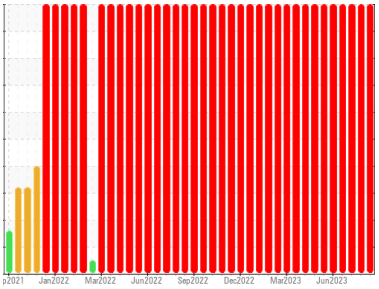
PROBLEM SUMMARY

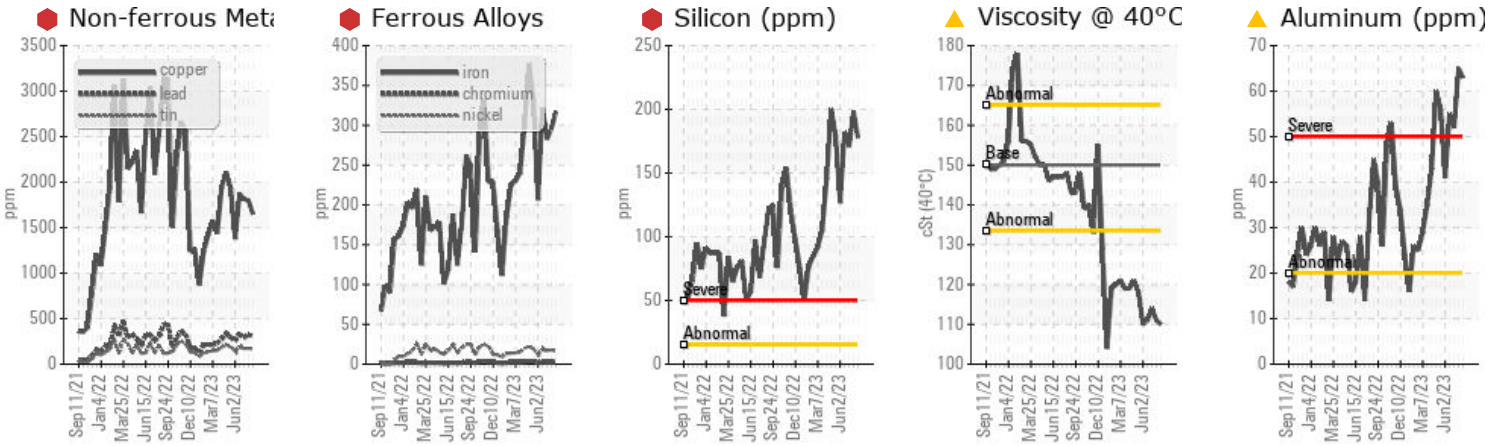
Area
Building 12
Machine Id
Cone 1
Component
Bulk Tank Lube System
Fluid
Mobilgear 629 (105 GAL)

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	**317**	296	283
Aluminum	ppm	ASTM D5185m	>20	**63**	65	52
Lead	ppm	ASTM D5185m	>20	**309**	321	292
Copper	ppm	ASTM D5185m	>20	**1651**	1797	1815
Tin	ppm	ASTM D5185m	>20	**161**	174	171
Silicon	ppm	ASTM D5185m	>15	**178**	198	171
Visc @ 40°C	cSt	ASTM D445	150	**110**	111	114

Customer Id: THRPIT
Sample No.: WC0820052
Lab Number: 05934415
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	MISSED	Aug 27 2023	?	We advise that you inspect for the source(s) of wear.
Change Filter	MISSED	Aug 27 2023	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.
Resample	MISSED	Aug 27 2023	?	We recommend an early resample to monitor this condition.
Check Dirt Access	MISSED	Aug 27 2023	?	We advise that you check all areas where dirt can enter the system.
Filter Fluid	MISSED	Aug 27 2023	?	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.Moderate concentration of visible metal present. 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 100 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. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. 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. Viscosity of sample indicates oil is within ISO 100 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

25 Jun 2023 Diag: Angela Borella

WEAR

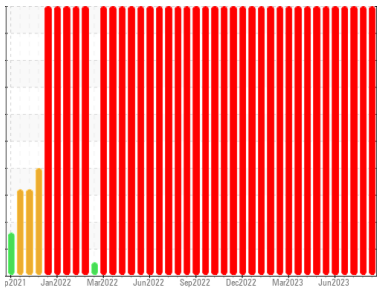
We advise that you check all areas where dirt can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. 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. Viscosity of sample indicates oil is within ISO 100 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 1
Component
Bulk Tank Lube System
Fluid
Mobilgear 629 (105 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
Viscosity of sample indicates oil is within ISO 100 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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0820052**	WC0820069	WC0820046
Sample Date		Client Info		**02 Aug 2023**	20 Jul 2023	03 Jul 2023
Machine Age	hrs	Client Info		**0**	698	698
Oil Age	hrs	Client Info		**1570**	0	762
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	**317**	296	283
Chromium	ppm	ASTM D5185m	>20	**3**	2	2
Nickel	ppm	ASTM D5185m	>20	**16**	18	17
Titanium	ppm	ASTM D5185m		**4**	4	4
Silver	ppm	ASTM D5185m		**<1**	<1	0
Aluminum	ppm	ASTM D5185m	>20	**63**	65	52
Lead	ppm	ASTM D5185m	>20	**309**	321	292
Copper	ppm	ASTM D5185m	>20	**1651**	1797	1815
Tin	ppm	ASTM D5185m	>20	**161**	174	171
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		**11**	18	13
Barium	ppm	ASTM D5185m		**0**	0	2
Molybdenum	ppm	ASTM D5185m		**3**	3	3
Manganese	ppm	ASTM D5185m		**4**	4	3
Magnesium	ppm	ASTM D5185m		**33**	33	31
Calcium	ppm	ASTM D5185m		**72**	79	75
Phosphorus	ppm	ASTM D5185m		**225**	274	256
Zinc	ppm	ASTM D5185m		**118**	119	133
Sulfur	ppm	ASTM D5185m		**10995**	12626	11717

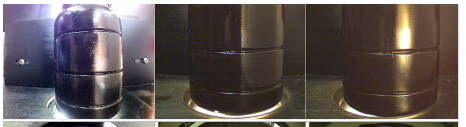
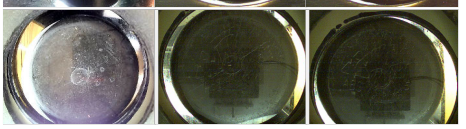
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**178**	198	171
Sodium	ppm	ASTM D5185m		**22**	26	19
Potassium	ppm	ASTM D5185m	>20	**9**	7	8

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.20**	0.47	0.44

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	HEAVY
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

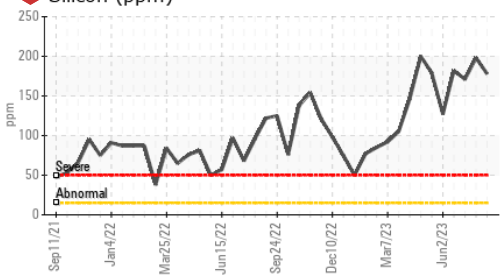
OIL ANALYSIS REPORT

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	150	▲ **110**	▲ 111	▲ 114

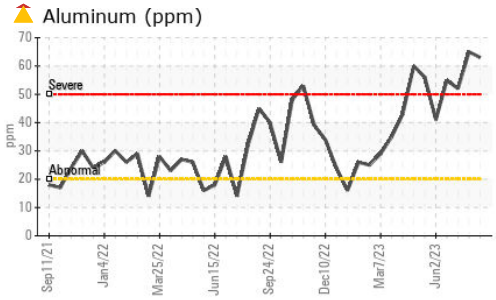
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

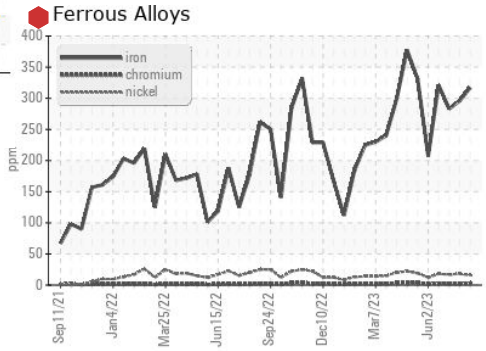
Silicon (ppm)



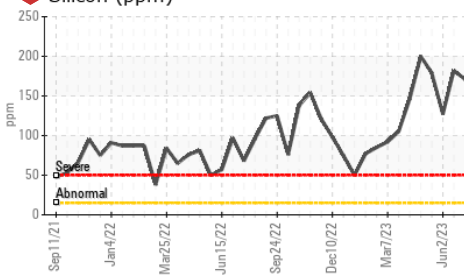
Aluminum (ppm)



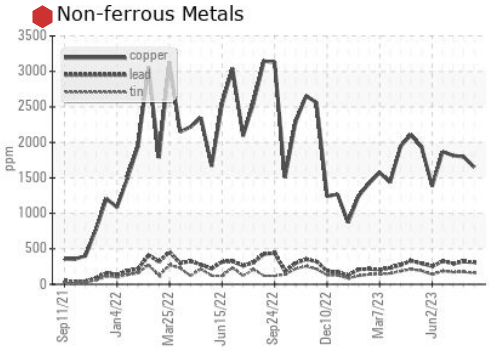
Ferrous Alloys



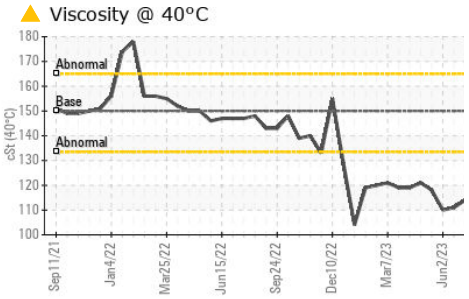
Silicon (ppm)



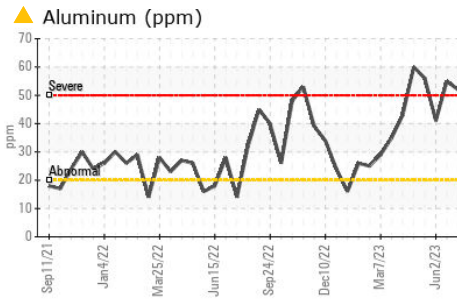
Non-ferrous Metals



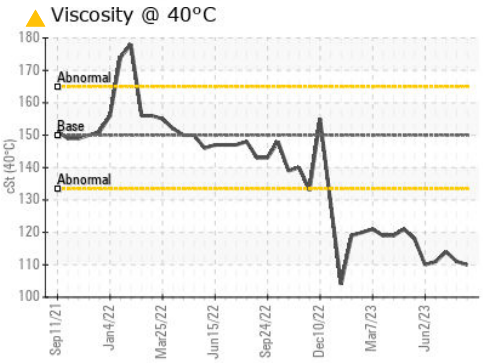
Viscosity @ 40°C



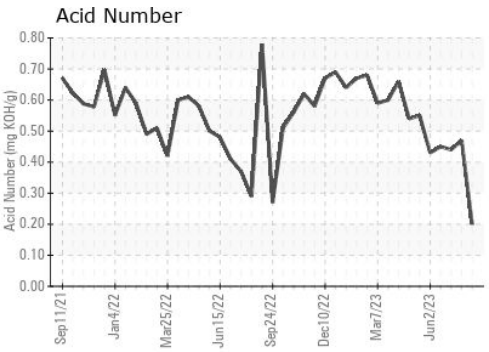
Aluminum (ppm)



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0820052
Lab Number : 05934415
Unique Number : 10619686
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)

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cjarrell@mmm.com
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