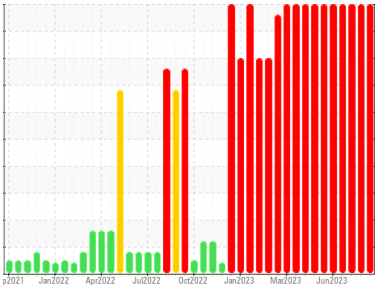
PROBLEM SUMMARY

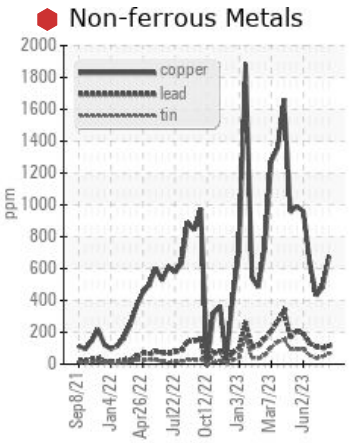
Area
Building 12
Machine Id
Cone 2B
Component
Bulk Tank Lube System
Fluid
MOBIL MOBILGEAR 600 XP 320 (--- GAL)

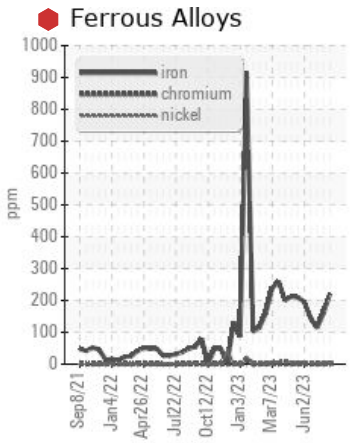
Sample Rating Trend

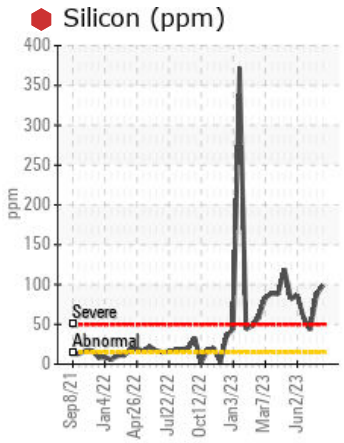


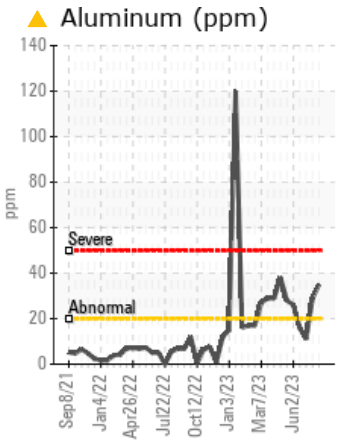
WEAR

COMPONENT CONDITION SUMMARY









RECOMMENDATION

We advise that you check all areas where dirt can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	SEVERE	SEVERE
Iron	ppm	ASTM D5185m	>20	**221**	161	114
Aluminum	ppm	ASTM D5185m	>20	**35**	29	11
Lead	ppm	ASTM D5185m	>20	**115**	103	110
Copper	ppm	ASTM D5185m	>20	**679**	482	430
Tin	ppm	ASTM D5185m	>20	**65**	49	39
Silicon	ppm	ASTM D5185m	>15	**99**	87	43

Customer Id: THRPIT
Sample No.: WC0820051
Lab Number: 05934419
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
Change Filter	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Dirt Access	---	---	?	We advise that you check all areas where dirt can enter the system.
Filter Fluid	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.

HISTORICAL DIAGNOSIS

20 Jul 2023 Diag: Don Baldridge

WEAR

We advise that you check all areas where dirt can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.Generally an abnormal to severe rate of wear throughout the component. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. Viscosity of sample indicates oil is within ISO 220 range, advise investigate. Confirm oil type. 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

03 Jul 2023 Diag: Angela Borella

WEAR

We advise that you check all areas where dirt can enter the system. The filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.Generally an abnormal to severe rate of wear throughout the component. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. Moderate concentration of visible dirt/debris present in the oil. Viscosity of sample indicates oil is within ISO 220 range, advise investigate. Confirm oil type. 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

28 Jun 2023 Diag: Angela Borella

WEAR

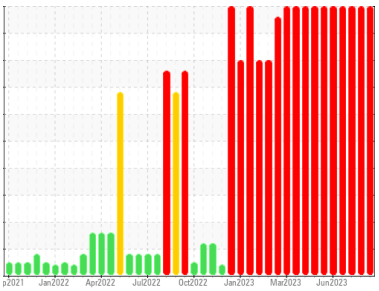
We advise that you check all areas where dirt can enter the system. The filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.Generally an abnormal to severe rate of wear throughout the component. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. Moderate concentration of visible dirt/debris present in the oil. There is a moderate amount of visible silt present in the sample. Viscosity of sample indicates oil is within ISO 220 range, advise investigate. Confirm oil type. 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

OIL ANALYSIS REPORT

Area
Building 12
Machine Id
Cone 2B
Component
Bulk Tank Lube System
Fluid
MOBIL MOBILGEAR 600 XP 320 (--- GAL)

Sample Rating Trend



WEAR

DIAGNOSIS

Recommendation
We advise that you check all areas where dirt can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Wear
Generally an abnormal to severe rate of wear throughout the component.

Contamination
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Fluid Condition
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		**WC0820051**	WC0820071	WC0820048
Sample Date		Client Info		**02 Aug 2023**	20 Jul 2023	03 Jul 2023
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**1160**	0	630
Oil Changed		Client Info		**Not Changd**	N/A	Filtered
Sample Status				**SEVERE**	SEVERE	SEVERE

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**221**	161	114
Chromium	ppm	ASTM D5185m	>20	**2**	1	<1
Nickel	ppm	ASTM D5185m	>20	**4**	3	2
Titanium	ppm	ASTM D5185m		**2**	2	<1
Silver	ppm	ASTM D5185m		**<1**	<1	0
Aluminum	ppm	ASTM D5185m	>20	**35**	29	11
Lead	ppm	ASTM D5185m	>20	**115**	103	110
Copper	ppm	ASTM D5185m	>20	**679**	482	430
Tin	ppm	ASTM D5185m	>20	**65**	49	39
Vanadium	ppm	ASTM D5185m		**0**	<1	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**13**	13	13
Barium	ppm	ASTM D5185m		**0**	0	2
Molybdenum	ppm	ASTM D5185m		**<1**	<1	<1
Manganese	ppm	ASTM D5185m		**2**	2	1
Magnesium	ppm	ASTM D5185m		**13**	10	7
Calcium	ppm	ASTM D5185m		**16**	14	9
Phosphorus	ppm	ASTM D5185m		**230**	259	241
Zinc	ppm	ASTM D5185m		**31**	22	41
Sulfur	ppm	ASTM D5185m		**9095**	11407	11400

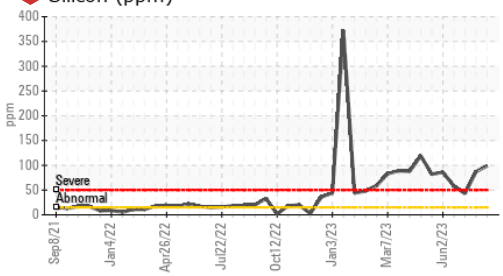
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**99**	87	43
Sodium	ppm	ASTM D5185m		**10**	11	2
Potassium	ppm	ASTM D5185m	>20	**5**	3	3

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.64**	0.64	0.64

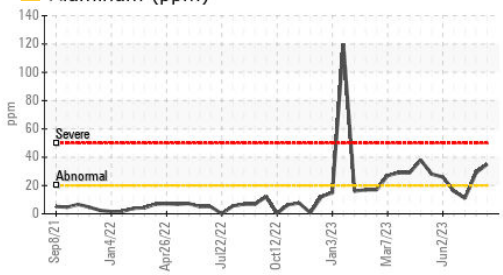
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	LIGHT
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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

OIL ANALYSIS REPORT

Silicon (ppm)



Aluminum (ppm)



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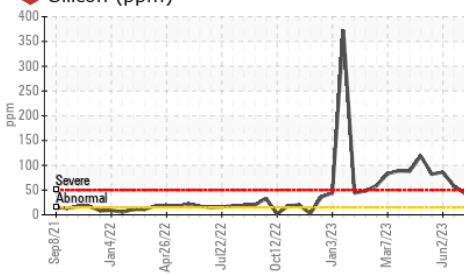
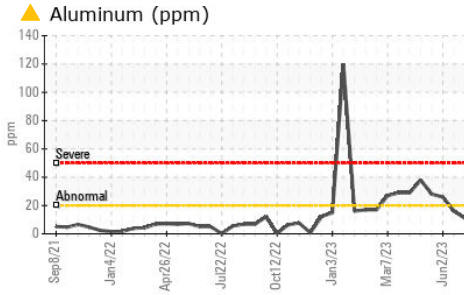
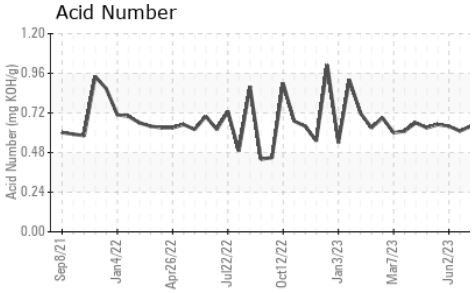


Aluminum (ppm)



Acid Number

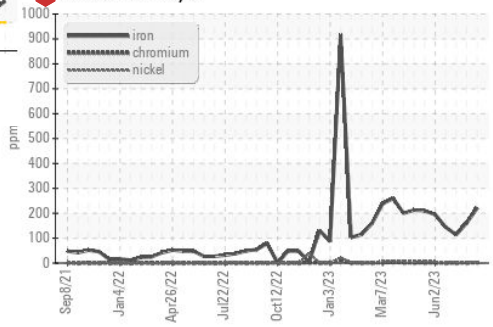


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	320	**289**	▲ 288	▲ 280

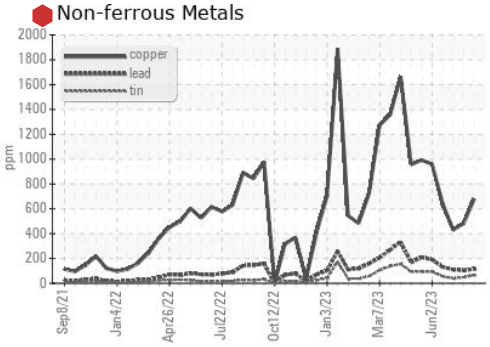
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

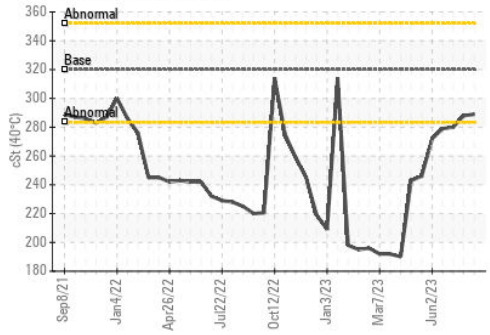
Ferrous Alloys



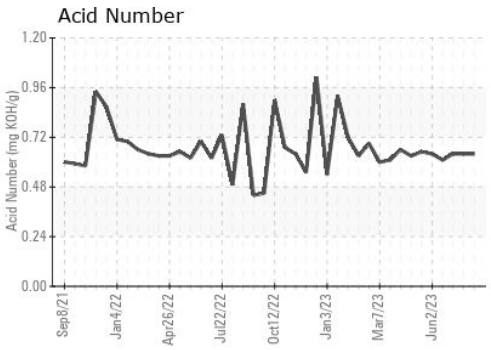
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0820051
Lab Number : 05934419
Unique Number : 10619690
Test Package : IND 2

Received : 24 Aug 2023
Diagnosed : 27 Aug 2023
Diagnostician : Don Baldridge

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)

3M - PITTSBORO
4191 NC 87 S
MONCURE, NC
US 27559
Contact: CHARLES JARRELL
cjarrell@mmm.com
T:
F:

Report Id: THRPIT [WUSCAR] 05934419 (Generated: 08/28/2023 18:00:58) Rev: 1

Submitted By: JORDAN TUTEN