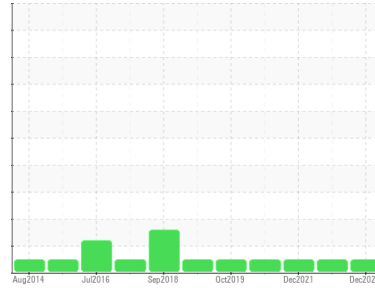




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**LITHOMAN 3 PRINT UNIT #2 (S/N 1025131)**

Component  
**Gearbox**

Fluid  
**Walter Zeph ZX-60-Syntex (80 GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

### Fluid Condition

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

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0776674</b>	WC0651219	WC0506367
Sample Date	Client Info		<b>27 Dec 2023</b>	30 Dec 2022	28 Dec 2021
Machine Age	hrs	Client Info	<b>18480</b>	18480	18138
Oil Age	hrs	Client Info	<b>18983</b>	18480	18138
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>200	<b>12</b>	11	11
Chromium	ppm	ASTM D5185(m)	>15	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185(m)	>25	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185(m)	>100	<b>14</b>	14	15
Copper	ppm	ASTM D5185(m)	>200	<b>35</b>	40	40
Tin	ppm	ASTM D5185(m)	>25	<b>1</b>	1	1
Antimony	ppm	ASTM D5185(m)	>5	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	1
Barium	ppm	ASTM D5185(m)		<b>2</b>	2	2
Molybdenum	ppm	ASTM D5185(m)		<b>6</b>	6	6
Manganese	ppm	ASTM D5185(m)		<b>35</b>	32	29
Magnesium	ppm	ASTM D5185(m)		<b>3</b>	3	3
Calcium	ppm	ASTM D5185(m)		<b>19</b>	19	15
Phosphorus	ppm	ASTM D5185(m)		<b>1488</b>	1615	1563
Zinc	ppm	ASTM D5185(m)		<b>1312</b>	1286	1149
Sulfur	ppm	ASTM D5185(m)		<b>22119</b>	24716	23118
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

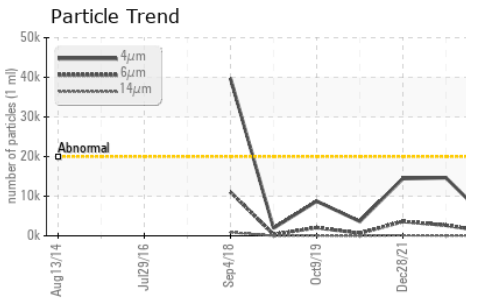
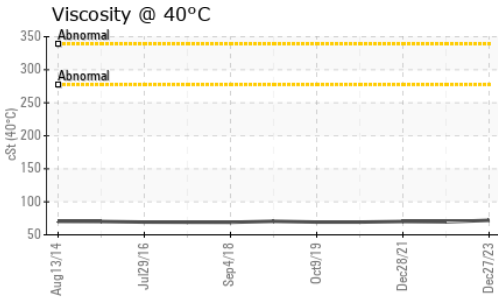
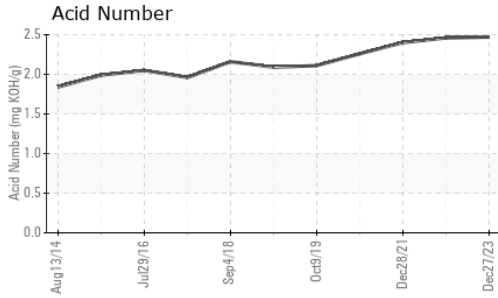
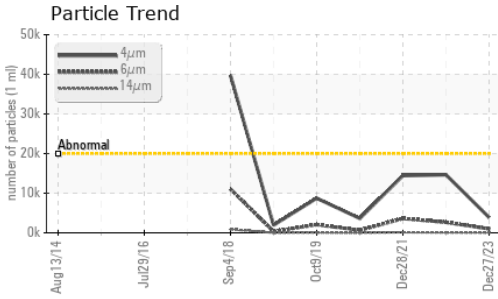
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>50	<b>21</b>	21	21
Sodium	ppm	ASTM D5185(m)		<b>3</b>	2	2
Potassium	ppm	ASTM D5185(m)	>20	<b>10</b>	9	10

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	<b>3891</b>	14644	14432
Particles >6µm	ASTM D7647	>5000	<b>1001</b>	2655	3623
Particles >14µm	ASTM D7647	>640	<b>46</b>	80	140
Particles >21µm	ASTM D7647	>160	<b>11</b>	17	38
Particles >38µm	ASTM D7647	>40	<b>2</b>	1	3
Particles >71µm	ASTM D7647	>10	<b>1</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>21/19/16	<b>19/17/13</b>	21/19/13	21/19/14



# OIL ANALYSIS REPORT

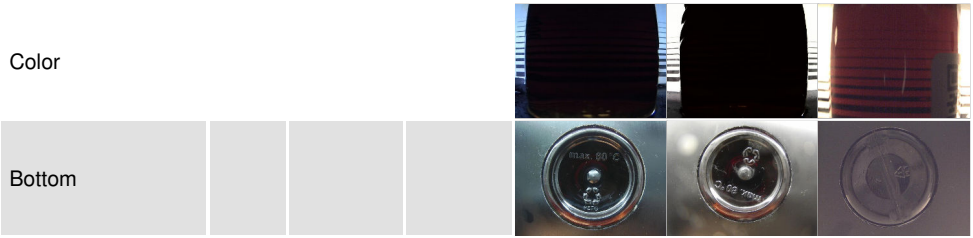


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		<b>2.47</b>	2.46	2.40

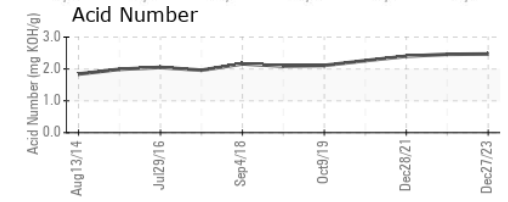
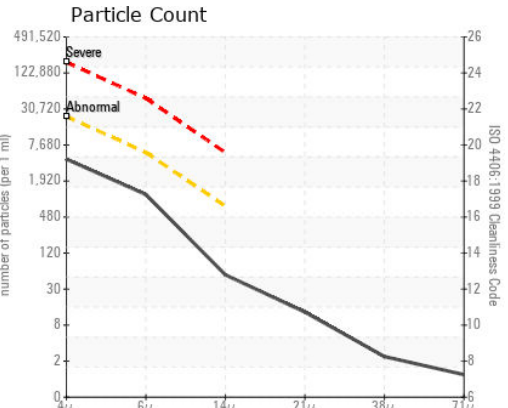
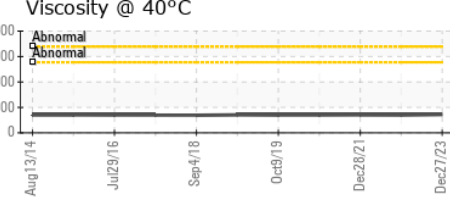
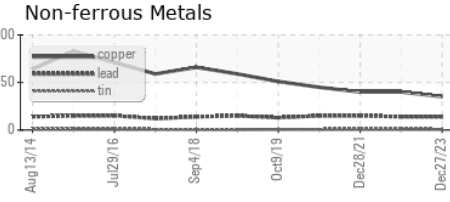
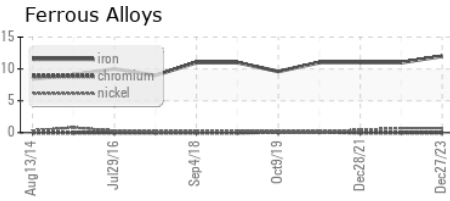
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)		<b>72.0</b>	69.7	70.2

SAMPLE IMAGES		method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Watch Tower Bible and Tract Society of Canada  
**Sample No.** : WC0776674 **Received** : 02 Jan 2024 13893 Highway 7  
**Lab Number** : 02606093 **Diagnosed** : 03 Jan 2024 Georgetown, ON  
**Unique Number** : 5707179 **Diagnostician** : Wes Davis CA L7G 4S4  
**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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