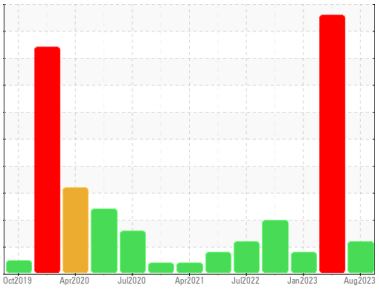
PROBLEM SUMMARY

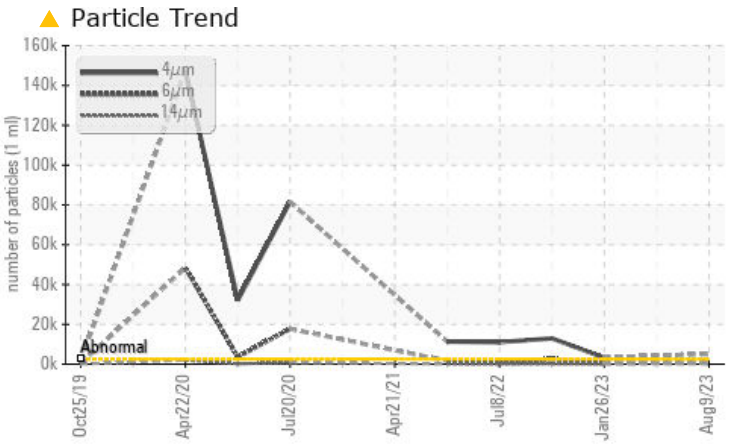
Sample Rating Trend



ISO

Machine Id
BT-F01-B1 (S/N B1 RECYCLE BLOWER)
Component
Outboard Blower
Fluid
SHELL TELLUS S2 MX 100 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

Oil contamination is improved but can still benefit from more filtration. Current oil contamination levels are on par with new unfiltered oil. Filter oil if possible using B6=75 filter media or better. No other action recommended at this time. Resample at next normal interval.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	SEVERE	ABNORMAL
Particles >4µm		ASTM D7647	>2500	▲ **5121**	---	▲ 3214
Particles >6µm		ASTM D7647	>640	▲ **1017**	---	556
Oil Cleanliness		ISO 4406 (c)	>18/16/13	▲ **20/17/13**	---	▲ 19/16/11

Customer Id: MOMBAY
Sample No.: PLS0000480
Lab Number: 05926003
Test Package: PLANT

To manage this report scan the QR code

To discuss the diagnosis or test data:
Mike Johnson +1 (615)771-6030
mike.johnson@amrri.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

01 May 2023 Diag: Mike Johnson

VISUAL METAL

Schedule an oil change immediately if possible. Viscosity is substantially out of range, and low enough to be harmful to the machine. IF an oil change cannot be done promptly then drain small amounts and top up the unit mmultiple times with the proper fluid until half the oil sump capacity has been enhanced with new MX 100. Resample following this activity.The wear rate is still low and steady. Particle count could not be provided due to the debris in the oil. Filtration is strongly recommended. The viscosity is substantially diminshed. Additives are substantially diminished. The unit has likely been toped up with an incorrect selection. Replace as soon as possible.

view report

26 Jan 2023 Diag: Mike Johnson

ISO

Oil contamination is improved but can still benefit from more filtration. Current oil contamination levels are on par with new unfiltered oil. Filter oil if possible using B6=75 filter media or better. No other action recommended at this time. Resample at next normal interval.Wear particles are low and acceptable. Particle contamination is elevated. Filtration can help extend machine life. Fluid health is acceptable for continued use.

view report

17 Oct 2022 Diag: Mike Johnson

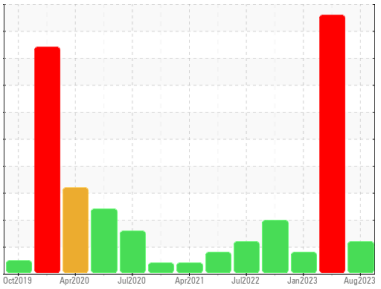
ISO

Particle counts are elevated. Filter oil if possible with B6=75 filter media or better. No other action recommended at this time. Resample at next normal interval.Wear particles are low and acceptable. Particle contamination is slightly elevated. Filter oil if possible. Fluid health is acceptable for continued use.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Machine Id
BT-F01-B1 (S/N B1 RECYCLE BLOWER)
Component
Outboard Blower
Fluid
SHELL TELLUS S2 MX 100 (--- GAL)

DIAGNOSIS

▲ Recommendation
Oil contamination is improved but can still benefit from more filtration. Current oil contamination levels are on par with new unfiltered oil. Filter oil if possible using B6=75 filter media or better. No other action recommended at this time. Resample at next normal interval.

Wear
Wear particles are low and acceptable.

▲ Contamination
Particle contamination is elevated. Filtration can help extend machine life.

Fluid Condition
Fluid health is acceptable for continued use.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PLS0000480**	PLS0000710	PLS0000639
Sample Date		Client Info		**09 Aug 2023**	01 May 2023	26 Jan 2023
Machine Age	mths	Client Info		**0**	0	3
Oil Age	mths	Client Info		**0**	6	0
Oil Changed		Client Info		**N/A**	Not Changd	N/A
Sample Status				**ABNORMAL**	SEVERE	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		**12**	12	13
Iron	ppm	ASTM D5185m	>20	**<1**	3	0
Chromium	ppm	ASTM D5185m	>20	**0**	0	0
Nickel	ppm	ASTM D5185m	>20	**0**	<1	0
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**0**	<1	0
Lead	ppm	ASTM D5185m	>20	**0**	2	0
Copper	ppm	ASTM D5185m	>20	**<1**	2	6
Tin	ppm	ASTM D5185m	>20	**0**	<1	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	0
Barium	ppm	ASTM D5185m		**1**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**0**	<1	0
Magnesium	ppm	ASTM D5185m		**62**	2	57
Calcium	ppm	ASTM D5185m		**1**	4	9
Phosphorus	ppm	ASTM D5185m		**287**	▲ 69	282
Zinc	ppm	ASTM D5185m		**355**	▲ 7	348
Sulfur	ppm	ASTM D5185m		**808**	3013	723

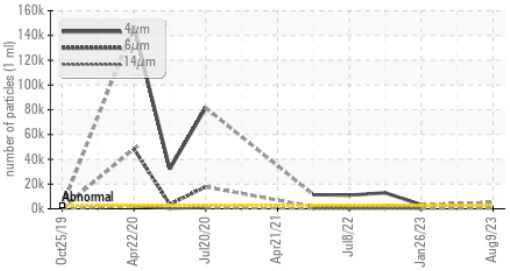
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**0**	0	<1
Sodium	ppm	ASTM D5185m		**0**	2	0
Potassium	ppm	ASTM D5185m	>20	**<1**	1	<1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		**0**	0	0
Nitration	Abs/cm	*ASTM D7624		**1.8**	2.4	2.0
Sulfation	Abs/.1mm	*ASTM D7415		**10.3**	11.2	10.4

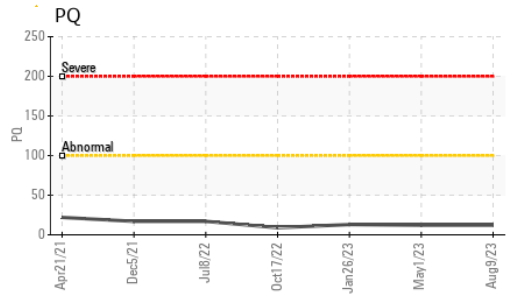
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>2500	▲ **5121**	---	▲ 3214
Particles >6µm		ASTM D7647	>640	▲ **1017**	---	556
Particles >14µm		ASTM D7647	>80	**64**	---	17
Particles >21µm		ASTM D7647	>20	**16**	---	2
Particles >38µm		ASTM D7647	>4	**2**	---	0
Particles >71µm		ASTM D7647	>3	**0**	---	0
Oil Cleanliness		ISO 4406 (c)	>18/16/13	▲ **20/17/13**	---	▲ 19/16/11

OIL ANALYSIS REPORT

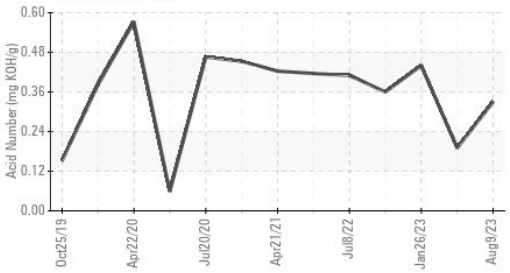
Particle Trend



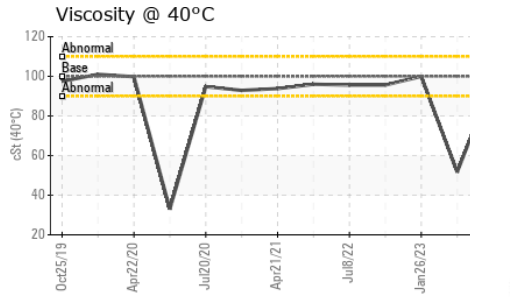
PQ



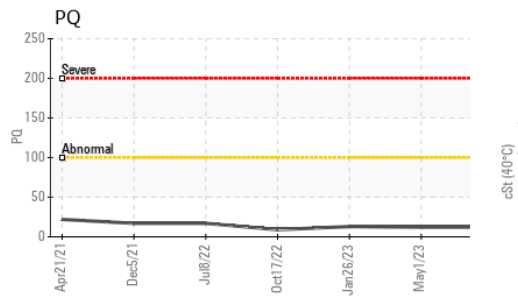
Acid Number



Viscosity @ 40°C



PQ

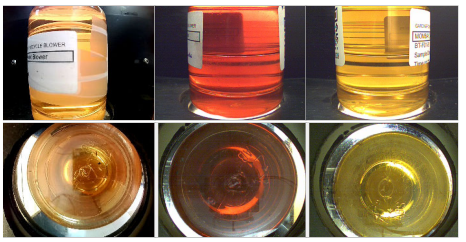


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414		**1.9**	2.7	1.9
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.33**	0.19	0.44

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	MODER	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	**LIGHT**	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		**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

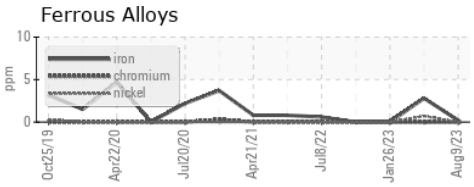
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	100	**97.7**	51.68	100

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

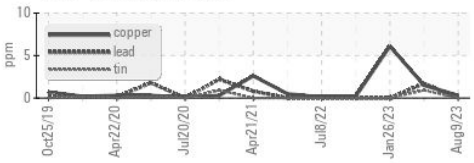


GRAPHS

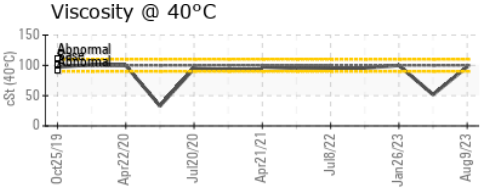
Ferrous Alloys



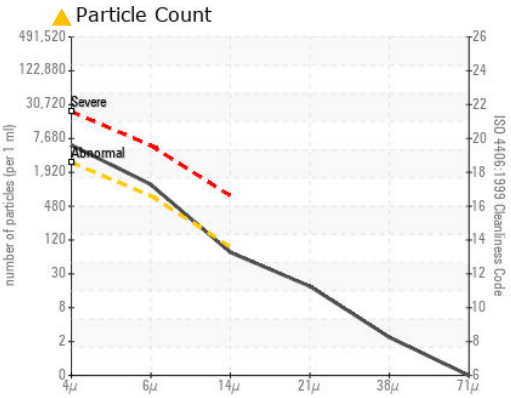
Non-ferrous Metals



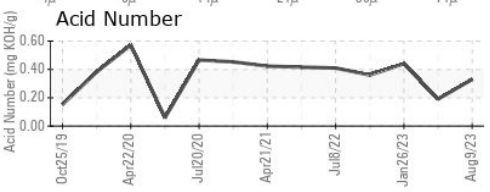
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PLS0000480 **Received** : 16 Aug 2023
Lab Number : 05926003 **Diagnosed** : 23 Aug 2023
Unique Number : 10605950 **Diagnostician** : Mike Johnson
Test Package : PLANT (Additional Tests: FT-IR)

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)

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