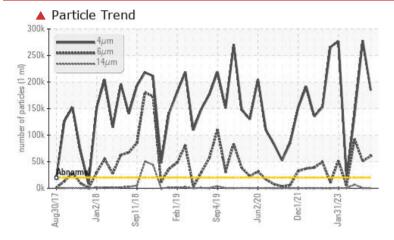


PROBLEM SUMMARY

Area OPF1/BATCH OFF 204522 Plastifier

Component Gearbox Fluid MOBIL MOBILGEAR 600 XP 460 (375 LTR)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

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 recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.

PROBLEMATIC TEST RESULTS							
Sample Status		SEV	ERE SEVE	RE SEVERE			
Particles >4µm	ASTM D7647	>20000 🔺 1	84803 a 278	058 🔺 139084			
Particles >6µm	ASTM D7647	>5000 🔺 6	0678 a 510	92 🔺 92686			
Oil Cleanliness	ISO 4406 (c)	>21/19/16 🔺 2	5/23/15 🔺 25/2	23/15 🔺 24/24/20			

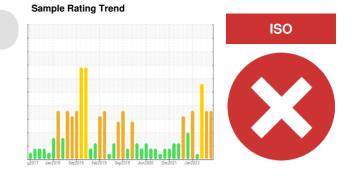
Customer Id: MITWAT Sample No.: WC0889238 Lab Number: 02628283 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Wes Davis +1 905-569-8600 x223 wesd@wearcheck.ca

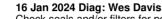
To change component or sample information: Gloria Gonzalez +1 (289)291-4643 x4643 <u>gloria.gonzalez@wearcheck.com</u>



Action	Status	Date	Done By	Description
Change Filter			?	We recommend you service the filters on this component.
Resample			?	Resample in 30-45 days to monitor this situation.
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 Seals			?	Check seals and/or filters for points of contaminant entry.

HISTORICAL DIAGNOSIS

RECOMMENDED ACTIONS



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 recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.





ISO

18 Jul 2023 Diag: Kevin Marson

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.All component wear rates are normal. There is a high amount of particulates (2 to 100 microns in size) present in the oil. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.





28 Mar 2023 Diag: Kevin Marson

Resample at the next service interval to monitor.All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. Viscosity of sample indicates oil is within ISO 320 range, advise investigate. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





OIL ANALYSIS REPORT

Sample Number

Particles >38µm

Particles >71µm

Oil Cleanliness

Area **OPF1/BATCH OFF** 204522 Plastifier

Gearbox Fluid MOBIL MOBILGEAR 600 XP 460 (375 LTR)

DIAGNOSIS

Recommendation

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 recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.

Wear

All component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

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 Number		Ollerit IIIIO		110003230	0000000110	VVO0733307
Sample Date		Client Info		08 Apr 2024	16 Jan 2024	18 Jul 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	SEVERE	SEVERE
CONTAMINATIC	DN	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>200	190	177	163
Chromium	ppm	ASTM D5185(m)	>15	1	1	1
Nickel	ppm	ASTM D5185(m)	>15	<1	<1	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>25	0	<1	0
Lead	ppm	ASTM D5185(m)	>100	0	0	0
Copper	ppm	ASTM D5185(m)	>200	2	2	2
Tin	ppm	ASTM D5185(m)	>25	0	0	0
Antimony	ppm	ASTM D5185(m)	>5	0	0	0
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)		14	13	12
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		0	0	<1
Manganese	ppm	ASTM D5185(m)		2	1	2
Magnesium	ppm	ASTM D5185(m)		<1	<1	0
Calcium	ppm	ASTM D5185(m)		2	3	3
Phosphorus	ppm	ASTM D5185(m)		287	298	327
Zinc	ppm	ASTM D5185(m)		4	4	5
Sulfur	ppm	ASTM D5185(m)		16193	17017	17339
Lithium	ppm	ASTM D5185(m)		<1	<1	<1
CONTAMINANT	S	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>50	2	3	3
Sodium	ppm	ASTM D5185(m)		1	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1
FLUID CLEANLI	NESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	184803	2 78058	139084
Particles >6µm		ASTM D7647	>5000	60678	▲ 51092	92686
Particles >14µm		ASTM D7647	>640	184	249	▲ 6970
Particles >21µm		ASTM D7647	>160	12	43	A 739
Derticles 20um						

ASTM D7647 >40

ASTM D7647 >10

1

1

Report Id: MITWAT [WCAMIS] 02628283 (Generated: 04/12/2024 09:35:47) Rev: 1

▲ 25/23/15 ▲ 24/24/20 ISO 4406 (c) >21/19/16 **425/23/15**

1

0

3

Contact/Location: Alan Davies - MITWAT



Aug30/17

550

500

-73 400

350

300

ug30/1

Jan2/18 Sep11/18

Abnormal

Abnorma

an 2/18

en11/18

() 450 B

Viscosity @ 40°C

Feb 1/19

Feb1/19 Sep4/19

OIL ANALYSIS REPORT

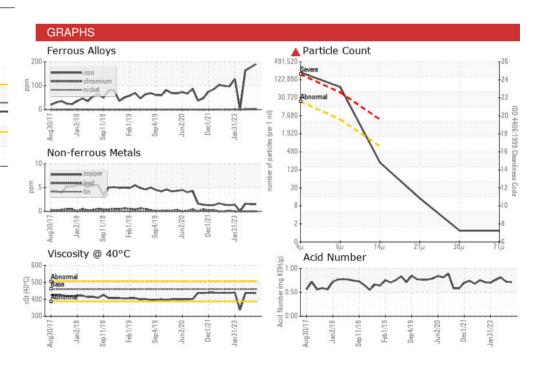
A Particle Trend	FLUID D
	Acid Numb
	VISUAL
250k 220k go 150k 50k	White Meta Yellow Met
Ok Contractor V	Precipitate Silt
Aug30/17 Jan2/18 Sep11/18 Sep4/19 Dec1/21 Jan31/23	Debris
A Particle Trend	Sand/Dirt
	Appearance
Ξ ^{250k} 6μm	Odor Emulsified
	Free Water
E 250k	FLUID PI
Sok Assembly Market	Visc @ 40°
Aug30/17 Jan2/18 Sep11/18 Sep1/19 Jun2/20 Dec1/21 Jan31/23	SAMPLE
Acid Number	Color
() ap que 0.40	Bottom
(b)(0.80 b)(b)(0.60 b)(b)(0.60 b)(b)(b)(b)(b)(b)(b)(b)(b)(b)(b)(b)(b)(b	

Sep4/19 Jun2/20 an31/23

Dec1/21 Jan31/23

lec1/21

FLUID DEGRADA	TION	method	limit/base	current	history1	history2
cid Number (AN)	mg KOH/g	ASTM D974*		0.71	0.72	0.81
VISUAL		method	limit/base	current	history1	history2
Vhite Metal	scalar	Visual*	NONE	NONE	NONE	NONE
ellow Metal	scalar	Visual*	NONE	NONE	NONE	VLITE
recipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
and/Dirt	scalar	Visual*	NONE	VLITE	NONE	NONE
ppearance	scalar	Visual*	NORML	NORML	NORML	NORML
Ddor	scalar	Visual*	NORML	NORML	NORML	NORML
mulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
ree Water	scalar	Visual*		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
/isc @ 40°C	cSt	ASTM D7279(m)	460	437	438	437
SAMPLE IMAGES	6	method	limit/base	current	history1	history2
Color						



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 CALA Sample No. : WC0889238 Received : 11 Apr 2024 Lab Number : 02628283 Tested : 12 Apr 2024 ISO 17025:2017 Accredited Laboratory Unique Number : 5761415 Diagnosed : 12 Apr 2024 - Wes Davis 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.

MICHELIN TIRE 866 RANDOLPH RD WATERVILLE, NS CA B0P 1V0 Contact: Alan Davies alan.davies@michelin.com T: (902)534-3590 F: x:

Report Id: MITWAT [WCAMIS] 02628283 (Generated: 04/12/2024 09:35:47) Rev: 1

Contact/Location: Alan Davies - MITWAT

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