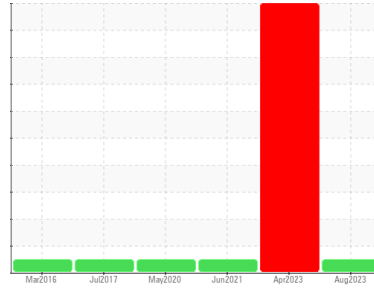




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
BFP - UNIT 5 THRUST BEARING (S/N 375301)

Component
Circulating Thrust Bearing

Fluid
SHELL TURBO T ISO 46 (30 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

a light concentration of dirt & debris was filtered from the sample. 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			WC0827898	WC0701183	WC0509216
Sample Date	Client Info			03 Aug 2023	25 Apr 2023	01 Jun 2021
Machine Age	yrs	Client Info		0	0	0
Oil Age	yrs	Client Info		0	0	0
Oil Changed	Client Info			N/A	N/A	N/A
Sample Status				NORMAL	SEVERE	NORMAL

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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>85	3	11	<1
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>20	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		<1	0	0
Aluminum	ppm	ASTM D5185(m)	>40	0	0	0
Lead	ppm	ASTM D5185(m)	>60	0	0	0
Copper	ppm	ASTM D5185(m)	>7	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>40	0	5	<1
Antimony	ppm	ASTM D5185(m)		0	<1	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)	4.0	<1	0	<1
Barium	ppm	ASTM D5185(m)	0	<1	0	0
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)		0	<1	0
Magnesium	ppm	ASTM D5185(m)	0	0	0	0
Calcium	ppm	ASTM D5185(m)	0	4	0	6
Phosphorus	ppm	ASTM D5185(m)	2.1	28	0	46
Zinc	ppm	ASTM D5185(m)	2.0	37	1	53
Sulfur	ppm	ASTM D5185(m)	1300	108	161	146
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

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

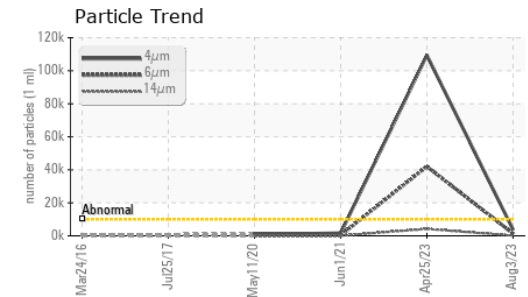
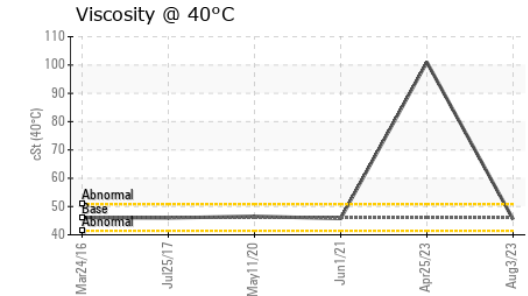
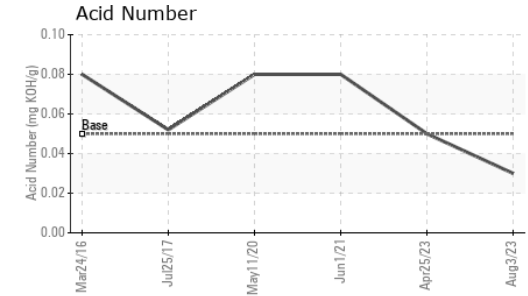
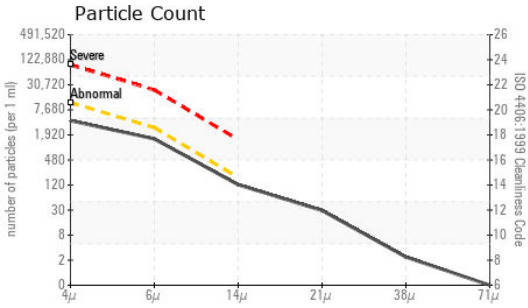
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	3687	109396	1650	
Particles >6µm	ASTM D7647	>2500	1352	41979	343	
Particles >14µm	ASTM D7647	>160	108	4162	33	
Particles >21µm	ASTM D7647	>40	26	1297	7	
Particles >38µm	ASTM D7647	>10	2	33	1	
Particles >71µm	ASTM D7647	>3	0	2	0	
Oil Cleanliness	ISO 4406 (c)	>20/18/14	19/18/14	24/23/19	18/16/12	

Particle Filter (Magn: 100 x)





OIL ANALYSIS REPORT

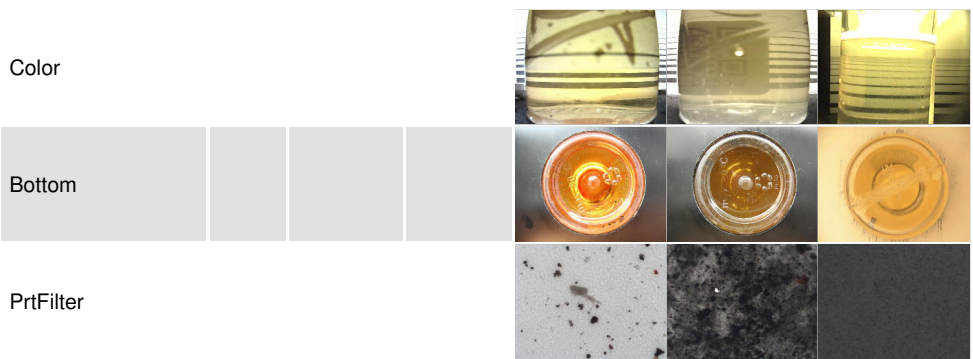


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D974*	.05	0.03	0.05	0.08

VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
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	▲ WGOIL	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>2	NEG	.2%	NEG
Free Water	scalar	Visual*		NEG	▲ 1%	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	46	45.5	▲ 101	45.8

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **Nalcor Energy - Grand Falls-Windsor**
Sample No. : WC0827898 **Received** : 14 Dec 2023 25 Hardy Avenue
Lab Number : **02603213** **Diagnosed** : 18 Dec 2023 Grand Falls-Windsor, NL
Unique Number : 5696298 **Diagnostician** : Kevin Marson CA A2A 2P8
Test Package : IND 2 (Additional Tests: BottomAnalysis, FilterPatch, PrtCount, PrtFilter, TAN Man) Contact: Phillip Winsor
philipwinsor@nlh.nl.ca
T: (709)486-8714
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.