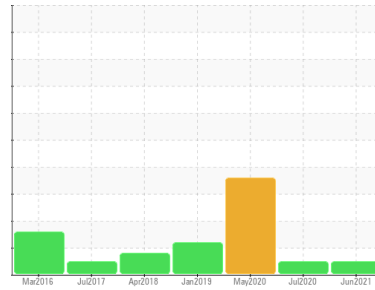




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
BFP - UNIT 5 GENERATOR TAIL END BEARING (S/N 710385)

Component
Opposite End Generator Bearing
Fluid
SHELL TURBO T ISO 46 (100 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 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		WC0509214	WC117033	WC0455062
Sample Date	Client Info		01 Jun 2021	27 Jul 2020	11 May 2020
Machine Age	days	Client Info	0	0	0
Oil Age	days	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			NORMAL	NORMAL	SEVERE

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		0	8	0
Iron	ppm	ASTM D5185(m) >20	<1	0	<1
Chromium	ppm	ASTM D5185(m) >20	0	0	0
Nickel	ppm	ASTM D5185(m) >20	<1	0	0
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m)	0	0	0
Aluminum	ppm	ASTM D5185(m) >20	<1	<1	<1
Lead	ppm	ASTM D5185(m) >20	<1	<1	<1
Copper	ppm	ASTM D5185(m) >20	<1	<1	1
Tin	ppm	ASTM D5185(m) >20	<1	<1	<1
Antimony	ppm	ASTM D5185(m)	0	<1	<1
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) 4.0	<1	<1	0
Barium	ppm	ASTM D5185(m) 0	0	0	0
Molybdenum	ppm	ASTM D5185(m) 0	0	0	0
Manganese	ppm	ASTM D5185(m)	0	0	<1
Magnesium	ppm	ASTM D5185(m) 0	0	<1	0
Calcium	ppm	ASTM D5185(m) 0	<1	<1	<1
Phosphorus	ppm	ASTM D5185(m) 2.1	8	8	8
Zinc	ppm	ASTM D5185(m) 2.0	3	3	4
Sulfur	ppm	ASTM D5185(m) 1300	653	657	729
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

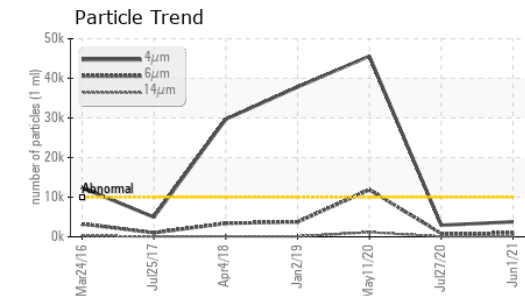
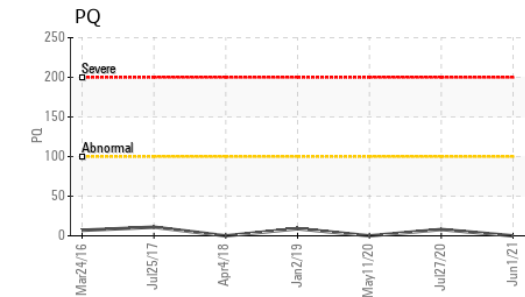
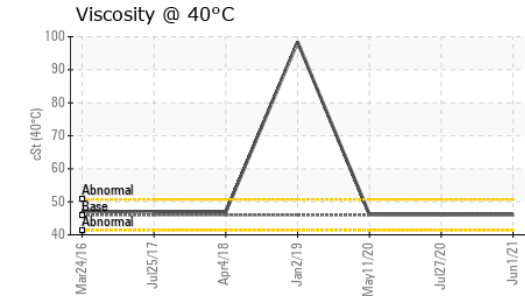
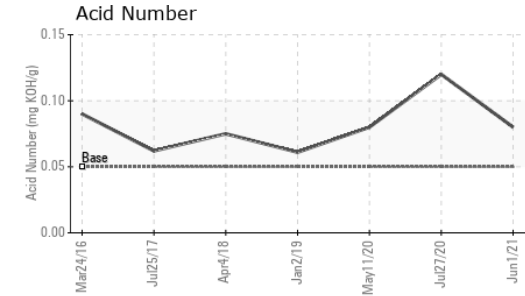
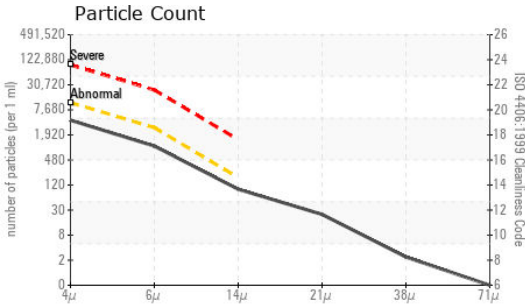
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	0	0	0
Sodium	ppm	ASTM D5185(m)	0	0	0
Potassium	ppm	ASTM D5185(m) >20	<1	<1	0

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	3782	2914	▲ 45593
Particles >6µm	ASTM D7647	>2500	909	817	▲ 11881
Particles >14µm	ASTM D7647	>160	84	63	▲ 1157
Particles >21µm	ASTM D7647	>40	21	16	■ 402
Particles >38µm	ASTM D7647	>10	2	2	▲ 25
Particles >71µm	ASTM D7647	>3	0	0	4
Oil Cleanliness	ISO 4406 (c)	>20/18/14	19/17/14	19/17/13	▲ 23/21/17



OIL ANALYSIS REPORT



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	.05	0.08	0.12	0.08

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	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	VLITE	VLITE
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	46.2	46.1	46.2

SAMPLE IMAGES		method	limit/base	current	history1	history2
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Color	
Bottom	
PrtFilter	no image no image



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **Nalcor Energy - Grand Falls-Windsor**
Sample No. : WC0509214 **Received** : 05 Aug 2021 25 Hardy Avenue
Lab Number : **02437112** **Diagnosed** : 06 Aug 2021 Grand Falls-Windsor, NL
Unique Number : 5264643 **Diagnostician** : Kevin Marson CA A2A 2P8
Test Package : IND 2 (Additional Tests: PrtCount, TAN Man) Contact: Phillip Winsor
 To discuss this sample report, contact Customer Service at 1-800-268-2131. philipwinsor@nlh.nl.ca
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T: (709)486-8714
 Validity of results and interpretation are based on the sample and information as supplied. F: