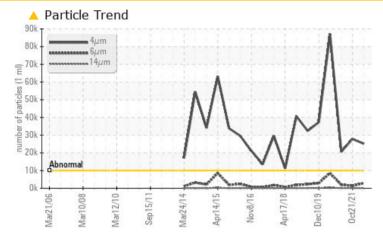


# **PROBLEM SUMMARY**

# Area [192032] Machine Id MOP G1 UGBR/THBR

Bearing Fluid ESSO TERESSO ISO 68 (727 LTR)

# COMPONENT CONDITION SUMMARY



### RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS							
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL		
Particles >4µm	ASTM D7647	>10000	<u> </u>	<b>2</b> 7857	<b>20547</b>		
Particles >6µm	ASTM D7647	>2500	<u> </u>	1421	1944		
Oil Cleanliness	ISO 4406 (c)	>20/18/14	<u> </u>	🔺 22/18/13	<u> </u>		

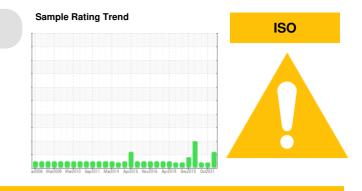
Customer Id: NEWSTJ Sample No.: WC0445375 Lab Number: 02517642 Test Package: IND 2



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 ACTIONS							
Action	Status	Date	Done By	Description			
Change Filter	MISSED	Dec 20 2022	?	We recommend you service the filters on this component.			
Resample	MISSED	Dec 20 2022	?	We recommend an early resample to monitor this condition.			

### HISTORICAL DIAGNOSIS



## 21 Oct 2021 Diag: Kevin Marson

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. All component wear rates are normal. Particles >4 $\mu$ m are abnormally high. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

#### 15 Apr 2021 Diag: Kevin Marson



We recommend you service the filters on this component. We recommend an early resample to monitor this condition.All component wear rates are normal. Particles  $>4\mu$ m are abnormally high. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

# ISO

### 27 Apr 2020 Diag: Kevin Marson

Check seals and/or filters for points of contaminant entry. 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. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid. Component wear rates appear to be normal (unconfirmed). Particles >4µm are severely high. Particles >6µm are abnormally high. Particles >14µm are abnormally high. Particles >21µm are notably high. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



view report

#### view report





# **OIL ANALYSIS REPORT**

### Area [192032] Machine Id MOP G1 UGBR/THBR Component

#### Bearing Fluid

# ESSO TERESSO ISO 68 (727 LTR)

# DIAGNOSIS

### Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

# Wear

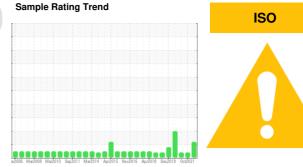
All component wear rates are normal.

### Contamination

Particles >4 $\mu$ m and oil cleanliness are abnormally high. Particles >6 $\mu$ m are notably high.

### Fluid Condition

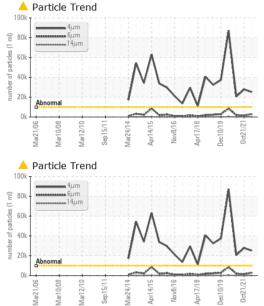
The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

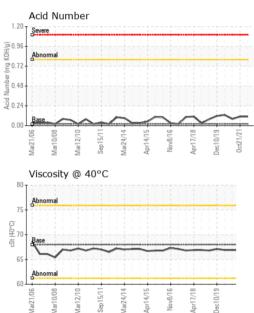


w2006 Mw2008 Mw2010 Sey2011 Mw2014 Apr2016 Apr2018 Dec2018 Dec2018 Dec2021							
SAMPLE INFORM	ATION	method	limit/base	current	history1	history2	
Sample Number		Client Info		WC0445375	WC0445200	WC0328054	
Sample Date		Client Info		07 Jun 2022	21 Oct 2021	15 Apr 2021	
Machine Age	hrs	Client Info		0	0	0	
Oil Age	hrs	Client Info		0	0	0	
Oil Changed		Client Info		N/A	N/A	N/A	
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL	
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)	>63	3	3	2	
	ppm	ASTM D5185(m)		0	0	0	
	ppm	ASTM D5185(m)		0	<1	<1	
	ppm	ASTM D5185(m)		0	0	0	
	ppm	ASTM D5185(m)		0	0	0	
	ppm	( )	>2	0	0	0	
	ppm	ASTM D5185(m)	>161	<1	<1	<1	
	ppm	ASTM D5185(m)	>13	<1	<1	<1	
	ppm	ASTM D5185(m)	>27	7	7	6	
	ppm	ASTM D5185(m)		1	<1	<1	
	ppm	ASTM D5185(m)		0	0	0	
	ppm	ASTM D5185(m)		0	0	0	
	ppm	ASTM D5185(m)		0	0	0	
	ppin	. ,	1	-	-	-	
ADDITIVES							
		method	limit/base	current	history1	history2	
_	ppm	ASTM D5185(m)	4.5	0	<1	<1	
Boron	ppm ppm						
Boron Barium		ASTM D5185(m)	4.5	0	<1	<1	
Boron Barium Molybdenum	ppm	ASTM D5185(m) ASTM D5185(m)	4.5 0.4	0 0	<1 0	<1 0	
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	4.5 0.4	0 0 0	<1 0 0	<1 0 0	
Boron Barium Molybdenum Manganese Magnesium	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 Calcium	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 0 0 0 1	<1 0 0 0 0 <1 2	<1 0 0 0 <1 <1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	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	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	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 0.7	0 0 0 0 0 0 1	<1 0 0 0 0 <1 2	<1 0 0 0 0 <1 <1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	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 0 1 2	<1 0 0 0 0 <1 2 2	<1 0 0 0 0 <1 <1 2	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	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 0 1 2 1338	<1 0 0 0 0 <1 2 2 1306	<1 0 0 0 <1 <1 2 1304	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	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 0.7 0 1315	0 0 0 0 0 1 2 1338 <1	<1 0 0 0 <1 2 2 1306 <1	<1 0 0 0 <1 <1 2 1304 <1	
Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	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 0.7 0 1315 limit/base	0 0 0 0 0 1 2 1338 <1 2 urrent	<1 0 0 0 <1 2 2 1306 <1 history1	<1 0 0 0 <1 <1 2 1304 <1 history2	
Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	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	0 0 0 0 0 1 2 1338 <1 2 1338 <1	<1 0 0 0 <1 2 2 1306 <1 history1 0	<1 0 0 0 <1 <1 2 1304 <1 history2 0	
Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc 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 1 2 1338 <1 2 1338 <1 0 0	<1 0 0 0 <1 2 2 1306 <1 history1 0 0	<1 0 0 0 <1 <1 2 1304 <1 history2 0 0	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLINE	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	0 0 0 0 0 1 2 1338 <1 2 1338 <1 0 0 0 4	<1 0 0 0 0 <1 2 2 1306 <1 history1 0 0 0 <1	<1 0 0 0 <1 <1 2 1304 <1 history2 0 0 <1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLINE 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 Imit/base >12 >20 Imit/base	0 0 0 0 0 1 2 1338 <1 2 1338 <1 0 0 0 <1 0 1 0 0 1 0	<1 0 0 0 ( 1 2 2 1306 <1 <b>history1</b> 0 0 <1 <b>history1</b>	<1 0 0 0 ( 1 <1 2 1304 <1 <b>history2</b> 0 0 <1 <b>history2</b>	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLINE Particles >4µm Particles >6µm	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 Jimit/base >12 >20 Jimit/base >20	0 0 0 0 0 1 2 1338 <1 0 0 0 <1 0 0 <1 0 2 1 3 8 0 0 0 1 0 0 0 1 2 1 3 8 0 0 0 1 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0	<1 0 0 0 0 <1 2 2 1306 <1 history1 0 0 0 <1 history1 A 27857	<1 0 0 0 ( 1 <1 2 1304 <1 <b>history2</b> 0 0 0 <1 <b>history2</b> 20547	
Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Dhosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D76477 ASTM D7647	4.5 0.4 0 0 0 0.7 0 1315 1315 1315 20 20 20 10000 >2500	0 0 0 0 0 1 2 1338 <1 2 1338 <1 0 0 0 <1 0 0 <1 0 0 <1 0 25186 ▲ 25186	<1 0 0 0 0 1 2 2 2 1306 <1 0 0 0 <1 0 0 0 <1 0 0 0 <1 0 0 0 <1 0 0 0 2 7 8 57 1421 61	<1 0 0 0 0 <1 <1 2 1304 <1 1304 <1 <b>history2</b> 0 0 0 <1 <b>history2</b> 20547 1944	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLINE Particles >4µm Particles >14µm Particles >21µm	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 1 2 1338 <1 2 1338 <1 0 0 0 <1 0 0 <1 0 0 0 <1 0 2 1 0 0 0 2 1 0 0 0 2 1 0 0 0 0 0 0	<1 0 0 0 0 0 0 <1 2 2 1306 <1 0 0 0 0 <1 0 0 0 0 10 0 0 0 0 0 0 10 10 0 0 0	<1 0 0 0 0 ( 1 ( 1 2 1 304 ( 1 304 ( 1 304 ( 1 304 ( 1 304 ( 1 304 ( 1 304) ( 1 304 ( 1 304) ( 1 304) ( 1 30 ( 1 30 ( 1 30 ( 1 30 ( 1 30 ( 1 30 ( 1 30 ( 1 30 ( 1 30 ( 1 30 ( 1 30 ( 1 30 ( 1 30 ( 1 30 ( 1 30 ( 1 30) ( 3)) ( 3))) ( 3)) ( 3))) ( ))) ( ))) ( )))) ( )))) ( ))))))))	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLINE 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 0.7 0 1315 3 1315 1315 1315 1315 1315 1315 1315 1315 1311 1315 1311 1315 13111 13111 13111 13111 13111 131111 13111 131111 131111 13111111	0 0 0 0 0 1 2 1338 <1 2 1338 <1 2 0 0 0 <1 0 0 <1 2 1 0 0 2 1 2 5 186 ▲ 2 5 186 ▲ 2 5 186 ▲ 2 5 186 ▲ 2 5 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<1 0 0 0 0 2 2 1306 3 1 306 3 1 3 0 0 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3	<1 0 0 0 3 0 3 3 4 1 2 1 3 0 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 4 3 3 4 3 3 4 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 4 3 3 3 3 4 3	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLINE Particles >4µm Particles >14µm Particles >21µm	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 10000 >220 20 20 200 200 2500 2500 2500 2	0 0 0 0 0 1 2 1338 <1 2 1338 <1 2 0 0 0 <1 0 0 <1 2 5186 ▲ 2883 115 25	<1 0 0 0 0 1 2 2 2 1 306 <1 0 0 0 1 0 0 1 0 0 2 1 0 0 0 1 0 0 2 1 0 0 0 1 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0	<1 0 0 0 1 4 1 2 1304 <1 1304 <1 bistory2 0 0 0 <1 bistory2 0 20547 1944 96 24	

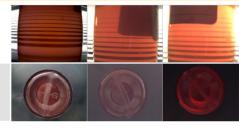


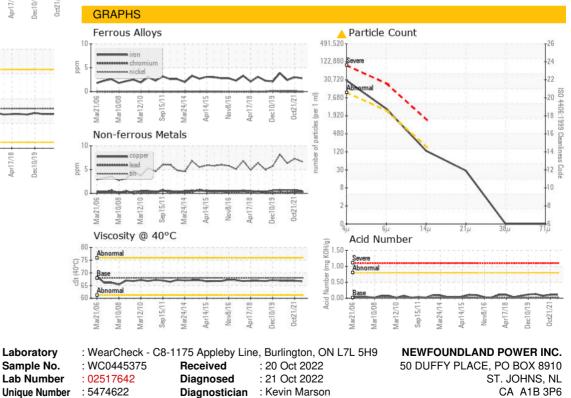
# **OIL ANALYSIS REPORT**





FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.02	0.11	0.11	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	VLITE
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)	68	66.7	66.9	66.9
SAMPLE IMAGES	6	method	limit/base	current	history1	history2





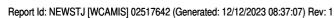
 
 Accredited Laboratory
 Unique Number
 : 5474622
 Diagnostician
 : Kevin Marson

 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.

Color

Bottom

50 DUFFY PLACE, PO BOX 8910 ST. JOHNS, NL CA A1B 3P6 Contact: Paul Martin pmartin@newfoundlandpower.com T: F: (709)737-2926



CALA

ISO 17025:2017

Submitted By: Paul Martin Page 4 of 4