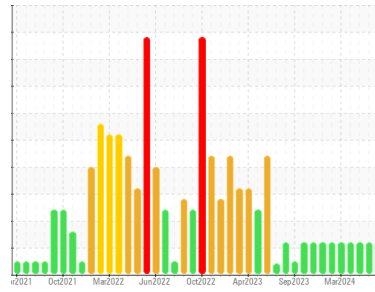


# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area

**MIX ROOM E [99062895]**

Machine Id

**KR-GR-003116 - EAST DUMPER (S/N MIX E - 11513082)**

Component

**Hydraulic System**

Fluid

**AW HYDRAULIC OIL ISO 68 (--- GAL)**

## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. ( Customer Sample Comment: 99062895 )

### Wear

All component wear rates are normal.

### Contamination

There is a high amount of silt (particulates < 14 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>PCA0128836</b>  | PCA0124748  | PCA0114150  |
| Sample Date   | Client Info | <b>13 Jun 2024</b> | 24 May 2024 | 16 Apr 2024 |
| Machine Age   | hrs         | Client Info        | 0           | 0           |
| Oil Age       | hrs         | Client Info        | 0           | 0           |
| Oil Changed   | Client Info | <b>Not Chngd</b>   | N/A         | Not Chngd   |
| Sample Status |             | <b>ABNORMAL</b>    | ABNORMAL    | ABNORMAL    |

## CONTAMINATION

| method | limit/base | current | history1   | history2 |     |
|--------|------------|---------|------------|----------|-----|
| Water  | WC Method  | >0.05   | <b>NEG</b> | NEG      | NEG |

## WEAR METALS

| method   | limit/base | current     | history1 | history2     |    |    |
|----------|------------|-------------|----------|--------------|----|----|
| Iron     | ppm        | ASTM D5185m | >20      | <b>&lt;1</b> | 0  | 0  |
| Chromium | ppm        | ASTM D5185m | >20      | <b>&lt;1</b> | <1 | 0  |
| Nickel   | ppm        | ASTM D5185m | >20      | <b>&lt;1</b> | 0  | 0  |
| Titanium | ppm        | ASTM D5185m |          | <b>&lt;1</b> | <1 | 0  |
| Silver   | ppm        | ASTM D5185m |          | <b>&lt;1</b> | 0  | 0  |
| Aluminum | ppm        | ASTM D5185m | >20      | <b>2</b>     | 2  | 0  |
| Lead     | ppm        | ASTM D5185m | >20      | <b>&lt;1</b> | <1 | 0  |
| Copper   | ppm        | ASTM D5185m | >20      | <b>&lt;1</b> | <1 | 0  |
| Tin      | ppm        | ASTM D5185m | >20      | <b>&lt;1</b> | <1 | 0  |
| Vanadium | ppm        | ASTM D5185m |          | <b>0</b>     | 0  | <1 |
| Cadmium  | ppm        | ASTM D5185m |          | <b>&lt;1</b> | <1 | 0  |

## ADDITIVES

| method     | limit/base | current     | history1 | history2     |     |     |
|------------|------------|-------------|----------|--------------|-----|-----|
| Boron      | ppm        | ASTM D5185m | 5        | <b>0</b>     | 0   | 0   |
| Barium     | ppm        | ASTM D5185m | 5        | <b>0</b>     | <1  | 0   |
| Molybdenum | ppm        | ASTM D5185m | 5        | <b>&lt;1</b> | <1  | 0   |
| Manganese  | ppm        | ASTM D5185m |          | <b>&lt;1</b> | 0   | 0   |
| Magnesium  | ppm        | ASTM D5185m | 25       | <b>&lt;1</b> | <1  | <1  |
| Calcium    | ppm        | ASTM D5185m | 200      | <b>0</b>     | 0   | 0   |
| Phosphorus | ppm        | ASTM D5185m | 300      | <b>363</b>   | 407 | 375 |
| Zinc       | ppm        | ASTM D5185m | 370      | <b>2</b>     | <1  | 0   |
| Sulfur     | ppm        | ASTM D5185m | 2500     | <b>440</b>   | 438 | 554 |

## CONTAMINANTS

| method    | limit/base | current     | history1 | history2     |    |    |
|-----------|------------|-------------|----------|--------------|----|----|
| Silicon   | ppm        | ASTM D5185m | >15      | <b>2</b>     | 2  | <1 |
| Sodium    | ppm        | ASTM D5185m |          | <b>0</b>     | 0  | 0  |
| Potassium | ppm        | ASTM D5185m | >20      | <b>&lt;1</b> | <1 | 0  |

## FLUID CLEANLINESS

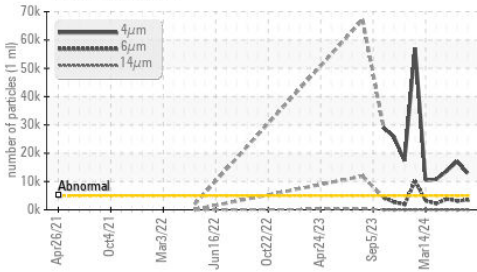
| method          | limit/base   | current   | history1          | history2   |            |
|-----------------|--------------|-----------|-------------------|------------|------------|
| Particles >4µm  | ASTM D7647   | >5000     | <b>▲ 12935</b>    | ▲ 17068    | ▲ 13664    |
| Particles >6µm  | ASTM D7647   | >1300     | <b>▲ 3443</b>     | ▲ 3109     | ▲ 3816     |
| Particles >14µm | ASTM D7647   | >320      | <b>60</b>         | 34         | 59         |
| Particles >21µm | ASTM D7647   | >80       | <b>5</b>          | 5          | 7          |
| 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) | >19/17/15 | <b>▲ 21/19/13</b> | ▲ 21/19/12 | ▲ 21/19/13 |

## FLUID DEGRADATION

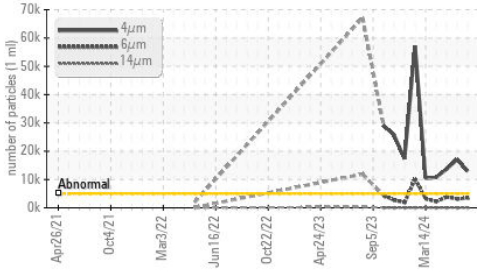
| method           | limit/base | current    | history1 | history2    |      |      |
|------------------|------------|------------|----------|-------------|------|------|
| Acid Number (AN) | mg KOH/g   | ASTM D8045 | 0.57     | <b>0.15</b> | 0.16 | 0.13 |

# OIL ANALYSIS REPORT

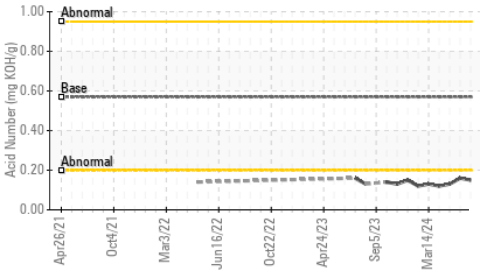
## ▲ Particle Trend



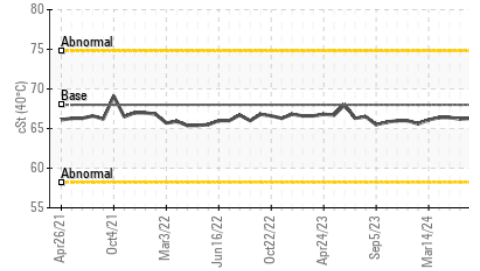
## ▲ Particle Trend



## 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    | NORML    |
| Odor             | scalar | *Visual    | NORML   | NORML    | NORML    |
| Emulsified Water | scalar | *Visual    | >0.05   | NEG      | NEG      |
| Free Water       | scalar | *Visual    |         | NEG      | NEG      |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445  | 68      | 66.2     | 66.4     |

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

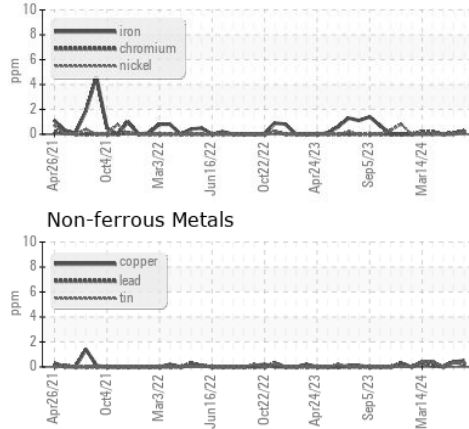
Color

Bottom

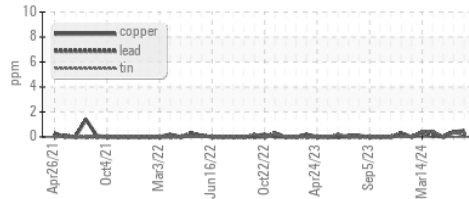


## GRAPHS

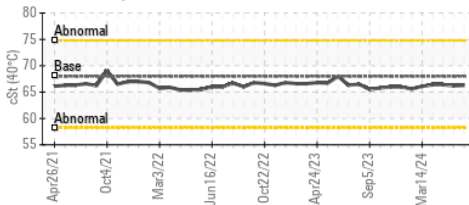
### Ferrous Alloys



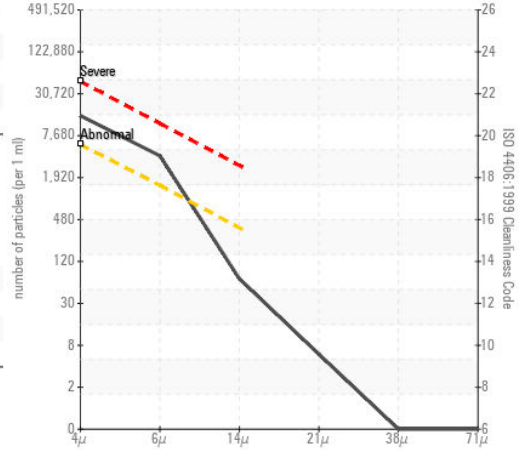
### Non-ferrous Metals



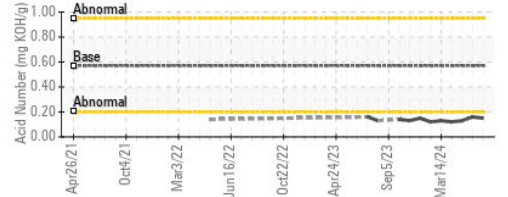
### Viscosity @ 40°C



### ▲ Particle Count



### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0128836  
**Lab Number** : 06213441  
**Unique Number** : 11086305  
**Test Package** : IND 2

**Received** : 18 Jun 2024  
**Tested** : 19 Jun 2024  
**Diagnosed** : 20 Jun 2024 - Don Baldrige

**KraftHeinz - Kirksville - Plant 8333 PCA**  
 2504 INDUSTRIAL DR  
 KIRKSVILLE, MO  
 US 63501

Contact: WALLACE WARD  
 wallace.ward@kraftheinzcompany.com

T: (660)627-1031

F: (660)627-5887

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)