

PROBLEM SUMMARY

Bank of Montreal Comp. Ctr. #5 [357181] Machine Id TRANE L15A-00065 Component Chiller Sample Rating Trend WEAR

COMPONENT CONDITION SUMMARY

Fluid

TRANE 0022 (--- GAL)

No relevant graphs to display

RECOMMENDATION

We recommend an early resample to monitor this condition. No other corrective action is recommended at this time.

PROBLEMATIC TEST RESULTS							
Sample Status				ABNORMAL	ABNORMAL		
Tin	ppm	ASTM D5185(m)	>4	<u> </u>	<1		

Customer Id: GTT0000257 Sample No.: GTT0000925 Lab Number: 02602992 Test Package: IND 2



To manage this report scan the QR code

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RECOMMENDED ACTIONS						
Action	Status	Date	Done By	Description		
Resample			?	We recommend an early resample to monitor this condition.		

HISTORICAL DIAGNOSIS

31 Mar 2023 Diag: Wes Davis

WEAR



The increased iron reading shows possible moderate wear occurring on the outboard motor bearing. All other readings are in normal ranges.





OIL ANALYSIS REPORT

Bank of Montreal Comp. Ctr. #5 [357181] Machine Id TRANE L15A-00065



Sample Rating Trend

Fluid TRANE 0022 (--- GAL)

DIAGNOSIS

Recommendation

We recommend an early resample to monitor this condition. No other corrective action is recommended at this time.

Chiller

🔺 Wear

Tin ppm levels are abnormal. Motor bearing wear is occurring.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The AN level is acceptable for this fluid.

Sample Number		Client Info		GTT0000925	GTT35582	
Sample Date		Client Info		04 Dec 2023	31 Mar 2023	
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A	N/A	
Sample Status				ABNORMAL	ABNORMAL	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>8	5	<u> </u>	
Chromium	ppm	ASTM D5185(m)	>2	0	<1	
Nickel	ppm	ASTM D5185(m)		<1		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)	>2	<1		
Aluminum	ppm	ASTM D5185(m)	>3	0	<1	
Lead	ppm	ASTM D5185(m)	>2	<1	<1	
Copper	ppm	ASTM D5185(m)	>8	3	3	
Tin	ppm	ASTM D5185(m)	>4	<u> </u>	<1	
Antimony	ppm	ASTM D5185(m)		0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185(m)	limit/base	current	history1	history2
			0			
Boron	ppm	ASTM D5185(m)	0	<1		
Boron Barium	ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 0 0	<1 <1		
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0	<1 <1 0		
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 0	<1 <1 0 0		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 0	<1 <1 0 0 <1		
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)	0 0 0 0 0	<1 <1 0 0 <1 <1	 	
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)	0 0 0 0 0 0 35	<1 <1 0 <1 <1 <1 <1	 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	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)	0 0 0 0 0 35 0	<1 <1 0 <1 <1 <1 <1 <1 11	 11	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm 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)	0 0 0 0 0 35 0	<1 <1 0 <1 <1 <1 <1 <1 11 22	 111	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm 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)	0 0 0 0 0 35 0 30	<1 <1 0 <1 <1 <1 <1 11 22 2	 111 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm 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)	0 0 0 0 0 35 0 30 30 limit/base	<1 <1 0 0 <1 <1 <1 11 22 2 	 111 history1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm 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) method ASTM D5185(m) ASTM D5185(m)	0 0 0 0 0 35 0 30 30 limit/base	<1 <1 0 0 <1 <1 <1 22 2 current 8 	 111 history1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm 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) method ASTM D5185(m)	0 0 0 0 35 0 30 30 limit/base	<1 <1 0 0 <1 <1 <1 <1 <1 22 2 2 current 8 5	 111 history1 	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium ppm Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 0 0 0 35 0 30 30 1 imit/base >15 >20 >50	<1 <1 0 0 <1 <1 <1 <1 <1 22 2 2 2 2 <i>current</i> 8 5 4 4 4	 111 history1 12	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 0 0 0 35 0 30 30 i iinit/base >15	<1 <1 0 0 <1 <1 <1 <1 <1 11 22 2 2 2 current 8 5 4	 111 history1 history1	



OIL ANALYSIS REPORT

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE		
Yellow Metal	scalar	Visual*	NONE	NONE		
Precipitate	scalar	Visual*	NONE	NONE		
Silt	scalar	Visual*	NONE	NONE		
Debris	scalar	Visual*	NONE	NONE		
Sand/Dirt	scalar	Visual*	NONE	NONE		
Appearance	scalar	Visual*	NORML	NORML		
Odor	scalar	Visual*	NORML	NORML		
FLUID PROPERT	FLUID PROPERTIES		limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	47	44.4		
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color					no image	no image
Bottom				0	no image	no image



Sample No. : GTT0000925 Recieved : 13 Dec 2023 Lab Number : 02602992 Diagnosed : 18 Dec 2023 Unique Number : 5696077 Diagnostician : Bill Quesnel Test Package : IND 2 (Additional Tests: KV40) Contact: Service Manager To discuss this sample report, contact Customer Service at 1-905-847-9300 Ext 26. Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Damages: Seller shall in no event be liable for special, incidental, or consequential damages, of a commercial nature, resulting from any cause.

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