

# **OIL ANALYSIS REPORT**

# TRANE CFCC L DAYCARE CHILLER CIRCUIT A (S/N U16E05199)

Refrigeration Compressor

Fluid TRANE 0048 (2 GAL)

## DIAGNOSIS

#### A Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

## Wear

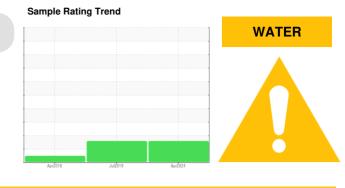
All component wear rates are normal.

#### Contamination

There is a trace of moisture present in the oil.

### Fluid Condition

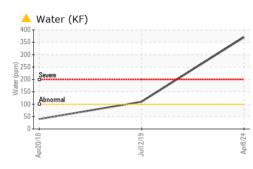
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

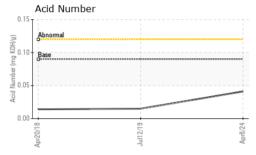


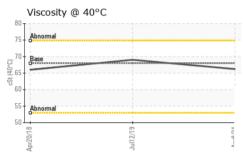
SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0801194	WCI2351840	WCI2310816
Sample Date		Client Info		08 Apr 2024	12 Jul 2019	20 Apr 2018
Machine Age	hrs	Client Info		16100	0	5271
Oil Age	hrs	Client Info		0	2862	0
Oil Changed		Client Info		Not Changd	N/A	N/A
Sample Status				MARGINAL	MARGINAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	<1	<1	<1
Chromium	ppm	ASTM D5185m	>2	0	0	0
Nickel	ppm	ASTM D5185m		0	<1	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>3	0	<1	0
Lead	ppm	ASTM D5185m	>2	0	<1	<1
Copper	ppm	ASTM D5185m	>8	<1	0	0
Tin	ppm	ASTM D5185m	>4	0	0	0
Antimony	ppm	ASTM D5185m			0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
		LOTH DELOF		•	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
Cadmium ADDITIVES	ppm	ASTM D5185m	limit/base	0 current	0 history1	0 history2
	ppm ppm		limit/base	-	-	-
ADDITIVES		method		current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	1	current 0	history1 <1	history2 <1 0 <1
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	1 0	Current 0 0	history1 <1 0	history2 <1 0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	1 0 0	current 0 0 0	history1 <1 0 0	history2 <1 0 <1
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1 0 0 0	Current 0 0 0 <1	history1 <1 0 0 0	history2 <1 0 <1 0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1 0 0 0 0	current           0           0           0           0           0           0           0           0           0           0           0	history1 <1 0 0 0 0 0 0 2	history2 <1 0 <1 0 0 0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1 0 0 0 0 0	current           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0	history1 <1 0 0 0 0 0 0 0	history2 <1 0 <1 0 <1 0 0 0 0 0 <1 <1 0 0 0 0 <1 0 0 0 0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1 0 0 0 0 0 5	current           0           0           0           0           0           0           0           0           4	history1 <1 0 0 0 0 0 0 2	history2 <1 0 <1 0 0 0 0 0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1 0 0 0 0 0 5 0	Current 0 0 0 0 <1 0 0 0 4 4 <1	history1 <1 0 0 0 0 0 0 2 2 0	history2 <1 0 <1 0 <1 0 0 0 0 0 <1 <1 0 0 0 0 <1 0 0 0 0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1 0 0 0 0 0 5 0 0 10	current           0           0           0           0           <1           0           4           <1           0	history1 <1 0 0 0 0 0 0 2 0 0 0 0	history2           <1           0           <1           0           0           0           0           0           0           0           0           0           0           0           0           0           0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1 0 0 0 0 0 5 5 0 10 10	current           0           0           0           0           <1           0           4           <1           0           4           <1           0	history 1           <1           0           history 1	history2         <1         0         <1         0         0         0         0         0         0         0         0         0         0         0         0         history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1 0 0 0 0 0 5 5 0 10 10	current           0           0           0           0           <1           0           4           <1           0           4           <1           0           4           <1           0           4           4           4	history1           <1           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           0           history1           4	history2         <1         0         <1         0         0         0         0         0         0         0         0         0         0         history2         5
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m	1 0 0 0 0 5 0 10 10 limit/base >15	current           0           0           0           0           <1           0           4           <1           0           4           2           0           current           4           1	history 1         <1         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         history1         4         <1	history2         <1         0         <1         0         0         0         0         0         0         history2         5         0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	Method ASTM D5185m ASTM D5185m	1 0 0 0 0 5 0 10 10 <b>limit/base</b> >15	current           0           0           0           0           <1           0           4           <1           0           4           <1           0           current           4           1           0	history1         <1         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         history1         4         <1         0	history2         <1         0         <1         0         0         0         0         0         0         0         0         0         0         1         0         0         +1         0         +1         0         +1         0         +1         0         +1         0         +1         0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m           ASTM D5185m	1 0 0 0 0 5 0 10 10 10 10 10 2 15 20 >20 >0.01	Current         0         0         0         <1         0         4         <1         0 <ur>       4         1         0         0         0         0         0         0         0         0         0         0         0         0.036</ur>	history1         <1         0         0         0         0         0         0         0         0         0         0         0         0         0         0         history1         4         <1         0         0         0         0.011	history2         <1         0         <1         0         0         0         0         0         0         <1         0         <1         0         <1         0         <10



# **OIL ANALYSIS REPORT**









Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Certificate 12367

Laboratory

Sample No.

Contact/Location: ERICH WEBBER - APPMOR