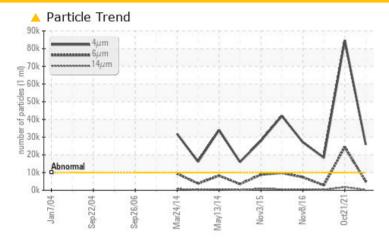


PROBLEM SUMMARY

Area [192032] Machine Id MOP G1 LGBR Component Bearing Fluid ESSO TERESSO ISO 68 (273 LTR)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.

Sample Rating Trend ISO ISO ISO

PROBLEMATIC TEST	RESULTS			
Sample Status		ABNORMAL	SEVERE	ATTENTION
Particles >4µm	ASTM D7647 >10	0000 🔺 25852	e 84757	1 8377
Particles >6µm	ASTM D7647 >25	500 🔺 4977	24432	A 2816
Particles >14µm	ASTM D7647 >16	60 🔺 328	1771	A 234
Particles >21µm	ASTM D7647 >40) 🔺 107	447	A 74
Oil Cleanliness	ISO 4406 (c) >20)/18/14 🔺 22/19/16	• 24/22/18	<u> </u>

Customer Id: NEWSTJ Sample No.: WC0445371 Lab Number: 02517620 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 <u>gloria.gonzalez@wearcheck.com</u>

RECOMMENDED A				
Action	Status	Date	Done By	Description
Change Filter	MISSED	Dec 20 2022	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.
Resample	MISSED	Dec 20 2022	?	We recommend an early resample to monitor this condition.
Filter Fluid	MISSED	Dec 20 2022	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.

HISTORICAL DIAGNOSIS



21 Oct 2021 Diag: Kevin Marson

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation.All component wear rates are normal. Particles >14 μ m are severely high. Particles >21 μ m are severely high. Particles >6 μ m are severely high. Particles >38 μ m are abnormally high. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



view report

ISO

15 Apr 2021 Diag: Kevin Marson

We recommend you service the filters on this component. Resample at the next service interval to monitor.All component wear rates are normal. There is a light amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

08 Nov 2016 Diag: Wes Davis



We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.All component wear rates are normal. Particles >14 μ m are abnormally high. Particles >21 μ m are abnormally high. Particles >4 μ m are abnormally high. Particles >6 μ m are abnormally high. Oil Cleanliness is abnormal. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.





OIL ANALYSIS REPORT

Area [192032] MOP G1 LGBR Component

Bearing Fluid ESSO TERESSO ISO 68 (273 LTR)

DIAGNOSIS

Recommendation

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.

Wear

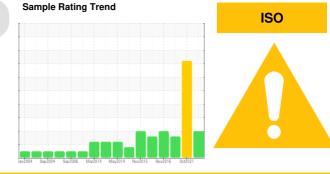
All component wear rates are normal.

Contamination

Oil Cleanliness are abnormally high. Particles >14 μ m are abnormally high. Particles >21 μ m are abnormally high. Particles >4 μ m are abnormally high. Particles >6 μ m are notably high.

Fluid Condition

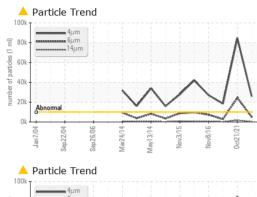
The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

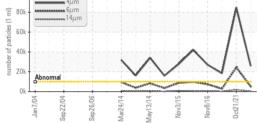


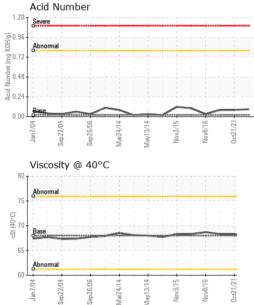
SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0445371	WC0445202	PC0327696
Sample Date		Client Info		07 Jun 2022	21 Oct 2021	15 Apr 2021
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	SEVERE	ATTENTION
CONTAMINATION	N	method	limit/base	current	history1	history2
Water	•	WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>63	2	2	2
Chromium	ppm	ASTM D5185(m)	200	0	0	0
Nickel	ppm	ASTM D5185(m)		0	<1	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>2	0	0	0
Lead	ppm	ASTM D5185(m)	>161	<1	1	<1
Copper	ppm	ASTM D5185(m)		<1	2	<1
Tin	ppm	ASTM D5185(m)	>27	0	<1	<1
Antimony	ppm	ASTM D5185(m)		<1	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		<1	<1	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185(m)	limit/base	current 0	history1 <1	history2 <1
	ppm ppm		4.5			
Boron		ASTM D5185(m)	4.5	0	<1	<1
Boron Barium	ppm	ASTM D5185(m) ASTM D5185(m)	4.5 0.4	0 0	<1 0	<1 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	4.5 0.4 0 0	0 0 0	<1 0 0	<1 0 0
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	4.5 0.4 0 0	0 0 0	<1 0 0 0	<1 0 0 0
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	4.5 0.4 0 0	0 0 0 0	<1 0 0 0 0 <1 6	<1 0 0 0 0
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	4.5 0.4 0 0 0	0 0 0 0 0	<1 0 0 0 0 <1	<1 0 0 0 0 <1 <1 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	4.5 0.4 0 0 0 0 0.7	0 0 0 0 0 5	<1 0 0 0 0 <1 6	<1 0 0 0 0 <1 <1 4 1278
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	4.5 0.4 0 0 0 0.7 0	0 0 0 0 0 5 6	<1 0 0 0 <1 6 6	<1 0 0 0 0 <1 <1 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	4.5 0.4 0 0 0 0.7 0	0 0 0 0 0 5 6 1314	<1 0 0 0 <1 6 6 1281	<1 0 0 0 0 <1 <1 4 1278
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	4.5 0.4 0 0 0 0 0.7 0 1315	0 0 0 0 0 5 6 1314 <1	<1 0 0 0 <1 6 6 1281 <1	<1 0 0 0 <1 <1 <1 4 1278 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	4.5 0.4 0 0 0 0 0.7 0 1315 limit/base	0 0 0 0 0 5 6 1314 <1 current	<1 0 0 0 <1 6 6 1281 <1 history1	<1 0 0 0 <1 <1 <1 4 1278 <1 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	4.5 0.4 0 0 0 0 0.7 0 1315 limit/base	0 0 0 0 0 5 6 1314 <1 current 0	<1 0 0 0 <1 6 6 1281 <1 history1 0	<1 0 0 0 <1 <1 4 1278 <1 history2 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	4.5 0.4 0 0 0 0.7 0 1315 Iimit/base >12	0 0 0 0 0 5 6 1314 <1 current 0 <1	<1 0 0 0 <1 6 6 1281 <1 history1 0 0	<1 0 0 0 <1 <1 <1 4 1278 <1 history2 0 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	4.5 0.4 0 0 0 0.7 0 1315 limit/base >12 >20	0 0 0 0 0 5 6 1314 <1 current 0 <1 <1	<1 0 0 0 0 <1 6 6 1281 <1 8 1281 <1 0 0 0 0 0	<1 0 0 0 <1 <1 <1 4 1278 <1 history2 0 0 0 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	4.5 0.4 0 0 0 0.7 0 1315 Imit/base >12 >20 Imit/base	0 0 0 0 0 5 6 1314 <1 current 0 <1 <1 <1 current	<1 0 0 0 (0 <1 6 6 1281 <1 281 <1 history1 0 0 0 0 0 0 history1	<1 0 0 0 () 0 <1 <1 4 1278 <1 1278 <1 history2 0 0 <1 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	4.5 0.4 0 0 0.7 0 1315 1315 1315 1315 20 1315 20 20 10000	0 0 0 0 0 5 6 1314 <1 current 0 <1 <1 <1 <1 current	<1 0 0 0 0 0 (1 6 6 1281 (1 8 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<1 0 0 0 (1 (1 4 1278 (1 278 (1 2 0 0 0 (1 (1) 0 1 (1) 1 8 377
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	4.5 0.4 0 0 0 0.7 0 1315 1315 1315 1315 20 1315 20 10000 22500 2160	0 0 0 0 0 5 6 1314 <1 current 0 <1 <1 <1 <1 25852 ▲ 25852	<1 0 0 0 0 (1 6 6 6 1281 <1 2 81 <1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<1 0 0 0 1 -1 -1 -1 -1 -1 -1 -1 -1 -1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Potassium Particles >4µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647	4.5 0.4 0 0 0 0.7 0 1315 1315 1315 1315 20 1315 20 10000 22500 2160	0 0 0 0 0 5 6 1314 <1 0 <1 <1 <1 <1 <1 25852 ▲ 25852 ▲ 4977 ▲ 328 ▲ 107 5	<1 0 0 0 0 1 4 1 6 6 6 1281 <1 8 1 281 <1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<1 0 0 0 1 -1 4 1278 -1 history2 0 0 0 -1 history2 0 18377 18377 2816 234
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	4.5 0.4 0 0 0 0 0.7 0 1315 1315 1315 1315 20 2 20 2 20 2 20 2 20 2 20 2 2 3 10000 22500 2 160 2 40 2 10	0 0 0 0 0 5 6 1314 <1 0 current 0 <1 <1 <1 <1 25852 • 25852 • 4977 • 328 • 107	<1 0 0 0 0 1 6 6 6 1281 <1 8 1 281 <1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<1 0 0 0 0 -1 -1 4 1278 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Potassium Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	4.5 0.4 0 0 0 0 0.7 0 1315 1315 1315 1315 20 2 20 2 20 2 20 2 20 2 20 2 2 3 10000 22500 2 160 2 40 2 10	0 0 0 0 0 5 6 1314 <1 0 <1 <1 <1 <1 <1 25852 ▲ 25852 ▲ 4977 ▲ 328 ▲ 107 5	<1 0 0 0 0 (1 6 6 6 1281 <1 8 1281 <1 1281 <1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<1 0 0 0 1 -1 -1 -1 -1 -1 -1 -1 -1 -1



OIL ANALYSIS REPORT



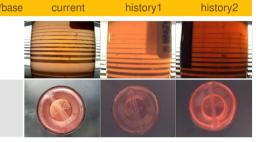


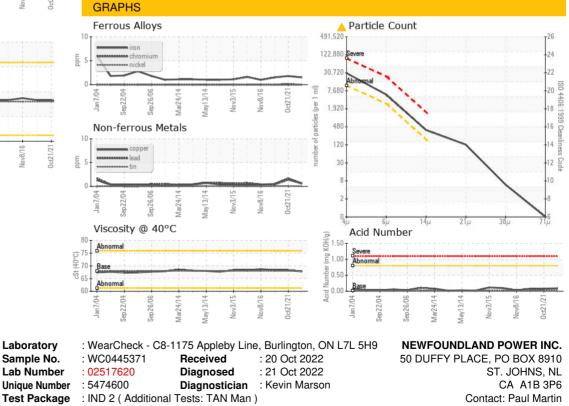


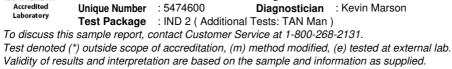
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.02	0.09	0.08	0.08
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	VLITE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	VLITE
Sand/Dirt	scalar	Visual*	NONE	NONE	VLITE	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 PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	68	67.8	68.3	68.3
SAMPLE IMAGES	S	method	limit/base	current	history1	history2
					1	and the first of

Color

Bottom







ST. JOHNS, NL CA A1B 3P6 Contact: Paul Martin pmartin@newfoundlandpower.com T: F: (709)737-2926

Report Id: NEWSTJ [WCAMIS] 02517620 (Generated: 12/12/2023 08:30:11) Rev: 1

CALA

ISO 17025:2017

Submitted By: Paul Martin Page 4 of 4