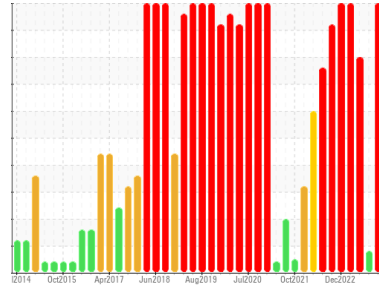




PROBLEM SUMMARY

Sample Rating Trend



WEAR



Area

6
Machine Id
6-3-652 Coal Mill Slide Shoe L/P Gear

Component

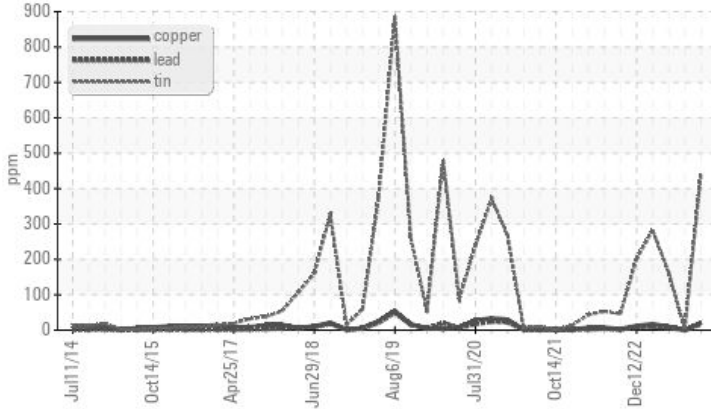
Pump

Fluid

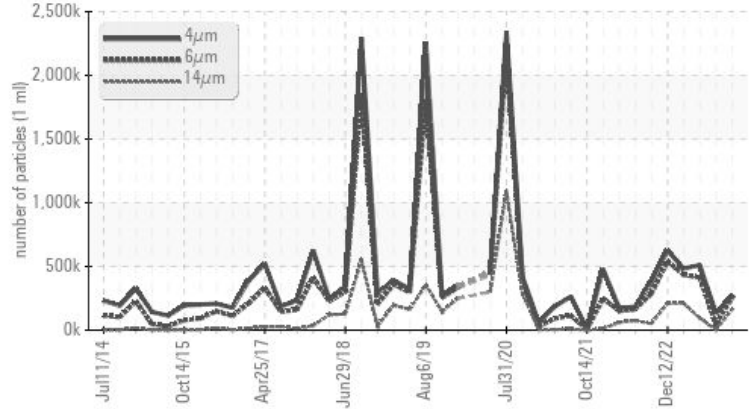
MOBIL MOBILGEAR SHC 460 (300 LTR)

COMPONENT CONDITION SUMMARY

Non-ferrous Metals



Particle Trend



RECOMMENDATION

We advise that you check all areas where contaminants 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 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. Re-sampling is suggested to confirm test results prior to significant maintenance activities being performed. Please indicate that this is a resample on your Sample Information Form (SIF). Resample in 30-45 days to monitor this situation.

PROBLEMATIC TEST RESULTS

Sample Status			SEVERE	ABNORMAL	SEVERE	
Lead	ppm	ASTM D5185(m)	>12	▲ 17	<1	6
Copper	ppm	ASTM D5185(m)	>30	▲ 21	<1	9
Tin	ppm	ASTM D5185(m)	>9	● 442	3	▲ 162
Antimony	ppm	ASTM D5185(m)		● 67	0	▲ 24
Particles >6µm		ASTM D7647	>20000	● 251155	▲ 47472	● 412665
Particles >14µm		ASTM D7647	>5000	● 159645	3475	● 95101
Particles >21µm		ASTM D7647	>1300	● 83611	1104	● 18831
Particles >38µm		ASTM D7647	>320	▲ 1446	60	36
Oil Cleanliness		ISO 4406 (c)	>--/21/19	● 25/25/24	▲ 24/23/19	● 26/26/24

Customer Id: STMBOW
Sample No.: WC0869895
Lab Number: 02602065
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
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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
Change Filter	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.
Resample	---	---	?	Resample in 30-45 days to monitor this situation. Re-sampling is suggested to confirm test results prior to significant maintenance activities being performed. Please indicate that this is a resample on your Sample Information Form (SIF).
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 Dirt Access	---	---	?	We advise that you check all areas where contaminants 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

14 Sep 2023 Diag: Wes Davis

ISO



We recommend you service the filters on this component. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code. 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



15 May 2023 Diag: Kevin Marson

ISO



We advise that you check all areas where contaminants 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 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. Resample in 30-45 days to monitor this situation. Tin and antimony ppm levels are abnormal. Bearing and/or bushing wear is indicated. There is a high amount of particulates (2 to 100 microns in size) present in the oil. The system cleanliness code is much higher than the acceptable limit for the target ISO 4406 cleanliness code. 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



04 Jan 2023 Diag: Kevin Marson

WEAR



We advise that you check all areas where contaminants can enter the system. We recommend that you drain the oil from the component if this has not already been done. 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 you service the filters on this component. Re-sampling is suggested to confirm test results prior to significant maintenance activities being performed. Please indicate that this is a resample on your Sample Information Form (SIF). Resample in 30-45 days to monitor this situation. Tin ppm levels are severe. Antimony ppm levels are abnormal. Bearing and/or bushing wear is indicated. Particles >14µm are severely high. Particles >21µm are severely high. Particles >6µm and oil cleanliness are severely high. Particles >38µm are abnormally high. The system cleanliness code is much higher than the acceptable limit for the target ISO 4406 cleanliness code. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

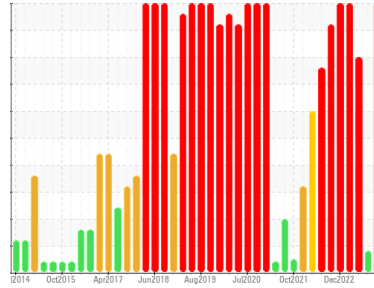
view report





OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area

6

Machine Id

6-3-652 Coal Mill Slide Shoe L/P Gear

Component

Pump

Fluid

MOBIL MOBILGEAR SHC 460 (300 LTR)

DIAGNOSIS

Recommendation

We advise that you check all areas where contaminants 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 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. Re-sampling is suggested to confirm test results prior to significant maintenance activities being performed. Please indicate that this is a resample on your Sample Information Form (SIF). Resample in 30-45 days to monitor this situation.

Wear

Tin and antimony ppm levels are severe. Lead ppm levels are abnormal. Copper ppm levels are noted. Bearing and/or bushing wear is indicated.

Contamination

There is a high amount of particulates (2 to 100 microns in size) present in the oil. The system cleanliness code is much higher than the acceptable limit for the target ISO 4406 cleanliness code.

Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0869895	WC0842715	WC0818167
Sample Date	Client Info		28 Nov 2023	14 Sep 2023	15 May 2023
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	ABNORMAL	SEVERE

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>.1	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>90	15	<1	9
Chromium	ppm	ASTM D5185(m)	>5	0	0	0
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>3	0	0	0
Silver	ppm	ASTM D5185(m)	>3	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>7	3	<1	1
Lead	ppm	ASTM D5185(m)	>12	17	<1	6
Copper	ppm	ASTM D5185(m)	>30	21	<1	9
Tin	ppm	ASTM D5185(m)	>9	442	3	162
Antimony	ppm	ASTM D5185(m)		67	0	24
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		2	0	2

ADDITIVES

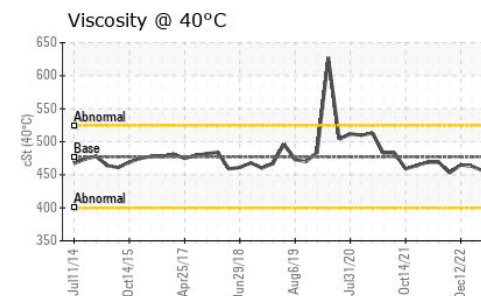
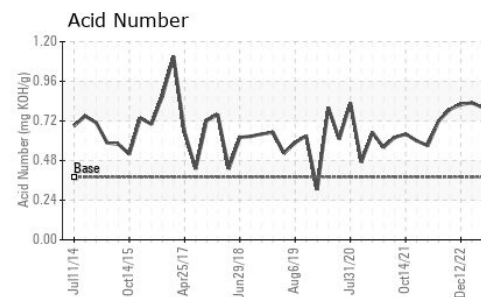
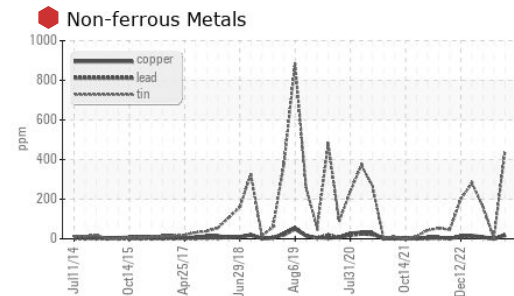
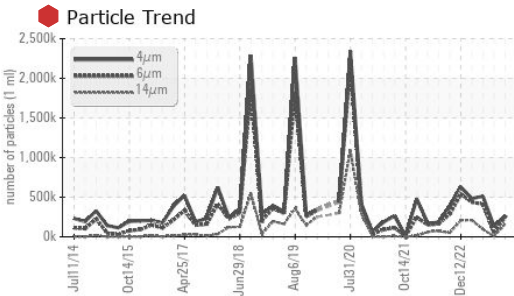
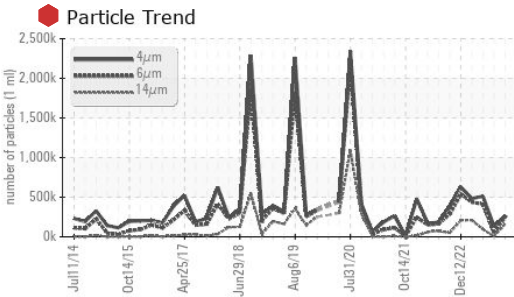
	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	5.7	8	6	9
Barium	ppm	ASTM D5185(m)	0.0	<1	0	0
Molybdenum	ppm	ASTM D5185(m)	0.0	0	0	0
Manganese	ppm	ASTM D5185(m)	0.0	0	0	<1
Magnesium	ppm	ASTM D5185(m)	0.0	<1	0	0
Calcium	ppm	ASTM D5185(m)	0.0	9	<1	1
Phosphorus	ppm	ASTM D5185(m)	180	361	420	437
Zinc	ppm	ASTM D5185(m)	0.8	1	2	2
Sulfur	ppm	ASTM D5185(m)	4270	3969	4483	4484
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>60	7	2	2
Sodium	ppm	ASTM D5185(m)		<1	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	<1	0	<1

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		265842	133584	510976
Particles >6µm	ASTM D7647	>20000	251155	47472	412665
Particles >14µm	ASTM D7647	>5000	159645	3475	95101
Particles >21µm	ASTM D7647	>1300	83611	1104	18831
Particles >38µm	ASTM D7647	>320	1446	60	36
Particles >71µm	ASTM D7647	>80	1	6	0
Oil Cleanliness	ISO 4406 (c)	>--/21/19	25/25/24	24/23/19	26/26/24

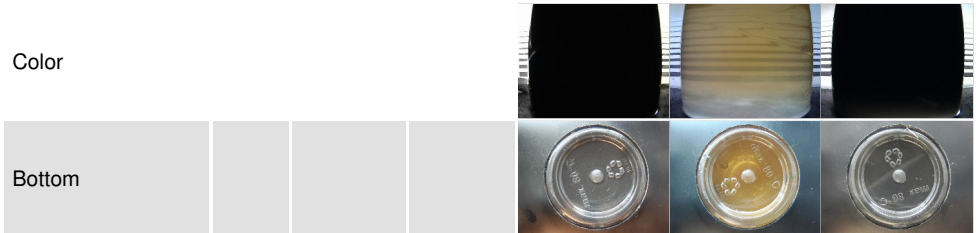


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.38	0.88	0.65	0.80

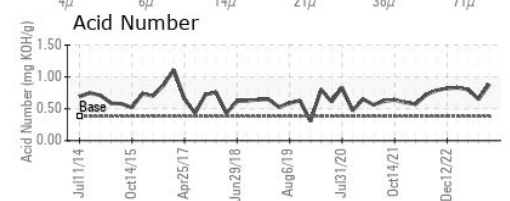
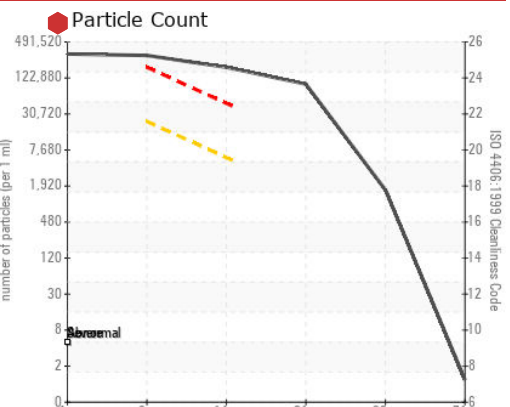
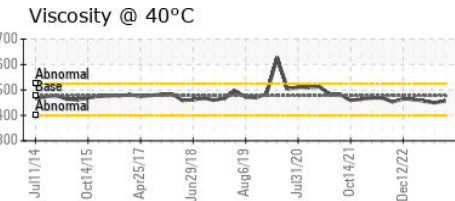
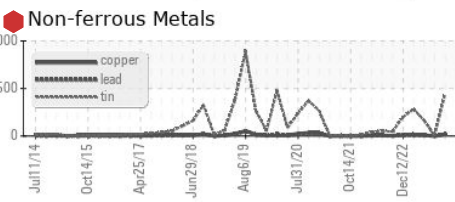
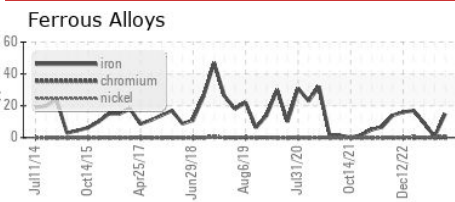
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	VLITE
Debris	scalar	Visual*	NONE	NONE	VLITE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>.1	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)	477	457	450	456

SAMPLE IMAGES		method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0869895 **Received** : 08 Dec 2023
Lab Number : **02602065** **Diagnosed** : 12 Dec 2023
Unique Number : 5695150 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: 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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