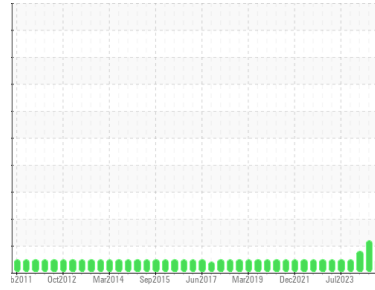




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**FRICK TYSWAT 3 FRK (S/N S0194HFMP TOAA3)**  
 Component  
**Refrigeration Compressor**  
 Fluid  
**USPI 1009-68 SC (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

### 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>USP0012320</b>	USP0006226	USP0007599
Sample Date	Client Info	<b>14 Jul 2024</b>	24 Mar 2024	26 Feb 2024
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>NORMAL</b>	ABNORMAL	ATTENTION

## WEAR METALS

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

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	<b>0</b>	0	0
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>	0	<1
Calcium	ppm ASTM D5185m	<b>0</b>	<1	<1
Phosphorus	ppm ASTM D5185m	<b>0</b>	0	0
Zinc	ppm ASTM D5185m	<b>0</b>	0	0
Sulfur	ppm ASTM D5185m 50	<b>0</b>	0	0

## CONTAMINANTS

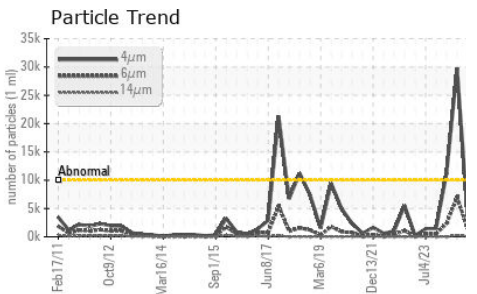
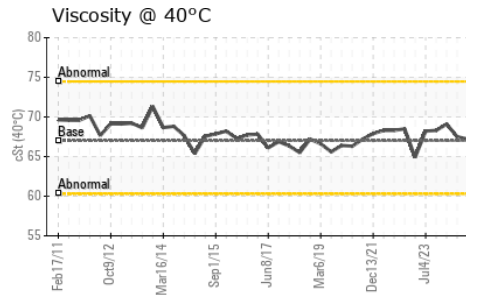
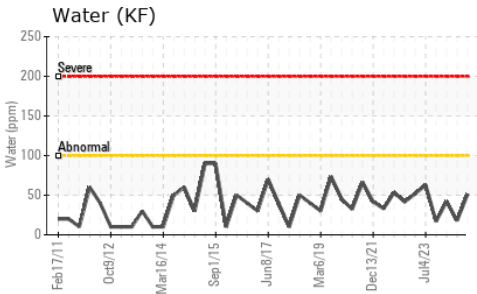
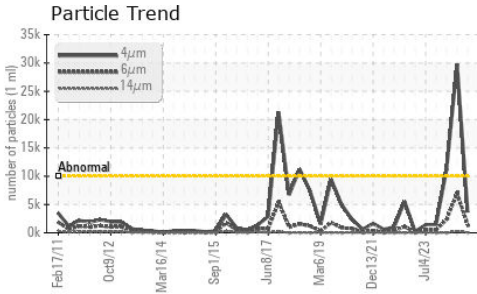
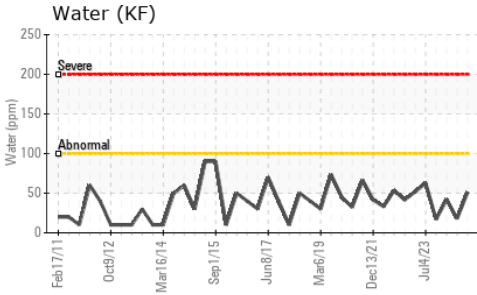
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >15	<b>&lt;1</b>	0	0
Sodium	ppm ASTM D5185m	<b>&lt;1</b>	<1	0
Potassium	ppm ASTM D5185m >20	<b>1</b>	<1	1
Water	% ASTM D6304 >0.01	<b>0.005</b>	0.002	0.004
ppm Water	ppm ASTM D6304 >100	<b>51</b>	18	42

## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >10000	<b>3677</b>	▲ 29782	● 11245
Particles >6µm	ASTM D7647 >2500	<b>1500</b>	▲ 6963	● 2358
Particles >14µm	ASTM D7647 >320	<b>68</b>	277	37
Particles >21µm	ASTM D7647 >80	<b>7</b>	46	2
Particles >38µm	ASTM D7647 >20	<b>0</b>	1	0
Particles >71µm	ASTM D7647 >4	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c) >20/18/15	<b>19/18/13</b>	▲ 22/20/15	● 21/18/12

## FLUID DEGRADATION

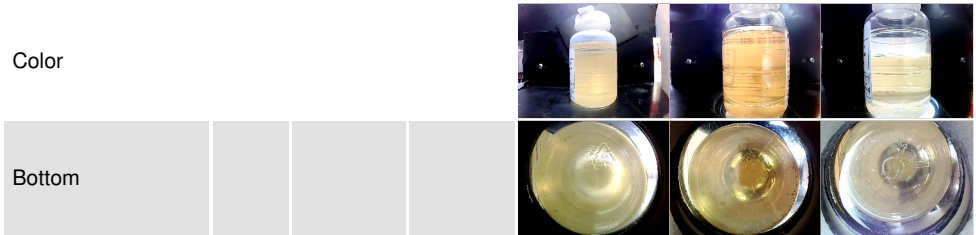
method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D974 0.005	<b>0.014</b>	0.014	0.012



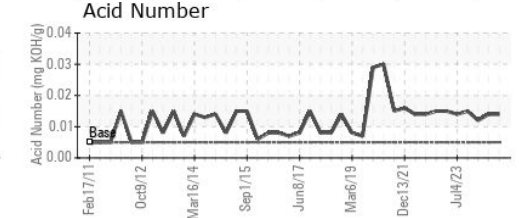
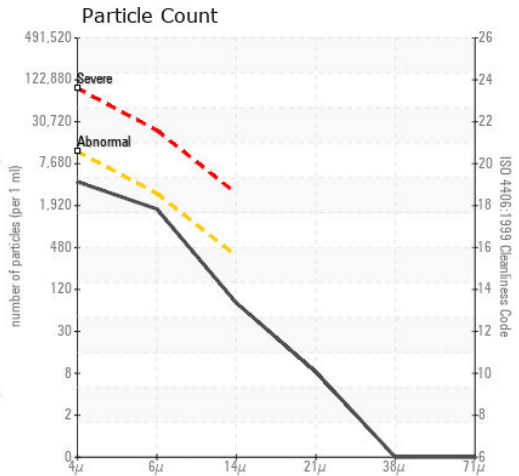
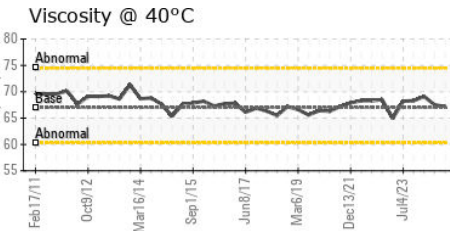
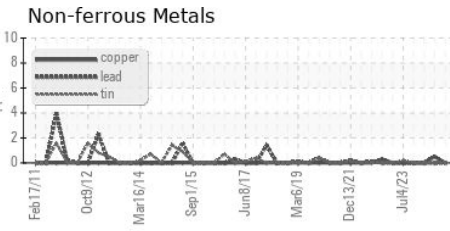
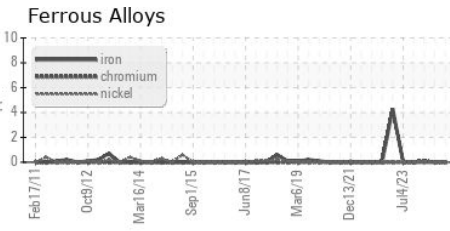
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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 67	67.2	67.5	69.1

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------



## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : USP0012320  
 Lab Number : 06236881  
 Unique Number : 11125715  
 Test Package : IND 2

TYSON - WATERLOO - USP CODE TYSWATPRO  
 501 N Elk Run Road  
 Waterloo, IA  
 US 50703  
 Contact: ED ALBERT

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: (319)236-9328

F: (319)236-9393