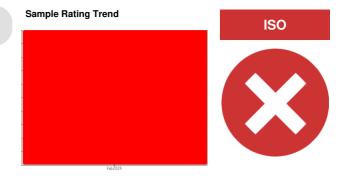


## **PROBLEM SUMMARY**

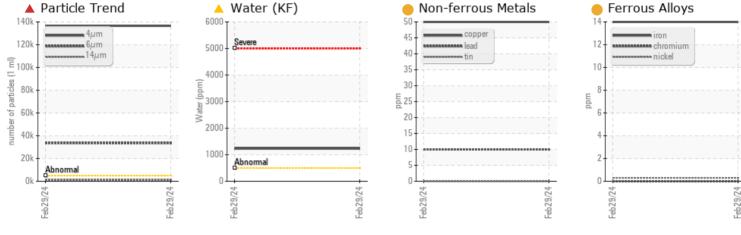
# Universal Alloy - U00200 M1 3374

Component **Hydraulic System** 

AW HYDRAULIC OIL ISO 68 (--- GAL)



### COMPONENT CONDITION SUMMARY



#### **RECOMMENDATION**

The sample submitted is wet and 32 times dirtier than the ISO dirt count recommendation of 19/16/14.

PROBLEMATIC TEST RESULTS								
Sample Status				SEVERE				
Water	%	ASTM D6304*	>0.05	<b>△</b> 0.123				
ppm Water	ppm	ASTM D6304*	>500	<b>1233</b>				
Particles >4µm		ASTM D7647	>5000	<b>136608</b>		***		
Particles >6µm		ASTM D7647	>640	<b>33629</b>				
Particles >14µm		ASTM D7647	>160	<u> </u>				
Particles >21μm		ASTM D7647	>40	<b>224</b>				
Oil Cleanliness		ISO 4406 (c)	>19/16/14	<b>4</b> 24/22/17				
Free Water	scalar	Visual*		<b>1</b> %				

Customer Id: CHECOB Sample No.: E30001551 Lab Number: 02621438 Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data: Tatiana Sorkina +1 (800)263-3939 tsorkina@e360s.ca

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

## RECOMMENDED ACTIONS

There are no recommended actions for this sample.

### HISTORICAL DIAGNOSIS

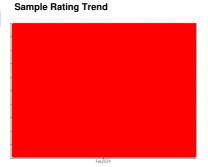


## **OIL ANALYSIS REPORT**

# Universal Alloy - U00200 M<sub>1</sub> 3374

**Hydraulic System** 

**AW HYDRAULIC OIL ISO 68 (--- GAL)** 





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#### Recommendation

The sample submitted is wet and 32 times dirtier than the ISO dirt count recommendation of 19/16/14.

#### Wear

Copper, iron and lead ppm levels are noted.

#### ▲ Contamination

ppm Water and water contamination levels are abnormal. Particles >4µm are abnormally high. Particles >6µm are abnormally high. Oil Cleanliness are abnormally high. Particles >14µm are abnormally high. Particles >21µm are abnormally high.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Batch #		Client Info		Mobile		
Machine ID		Client Info		<b>Heavy Press</b>		
Department		Client Info		Production		
Sample From		Client Info		Machine		
Production Stage		Client Info		Initial		
Sent to WC		Client Info		03/08/2024		
Sample Number		Client Info		E30001551		
Sample Date		Client Info		29 Feb 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				SEVERE		

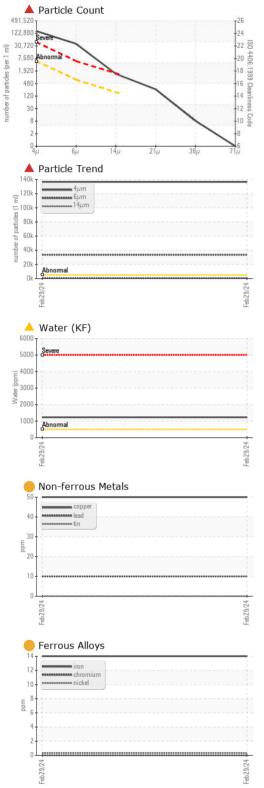
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	<b>14</b>		
Chromium	ppm	ASTM D5185(m)	>20	0		
Nickel	ppm	ASTM D5185(m)	>20	<1		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		4		
Aluminum	ppm	ASTM D5185(m)	>20	2		
Lead	ppm	ASTM D5185(m)	>20	<b>10</b>		
Copper	ppm	ASTM D5185(m)	>20	<b>50</b>		
Tin	ppm	ASTM D5185(m)	>20	0		
Antimony	ppm	ASTM D5185(m)		0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	5	<1		
Barium	ppm	ASTM D5185(m)	5	<1		
Molybdenum	ppm	ASTM D5185(m)	5	0		
Manganese	ppm	ASTM D5185(m)		0		
Magnesium	ppm	ASTM D5185(m)	25	8		
Calcium	ppm	ASTM D5185(m)	200	41		
Phosphorus	ppm	ASTM D5185(m)	300	402		
Zinc	ppm	ASTM D5185(m)	370	353		
Sulfur	ppm	ASTM D5185(m)	2500	1179		
Lithium	ppm	ASTM D5185(m)		<1		

CONTAMINAN	NTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	4		
Sodium	ppm	ASTM D5185(m)		5		
Potassium	ppm	ASTM D5185(m)	>20	3		
Water	%	ASTM D6304*	>0.05	<u> </u>		
ppm Water	ppm	ASTM D6304*	>500	<u> </u>		



## **OIL ANALYSIS REPORT**



FLUID CLEANLIN	IESS	method	limit/base		current	history1	history2
Particles >4µm		ASTM D7647	>5000	A	136608		
Particles >6µm		ASTM D7647	7 0000	$\overline{\mathbf{A}}$	33629		
Particles >14µm		ASTM D7647	>160	$\overline{\Lambda}$	1219		
Particles >21µm		ASTM D7647		$\overline{\Lambda}$	224		
Particles >38µm		ASTM D7647	>10		7		
Particles >71µm		ASTM D7647	>3		0		
Oil Cleanliness		ISO 4406 (c)	>19/16/14		24/22/17		
FLUID DEGRADA	TION	method	limit/base		current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.57		0.47		
VISUAL		method	limit/base		current	history1	history2
White Metal	scalar	Visual*	NONE		NONE		
Yellow Metal	scalar	Visual*	NONE		NONE		
Precipitate	scalar	Visual*	NONE		NONE		
Silt	scalar	Visual*	NONE		NONE		
Debris	scalar	Visual*	NONE		NONE		
Sand/Dirt	scalar	Visual*	NONE		NONE		
Appearance	scalar	Visual*	NORML		NORML		
Odor	scalar	Visual*	NORML		NORML		
Emulsified Water	scalar	Visual*	>0.05		.2%		
Free Water	scalar	Visual*			1%		
FLUID PROPERT	IES	method	limit/base		current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	68		60.5		
Visc @ 100°C	cSt	ASTM D7279(m)	8.6		8.2		
Viscosity Index (VI)	Scale	ASTM D2270*	96		103		
SAMPLE IMAGES	3	method	limit/base		current	history1	history2
Color						no image	no image
Bottom					(Co. 1)	no image	no image



CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 : E30001551 Lab Number : 02621438

Unique Number : 5746557

Received : 12 Mar 2024 **Tested** : 13 Mar 2024 Diagnosed : 14 Mar 2024 - Tatiana Sorkina

Test Package : IND 2 (Additional Tests: KF, KV100, TAN Man, VI) To discuss this sample report, contact Customer Service at 1-905-372-2251.

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.

**Environmental 360 Solutions Ltd.** 

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F: (905)373-4950