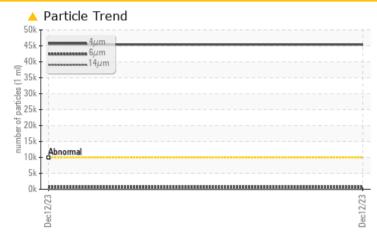


## **PROBLEM SUMMARY**

## Area Chem-Ecol - 999999 Machine Id A2312063

Component Chain Case Fluid CHEM-ECOL CHAIN OIL ALL SEASON (--- GAL)

## COMPONENT CONDITION SUMMARY



## RECOMMENDATION

This is a baseline read-out on the submitted sample.

| PROBLEMATIC TEST RESULTS |              |           |                   |  |  |  |  |
|--------------------------|--------------|-----------|-------------------|--|--|--|--|
| Sample Status            |              |           | ABNORMAL          |  |  |  |  |
| Particles >4µm           | ASTM D7647   | >10000    | <u> </u>          |  |  |  |  |
| Oil Cleanliness          | ISO 4406 (c) | >20/18/15 | <b>A</b> 23/17/11 |  |  |  |  |

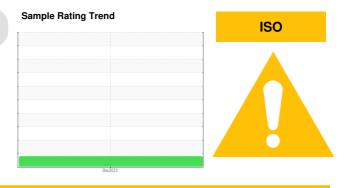
Customer Id: CHECOB Sample No.: E30000928 Lab Number: 02603493 Test Package: IND 2



To manage this report scan the QR code

*To discuss the diagnosis or test data:* Tatiana Sorkina +1 (800)263-3939 tsorkina@e360s.ca

*To change component or sample information:* Gloria Gonzalez +1 (289)291-4643 x4643 gloria.gonzalez@wearcheck.com



There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS



## **OIL ANALYSIS REPORT**

## Area Chem-Ecol - 999999 Machine Id A2312063

Component Chain Case

CHEM-ECOL CHAIN OIL ALL SEASON (--- GAL)

## DIAGNOSIS

### A Recommendation

This is a baseline read-out on the submitted sample.

## Wear

Copper and iron ppm levels are noted.

### Contamination

Particles >4 $\mu m$  and oil cleanliness are abnormally high.

#### Fluid Condition

{not applicable}

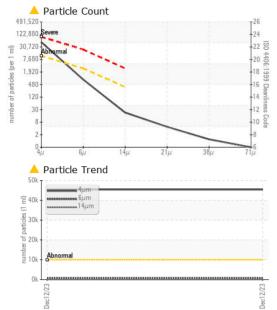
| GAL)             |               |               |            | Dec2023     |          |          |
|------------------|---------------|---------------|------------|-------------|----------|----------|
| SAMPLE INFORM    | <b>IATION</b> | method        | limit/base | current     | history1 | history2 |
| Batch #          |               | Client Info   |            | 2956-A      |          |          |
| Department       |               | Client Info   |            | Production  |          |          |
| Sample From      |               | Client Info   |            | Machine     |          |          |
| Production Stage |               | Client Info   |            | Final       |          |          |
| Sent to WC       |               | Client Info   |            | 12/13/2023  |          |          |
| Sample Number    |               | Client Info   |            | E30000928   |          |          |
| Sample Date      |               | Client Info   |            | 12 Dec 2023 |          |          |
| Machine Age      | hrs           | Client Info   |            | 0           |          |          |
| Dil Age          | hrs           | Client Info   |            | 0           |          |          |
| Dil Changed      |               | Client Info   |            | N/A         |          |          |
| Sample Status    |               |               |            | ABNORMAL    |          |          |
| WEAR METALS      |               | method        | limit/base | current     | history1 | history2 |
| ron              | nnm           | ASTM D5185(m) | >150       | 34          |          |          |
| Chromium         | ppm<br>ppm    | ASTM D5185(m) |            | 0           |          |          |
| Nickel           |               | ASTM D5185(m) | >10        | 3           |          |          |
| Titanium         | ppm           |               | >10        | 0           |          |          |
| Silver           | ppm           | ASTM D5185(m) |            | -           |          |          |
|                  | ppm           | ASTM D5185(m) | 05         | <1          |          |          |
| Aluminum         | ppm           | ASTM D5185(m) |            | 3           |          |          |
| _ead             | ppm           | ASTM D5185(m) | >100       | 4           |          |          |
| Copper           | ppm           | ASTM D5185(m) | >50        | 18          |          |          |
| Гin              | ppm           | ASTM D5185(m) | >10        | 0           |          |          |
| Antimony         | ppm           | ASTM D5185(m) | >5         | 0           |          |          |
| /anadium         | ppm           | ASTM D5185(m) |            | 0           |          |          |
| Beryllium        | ppm           | ASTM D5185(m) |            | 0           |          |          |
| Cadmium          | ppm           | ASTM D5185(m) |            | 0           |          |          |
| ADDITIVES        |               | method        | limit/base | current     | history1 | history2 |
| Boron            | ppm           | ASTM D5185(m) |            | <1          |          |          |
| Barium           | ppm           | ASTM D5185(m) |            | <1          |          |          |
| Nolybdenum       | ppm           | ASTM D5185(m) |            | 0           |          |          |
| Manganese        | ppm           | ASTM D5185(m) |            | <1          |          |          |
| Magnesium        | ppm           | ASTM D5185(m) |            | 7           |          |          |
| Calcium          | ppm           | ASTM D5185(m) |            | 76          |          |          |
| Phosphorus       | ppm           | ASTM D5185(m) |            | 122         |          |          |
| Zinc             | ppm           | ASTM D5185(m) |            | 89          |          |          |
| Sulfur           | ppm           | ASTM D5185(m) |            | 2068        |          |          |
| _ithium          | ppm           | ASTM D5185(m) |            | <1          |          |          |
| CONTAMINANTS     |               | method        | limit/base | current     | history1 | history2 |
| Silicon          | ppm           | ASTM D5185(m) | >50        | 3           |          |          |
| Sodium           | ppm           | ASTM D5185(m) |            | 4           |          |          |
| Potassium        | ppm           | ASTM D5185(m) | >20        | 0           |          |          |
| Vater            | %             | ASTM D6304*   | >0.1       | 0.003       |          |          |
| opm Water        | ppm           | ASTM D6304*   | >1000      | 37          |          |          |
| Ppill Matol      | PPIII         |               | 21000      |             |          |          |

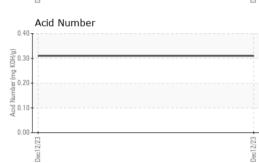
Sample Rating Trend

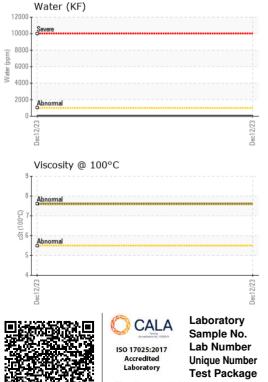
ISO



# **OIL ANALYSIS REPORT**







| FLUID CLEANLIN       | ESS      | method        | limit/base | current           | history1 | history2 |
|----------------------|----------|---------------|------------|-------------------|----------|----------|
| Particles >4µm       |          | ASTM D7647    | >10000     | <u> </u>          |          |          |
| Particles >6µm       |          | ASTM D7647    | >2500      | 734               |          |          |
| Particles >14µm      |          | ASTM D7647    | >320       | 19                |          |          |
| Particles >21µm      |          | ASTM D7647    | >80        | 4                 |          |          |
| Particles >38µm      |          | ASTM D7647    | >20        | 1                 |          |          |
| Particles >71µm      |          | ASTM D7647    | >4         | 0                 |          |          |
| Oil Cleanliness      |          | ISO 4406 (c)  | >20/18/15  | <b>A</b> 23/17/11 |          |          |
| FLUID DEGRADA        | TION     | method        | limit/base | current           | history1 | history2 |
| Acid Number (AN)     | mg KOH/g | ASTM D974*    |            | 0.31              |          |          |
| 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*       | >0.1       | NEG               |          |          |
| Free Water           | scalar   | Visual*       |            | NEG               |          |          |
| FLUID PROPERT        | IES      | method        | limit/base | current           | history1 | history2 |
| Visc @ 40°C          | cSt      | ASTM D7279(m) | 46         | 46.8              |          |          |
| Visc @ 100°C         | cSt      | ASTM D7279(m) |            | 7.6               |          |          |
| Viscosity Index (VI) | Scale    | ASTM D2270*   |            | 128               |          |          |
| SAMPLE IMAGES        | 3        | method        | limit/base | current           | history1 | history2 |
| Color                |          |               |            |                   | no image | no image |
|                      |          |               |            |                   |          |          |
| Bottom               |          |               |            |                   | no image | no image |
|                      |          |               |            |                   |          |          |

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Environmental 360 Solutions Ltd. : E30000928 Recieved : 15 Dec 2023 640 Victoria Street : 02603493 Diagnosed : 19 Dec 2023 Cobourg, ON Unique Number : 5696578 Diagnostician : Tatiana Sorkina CA K9A 5H5 Test Package : IND 2 (Additional Tests: KF, KV100, PrtCount, VI) Contact: Aylwin Lee To discuss this sample report, contact Customer Service at 1-905-372-2251. aylwinlee@e360s.ca T: (905)372-2251 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied. F: (905)373-4950