



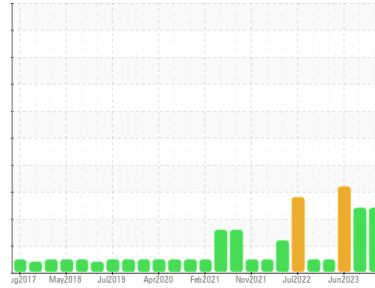
# PROBLEM SUMMARY

Sample Rating Trend

**WATER**

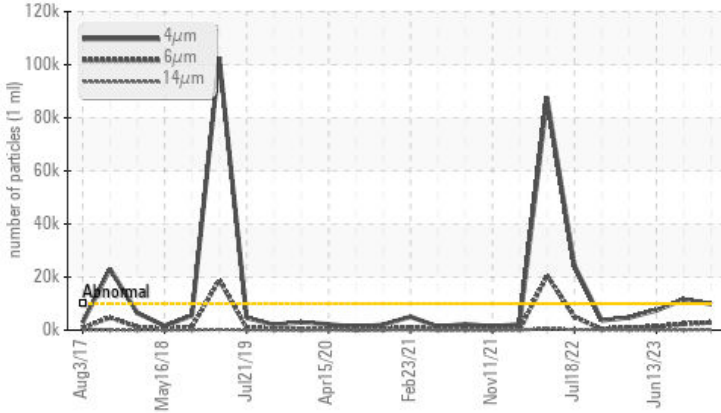


Machine Id  
**FES HSC 1 (S/N 01197-002-1-01-01)**  
 Component  
**Refrigeration Compressor**  
 Fluid  
**USPI 1009-68 SC (--- GAL)**

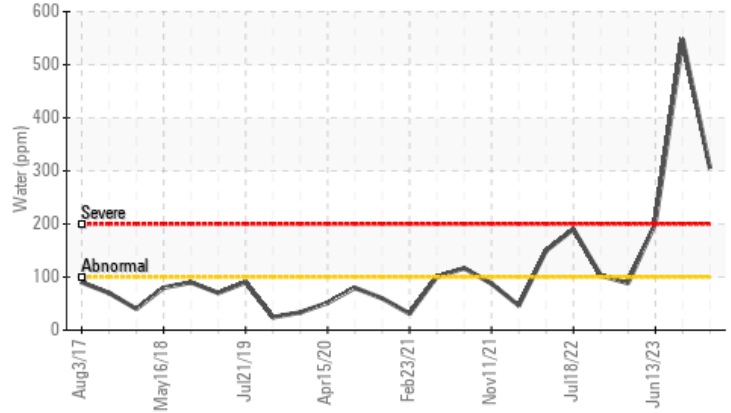


## COMPONENT CONDITION SUMMARY

### ▲ Particle Trend



### ▲ Water (KF)



## RECOMMENDATION

Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status				<b>ATTENTION</b>	ABNORMAL	ABNORMAL
Water	%	ASTM D6304	>0.01	▲ <b>0.030</b>	▲ 0.054	▲ 0.020
ppm Water	ppm	ASTM D6304	>100	▲ <b>305</b>	▲ 548.3	▲ 201.3
Particles >6µm		ASTM D7647	>2500	▲ <b>2861</b>	2337	1236
Oil Cleanliness		ISO 4406 (c)	>20/18/15	▲ <b>20/19/14</b>	▲ 21/18/12	20/17/10

Customer Id: TYSCON  
 Sample No.: USP0003957  
 Lab Number: 06025751  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Doug Bogart +1 (800)237-1369 x4016  
[dougb@wearcheckusa.com](mailto:dougb@wearcheckusa.com)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS

### 07 Sep 2023 Diag: Doug Bogart

WATER



Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of silt (particulates < 6 microns in size) present in the oil. There is a light concentration of water present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



### 13 Jun 2023 Diag: Doug Bogart

WATER



We advise that you follow the water drain-off procedure for this component. Resample at the next service interval to monitor. All component wear rates are normal. Free water present. There is a trace of moisture present in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



### 01 Apr 2023 Diag: Doug Bogart

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

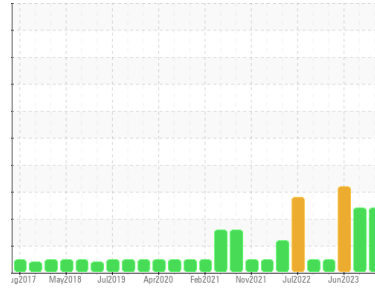
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



**WATER**



Machine Id  
**FES HSC 1 (S/N 01197-002-1-01-01)**

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 a moderate amount of silt (particulates < 14 microns in size) present in the oil. There is a light concentration of water 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>USP0003957</b>	USP248533	USP248532
Sample Date	Client Info		<b>28 Nov 2023</b>	07 Sep 2023	13 Jun 2023
Machine Age	hrs	Client Info	<b>8388</b>	8389	8389
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	Not Changd	Not Changd
Sample Status			<b>ATTENTION</b>	ABNORMAL	ABNORMAL

## 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	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	<1
Copper	ppm	ASTM D5185m >8	<b>0</b>	0	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>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m	<b>0</b>	0	0
Calcium	ppm	ASTM D5185m	<b>0</b>	0	0
Phosphorus	ppm	ASTM D5185m	<b>0</b>	0	<1
Zinc	ppm	ASTM D5185m	<b>0</b>	0	0
Sulfur	ppm	ASTM D5185m 50	<b>29</b>	0	6

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>0</b>	<1	0
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Potassium	ppm	ASTM D5185m >20	<b>0</b>	0	<1
Water	%	ASTM D6304 >0.01	<b>▲ 0.030</b>	▲ 0.054	▲ 0.020
ppm Water	ppm	ASTM D6304 >100	<b>▲ 305</b>	▲ 548.3	▲ 201.3

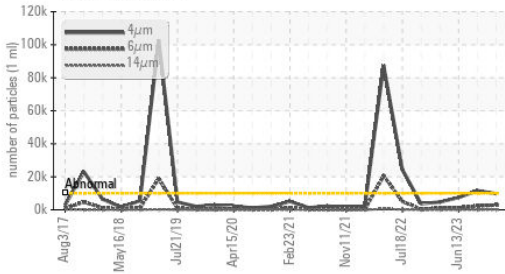
## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	<b>9822</b>	▲ 11575	7453
Particles >6µm	ASTM D7647	>2500	<b>▲ 2861</b>	2337	1236
Particles >14µm	ASTM D7647	>320	<b>135</b>	39	8
Particles >21µm	ASTM D7647	>80	<b>22</b>	5	1
Particles >38µm	ASTM D7647	>20	<b>0</b>	1	0
Particles >71µm	ASTM D7647	>4	<b>0</b>	1	0
Oil Cleanliness	ISO 4406 (c)	>20/18/15	<b>▲ 20/19/14</b>	▲ 21/18/12	20/17/10

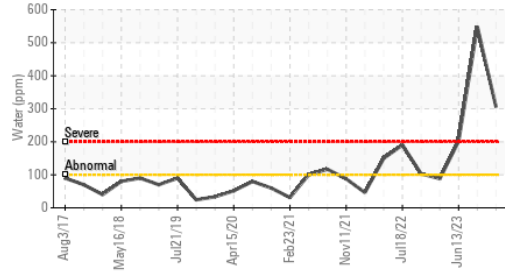
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974 0.005	<b>0.013</b>	0.015	0.015

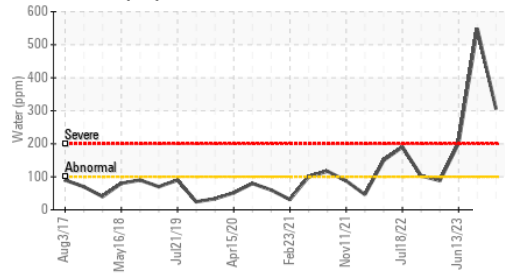
### ▲ Particle Trend



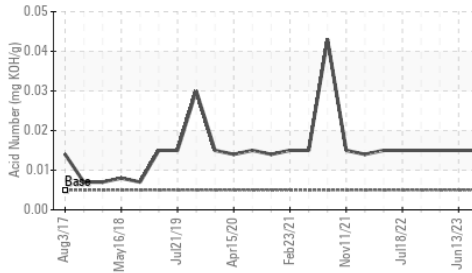
### ▲ Water (KF)



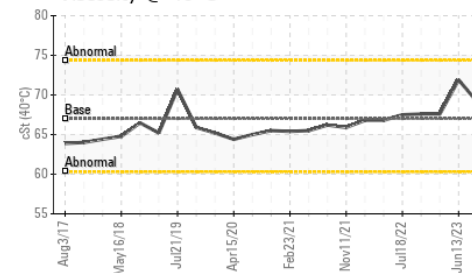
### ▲ Water (KF)



### Acid Number



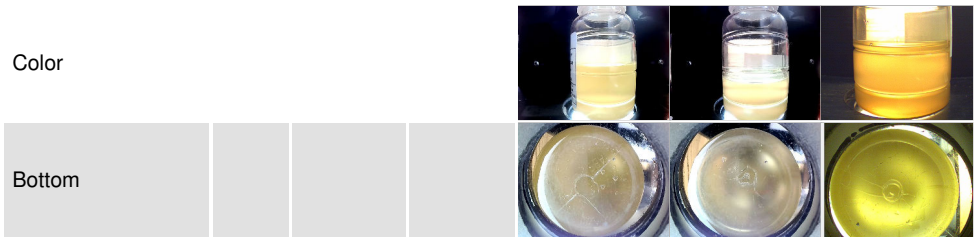
### Viscosity @ 40°C



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	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	SOLID
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.01	NEG	NEG
Free Water	scalar	*Visual		NEG	▲ 1.0

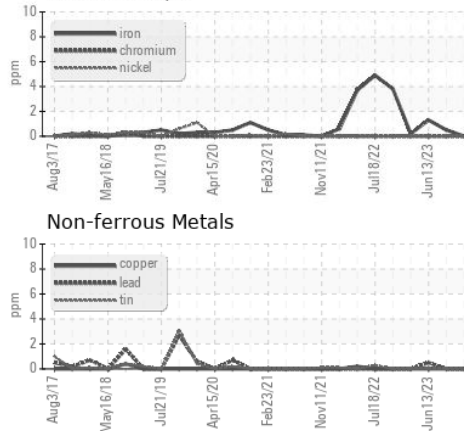
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 67	69.6	69.1	71.9

SAMPLE IMAGES	method	limit/base	current	history1	history2
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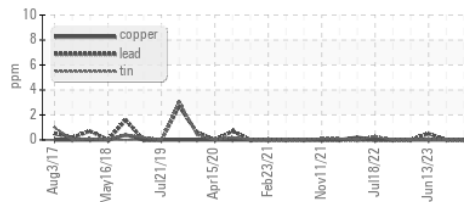


### GRAPHS

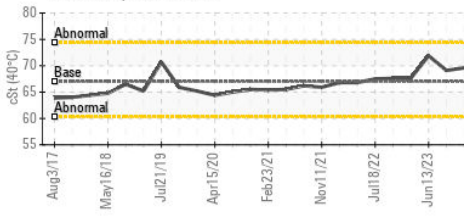
#### Ferrous Alloys



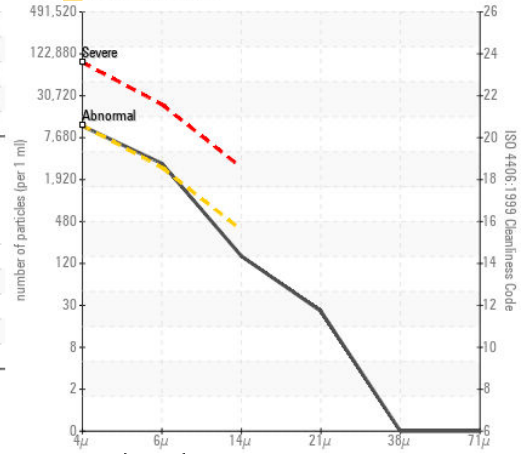
#### Non-ferrous Metals



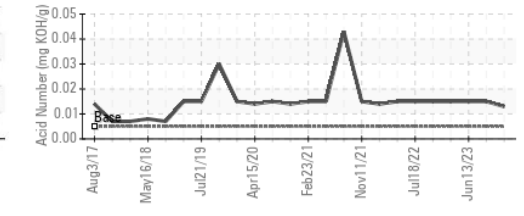
#### Viscosity @ 40°C



#### ▲ Particle Count



#### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : USP0003957 **Received** : 05 Dec 2023  
**Lab Number** : 06025751 **Diagnosed** : 06 Dec 2023  
**Unique Number** : 10775542 **Diagnostician** : Doug Bogart  
**Test Package** : IND 2

**TYSON FOODS**  
 1901 S. ST. LOUIS STREET  
 CONCORDIA, MO  
 US 64020  
 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)

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F: