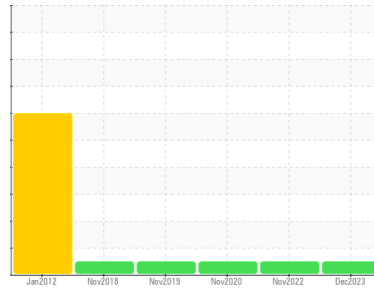




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**WESTINGHOUSE WAINWRIGHT G.S.**

Component  
**Turbine**  
Fluid  
**ESSO TERESSO ISO 68 (220 LTR)**

### 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 water content is negligible. 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>WC0666774</b>	WC0666770	WC0524698
Sample Date	Client Info		<b>19 Dec 2023</b>	23 Nov 2022	07 Nov 2020
Machine Age	yrs	Client Info	<b>100</b>	99	838080
Oil Age	yrs	Client Info	<b>12</b>	1	2555
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

### WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >15	<b>&lt;1</b>	<1	<1
Chromium	ppm	ASTM D5185(m) >4	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m) >2	<b>&lt;1</b>	0	<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) >10	<b>&lt;1</b>	0	<1
Lead	ppm	ASTM D5185(m)	<b>1</b>	<1	5
Copper	ppm	ASTM D5185(m) >5	<b>&lt;1</b>	0	<1
Tin	ppm	ASTM D5185(m) >5	<b>&lt;1</b>	<1	<1
Antimony	ppm	ASTM D5185(m)	<b>0</b>	0	<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) 4.5	<b>0</b>	<1	0
Barium	ppm	ASTM D5185(m) 0.4	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m) 0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m) 0	<b>0</b>	0	0
Calcium	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	<1	2
Phosphorus	ppm	ASTM D5185(m) 0.7	<b>10</b>	11	5
Zinc	ppm	ASTM D5185(m) 0	<b>2</b>	2	6
Sulfur	ppm	ASTM D5185(m) 1315	<b>158</b>	174	1578
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

### CONTAMINANTS

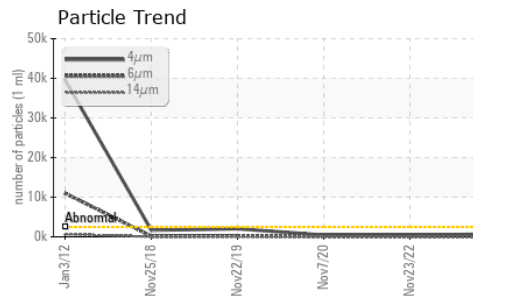
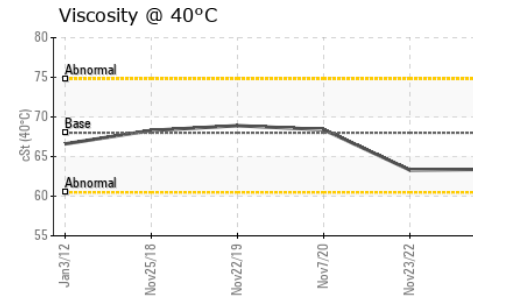
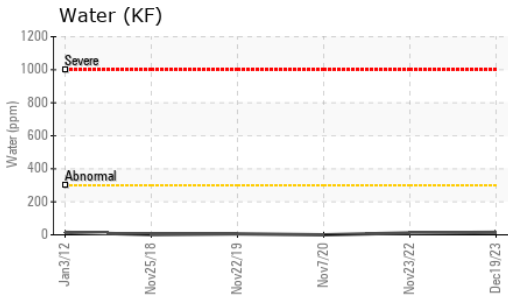
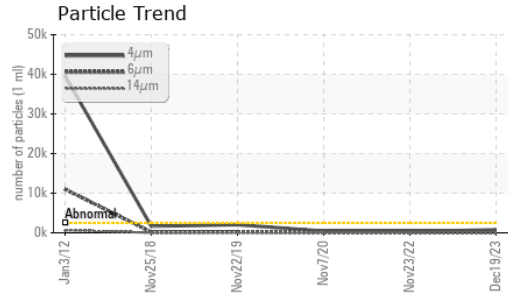
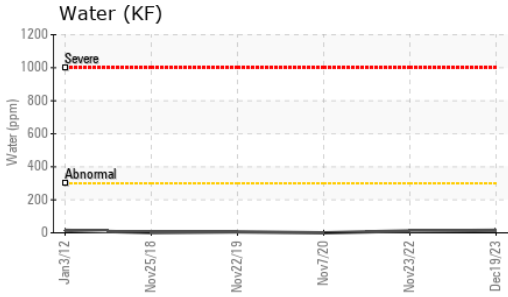
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	<b>&lt;1</b>	<1	6
Sodium	ppm	ASTM D5185(m)	<b>0</b>	<1	<1
Potassium	ppm	ASTM D5185(m) >20	<b>0</b>	0	<1
Water	%	ASTM D6304* >0.03	<b>0.001</b>	0.001	0.00
ppm Water	ppm	ASTM D6304* >300	<b>15</b>	11.6	0.00

### FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	<b>751</b>	375	444
Particles >6µm	ASTM D7647	>640	<b>108</b>	71	75
Particles >14µm	ASTM D7647	>80	<b>7</b>	5	6
Particles >21µm	ASTM D7647	>20	<b>3</b>	1	2
Particles >38µm	ASTM D7647	>4	<b>1</b>	0	0
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>18/16/13	<b>17/14/10</b>	16/13/10	16/13/10



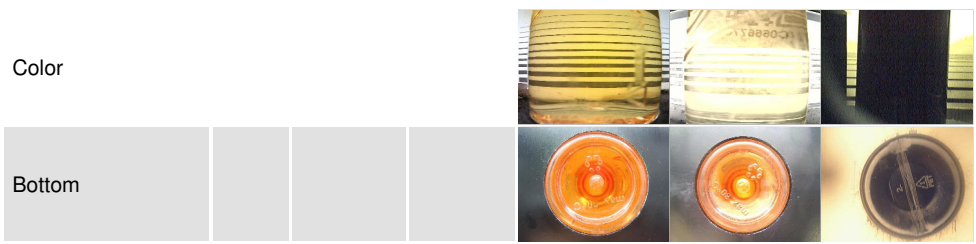
# OIL ANALYSIS REPORT



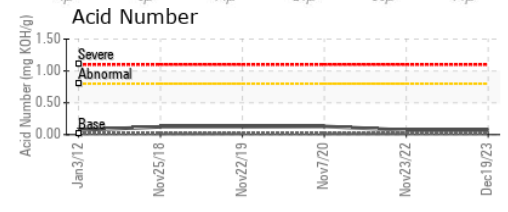
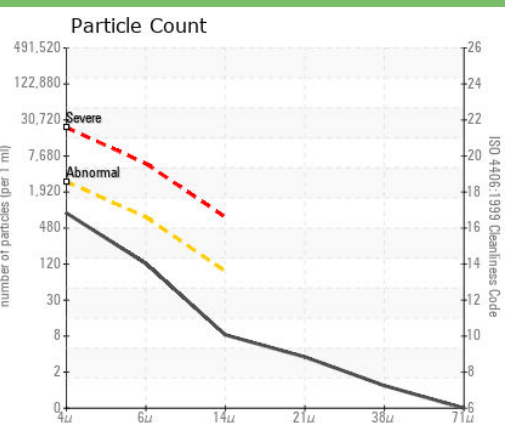
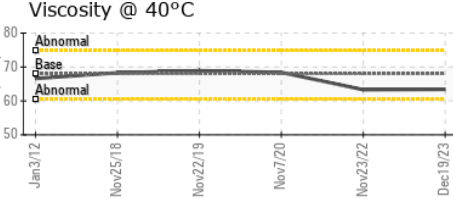
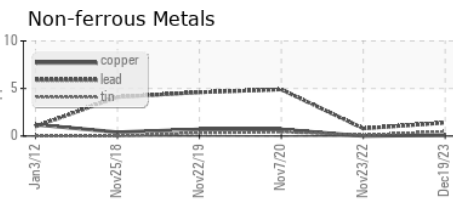
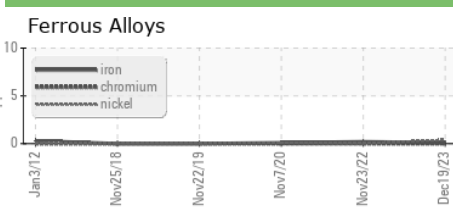
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.02	<b>0.07</b>	0.07	0.13
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	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*	>0.03	<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)	68	<b>63.4</b>	63.3	68.4

## SAMPLE IMAGES



## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0666774 **Received** : 28 Dec 2023  
**Lab Number** : 02605542 **Diagnosed** : 02 Jan 2024  
**Unique Number** : 5698627 **Diagnostician** : Kevin Marson  
**Test Package** : IND 2

**MPT HYDRO LP**  
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EAGLE RIVER, ON  
CA P0V 1S0  
Contact: FORREST MANN  
eaglelegs@drytel.net  
T: (807)216-9334  
F:

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.