



OIL ANALYSIS REPORT

Sample Rating Trend

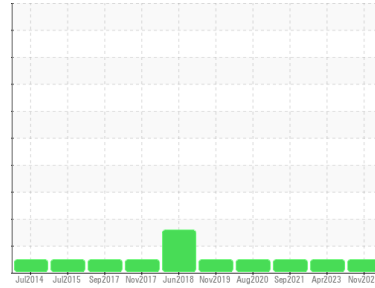
NORMAL



Machine Id
GFP2 - UNIT 4 UPPER THRUST/GUIDE BEARING (S/N 720077)

Component
Upper Guide Bearing

Fluid
SHELL TURBO T ISO 68 (1333 LTR)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. (Customer Sample Comment: Unsure date)

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			WC0827907	WC0701188	WC0630816
Sample Date	Client Info			08 Nov 2023	01 Apr 2023	13 Sep 2021
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	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)	>20	<1	<1	<1
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>20	0	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		<1	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	0	0	0
Lead	ppm	ASTM D5185(m)	>20	<1	0	<1
Copper	ppm	ASTM D5185(m)	>20	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>20	0	0	0
Antimony	ppm	ASTM D5185(m)		0	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)		<1	0	0
Barium	ppm	ASTM D5185(m)		<1	0	0
Molybdenum	ppm	ASTM D5185(m)		0	0	0
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)		0	0	0
Calcium	ppm	ASTM D5185(m)		0	0	0
Phosphorus	ppm	ASTM D5185(m)		1	1	2
Zinc	ppm	ASTM D5185(m)		5	2	2
Sulfur	ppm	ASTM D5185(m)		56	46	45
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

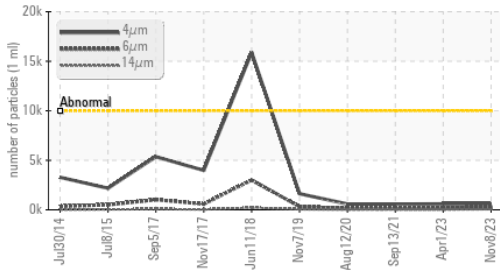
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	<1	<1	<1
Sodium	ppm	ASTM D5185(m)		<1	0	0
Potassium	ppm	ASTM D5185(m)	>20	0	0	<1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	619	601	579
Particles >6µm		ASTM D7647	>2500	275	200	128
Particles >14µm		ASTM D7647	>160	57	25	19
Particles >21µm		ASTM D7647	>40	15	7	7
Particles >38µm		ASTM D7647	>10	1	0	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/14	16/15/13	16/15/12	16/14/11

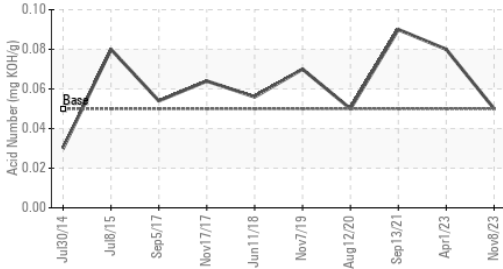


OIL ANALYSIS REPORT

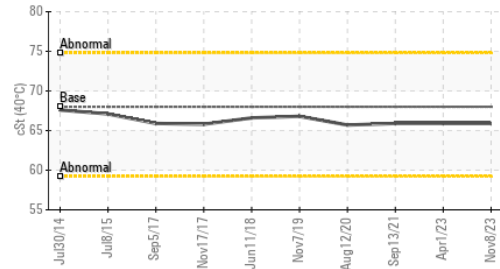
Particle Trend



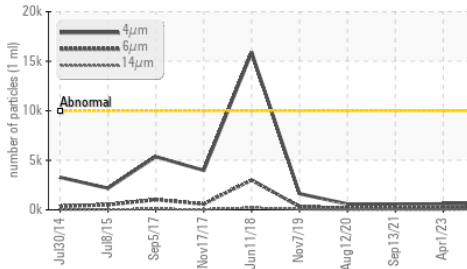
Acid Number



Viscosity @ 40°C



Particle Trend



FLUID DEGRADATION method limit/base current history1 history2

Acid Number (AN) mg KOH/g ASTM D974* .05 **0.05** 0.08 0.09

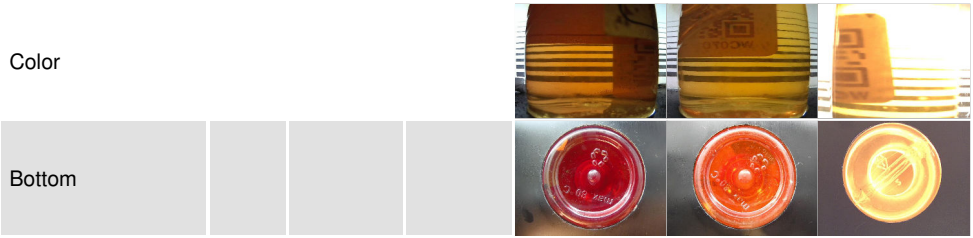
VISUAL method limit/base current history1 history2

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	VLITE	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

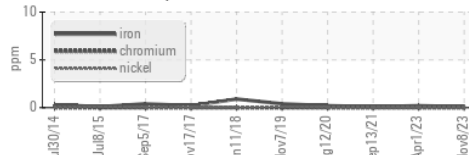
Visc @ 40°C cSt ASTM D7279(m) 68 **65.9** 65.9 65.9

SAMPLE IMAGES method limit/base current history1 history2

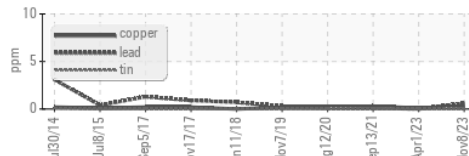


GRAPHS

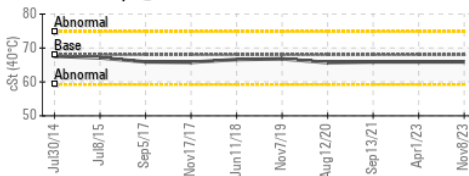
Ferrous Alloys



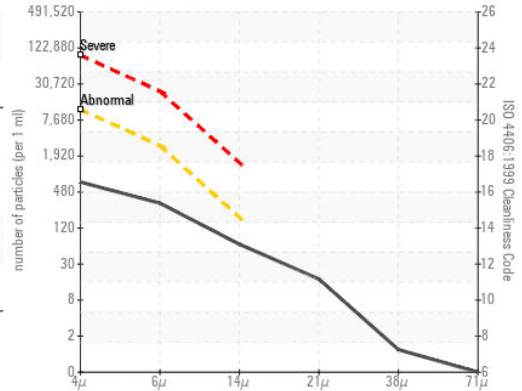
Non-ferrous Metals



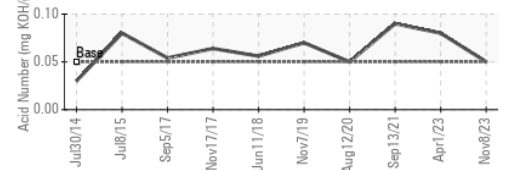
Viscosity @ 40°C



Particle Count



Acid Number



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **Nalcor Energy - Grand Falls-Windsor**
Sample No. : WC0827907 **Received** : 14 Dec 2023 25 Hardy Avenue
Lab Number : **02603218** **Diagnosed** : 15 Dec 2023 Grand Falls-Windsor, NL
Unique Number : 5696303 **Diagnostician** : Kevin Marson CA A2A 2P8
Test Package : IND 2 (Additional Tests: TAN Man) Contact: Phillip Winsor
 philipwinsor@nlh.nl.ca

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.