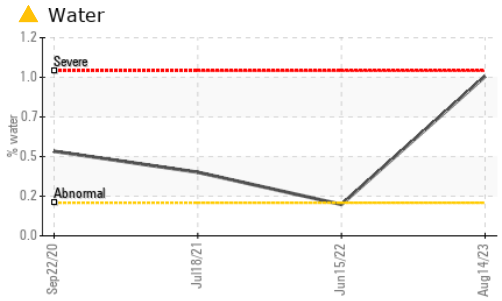
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		**70**	---	---
Iron	ppm	ASTM D5185(m)	>200	**57**	6	12
Chromium	ppm	ASTM D5185(m)	>15	**0**	0	0
Nickel	ppm	ASTM D5185(m)	>15	**<1**	<1	<1
Titanium	ppm	ASTM D5185(m)		**<1**	0	0
Silver	ppm	ASTM D5185(m)		**0**	0	<1
Aluminum	ppm	ASTM D5185(m)	>25	**1**	<1	<1
Lead	ppm	ASTM D5185(m)	>100	▲ **129**	8	60
Copper	ppm	ASTM D5185(m)	>200	**47**	2	24
Tin	ppm	ASTM D5185(m)	>25	**4**	<1	2
Antimony	ppm	ASTM D5185(m)	>5	**0**	0	<1
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

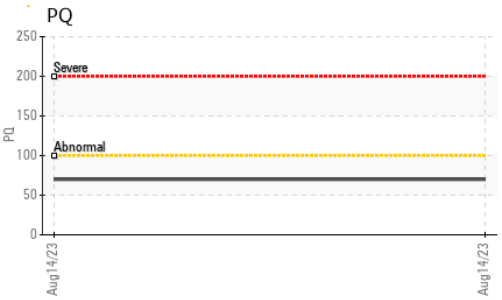
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	**1**	2	2
Barium	ppm	ASTM D5185(m)	0	**<1**	0	0
Molybdenum	ppm	ASTM D5185(m)	0	**<1**	0	<1
Manganese	ppm	ASTM D5185(m)		**<1**	0	0
Magnesium	ppm	ASTM D5185(m)	0	**2**	0	<1
Calcium	ppm	ASTM D5185(m)	0	**2**	<1	2
Phosphorus	ppm	ASTM D5185(m)	600	**438**	425	451
Zinc	ppm	ASTM D5185(m)	0	**14**	1	9
Sulfur	ppm	ASTM D5185(m)	0	**299**	203	317
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

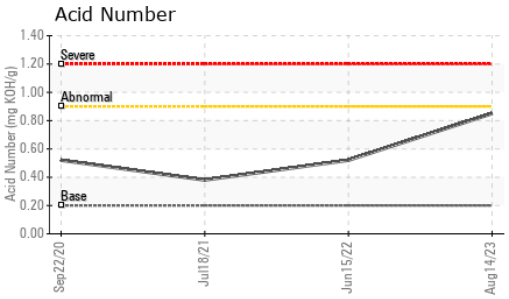
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>50	**44**	14	20
Sodium	ppm	ASTM D5185(m)		**2**	<1	0
Potassium	ppm	ASTM D5185(m)	>20	**<1**	0	<1
Water	%	ASTM D6304*	>0.2	▲ **0.966**	0.190	▲ 0.385
ppm Water	ppm	ASTM D6304*	>2000	▲ **9661.1**	1908.7	▲ 3853.9

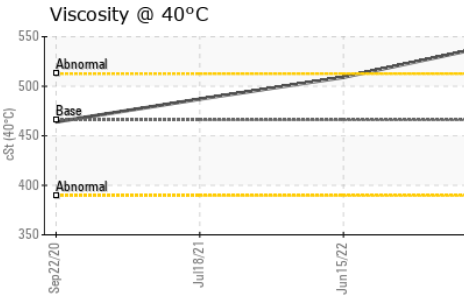
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	---	⬢ 352087	⬢ 1440994
Particles >6µm		ASTM D7647	>5000	---	⬢ 95988	⬢ 503038
Particles >14µm		ASTM D7647	>640	---	⬢ 5415	⬢ 12217
Particles >21µm		ASTM D7647	>160	---	▲ 1245	▲ 1197
Particles >38µm		ASTM D7647	>40	---	▲ 70	10
Particles >71µm		ASTM D7647	>10	---	4	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	---	⬢ 26/24/20	⬢ 28/26/21

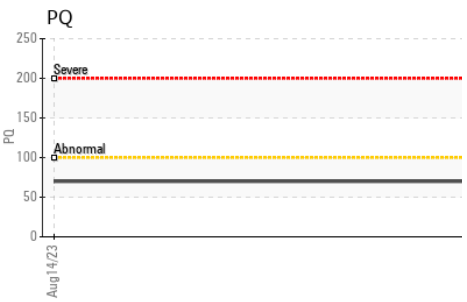
OIL ANALYSIS REPORT











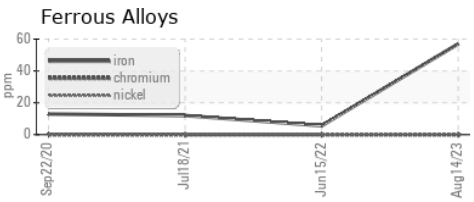
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.2	**0.85**	0.52	0.38

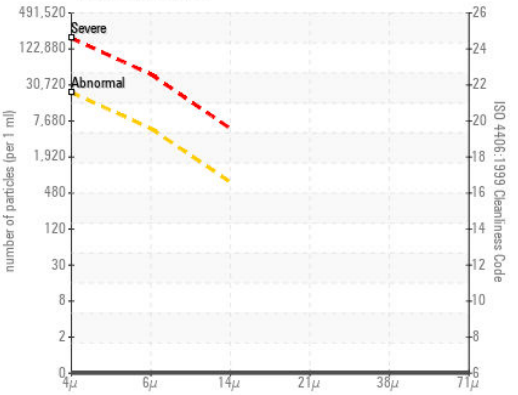
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**VLITE**	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Precipitate	scalar	Visual*	NONE	**NONE**	▲ LIGHT	NONE
Silt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Debris	scalar	Visual*	NONE	**LIGHT**	NONE	VLITE
Sand/Dirt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Appearance	scalar	Visual*	NORML	▲ **LAYRD**	NORML	NORML
Odor	scalar	Visual*	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	▲ **1%**	1%	▲ 1%
Free Water	scalar	Visual*		▲ **>10%**	▲ >10%	▲ >10%

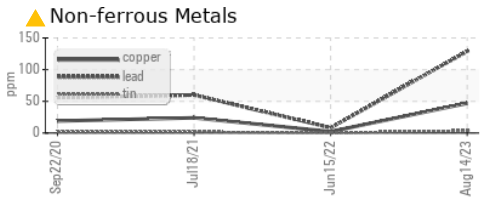
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	466	**540**	509	487

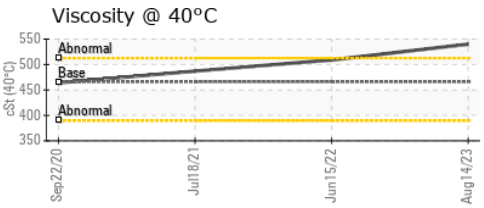
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

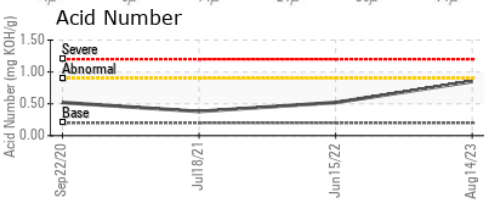
GRAPHS











ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC926113 **Received** : 16 Aug 2023
Lab Number : 02576284 **Diagnosed** : 18 Aug 2023
Unique Number : 5629344 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: KF, PQ, PrtCount, TAN Man)

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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