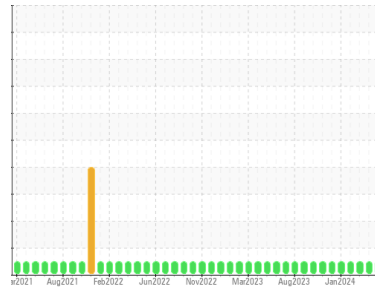




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Area

SPM74

Machine Id

SPM 74 GEAR LUBRICATION SYSTEM MAIN TANK (S/N 16-4100-1030)

Component

Gear Lube System

Fluid

GEAR OIL ISO 220 (--- QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The water content is negligible. There is no indication of any contamination 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 | | RP0044019 | RP0039290 | RP0042735 |
| Sample Date | Client Info | | 03 Jun 2024 | 08 May 2024 | 26 Mar 2024 |
| Machine Age | hrs | Client Info | 0 | 0 | 0 |
| Oil Age | hrs | Client Info | 0 | 0 | 0 |
| Oil Changed | Client Info | | N/A | N/A | N/A |
| Sample Status | | | NORMAL | NORMAL | NORMAL |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|------------|------------------|-----------|----------|----------|
| PQ | ASTM D8184 | | 10 | 15 | 14 |
| Iron | ppm | ASTM D5185m >150 | 0 | 0 | 1 |
| Chromium | ppm | ASTM D5185m >10 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m >10 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m >25 | 0 | 0 | 1 |
| Lead | ppm | ASTM D5185m >100 | 0 | <1 | 0 |
| Copper | ppm | ASTM D5185m >50 | 0 | 0 | 0 |
| Tin | ppm | ASTM D5185m >10 | 0 | <1 | 0 |
| 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 50 | 0 | <1 | 0 |
| Barium | ppm | ASTM D5185m 15 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m 15 | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | <1 | 0 | 0 |
| Magnesium | ppm | ASTM D5185m 50 | 0 | 0 | <1 |
| Calcium | ppm | ASTM D5185m 50 | 0 | 2 | 7 |
| Phosphorus | ppm | ASTM D5185m 350 | 379 | 402 | 364 |
| Zinc | ppm | ASTM D5185m 100 | 5 | 10 | 14 |

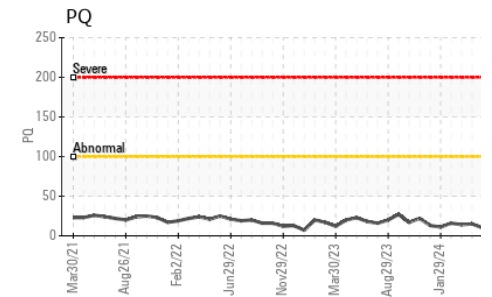
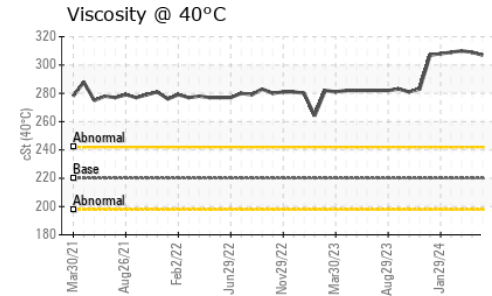
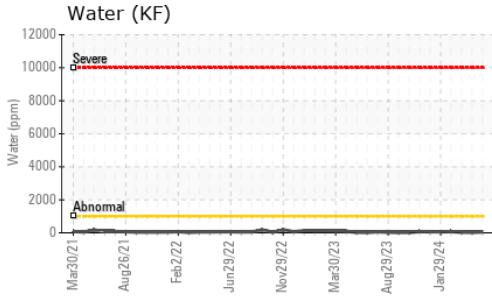
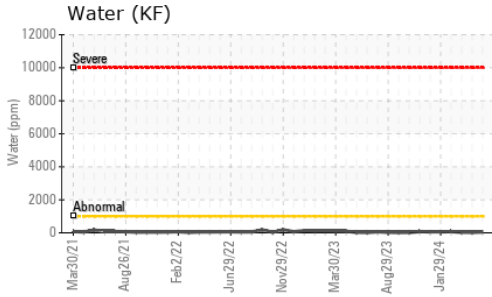
CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|------------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m >50 | 8 | 8 | 8 |
| Sodium | ppm | ASTM D5185m | <1 | <1 | 2 |
| Potassium | ppm | ASTM D5185m >20 | <1 | 2 | <1 |
| Water | % | ASTM D6304 >0.1 | 0.004 | 0.002 | 0.003 |
| ppm Water | ppm | ASTM D6304 >1000 | 48 | 19 | 32 |

FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|-----------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 0.85 | 0.53 | 0.50 | 0.55 |

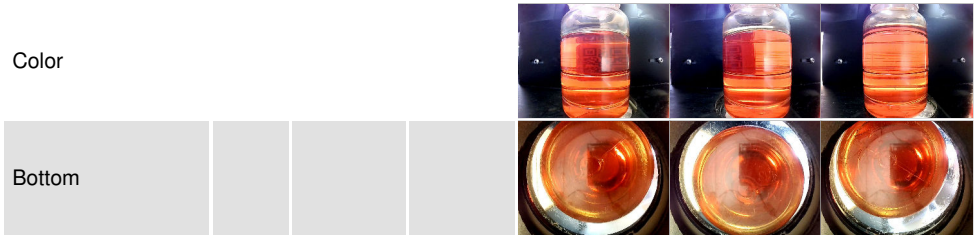
OIL ANALYSIS REPORT



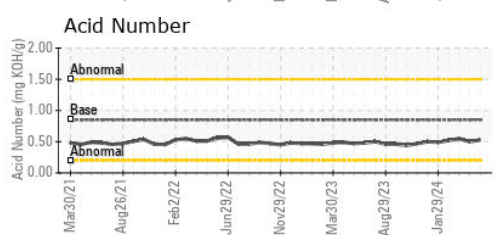
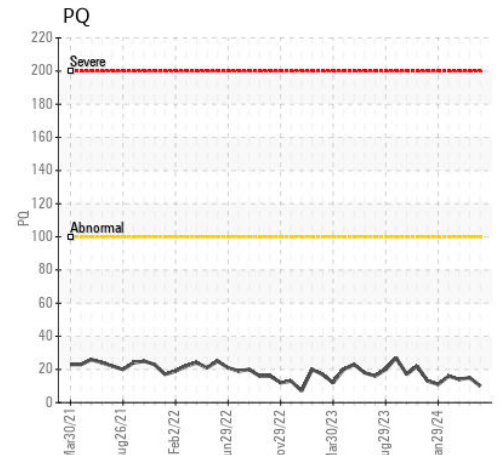
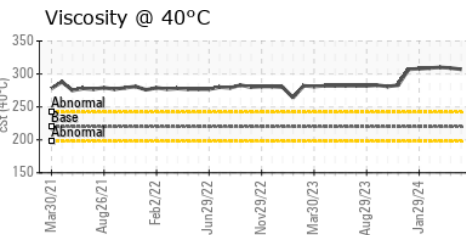
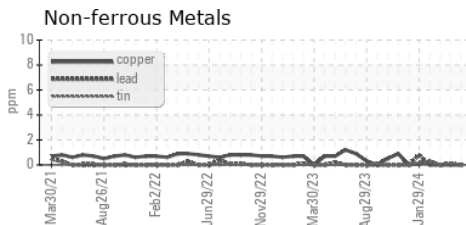
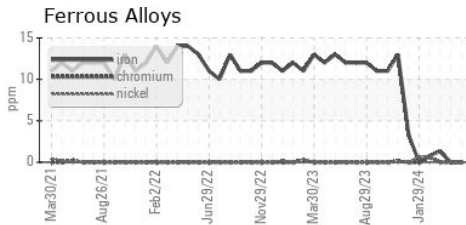
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | 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 | >0.1 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 220 | 307 | 309 |

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



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0044019 **Received** : 04 Jun 2024
Lab Number : 06199303 **Tested** : 05 Jun 2024
Unique Number : 11061426 **Diagnosed** : 06 Jun 2024 - Don Baldrige
Test Package : IND 2 (Additional Tests: PQ)

OUTOKUMPU STAINLESS USA
 HWY 43 N
 CALVERT, AL
 US 36513
 Contact: MARIO JOHNSON
 Mario.johnson@outokumpu.com
 T: (251)321-4105
 F: x:

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)