

OIL ANALYSIS REPORT

Area **Paper Machine** Machine Io **#1 Dryer Section Drive Gearbox** Gearbox

Gearbox Fluid MOBIL MOBILGEAR SHC 320 (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible.

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.

		Aug2023	Aug2023	Jan 2024 Apr 2024	Jun2024	
SAMPLE INFORM		method	limit/base	current	history1	history2
Sample Number		Client Info		WC0776480	WC0776382	WC0776502
Sample Date		Client Info		06 Jun 2024	01 Apr 2024	26 Jan 2024
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				ABNORMAL	NORMAL	ABNORMAL
WEAR METALS		method	limit/base	current	history1	history2
ron	ppm	ASTM D5185m	>200	51	48	69
Chromium	ppm	ASTM D5185m	>15	0	<1	0
Nickel	ppm	ASTM D5185m	>15	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	<1	3	1
Lead	ppm	ASTM D5185m	>100	0	0	0
Copper	ppm	ASTM D5185m	>200	9	6	8
Tin	ppm	ASTM D5185m	>25	0	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		10	21	9
Barium	ppm	ASTM D5185m		0	0	0
Volybdenum	ppm	ASTM D5185m		2	1	1
Vanganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		0	<1	0
Calcium	ppm	ASTM D5185m		<1	4	6
Phosphorus	ppm	ASTM D5185m		477	480	457
Zinc	ppm	ASTM D5185m		23	9	15
Sulfur	ppm	ASTM D5185m		4298	5061	4155
CONTAMINANTS	3	method	limit/base	current	history1	history2
Silicon						
	ppm	ASTM D5185m		6	12	11
	ppm ppm	ASTM D5185m ASTM D5185m		6 3	12 <1	11 2
Sodium				•		
Sodium Potassium	ppm	ASTM D5185m	>20	3	<1	2
Sodium Potassium Water	ppm ppm	ASTM D5185m ASTM D5185m	>20	3 <1	<1 2	2 0
Sodium Potassium Water	ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D6304	>20 >0.2	3 <1 0.003	<1 2 0.004	2 0 0.009
Sodium Potassium Water opm Water FLUID CLEANLIN	ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304	>20 >0.2 >2000	3 <1 0.003 39 current ▲ 46294	<1 2 0.004 50	2 0 0.009 94 history2 ▲ 112007
Sodium Potassium Water opm Water FLUID CLEANLIN Particles >4µm	ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 method	>20 >0.2 >2000 limit/base >20000	3 <1 0.003 39 current	<1 2 0.004 50 history1	2 0 0.009 94 history2
Sodium Potassium Water opm Water FLUID CLEANLIN Particles >4μm Particles >6μm	ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 method ASTM D7647	>20 >0.2 >2000 limit/base >20000	3 <1 0.003 39 current ▲ 46294	<1 2 0.004 50 history1 14158 1840 80	2 0 0.009 94 history2 ▲ 112007 ▲ 20752 156
Sodium Potassium Water opm Water FLUID CLEANLIN Particles >4μm Particles >6μm Particles >14μm	ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 method ASTM D7647 ASTM D7647	>20 >0.2 >2000 limit/base >20000 >5000 >640	3 <1 0.003 39 <u>current</u> ▲ 46294 ● 7107	<1 2 0.004 50 history1 14158 1840	2 0 0.009 94 history2 ▲ 112007 ▲ 20752
Sodium Potassium Water opm Water FLUID CLEANLIN Particles >4μm Particles >6μm Particles >14μm Particles >21μm	ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 Method ASTM D7647 ASTM D7647 ASTM D7647	>20 >0.2 >2000 limit/base >20000 >5000 >640	3 <1 0.003 39 <u>current</u> ▲ 46294 ● 7107 61	<1 2 0.004 50 history1 14158 1840 80	2 0 0.009 94 history2 ▲ 112007 ▲ 20752 156
Sodium Potassium Water opm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 Method ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>20 >0.2 >2000 limit/base >20000 >20000 >5000 >640 >160 >40	3 <1 0.003 39 current ▲ 46294 ● 7107 61 6	<1 2 0.004 50 history1 14158 1840 80 25	2 0 0.009 94 history2 ▲ 112007 ▲ 20752 156 24
Sodium Potassium Water opm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>20 >0.2 >2000 limit/base >20000 >20000 >5000 >640 >160 >40	3 <1 0.003 39	<1 2 0.004 50 history1 14158 1840 80 25 1	2 0 0.009 94 history2 ▲ 112007 ▲ 20752 156 24 0
Sodium Potassium Water ppm Water	ppm ppm % ppm VESS	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>20 >0.2 >2000 limit/base >20000 >5000 >5000 >640 >160 >40 >10	3 <1 0.003 39 current ▲ 46294 ● 7107 61 6 1 1 1	<1 2 0.004 50 history1 14158 1840 80 25 1 0	2 0 0.009 94 history2 ▲ 112007 ▲ 20752 156 24 0 0 0

Sample Rating Trend

ISO

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140

120

80

60

40

20

0

1200

1000

800 (maa)

600 Water 400

2001

1.00

(B/HO) Ê0.60 E 0 40 Pig 0.2

0.00

1000

600 Water (

4000

200

36

34

320 (0°0+) 300

280

260

24

ŝ

Ah

Abnorma

\ug11/23

Aug11/23 -

Viscosity @ 40°C

Water (KF)

DC/2000

DC/DC/ne

〒1200 〒1000

OIL ANALYSIS REPORT

method

method

method

limit/base

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

limit/base

limit/base

>0.2

320

current

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

curren

current

NEG

NEG

287

history1

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

history

history1

NFG

NEG

285

history2

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

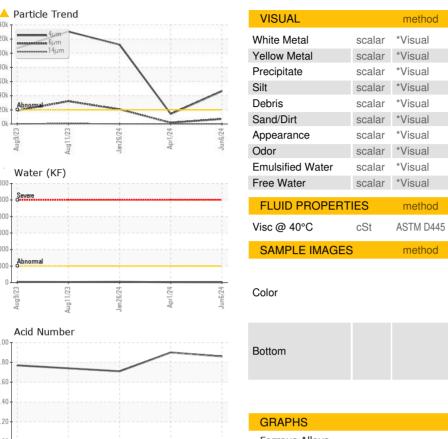
history2

history2

NEG

NEG

284



Apr1/24

Apr1/24

80 60

E 40

20 0

20

1 ۲u

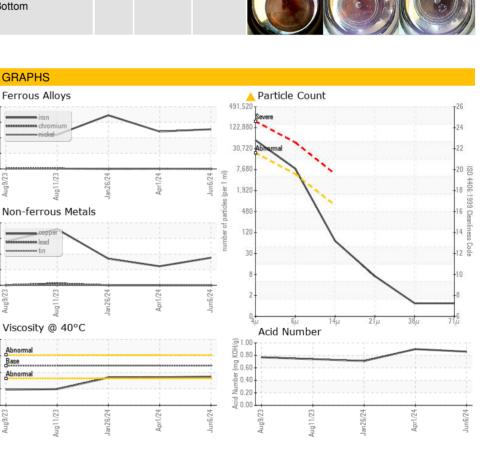
> 0 Aug9/23

400

350 (),00 ()) (),00 (),00 ())(),00 (),00 ())(),00 ())(),00

250

Base





200 Aug9/23 -1/24 Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : WC0776480 Received : 10 Jun 2024 Lab Number Tested : 12 Jun 2024 : 06205383 Unique Number : 11072844 Diagnosed : 12 Jun 2024 - Wes Davis Test Package : PLANT Certificate 12367 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.

CASCADES CONTAINERBOARD PACKAGING - BEARPACK PROJECT 10026 OLD RIDGE ROAD ASHLAND, VA US 23005 Contact: MARC-ANDRE HUBERT marc-andre_hubert@cascades.com T:

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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