

OIL ANALYSIS REPORT

Area **Paper Machine** Flatbox Vacuum Pump #1 Gearbo

Gearbox

Fluid MOBIL MOBILGEAR SHC 220 (55 GAL)

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 6 microns in size) present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

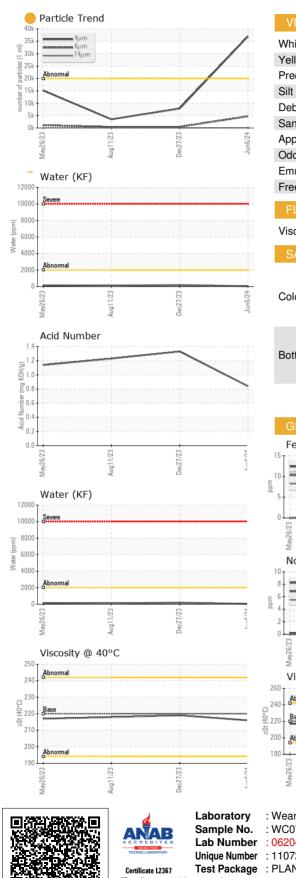
rbox 46-245	-004					
		May202	3 Aug2023	Dec2023	in2024	
SAMPLE INFORM	NATION	method	limit/base		history1	history2
Sample Number		Client Info		WC0776423	WC0776611	WC0776543
Sample Date		Client Info		06 Jun 2024	27 Dec 2023	11 Aug 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ATTENTION	NORMAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	5	15	13
Chromium	ppm	ASTM D5185m		0	0	0
Nickel	ppm	ASTM D5185m	>15	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	05	0	0	0
Aluminum	ppm	ASTM D5185m		0	0	<1
Lead	ppm	ASTM D5185m	>100	0	0	<1
Copper	ppm	ASTM D5185m		3	0	<1
Tin	ppm	ASTM D5185m	>25	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base		history1	history2
Boron	ppm	ASTM D5185m		<1	2	2
Barium	ppm	ASTM D5185m		<1 0	0	0
Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m		0 <1	<1	<1
Magnesium	ppiii	ASTIVI DJIOJII		< I		
Magnesium	nnm	ASTM D5185m		-1		
Calcium	ppm	ASTM D5185m		1 24	0	3
Calcium Phosphorus	ppm	ASTM D5185m		24	0 2	3 0
Phosphorus	ppm ppm	ASTM D5185m ASTM D5185m		24 469	0 2 411	3 0 469
	ppm	ASTM D5185m		24	0 2	3 0
Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	24 469 39 2867	0 2 411 7	3 0 469 4
Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method		24 469 39 2867 current	0 2 411 7 2936 history1	3 0 469 4 3638 history2
Phosphorus Zinc Sulfur	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		24 469 39 2867 current 20	0 2 411 7 2936	3 0 469 4 3638
Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m		24 469 39 2867 current	0 2 411 7 2936 history1 13	3 0 469 4 3638 history2 16
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m	>50 >20	24 469 39 2867 <u>current</u> 20 5	0 2 411 7 2936 history1 13 0	3 0 469 4 3638 history2 16 1
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>50 >20	24 469 39 2867 <u>current</u> 20 5 3	0 2 411 7 2936 history1 13 0 <1	3 0 469 4 3638 history2 16 1 2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304	>50 >20 >0.2	24 469 39 2867 <u>current</u> 20 5 3 0.004 42	0 2 411 7 2936 history1 13 0 <1 0.018	3 0 469 4 3638 history2 16 1 1 2 0.011
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water	ppm ppm ppm ppm ppm ppm ppm %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304	>50 >20 >0.2 >2000	24 469 39 2867 <u>current</u> 20 5 3 0.004 42	0 2 411 7 2936 history1 13 0 <1 0.018 184	3 0 469 4 3638 history2 16 1 2 0.011 112.7
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304	>50 >20 >0.2 >2000 limit/base	24 469 39 2867 20 5 3 0.004 42 Current	0 2 411 7 2936 history1 13 0 <1 0.018 184 history1	3 0 469 4 3638 history2 16 1 2 0.011 112.7 history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304	>50 >20 >0.2 >2000 limit/base >20000	24 469 39 2867 20 5 3 0.004 42 current 0 37000	0 2 411 7 2936 history1 13 0 <1 0.018 184 history1 7859	3 0 469 4 3638 history2 16 1 2 0.011 112.7 history2 3505
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647	>50 >20 >0.2 >2000 limit/base >20000 >5000	24 469 39 2867 20 5 3 0.004 42 current 37000 4721	0 2 411 7 2936 history1 13 0 <1 0.018 184 history1 7859 469	3 0 469 4 3638 history2 16 1 1 2 0.011 112.7 history2 3505 379
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647	>50 >20 >0.2 >2000 limit/base >20000 >5000 >640	24 469 39 2867 20 5 3 0.004 42 <u>current</u> 37000 4721 63	0 2 411 7 2936 history1 13 0 <1 0.018 184 0.018 184 184 history1 7859 469 15	3 0 469 4 3638 history2 16 1 1 2 0.011 112.7 history2 3505 379 17
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm ppm %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>50 >20 >0.2 >2000 limit/base >20000 >5000 >5000 >640 >160 >40 >10	24 469 39 2867 20 5 3 0.004 42 current 42 0.004 42 42 0.004 42 63 11	0 2 411 7 2936 history1 13 0 <1 0.018 184 history1 7859 469 15 5 0 0 0	3 0 469 4 3638 history2 16 1 1 2 0.011 112.7 history2 3505 379 17 7 1 7 1 0
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4μm Particles >4μm Particles >21μm Particles >38μm	ppm ppm ppm ppm ppm ppm ppm %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>50 >20 >0.2 >2000 limit/base >20000 >5000 >5000 >640 >160 >40	24 469 39 2867 20 5 3 0.004 42 current 37000 4721 63 11 1	0 2 411 7 2936 history1 13 0 <1 0.018 184 history1 7859 469 15 5 0	3 0 469 4 3638 history2 16 1 1 2 0.011 112.7 history2 3505 379 17 7 1
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm % ppm ESS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>50 >20 >0.2 >2000 limit/base >20000 >5000 >5000 >640 >160 >40 >10	24 469 39 2867 20 5 3 0.004 42 current 42 current 63 11 1 1 0 22/19/13	0 2 411 7 2936 history1 13 0 <1 0.018 184 history1 7859 469 15 5 0 0 0	3 0 469 4 3638 history2 16 1 1 2 0.011 112.7 history2 3505 379 17 7 1 7 1 0

Sample Rating Trend

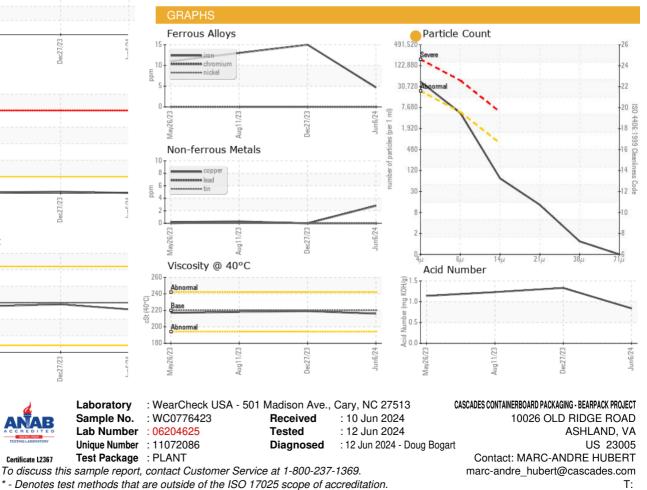
ISO



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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	NONE
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	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	220	216	219	218
SAMPLE IMAGES	;	method	limit/base	current	history1	history2
Color						
Bottom						



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) Report Id: CASASH [WUSCAR] 06204625 (Generated: 06/12/2024 18:17:59) Rev: 1

Submitted By: MARC-ANDRE HUBERT

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