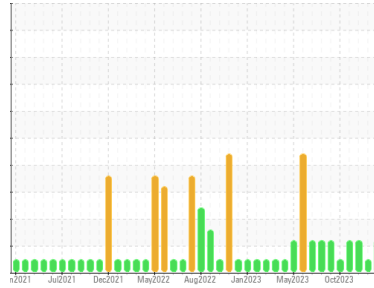


# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area  
**MIX ROOM E [98778360]**  
 Machine Id  
**KR-GR-003115 - WEST DUMPER (S/N MIX E - 11513079)**  
 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.

### 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>PCA0116068</b>  | PCA0088776  | PCA0111178  |
| Sample Date        | Client Info |             | <b>11 Mar 2024</b> | 11 Jan 2024 | 20 Dec 2023 |
| Machine Age        | hrs         | Client Info | <b>0</b>           | 0           | 0           |
| Oil Age            | hrs         | Client Info | <b>0</b>           | 0           | 0           |
| Oil Changed        | Client Info |             | <b>N/A</b>         | N/A         | Not Changd  |
| Sample Status      |             |             | <b>ABNORMAL</b>    | NORMAL      | 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>0</b>     | 0        | 0        |
| Chromium    | ppm    | ASTM D5185m >20 | <b>&lt;1</b> | <1       | 0        |
| Nickel      | ppm    | ASTM D5185m >20 | <b>0</b>     | 0        | 0        |
| Titanium    | ppm    | ASTM D5185m     | <b>&lt;1</b> | 0        | 0        |
| Silver      | ppm    | ASTM D5185m     | <b>0</b>     | 0        | 0        |
| Aluminum    | ppm    | ASTM D5185m >20 | <b>3</b>     | 2        | 0        |
| Lead        | ppm    | ASTM D5185m >20 | <b>&lt;1</b> | 0        | 0        |
| Copper      | ppm    | ASTM D5185m >20 | <b>&lt;1</b> | 0        | 0        |
| Tin         | ppm    | ASTM D5185m >20 | <b>&lt;1</b> | 0        | 0        |
| Vanadium    | ppm    | ASTM D5185m     | <b>&lt;1</b> | 0        | 0        |
| Cadmium     | ppm    | ASTM D5185m     | <b>&lt;1</b> | 0        | 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>     | 0        | 0        |
| Molybdenum | ppm    | ASTM D5185m 5    | <b>0</b>     | 0        | 0        |
| Manganese  | ppm    | ASTM D5185m      | <b>0</b>     | 0        | <1       |
| Magnesium  | ppm    | ASTM D5185m 25   | <b>&lt;1</b> | 0        | 0        |
| Calcium    | ppm    | ASTM D5185m 200  | <b>3</b>     | 0        | 0        |
| Phosphorus | ppm    | ASTM D5185m 300  | <b>439</b>   | 456      | 391      |
| Zinc       | ppm    | ASTM D5185m 370  | <b>0</b>     | 0        | 0        |
| Sulfur     | ppm    | ASTM D5185m 2500 | <b>477</b>   | 424      | 274      |

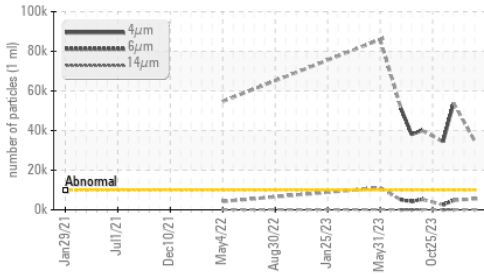
| CONTAMINANTS | method | limit/base      | current  | history1 | history2 |
|--------------|--------|-----------------|----------|----------|----------|
| Silicon      | ppm    | ASTM D5185m >15 | <b>2</b> | 1        | 2        |
| Sodium       | ppm    | ASTM D5185m     | <b>0</b> | 0        | 3        |
| Potassium    | ppm    | ASTM D5185m >20 | <b>1</b> | <1       | 2        |

| FLUID CLEANLINESS | method       | limit/base | current           | history1 | history2   |
|-------------------|--------------|------------|-------------------|----------|------------|
| Particles >4µm    | ASTM D7647   | >10000     | <b>▲ 34778</b>    | ---      | ▲ 53823    |
| Particles >6µm    | ASTM D7647   | >2500      | <b>▲ 5545</b>     | ---      | ● 4759     |
| Particles >14µm   | ASTM D7647   | >640       | <b>113</b>        | ---      | 114        |
| Particles >21µm   | ASTM D7647   | >160       | <b>18</b>         | ---      | 17         |
| Particles >38µm   | ASTM D7647   | >40        | <b>0</b>          | ---      | 1          |
| Particles >71µm   | ASTM D7647   | >10        | <b>0</b>          | ---      | 0          |
| Oil Cleanliness   | ISO 4406 (c) | >20/18/16  | <b>▲ 22/20/14</b> | ---      | ▲ 23/19/14 |

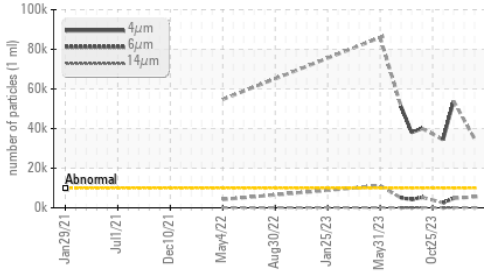
| FLUID DEGRADATION | method   | limit/base      | current     | history1 | history2 |
|-------------------|----------|-----------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 0.57 | <b>0.16</b> | ---      | 0.17     |

# OIL ANALYSIS REPORT

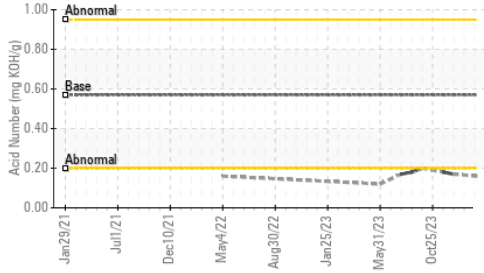
## ▲ Particle Trend



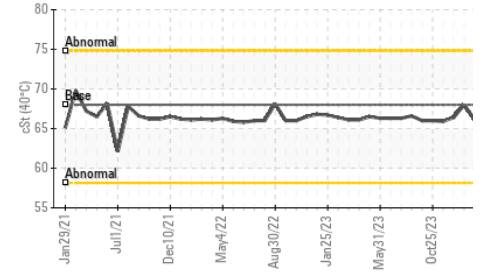
## ▲ Particle Trend



## Acid Number



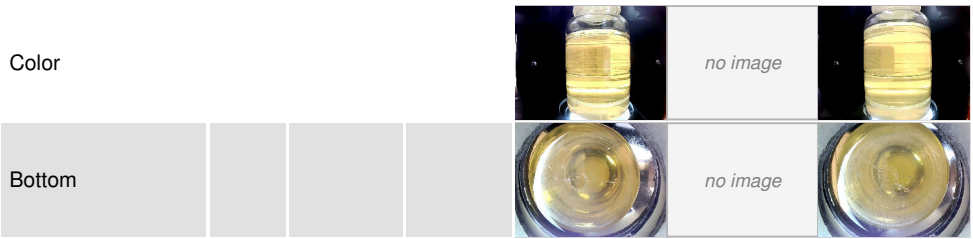
## Viscosity @ 40°C



| PARAMETER        | 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      |

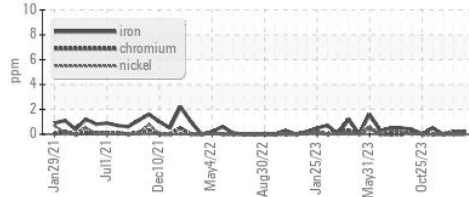
| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445  | 68      | 66.1     | 68.0     |

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

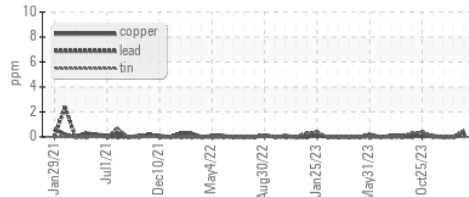


## GRAPHS

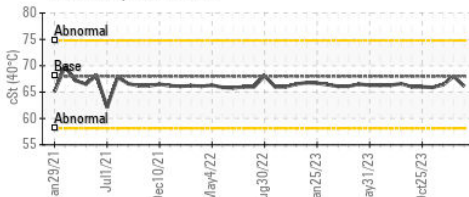
### Ferrous Alloys



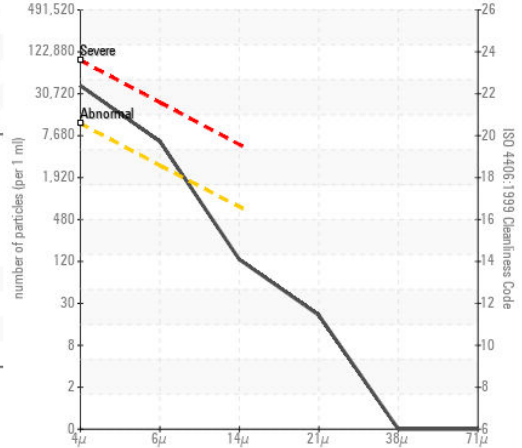
### Non-ferrous Metals



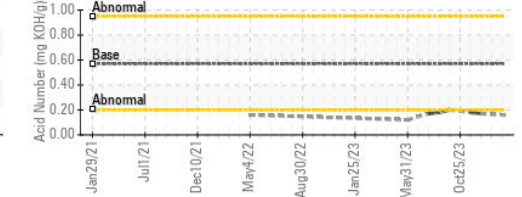
### Viscosity @ 40°C



### ▲ Particle Count



### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0116068  
**Lab Number** : 06133245  
**Unique Number** : 10952710  
**Test Package** : IND 2

**Received** : 29 Mar 2024  
**Tested** : 01 Apr 2024  
**Diagnosed** : 03 Apr 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)