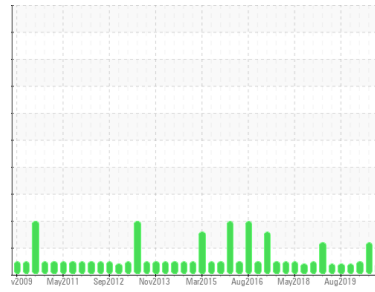




# OIL ANALYSIS REPORT

## Sample Rating Trend



VIS DEBRIS



Machine Id  
**FRICK TYSCHI RC 4 (S/N S065BPEMPHAC03)**  
 Component  
**Refrigeration Compressor**  
 Fluid  
**USPI ALT-68 SC (--- GAL)**

### DIAGNOSIS

#### Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

#### Wear

All component wear rates are normal.

#### Contamination

Moderate concentration of visible dirt/debris 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 INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>USP0015026</b>	USP216504	USP208272
Sample Date	Client Info		<b>17 Jul 2024</b>	02 Nov 2020	25 May 2020
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>ABNORMAL</b>	ABNORMAL	NORMAL

### WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >8	<b>0</b>	<1	<1
Chromium	ppm	ASTM D5185m >2	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >3	<b>0</b>	0	<1
Lead	ppm	ASTM D5185m >2	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m >8	<b>0</b>	0	0
Tin	ppm	ASTM D5185m >4	<b>0</b>	0	0
Antimony	ppm	ASTM D5185m	<b>---</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	<1

### ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>0</b>	<1	<1
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m	<b>0</b>	<1	0
Calcium	ppm	ASTM D5185m	<b>0</b>	1	0
Phosphorus	ppm	ASTM D5185m	<b>0</b>	1	0
Zinc	ppm	ASTM D5185m	<b>0</b>	0	2
Sulfur	ppm	ASTM D5185m 50	<b>0</b>	57	16

### CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>&lt;1</b>	0	1
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Potassium	ppm	ASTM D5185m >20	<b>0</b>	0	4
Water	%	ASTM D6304 >0.01	<b>0.001</b>	0.004	0.009
ppm Water	ppm	ASTM D6304 >100	<b>2</b>	42.9	96.6

### FLUID CLEANLINESS

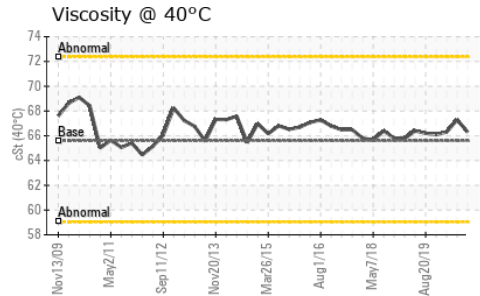
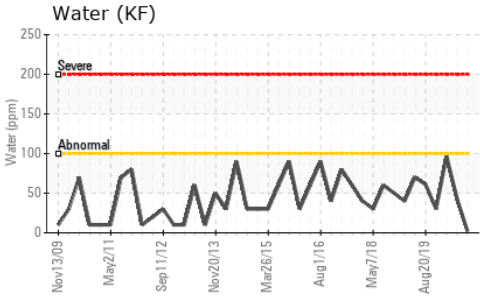
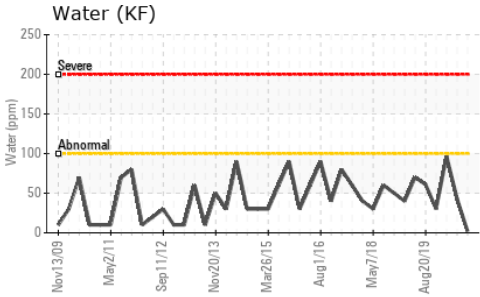
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		<b>---</b>	97356	8621
Particles >6µm	ASTM D7647 >2500		<b>---</b>	▲ 32861	1758
Particles >14µm	ASTM D7647 >320		<b>---</b>	▲ 1838	46
Particles >21µm	ASTM D7647 >80		<b>---</b>	▲ 326	6
Particles >38µm	ASTM D7647 >20		<b>---</b>	2	0
Particles >71µm	ASTM D7647 >4		<b>---</b>	0	0
Oil Cleanliness	ISO 4406 (c) >--/18/15		<b>---</b>	▲ 24/22/18	20/18/13

### FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974 0.005	<b>0.014</b>	0.014	0.014



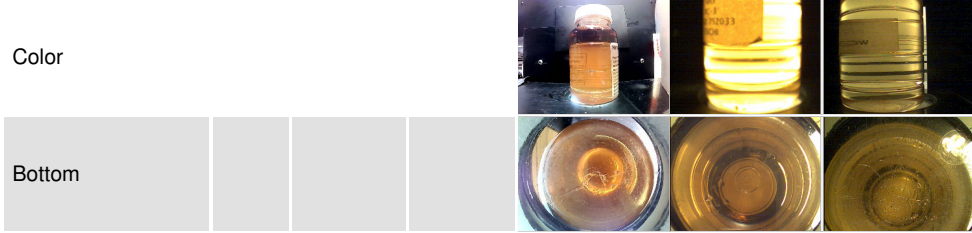
# OIL ANALYSIS REPORT



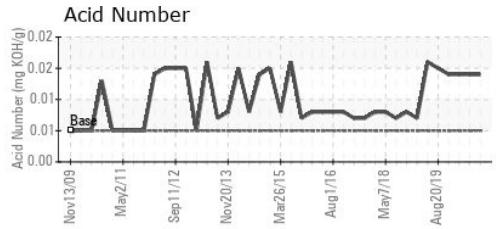
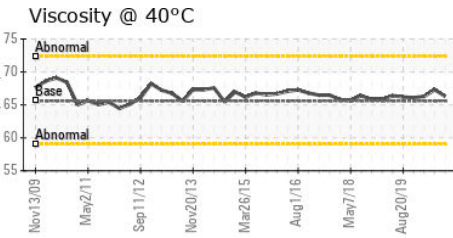
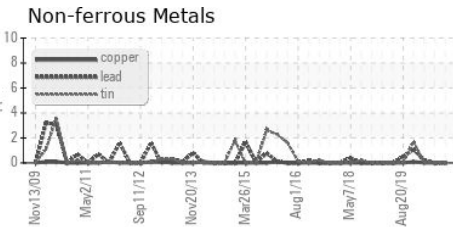
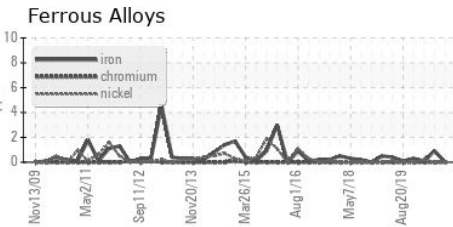
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	▲ MODER	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.01	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	65.6	66.3	66.3

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : USP0015026      **Received** : 18 Jul 2024  
**Lab Number** : 06240427      **Tested** : 19 Jul 2024  
**Unique Number** : 11129261      **Diagnosed** : 19 Jul 2024 - Doug Bogart  
**Test Package** : IND 2

**OSI GROUP - CHICAGO -USP - OSICHI**  
 CHICAGO, IL  
 US  
 Contact: SERVICE MANAGER

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)

T:  
F: