

# **OIL ANALYSIS REPORT**

# Area MINING Machine Id ME-69 KOMATSU PC360 A38346

Left Final Drive

Fluid SHELL Spirax S4 CX 30 (--- GAL)

#### DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

#### Wear

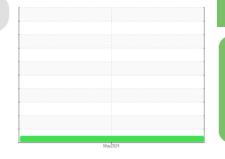
All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

# Fluid Condition

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



Sample Rating Trend



NORMAL

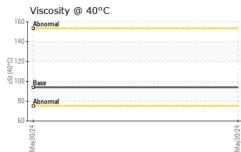
| SAMPLE INFOR     | MATION | method      | limit/base | current     | history1 | history2 |
|------------------|--------|-------------|------------|-------------|----------|----------|
| Sample Number    |        | Client Info |            | WC0939888   |          |          |
| Sample Date      |        | Client Info |            | 30 May 2024 |          |          |
| Machine Age      | hrs    | Client Info |            | 1980        |          |          |
| Oil Age          | hrs    | Client Info |            | 0           |          |          |
| Oil Changed      |        | Client Info |            | N/A         |          |          |
| Sample Status    |        |             |            | NORMAL      |          |          |
| CONTAMINATIO     | N      | method      | limit/base | current     | history1 | history2 |
| Water            |        | WC Method   | >0.2       | NEG         |          |          |
| WEAR METALS      |        | method      | limit/base | current     | history1 | history2 |
| Iron             | ppm    | ASTM D5185m | >500       | 90          |          |          |
| Chromium         | ppm    | ASTM D5185m | >10        | 2           |          |          |
| Nickel           | ppm    | ASTM D5185m | >10        | 0           |          |          |
| Titanium         | ppm    | ASTM D5185m |            | 1           |          |          |
| Silver           | ppm    | ASTM D5185m |            | 0           |          |          |
| Aluminum         | ppm    | ASTM D5185m | >25        | 3           |          |          |
| Lead             | ppm    | ASTM D5185m | >25        | <1          |          |          |
| Copper           | ppm    | ASTM D5185m | >50        | 9           |          |          |
| Tin              | ppm    | ASTM D5185m | >10        | 0           |          |          |
| Vanadium         | ppm    | ASTM D5185m |            | <1          |          |          |
| Cadmium          | ppm    | ASTM D5185m |            | 0           |          |          |
| ADDITIVES        |        | method      | limit/base | current     | history1 | history2 |
| Boron            | ppm    | ASTM D5185m |            | 0           |          |          |
| Barium           | ppm    | ASTM D5185m |            | 0           |          |          |
| Molybdenum       | ppm    | ASTM D5185m |            | <1          |          |          |
| Manganese        | ppm    | ASTM D5185m |            | 1           |          |          |
| Magnesium        | ppm    | ASTM D5185m |            | 3           |          |          |
| Calcium          | ppm    | ASTM D5185m |            | 4041        |          |          |
| Phosphorus       | ppm    | ASTM D5185m |            | 804         |          |          |
| Zinc             | ppm    | ASTM D5185m |            | 913         |          |          |
| Sulfur           | ppm    | ASTM D5185m |            | 8998        |          |          |
| CONTAMINANTS     | 5      | method      | limit/base | current     | history1 | history2 |
| Silicon          | ppm    | ASTM D5185m | >75        | 24          |          |          |
| Sodium           | ppm    | ASTM D5185m |            | 3           |          |          |
| Potassium        | ppm    | ASTM D5185m | >20        | 3           |          |          |
| VISUAL           |        | method      | limit/base | current     | history1 | history2 |
| White Metal      | scalar | *Visual     | NONE       | NONE        |          |          |
| Yellow Metal     | scalar | *Visual     | NONE       | NONE        |          |          |
| Precipitate      | scalar | *Visual     | NONE       | NONE        |          |          |
| Silt             | scalar | *Visual     | NONE       | NONE        |          |          |
| Debris           | scalar | *Visual     | NONE       | NONE        |          |          |
| Sand/Dirt        | scalar | *Visual     | NONE       | NONE        |          |          |
| Appearance       | scalar | *Visual     | NORML      | NORML       |          |          |
| Odor             | scalar | *Visual     | NORML      | NORML       |          |          |
| Emulsified Water | scalar | *Visual     | >0.2       | NEG         |          |          |
|                  |        |             |            |             |          |          |

NEG

scalar \*Visual



# **OIL ANALYSIS REPORT**



|  | FLUID PROPER   | TIES                   | method                          | limit/base   | current  | history1 | history2   |
|--|--|------------------------|---------------------------------|--|----------|----------|--|
|  | Visc @ 40°C  | cSt                    | ASTM D445                       | 5 93.9   | 94.0     |          |  |
|  | SAMPLE IMAGE   | S                      | method                          | limit/base   | current  | history1 | history2   |
|  | Color  |                        |                                 |  | no image | no image | no image   |
|  | Bottom   |                        |                                 |  | no image | no image | no image   |
| Ì  | GRAPHS   |                        |                                 |  |          |          |  |
| 9<br>8<br>7                              | iron<br>chromium   |                        |                                 | -  |          |          |  |
| 61<br>mdd 41                             |  |                        |                                 |  |          |          |  |
| 3<br>2<br>1                              | ) <del>-</del>   |                        |                                 |  |          |          |  |
|  | May30/24   |                        |                                 | May30/24   |          |          |  |
| 1  | Non-ferrous Meta   | ls                     |                                 | 2  |          |          |  |
|  | 7  |                        |                                 |  |          |          |  |
| 1  | •  |                        |                                 |  |          |          |  |
|  |  |                        |                                 |  |          |          |  |
|  | Viscosity @ 40°C   |                        |                                 | May30/24   |          |          |  |
| 16<br>15<br>14                           | Abnormal   |                        |                                 |  |          |          |  |
| 13<br>121 -CC)<br>121 -CC)               |  |                        |                                 |  |          |          |  |
| 10<br>9                                  | Base   |                        |                                 |  |          |          |  |
| 8  |  |                        |                                 | May30/24   |          |          |  |
| <b>o.</b> :W<br>er :0<br>per :1<br>ge :C | /earCheck USA - 50<br>/C0939888<br><mark>6199583</mark><br>1061706 | Rece<br>Teste<br>Diagi | ived : 0<br>ed : 0<br>nosed : 0 | ry, NC 27513<br>)4 Jun 2024<br>)5 Jun 2024<br>6 Jun 2024 - Dor |          | 1<br>L   | TTAWA ROAI<br>E SUEUR, MI<br>IS 56058-429<br>ct: Sam Donne |

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)

Certificate L2367

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F: