



|                 |                  |
|-----------------|------------------|
| WEAR            | <b>NORMAL</b>    |
| CONTAMINATION   | <b>ATTENTION</b> |
| FLUID CONDITION | <b>NORMAL</b>    |

Area  
**[W64409]**  
 Machine Id  
**KX80 (S/N 25504)**  
 Component  
**Hydraulic System**  
 Fluid  
**AW HYDRAULIC OIL ISO 46 (24 GAL)**

### RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. ( Customer Sample Comment: W64409 )

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|----------|
| Sample Number  |     | Client Info |           | <b>JR0203445</b>   | JR0179034   | ---      |
| Sample Date    |     | Client Info |           | <b>22 Feb 2024</b> | 31 Jul 2023 | ---      |
| Machine Age    | hrs | Client Info |           | <b>6960</b>        | 6496        | ---      |
| Oil Age        | hrs | Client Info |           | <b>6960</b>        | 6496        | ---      |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 0           | ---      |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Not Changd  | ---      |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Not Changd  | ---      |
| Sample Status  |     |             |           | <b>ATTENTION</b>   | ABNORMAL    | ---      |

### WEAR

All component wear rates are normal.

| Test         | UOM    | Method      | Limit/Abn | Current      | History1 | History2 |
|--------------|--------|-------------|-----------|--------------|----------|----------|
| PQ           |        | ASTM D8184  |           | <b>11</b>    | 10       | ---      |
| Iron         | ppm    | ASTM D5185m | >20       | <b>&lt;1</b> | 1        | ---      |
| Chromium     | ppm    | ASTM D5185m | >10       | <b>&lt;1</b> | 0        | ---      |
| Nickel       | ppm    | ASTM D5185m | >10       | <b>0</b>     | <1       | ---      |
| Titanium     | ppm    | ASTM D5185m |           | <b>0</b>     | 0        | ---      |
| Silver       | ppm    | ASTM D5185m |           | <b>0</b>     | 0        | ---      |
| Aluminum     | ppm    | ASTM D5185m | >10       | <b>&lt;1</b> | 0        | ---      |
| Lead         | ppm    | ASTM D5185m | >10       | <b>0</b>     | <1       | ---      |
| Copper       | ppm    | ASTM D5185m | >75       | <b>2</b>     | 0        | ---      |
| Tin          | ppm    | ASTM D5185m | >10       | <b>0</b>     | 0        | ---      |
| Vanadium     | ppm    | ASTM D5185m |           | <b>0</b>     | 0        | ---      |
| White Metal  | scalar | *Visual     | NONE      | <b>NONE</b>  | NONE     | ---      |
| Yellow Metal | scalar | *Visual     | NONE      | <b>NONE</b>  | NONE     | ---      |

### CONTAMINATION

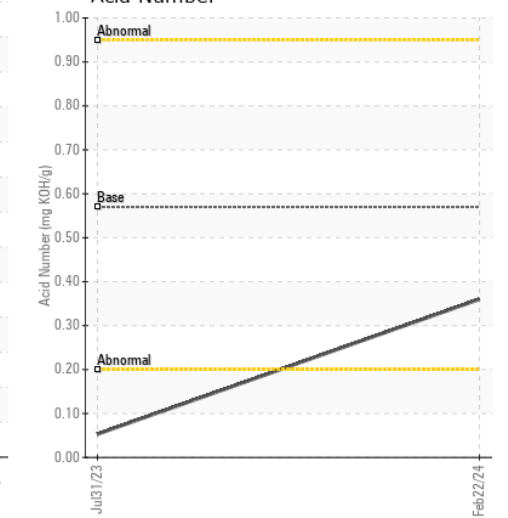
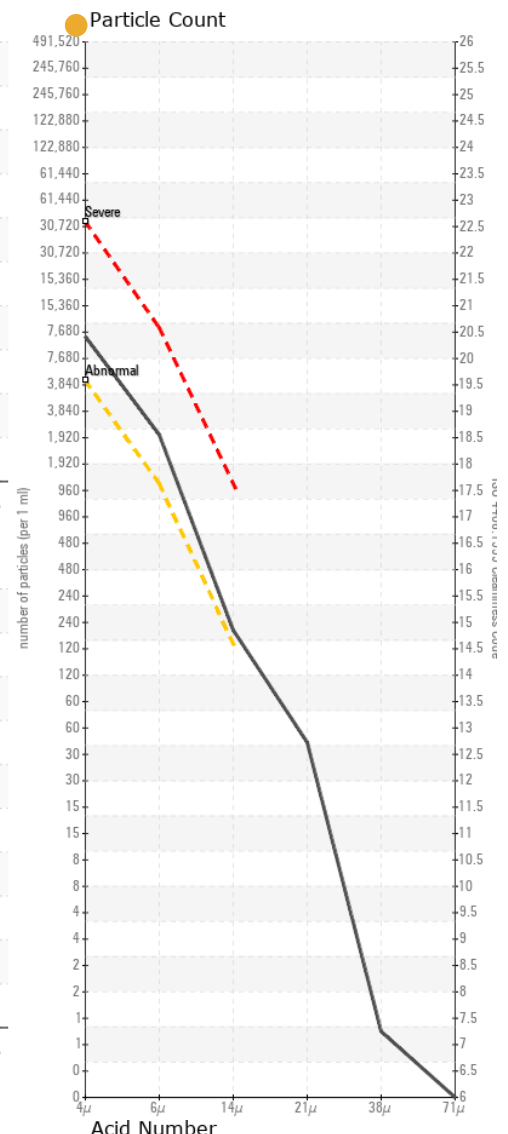
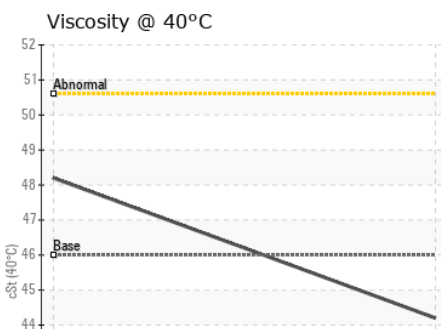
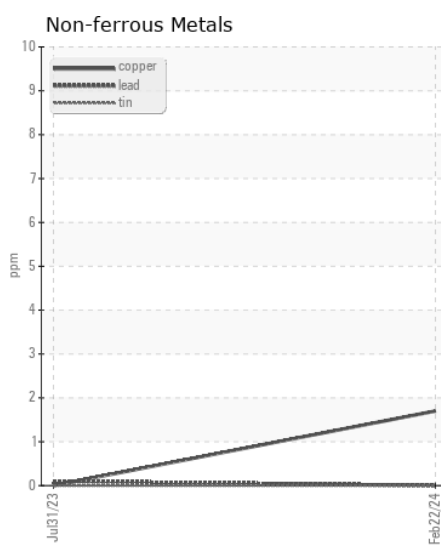
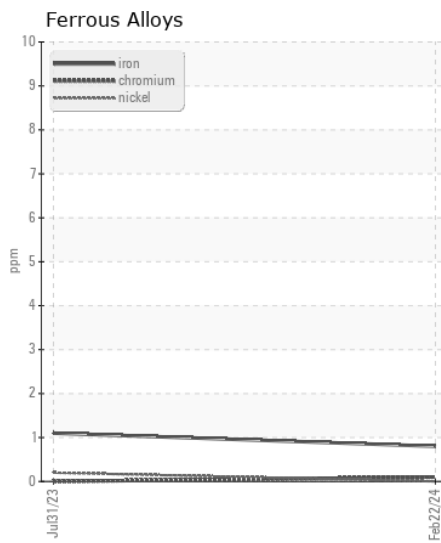
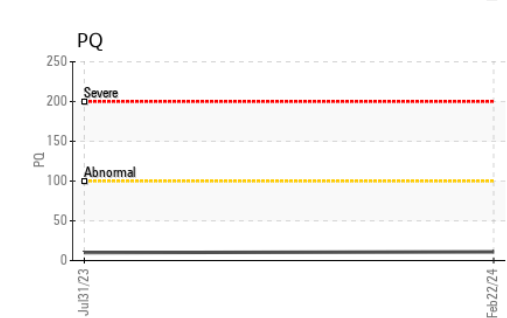
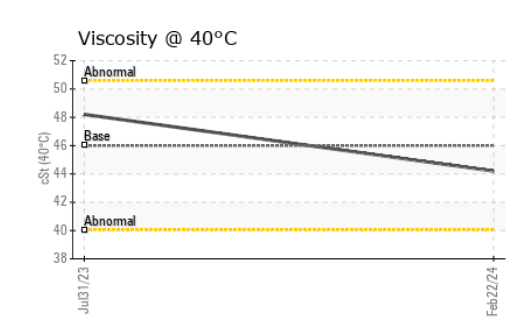
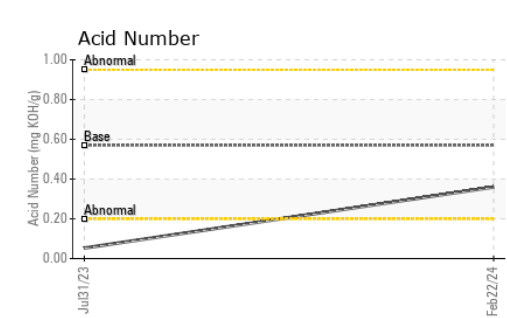
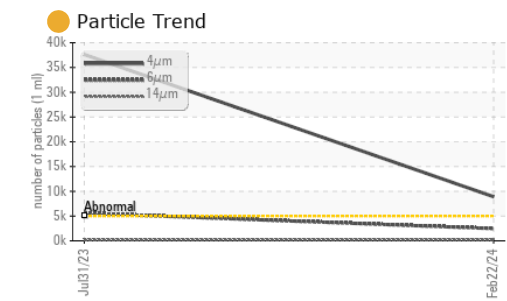
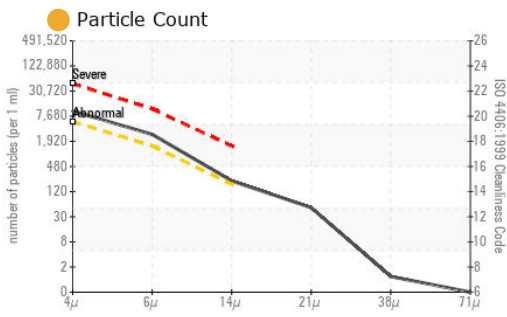
There is a moderate amount of particulates present in the oil.

|                  |        |              |           |                 |          |     |
|------------------|--------|--------------|-----------|-----------------|----------|-----|
| Silicon          | ppm    | ASTM D5185m  | >20       | <b>&lt;1</b>    | 2        | --- |
| Potassium        | ppm    | ASTM D5185m  | >20       | <b>0</b>        | <1       | --- |
| Water            |        | WC Method    | >0.1      | <b>NEG</b>      | NEG      | --- |
| Particles >4µm   |        | ASTM D7647   | >5000     | <b>8904</b>     | 37613    | --- |
| Particles >6µm   |        | ASTM D7647   | >1300     | <b>2466</b>     | 5573     | --- |
| Particles >14µm  |        | ASTM D7647   | >160      | <b>191</b>      | 154      | --- |
| Particles >21µm  |        | ASTM D7647   | >40       | <b>44</b>       | 40       | --- |
| Particles >38µm  |        | ASTM D7647   | >10       | <b>1</b>        | 2        | --- |
| Particles >71µm  |        | ASTM D7647   | >3        | <b>0</b>        | 0        | --- |
| Oil Cleanliness  |        | ISO 4406 (c) | >19/17/14 | <b>20/18/15</b> | 22/20/14 | --- |
| Silt             | scalar | *Visual      | NONE      | <b>NONE</b>     | NONE     | --- |
| Debris           | scalar | *Visual      | NONE      | <b>NONE</b>     | NONE     | --- |
| Sand/Dirt        | scalar | *Visual      | NONE      | <b>NONE</b>     | NONE     | --- |
| Appearance       | scalar | *Visual      | NORML     | <b>NORML</b>    | NORML    | --- |
| Odor             | scalar | *Visual      | NORML     | <b>NORML</b>    | NORML    | --- |
| Emulsified Water | scalar | *Visual      | >0.1      | <b>NEG</b>      | NEG      | --- |

### FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oils additive package is suitable for further service.

|                  |          |             |      |              |       |     |
|------------------|----------|-------------|------|--------------|-------|-----|
| Sodium           | ppm      | ASTM D5185m |      | <b>0</b>     | 0     | --- |
| Boron            | ppm      | ASTM D5185m | 5    | <b>0</b>     | 2     | --- |
| Barium           | ppm      | ASTM D5185m | 5    | <b>0</b>     | 0     | --- |
| Molybdenum       | ppm      | ASTM D5185m | 5    | <b>0</b>     | 4     | --- |
| Manganese        | ppm      | ASTM D5185m |      | <b>&lt;1</b> | 0     | --- |
| Magnesium        | ppm      | ASTM D5185m | 25   | <b>1</b>     | 12    | --- |
| Calcium          | ppm      | ASTM D5185m | 200  | <b>149</b>   | 26    | --- |
| Phosphorus       | ppm      | ASTM D5185m | 300  | <b>349</b>   | 642   | --- |
| Zinc             | ppm      | ASTM D5185m | 370  | <b>298</b>   | 23    | --- |
| Sulfur           | ppm      | ASTM D5185m | 2500 | <b>3002</b>  | 61    | --- |
| Acid Number (AN) | mg KOH/g | ASTM D8045  | 0.57 | <b>0.36</b>  | 0.053 | --- |
| Visc @ 40°C      | cSt      | ASTM D445   | 46   | <b>44.2</b>  | 48.2  | --- |



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0203445 **Received** : 27 Feb 2024  
**Lab Number** : 06101516 **Tested** : 28 Feb 2024  
**Unique Number** : 10899746 **Diagnosed** : 29 Feb 2024 - Jonathan Hester  
**Test Package** : CONST ( Additional Tests: PQ )

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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)