

## **OIL ANALYSIS REPORT**

Sample Rating Trend

WATER

### Machine Id OAKWOOD VILLAGE EAST COM CTR C-2B CIRC 2 (S/N U18C00508)

Refrigeration Compressor

Fluid TRANE 0048 (--- GAL)

### DIAGNOSIS

#### A Recommendation

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

#### 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	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0730391	WC0709605	WC0578150
Sample Date		Client Info		12 Apr 2024	10 Apr 2024	17 Aug 2022
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				MARGINAL	ABNORMAL	ABNORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	0	0	2
Chromium	ppm	ASTM D5185m	>2	<1	0	0
Nickel	ppm	ASTM D5185m		0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>3	0	0	0
Lead	ppm	ASTM D5185m	>2	0	0	0
Copper	ppm	ASTM D5185m	>8	0	<1	<1
Tin	ppm	ASTM D5185m	>4	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 0	history1 0	history2 0
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base 1 0	current 0 0	<mark>history1</mark> 0 0	history2 0 <1
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 1 0 0	current 0 0 0	history1 0 0 0	history2 0 <1 0
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 1 0 0 0	Current O O O O O	history1 0 0 0 0	history2 0 <1 0 0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	methodASTM D5185mASTM D5185mASTM D5185mASTM D5185mASTM D5185m	limit/base 1 0 0 0 0	Current 0 0 0 0 <1	history1 0 0 0 0 0 0	history2 0 <1 0 0 0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	methodASTM D5185mASTM D5185mASTM D5185mASTM D5185mASTM D5185mASTM D5185m	limit/base 1 0 0 0 0 0 0	Current 0 0 0 0 <1 0	history1 0 0 0 0 0 0 0 0	history2           0           <1           0           0           0           0           0           0           0           0           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	limit/base 1 0 0 0 0 0 0 5	Current 0 0 0 0 <1 0 2	history1 0 0 0 0 0 0 0 0 0	history2 0 <1 0 0 0 0 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 1 0 0 0 0 0 0 5 0	Current 0 0 0 0 0 <1 0 2 2 2	history1 0 0 0 0 0 0 0 0 0 0 0 0	history2 0 <1 0 0 0 0 <1 15
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	limit/base 1 0 0 0 0 0 0 5 0 0 10	Current 0 0 0 0 <1 0 2 2 2 0	history1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	history2 0 <1 0 0 0 0 0 <1 15 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 1 0 0 0 0 0 5 0 10 limit/base	current           0           0           0           0           2           2           0           current	history1         0         history1	history2         0         <1         0         0         0         0         0         0         15         <1         15         <1         history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm 1 ppm 2 ppm 2 ppm 2 ppm 3 ppm 4 ppm 4 ppm 4 ppm 4 ppm 4 ppm 4 ppm 4	method           ASTM D5185m	limit/base 1 0 0 0 0 0 0 5 0 10 limit/base >15	current           0           0           0           0           2           2           0           current           4	history1         0         4	history2         0         <1         0         0         0         0         0         15         <1         15         <1         5
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm 1 ppm 2 ppm 2 ppm 2 ppm 2 ppm 2 ppm 3 ppm 4 ppm 4 ppm 3	method           ASTM D5185m	limit/base 1 0 0 0 0 0 0 5 0 10 limit/base >15 	current           0           0           0           0           2           2           0           current           4           <1	history1         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         history1         4         0	history2         0         <1         0         0         0         0         0         15         <1         15         <1         5         0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm 1 ppm 2 ppm 2 ppm 2 ppm 4 ppm 4 ppm 4 ppm 4 ppm 4 ppm 4 ppm 4	method           ASTM D5185m	limit/base 1 0 0 0 0 0 0 0 5 0 10 limit/base >15 >20	current           0           0           0           0           2           2           0           current           4           <1           1	history1         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         history1         4         0         0         0         0         0         0         0         0         0         0         0         0	history2         0         <1         0         0         0         0         0         15         <1         history2         5         0         0         0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Sulfur Sulfur Sulfur Sulfur Sodium Potassium Water	ppm 1 ppm 2 ppm 2 ppm 2 ppm 2 ppm 3 ppm 4 ppm 4 ppm 4 ppm 4 ppm 4 ppm 2 ppm 3 ppm 4 ppm 4	method           ASTM D5185m	limit/base 1 0 0 0 0 0 0 5 0 10 10 limit/base >15 >20 >0.01	current         0         0         0         0         2         2         0         current         4         <1         1         0         0         0         2         0	history1 0 0 0 0 0 0 0 0 0 0 0 0 0	history2         0         <1         0         0         0         0         <1         15         <1         +15         <1         0         <10         0         <10         0         0         <10         0         <10         0         0         0         0         0         0         0         0.096
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Sulfur Silicon Sodium Potassium Water ppm Water	ppm 1 ppm 2 ppm 2 ppm 2 ppm 2 ppm 2 ppm 3 ppm 3 ppm 4 ppm 4 ppm 2 ppm 4 ppm 4	method           ASTM D5185m           ASTM D6304           ASTM D6304	limit/base 1 0 0 0 0 0 0 5 0 10 5 0 10 limit/base >15 >20 >0.01 >100	current         0         0         0         0         <1         0         2         2         0         2         0         2         0         current         4         <1         1         0.038         384	history1         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         4         0	history2         0         <1         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         <1         5         0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water	ppm i ppm i	method           ASTM D5185m           ASTM D5304           ASTM D6304           Method	limit/base 1 0 0 0 0 0 0 0 0 0 0 0 0 0	current         0         0         0         -         0         2         2         0         2         0         current         4         <1         1         0.038         384	history1         0.053         531	history2 0 <1 0 0 0 0 <1 15 <1 15 <1 history2 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0



# **OIL ANALYSIS REPORT**







VISUAL method limit/base history1 history2 current NONE NONE White Metal \*Visual NONE NONE scalar Yellow Metal NONE NONE NONE NONE scalar \*Visual NONE Precipitate scalar \*Visual NONE NONE NONE Silt scalar \*Visual NONE NONE NONE NONE NONE Debris \*Visual NONE NONE NONE scalar Sand/Dirt NONE NONE NONE scalar \*Visual NONE scalar NORML Appearance \*Visual NORML NORML NORML Odor \*Visual NORML NORML NORML scalar NORML **Emulsified Water** scalar \*Visual >0.01 NEG NEG NEG Free Water scalar \*Visual NEG NEG NEG **FLUID PROPERTIES** method limit/base curren history history2 56.2 Visc @ 40°C cSt ASTM D445 68 60.2 67.4 SAMPLE IMAGES limit/base history1 history2 method current

Color



Bottom



To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

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

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