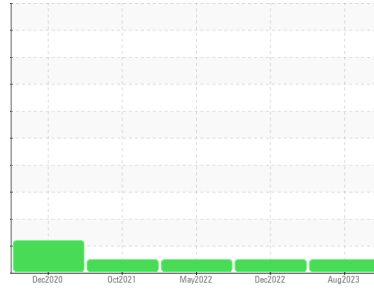


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
DT35
 Component
Transmission (Auto)
 Fluid
COGNIS EMGARD 2805 ATF (--- QTS)

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 fluid.

Fluid Condition

The condition of the fluid is acceptable for the time in service.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | PCA0100061 | PCA0087404 | PCA0074198 |
| Sample Date | Client Info | | 01 Aug 2023 | 14 Dec 2022 | 16 May 2022 |
| Machine Age | mls | Client Info | 178627 | 120881 | 120881 |
| Oil Age | mls | Client Info | 29462 | 71526 | 75000 |
| Oil Changed | Client Info | | Not Changed | Changed | Not Changed |
| Sample Status | | | NORMAL | NORMAL | NORMAL |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|--------|------------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m >160 | 43 | 76 | 54 |
| Chromium | ppm | ASTM D5185m >5 | 0 | <1 | 0 |
| Nickel | ppm | ASTM D5185m >5 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m >5 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m >50 | 14 | 18 | 14 |
| Lead | ppm | ASTM D5185m >50 | 18 | 40 | 33 |
| Copper | ppm | ASTM D5185m >225 | 47 | 86 | 52 |
| Tin | ppm | ASTM D5185m >10 | <1 | 2 | 2 |
| Antimony | ppm | ASTM D5185m | --- | --- | --- |
| Vanadium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | 0 | 0 | 0 |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|-------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | 118 | 194 | 225 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 3 | 3 | 0 |
| Calcium | ppm | ASTM D5185m | 128 | 122 | 131 |
| Phosphorus | ppm | ASTM D5185m | 312 | 540 | 447 |
| Zinc | ppm | ASTM D5185m | 16 | 37 | 19 |
| Sulfur | ppm | ASTM D5185m | 2544 | 2183 | 2074 |

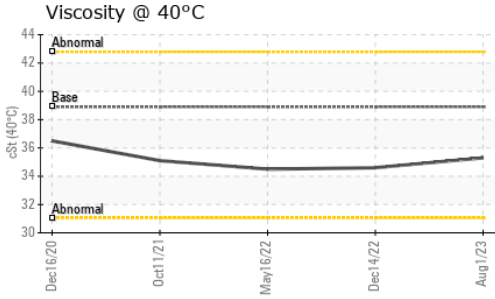
CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|-----------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m >20 | 4 | 5 | 5 |
| Sodium | ppm | ASTM D5185m | 4 | 7 | 7 |
| Potassium | ppm | ASTM D5185m >20 | <1 | 0 | 0 |

VISUAL

| | method | limit/base | current | history1 | history2 |
|------------------|--------|---------------|--------------|----------|----------|
| White Metal | scalar | *Visual NONE | NONE | NONE | VLITE |
| Yellow Metal | scalar | *Visual NONE | NONE | NONE | NONE |
| Precipitate | scalar | *Visual NONE | NONE | NONE | NONE |
| Silt | scalar | *Visual NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual NONE | NONE | NONE | VLITE |
| Sand/Dirt | scalar | *Visual NONE | NONE | NONE | NONE |
| Appearance | scalar | *Visual NORML | NORML | NORML | NORML |
| Odor | scalar | *Visual NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual >0.1 | NEG | NEG | NEG |
| Free Water | scalar | *Visual | NEG | NEG | NEG |

OIL ANALYSIS REPORT

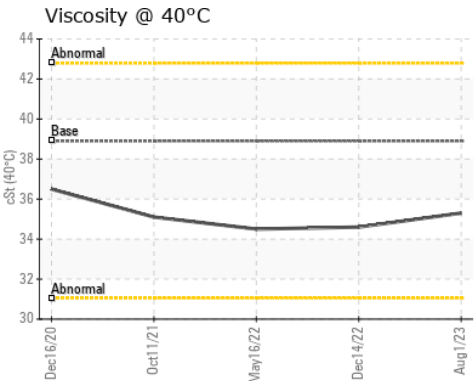
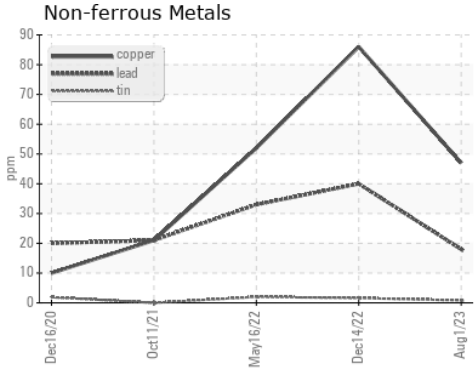
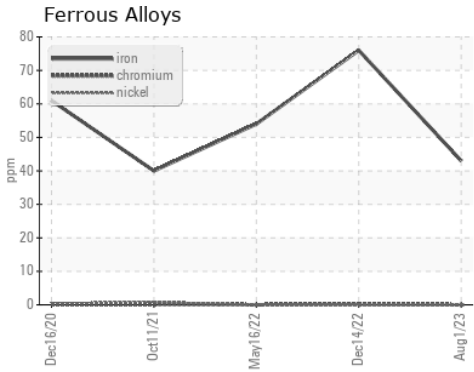


| FLUID PROPERTIES | method | limit/base | current | history1 | history2 | |
|------------------|--------|------------|---------|-------------|----------|------|
| Visc @ 40°C | cSt | ASTM D445 | 38.9 | 35.3 | 34.6 | 34.5 |

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

| | | | | |
|--------|--|----------|----------|----------|
| Color | | no image | no image | no image |
| Bottom | | no image | no image | no image |

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0100061 **Received** : 08 Aug 2023
Lab Number : **05918962** **Diagnosed** : 10 Aug 2023
Unique Number : 10590876 **Diagnostician** : Jonathan Hester
Test Package : FLEET

HK STEEL INC
 400 N PARSON ST
 WEST COLUMBIA, SC
 US 29169
 Contact: GEORGE EDWARDS
 gedwards@nwwhite.com

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)