



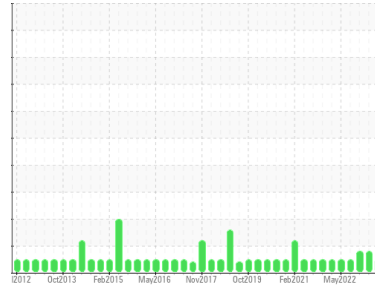
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**slaughter**  
 Machine Id  
**FRICK TYSDCS 3FRK (S/N 83102)**  
 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>USP248952</b>   | USP245607   | USP219461   |
| Sample Date   | Client Info |             | <b>12 Jul 2023</b> | 13 Apr 2023 | 04 Jan 2023 |
| Machine Age   | hrs         | Client Info | <b>42424</b>       | 41975       | 41015       |
| 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>      | ATTENTION   | ATTENTION   |

## WEAR METALS

|          | method | limit/base     | current      | history1 | history2 |
|----------|--------|----------------|--------------|----------|----------|
| Iron     | ppm    | ASTM D5185m >8 | <b>&lt;1</b> | 0        | 3        |
| 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        | 0        |
| Lead     | ppm    | ASTM D5185m >2 | <b>0</b>     | 0        | 0        |
| Copper   | ppm    | ASTM D5185m >8 | <b>0</b>     | 0        | <1       |
| 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>  | <1       | 0        |
| Magnesium  | ppm    | ASTM D5185m    | <b>0</b>  | 0        | 0        |
| Calcium    | ppm    | ASTM D5185m    | <b>0</b>  | <1       | 0        |
| Phosphorus | ppm    | ASTM D5185m    | <b>1</b>  | 0        | 0        |
| Zinc       | ppm    | ASTM D5185m    | <b>0</b>  | 0        | 0        |
| Sulfur     | ppm    | ASTM D5185m 50 | <b>23</b> | 18       | 16       |

## CONTAMINANTS

|           | method | limit/base       | current      | history1 | history2 |
|-----------|--------|------------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >15  | <b>&lt;1</b> | <1       | 1        |
| Sodium    | ppm    | ASTM D5185m      | <b>0</b>     | <1       | 0        |
| Potassium | ppm    | ASTM D5185m >20  | <b>0</b>     | 0        | 0        |
| Water     | %      | ASTM D6304 >0.01 | <b>0.003</b> | 0.003    | 0.004    |
| ppm Water | ppm    | ASTM D6304 >100  | <b>38.9</b>  | 33.2     | 46.7     |

## FLUID CLEANLINESS

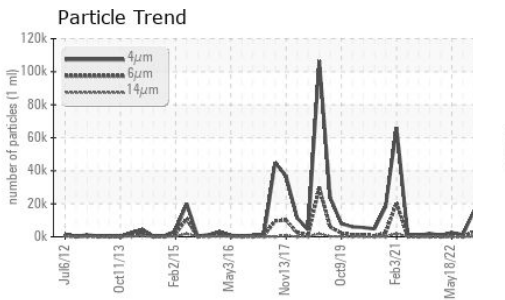
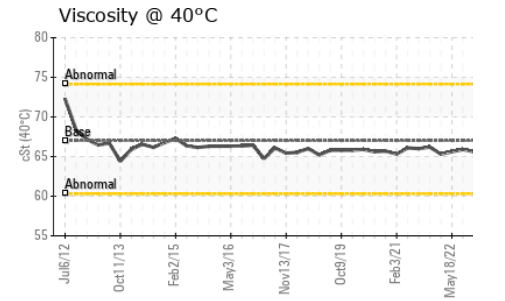
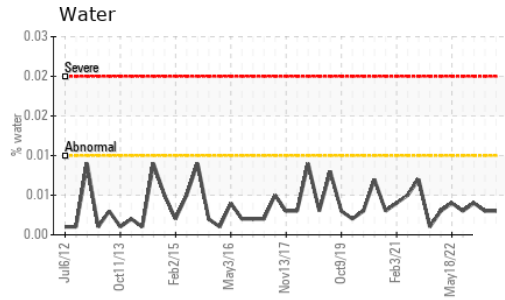
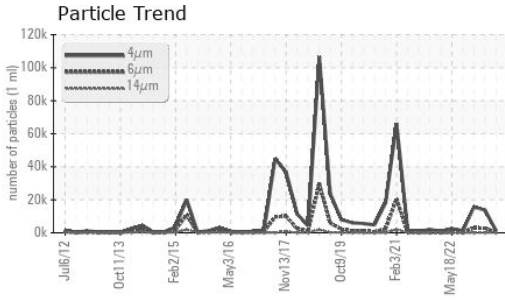
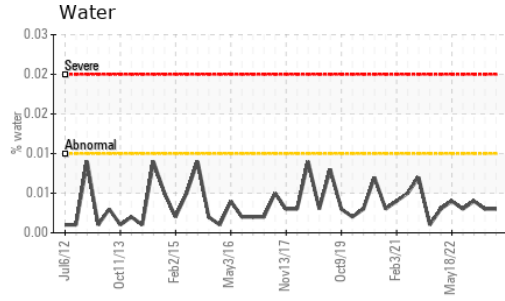
|                 | method                 | limit/base | current         | history1   | history2   |
|-----------------|------------------------|------------|-----------------|------------|------------|
| Particles >4µm  | ASTM D7647             |            | <b>1335</b>     | 13728      | 15622      |
| Particles >6µm  | ASTM D7647 >2500       |            | <b>329</b>      | ▲ 2801     | ▲ 2858     |
| Particles >14µm | ASTM D7647 >320        |            | <b>32</b>       | 100        | 77         |
| Particles >21µm | ASTM D7647 >80         |            | <b>11</b>       | 22         | 14         |
| Particles >38µm | ASTM D7647 >20         |            | <b>1</b>        | 1          | 0          |
| Particles >71µm | ASTM D7647 >4          |            | <b>0</b>        | 0          | 0          |
| Oil Cleanliness | ISO 4406 (c) >--/18/15 |            | <b>18/16/12</b> | ▲ 21/19/14 | ▲ 21/19/13 |

## FLUID DEGRADATION

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



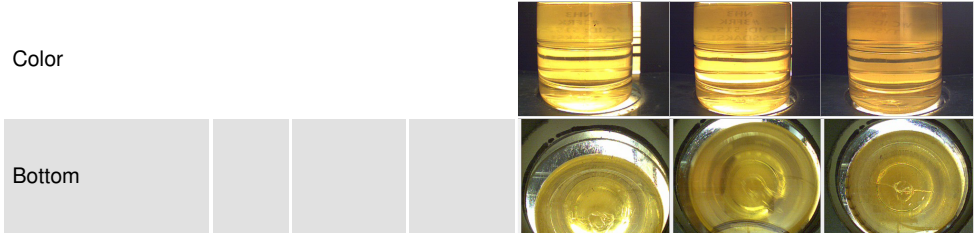
# OIL ANALYSIS REPORT



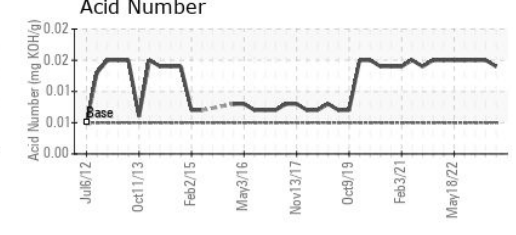
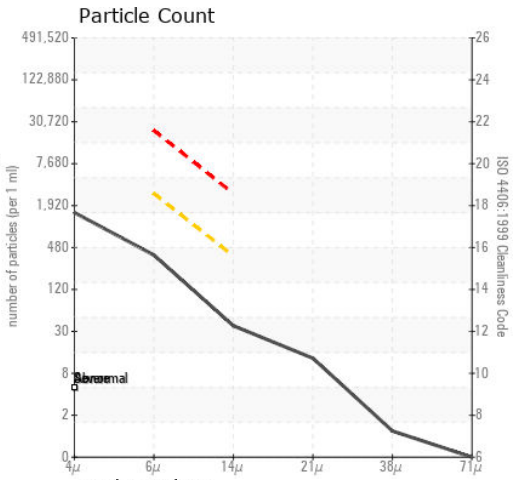
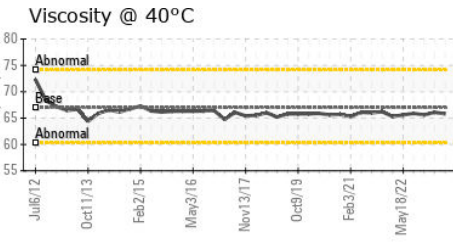
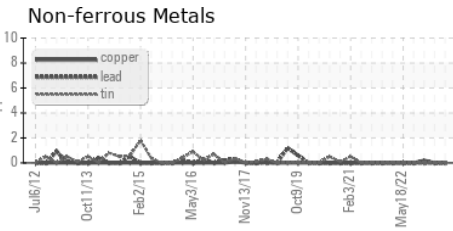
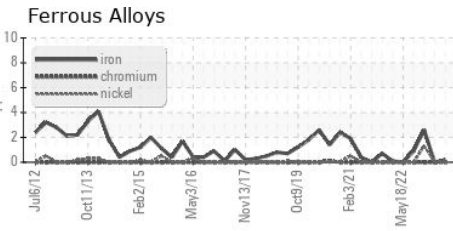
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual    | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual    | NONE    | 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  | 67      | 65.8     | 66.1     |

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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : USP248952  
**Lab Number** : 05899938  
**Unique Number** : 10561294  
**Test Package** : IND 2

**TYSON-DAKOTA CITY-USP**  
 P.O. BOX 515  
 DAKOTA CITY, NE  
 US 68731  
 Contact: RICHARD KOCH

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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