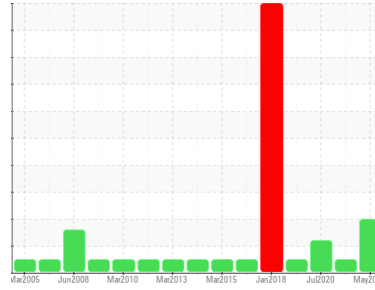




PROBLEM SUMMARY

Area
MANITOU FALLS GS
 Machine Id
FP2G3
 Component
Thrust Bearing
 Fluid
ESSO TERESSO ISO 46 (--- GAL)

Sample Rating Trend

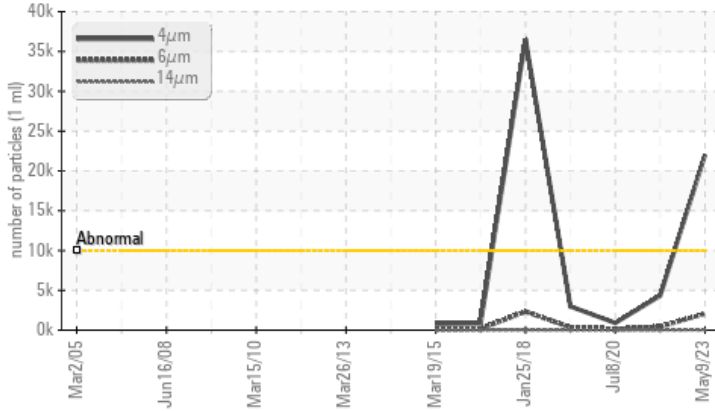


VISUAL METAL



COMPONENT CONDITION SUMMARY

▲ Particle Trend



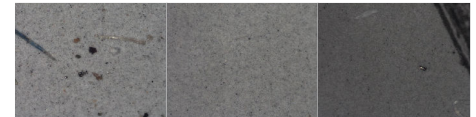
RECOMMENDATION

We advise that you check for visible metal particles in the oil. We recommend you service the filters on this component. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	NORMAL	ATTENTION
Particles >4µm	ASTM D7647	>10000	▲ 22013	4319	904
Oil Cleanliness	ISO 4406 (c)	>20/18/14	▲ 22/18/12	19/16/11	17/14/10
White Metal	scalar	Visual*	▲ VLITE	NONE	▲ VLITE

PrtFilter



Customer Id: ONTKEE
 Sample No.: WC0806466
 Lab Number: 02559014
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Kevin Marson +1 (289)291-4644 x4644
Kevin.Marson@wearcheck.com

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Information Required	---	---	?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.
Check For Visual Metal	---	---	?	We advise that you check for visible metal particles in the oil.

HISTORICAL DIAGNOSIS

29 Mar 2021 Diag: Kevin Marson

NORMAL



Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) R&O OIL ISO 46. Please confirm. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



08 Jul 2020 Diag: Kevin Marson

VISUAL METAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Light concentration of visible metal present. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



09 May 2019 Diag: Kevin Marson

NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

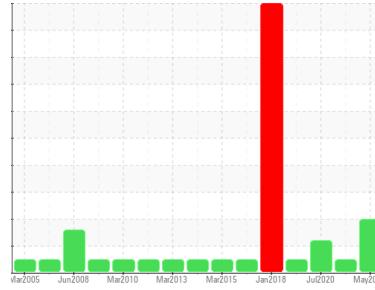
view report





OIL ANALYSIS REPORT

Sample Rating Trend



VISUAL METAL



Area
MANITOU FALLS GS
 Machine Id
FP2G3
 Component
Thrust Bearing
 Fluid
ESSO TERESSO ISO 46 (--- GAL)

DIAGNOSIS

▲ Recommendation

We advise that you check for visible metal particles in the oil. We recommend you service the filters on this component. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

▲ Wear

Light concentration of visible metal present.

▲ Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

The AN level is acceptable for this fluid.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0806466	WC0560628	WC0481712
Sample Date	Client Info		09 May 2023	29 Mar 2021	08 Jul 2020
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			ABNORMAL	NORMAL	ATTENTION

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		0	---	---
Iron	ppm	ASTM D5185(m) >85	2	2	<1
Chromium	ppm	ASTM D5185(m) >20	0	0	0
Nickel	ppm	ASTM D5185(m) >20	0	<1	0
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m)	0	<1	0
Aluminum	ppm	ASTM D5185(m) >40	0	<1	<1
Lead	ppm	ASTM D5185(m) >60	<1	<1	0
Copper	ppm	ASTM D5185(m) >7	2	<1	0
Tin	ppm	ASTM D5185(m) >40	<1	<1	0
Antimony	ppm	ASTM D5185(m)	<1	0	0
Vanadium	ppm	ASTM D5185(m)	0	0	0
Beryllium	ppm	ASTM D5185(m)	0	0	0
Cadmium	ppm	ASTM D5185(m)	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 0	0	<1	<1
Barium	ppm	ASTM D5185(m)	0	0	0
Molybdenum	ppm	ASTM D5185(m) 0	0	0	0
Manganese	ppm	ASTM D5185(m)	0	0	0
Magnesium	ppm	ASTM D5185(m) 0	0	<1	<1
Calcium	ppm	ASTM D5185(m) 0	0	<1	<1
Phosphorus	ppm	ASTM D5185(m) 2.4	0	1	1
Zinc	ppm	ASTM D5185(m) 0	2	<1	<1
Sulfur	ppm	ASTM D5185(m)	668	1818	1665
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

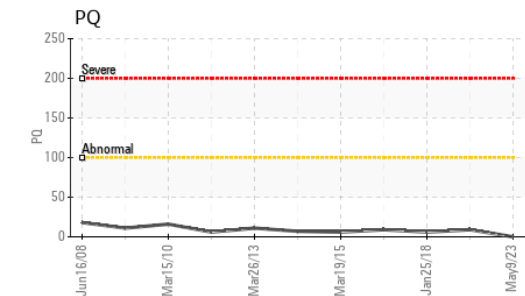
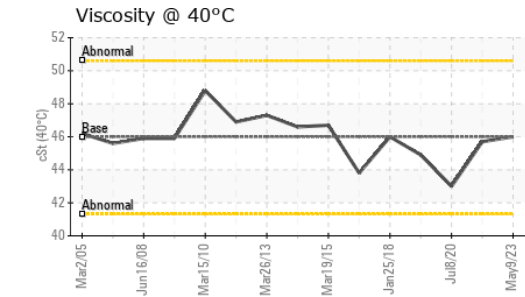
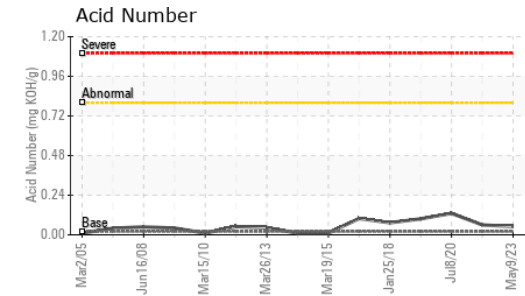
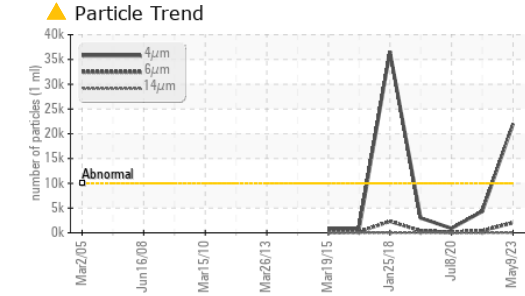
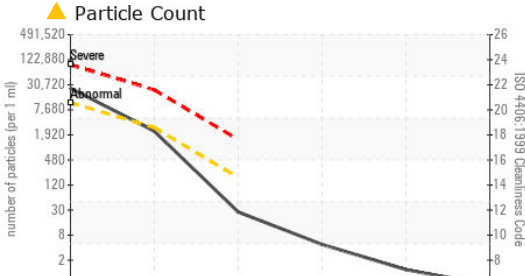
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >20	4	2	<1
Sodium	ppm	ASTM D5185(m)	1	<1	<1
Potassium	ppm	ASTM D5185(m) >20	0	<1	<1

Particle Filter (Magn: 200 x)





OIL ANALYSIS REPORT



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0806466 **Received** : 23 May 2023
Lab Number : 02559014 **Diagnosed** : 24 May 2023
Unique Number : 5580054 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: BottomAnalysis, FilterPatch, PrtCount, PrtFilter, 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.

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	▲ 22013	4319	904
Particles >6µm	ASTM D7647	>2500	2064	419	131
Particles >14µm	ASTM D7647	>160	24	12	6
Particles >21µm	ASTM D7647	>40	4	3	0
Particles >38µm	ASTM D7647	>10	1	0	0
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>20/18/14	▲ 22/18/12	19/16/11	17/14/10

FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D974*	0.02	0.05	0.06	0.13

VISUAL	method	limit/base	current	history1	history2
White Metal	scalar Visual*	NONE	▲ VLITE	NONE	▲ VLITE
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*	>2	NEG	NEG	NEG
Free Water	scalar Visual*		NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt ASTM D7279(m)	46	46.0	45.7	43.0

SAMPLE IMAGES	method	limit/base	current	history1	history2
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