

# **PROBLEM SUMMARY**

#### Sample Rating Trend

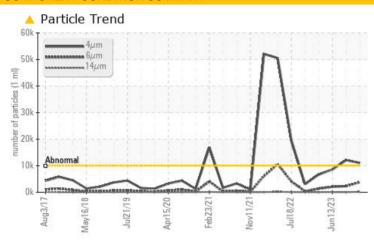
#### **WATER**

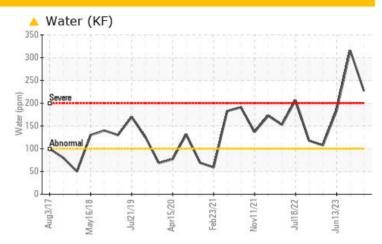
# FES HSC 2 (S/N 01197-002-1-01-02)

**Refrigeration Compressor** 

USPI 1009-68 SC (--- GAL)

#### **COMPONENT CONDITION SUMMARY**





#### RECOMMENDATION

Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS										
Sample Status				ATTENTION	ABNORMAL	NORMAL				
Water	%	ASTM D6304	>0.01	<b>△</b> 0.022	△ 0.031	0.018				
ppm Water	ppm	ASTM D6304	>100	<u> </u>	<b>△</b> 315.7	183.8				
Particles >4µm		ASTM D7647	>10000	<u> </u>	<u>12105</u>	8559				
Particles >6µm		ASTM D7647	>2500	<b>3804</b>	2302	2080				
Oil Cleanliness		ISO 4406 (c)	>20/18/15	<u> </u>	<u>^</u> 21/18/12	20/18/13				

Customer Id: TYSCON Sample No.: USP0003960 Lab Number: 06025754 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

To change component or sample information: Customer Service +1 1-800-237-1369 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.



#### 13 Jun 2023 Diag: Doug Bogart

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. 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.



#### 01 Apr 2023 Diag: Doug Bogart

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. 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.





# **OIL ANALYSIS REPORT**

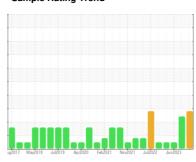
#### Sample Rating Trend



# FES HSC 2 (S/N 01197-002-1-01-02)

**Refrigeration Compressor** 

USPI 1009-68 SC (--- GAL)





#### **DIAGNOSIS**

#### Recommendation

Resample at the next service interval to monitor.

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 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.

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SAMPLE INFORM	MATION	method	limit/base	current	history1	history2		
Sample Number		Client Info		USP0003960	USP248525	USP248524		
Sample Date		Client Info		28 Nov 2023	07 Sep 2023	13 Jun 2023		
Machine Age	hrs	Client Info		8388	8389	8389		
Oil Age	hrs	Client Info		0	0	0		
Oil Changed		Client Info		N/A	Not Changd	Not Changd		
Sample Status				ATTENTION	ABNORMAL	NORMAL		
WEAR METALS		method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185m	>8	2	6	12		
Chromium	ppm	ASTM D5185m	>2	0	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	0	0		
Tin	ppm	ASTM D5185m	>4	0	0	0		
Vanadium	ppm	ASTM D5185m		0	0	0		
Cadmium	ppm	ASTM D5185m		0	0	0		
ADDITIVES		method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185m		0	0	0		
Barium	ppm	ASTM D5185m		0	0	0		
Molybdenum	ppm	ASTM D5185m		0	0	0		
Manganese	ppm	ASTM D5185m		<1	<1	<1		
Magnesium	ppm	ASTM D5185m		0	0	0		
Calcium	ppm	ASTM D5185m		0	0	0		
Phosphorus	ppm	ASTM D5185m		0	0	0		
Zinc	ppm	ASTM D5185m		0	0	0		
Sulfur	ppm	ASTM D5185m	50	18	0	5		
CONTAMINANTS		method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185m	>15	<1	<1	0		
Sodium	ppm	ASTM D5185m	00	<1	<1	0		
Potassium	ppm	ASTM D5185m	>20	0	0	0		
Water ppm Water	% ppm	ASTM D6304 ASTM D6304	>0.01	△ 0.022 △ 227	△ 0.031 △ 315.7	0.018		
FLUID CLEANLIN		method						
	NESS		limit/base	current  11025	history1	history2		
Particles >4µm		ASTM D7647	>10000		12105	8559		
Particles >6µm		ASTM D7647	>2500	<u>▲</u> 3804	2302	2080		
Particles >14µm		ASTM D7647	>320	161	26	62		
Particles >21µm		ASTM D7647		23	2	11		
Particles >38µm		ASTM D7647	>20	0	0	0		
Particles >71µm		ASTM D7647		0	0	0		
Oil Cleanliness		ISO 4406 (c)	>20/18/15	<u>21/19/15</u>	<u>\$\text{21}\18/12\$</u>	20/18/13		
FLUID DEGRADA	ATION	method	limit/base	current	history1	history2		
Acid Number (AN)	mg KOH/g	ASTM D974	0.005	0.015	0.016	0.015		



### **OIL ANALYSIS REPORT**







Certificate L2367

Laboratory Sample No. Lab Number Unique Number

Test Package

No. : WearCheck C No. : USP0003960 hber : 06025754 umber : 10775545

: IND 2

03960 Received
754 Diagnosed
645 Diagnostician

leceived : 05 Dec 2023 liagnosed : 06 Dec 2023 liagnostician : Doug Bogart 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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