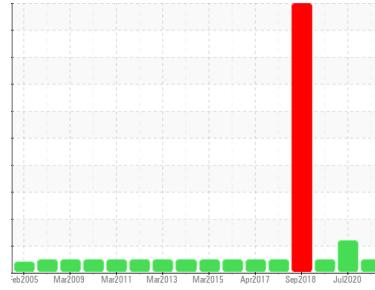




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Area  
**CARIBOU FALLS GS**  
Machine Id  
**FP4G1**  
Component  
**Thrust Bearing**  
Fluid  
**ESSO TERESSO ISO 46 (--- GAL)**

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.  
NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

#### 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>WC0560603</b>	WC0475093	WC0335075
Sample Date	Client Info			<b>13 Apr 2021</b>	08 Jul 2020	25 Mar 2019
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>2	<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>85	<b>2</b>	0	<1
Chromium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185(m)	>60	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185(m)	>7	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	0	<1
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	0
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	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	0
Barium	ppm	ASTM D5185(m)		<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	<1
Magnesium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	<1
Calcium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	<1
Phosphorus	ppm	ASTM D5185(m)	2.4	<b>2</b>	0	3
Zinc	ppm	ASTM D5185(m)	0	<b>2</b>	<1	2
Sulfur	ppm	ASTM D5185(m)		<b>1931</b>	2042	2128
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	0

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	<b>3</b>	<1	3
Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	0
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	0

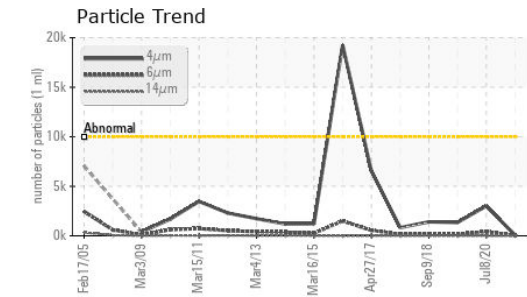
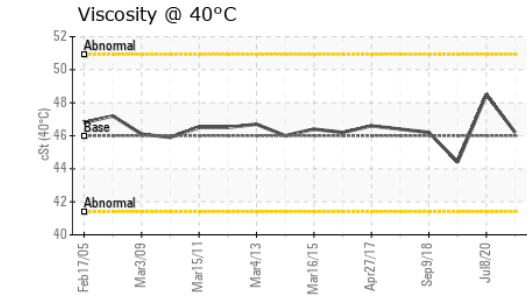
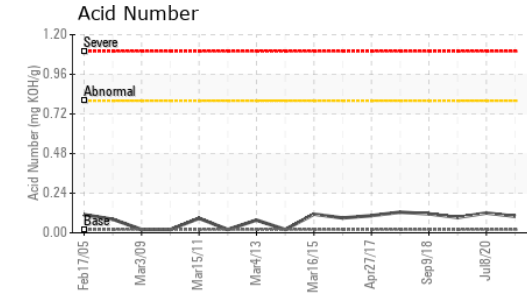
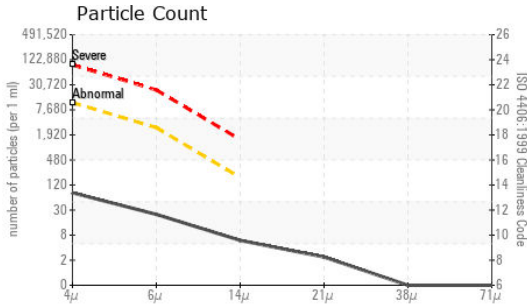
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	<b>69</b>	3011	1350	
Particles >6µm	ASTM D7647	>2500	<b>21</b>	432	145	
Particles >14µm	ASTM D7647	>160	<b>5</b>	12	9	
Particles >21µm	ASTM D7647	>40	<b>2</b>	3	2	
Particles >38µm	ASTM D7647	>10	<b>0</b>	0	0	
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0	
Oil Cleanliness	ISO 4406 (c)	>20/18/14	<b>13/12/10</b>	19/16/11	18/14/10	

Particle Filter (Magn: 200 x)





# OIL ANALYSIS REPORT



FLUID DEGRADATION	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D974*	0.02	<b>0.10</b>	0.12	0.093

VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	<b>NONE</b>	▲ VLITE	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>VLITE</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*	>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)	46	<b>46.2</b>	48.5	44.4

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------

Color						no image
Bottom						no image
PrtFilter						
MPC				no image	no image	no image



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0560603  
**Lab Number** : **02423546**  
**Unique Number** : 5227046  
**Test Package** : IND 2 ( Additional Tests: BottomAnalysis, FilterPatch, PrtCount, TAN Man )

**Ontario Power Generation**  
 KENORA PRODUCTION CENTRE, 200-60 FOURTEENTH ST. N.  
 KENORA, ON  
 CA P9N 4M9  
 Contact: Josh Robinson  
 josh.robinson@opg.com

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.