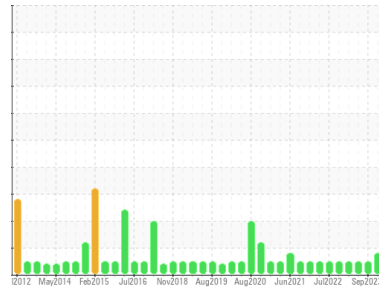




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**FES 3 (S/N 2512825)**  
 Component  
**Refrigeration Compressor**  
 Fluid  
**USPI 1009-68 SC (--- QTS)**

## 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 < 6 microns in size) 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>USP0006516</b>	USP0002058	USP05861858
Sample Date	Client Info	<b>24 Apr 2024</b>	13 Sep 2023	31 May 2023
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>ATTENTION</b>	NORMAL	NORMAL

## WEAR METALS

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

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	0	0	
Barium	ppm	ASTM D5185m	0	0	
Molybdenum	ppm	ASTM D5185m	0	0	
Manganese	ppm	ASTM D5185m	0	<1	
Magnesium	ppm	ASTM D5185m	0	0	
Calcium	ppm	ASTM D5185m	0	0	
Phosphorus	ppm	ASTM D5185m	0	0	
Zinc	ppm	ASTM D5185m	0	0	
Sulfur	ppm	ASTM D5185m 50	7	5	26

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >15	2	2	
Sodium	ppm	ASTM D5185m	3	1	0
Potassium	ppm	ASTM D5185m >20	<1	3	<1
Water	%	ASTM D6304 >0.01	<b>0.004</b>	0.002	0.003
ppm Water	ppm	ASTM D6304 >100	<b>47</b>	16.0	27.3

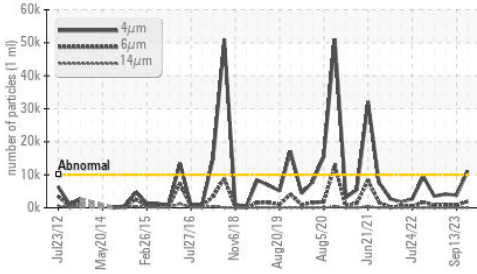
## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >10000	<b>11089</b>	3798	4163
Particles >6µm	ASTM D7647 >2500	<b>1943</b>	771	969
Particles >14µm	ASTM D7647 >320	<b>54</b>	29	28
Particles >21µm	ASTM D7647 >80	<b>8</b>	8	4
Particles >38µm	ASTM D7647 >20	<b>0</b>	0	0
Particles >71µm	ASTM D7647 >4	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c) >20/18/15	<b>21/18/13</b>	19/17/12	19/17/12

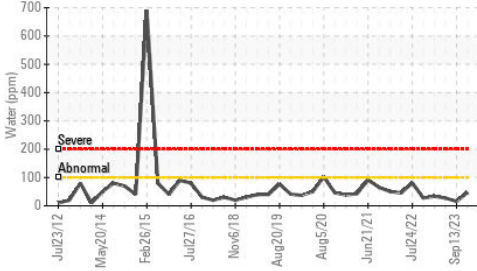
## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D974 0.005	<b>0.014</b>	0.014	0.015

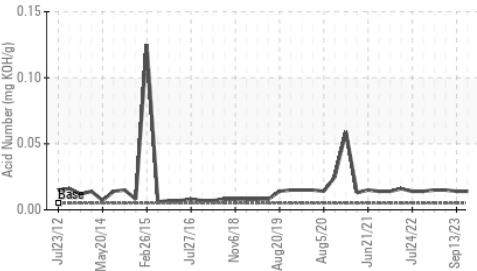
### Particle Trend



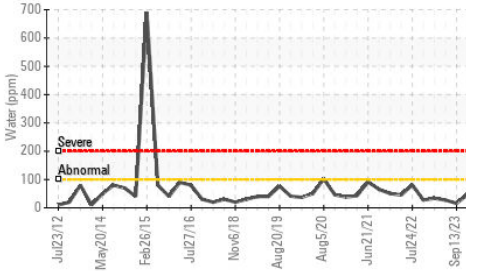
### Water (KF)



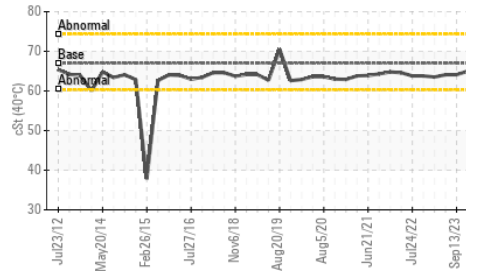
### Acid Number



### Water (KF)



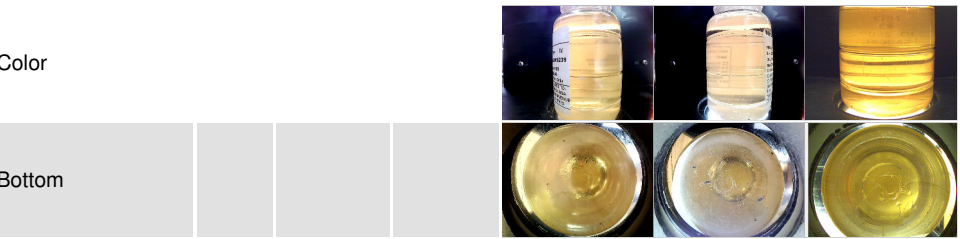
### Viscosity @ 40°C



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	LIGHT
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

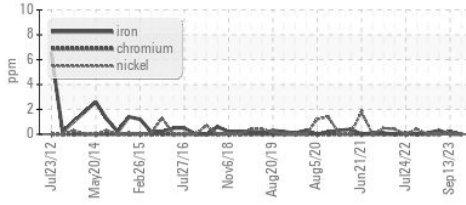
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 67	65.0	64.1	64.1

### SAMPLE IMAGES

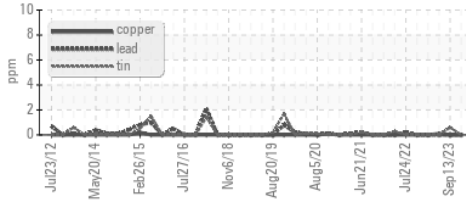


### GRAPHS

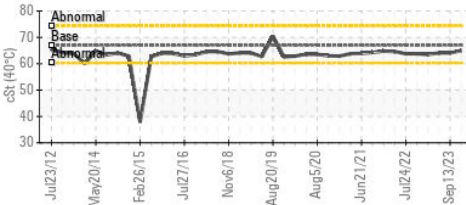
#### Ferrous Alloys



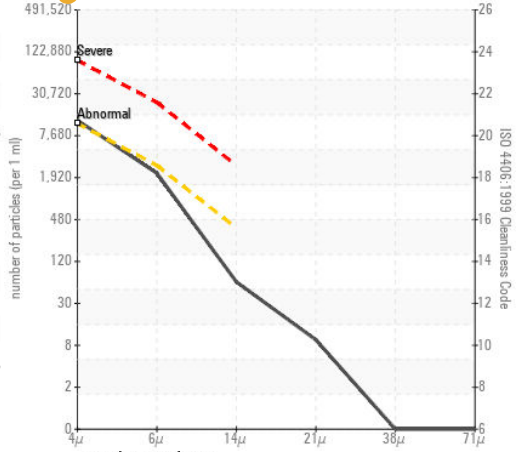
#### Non-ferrous Metals



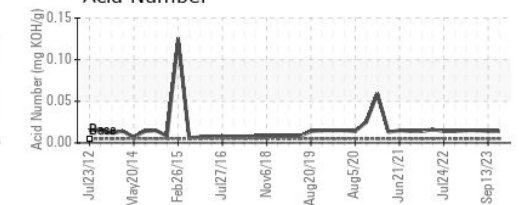
#### Viscosity @ 40°C



#### Particle Count



#### Acid Number



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : USP0006516 **Received** : 25 Apr 2024  
**Lab Number** : 06160413 **Tested** : 26 Apr 2024  
**Unique Number** : 10995836 **Diagnosed** : 29 Apr 2024 - Doug Bogart  
**Test Package** : IND 2

**FARMLAND FOODS - CRETE**  
 S HIGHWAY 103  
 CRETE, NE  
 US 68333  
 Contact:

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: