

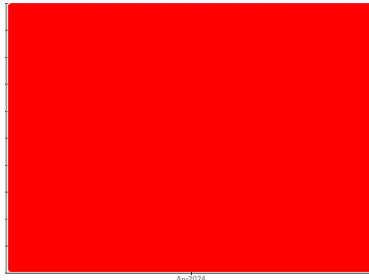
# PROBLEM SUMMARY

Sample Rating Trend

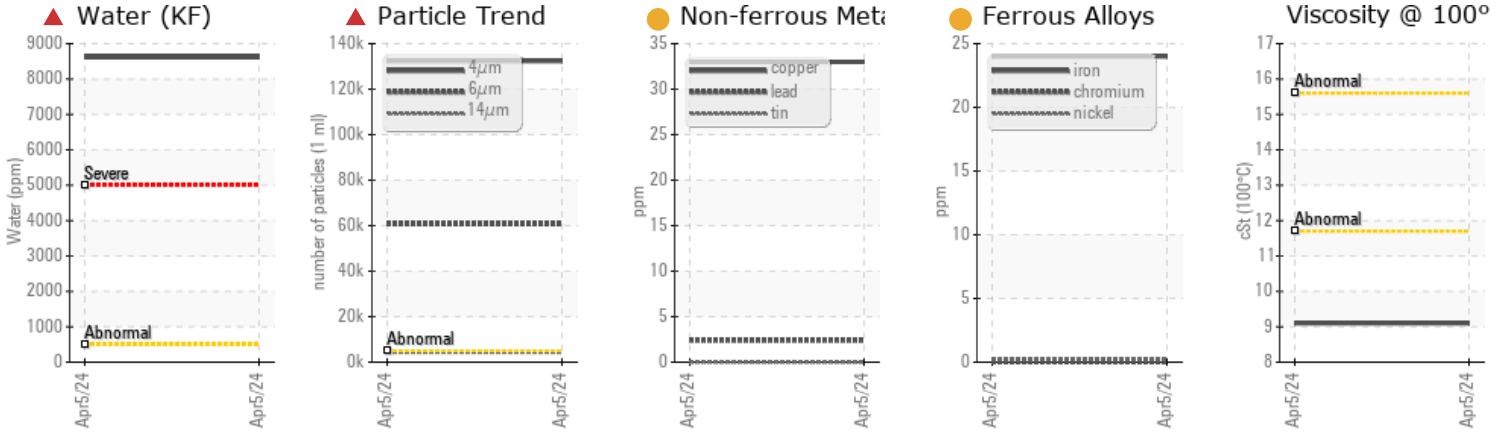
WATER



Area  
**Core Molding - C16700**  
 Machine Id  
**M1 3387**  
 Component  
**Hydraulic System**  
 Fluid  
 {not provided} (--- GAL)



## COMPONENT CONDITION SUMMARY



## RECOMMENDATION

The sample submitted is 32 times dirtier than the ISO dirt count recommendation of 19/16/14.

## PROBLEMATIC TEST RESULTS

| Sample Status    |        |              |           | SEVERE     | --- | --- |
|------------------|--------|--------------|-----------|------------|-----|-----|
| Water            | %      | ASTM D6304*  | >0.05     | ▲ 0.861    | --- | --- |
| ppm Water        | ppm    | ASTM D6304*  | >500      | ▲ 8615     | --- | --- |
| Particles >4µm   |        | ASTM D7647   | >5000     | ▲ 132357   | --- | --- |
| Particles >6µm   |        | ASTM D7647   | >640      | ▲ 60695    | --- | --- |
| Particles >14µm  |        | ASTM D7647   | >160      | ▲ 4260     | --- | --- |
| Particles >21µm  |        | ASTM D7647   | >40       | ▲ 732      | --- | --- |
| Oil Cleanliness  |        | ISO 4406 (c) | >19/16/14 | ▲ 24/23/19 | --- | --- |
| Emulsified Water | scalar | Visual*      | >0.05     | ▲ .5%      | --- | --- |
| Free Water       | scalar | Visual*      |           | ▲ 1%       | --- | --- |

Customer Id: CHECOB  
 Sample No.: E30001819  
 Lab Number: 02628507  
 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](mailto:tsorkina@e360s.ca)

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

RECOMMENDED ACTIONS

*There are no recommended actions for this sample.*

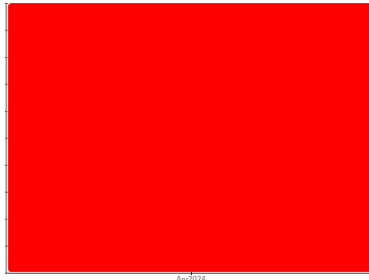
HISTORICAL DIAGNOSIS



# OIL ANALYSIS REPORT

Sample Rating Trend

WATER



Area  
**Core Molding - C16700**  
 Machine Id  
**M1 3387**  
 Component  
**Hydraulic System**  
 Fluid  
**{not provided} (--- GAL)**

## DIAGNOSIS

- ▲ **Recommendation**  
 The sample submitted is 32 times dirtier than the ISO dirt count recommendation of 19/16/14.
- **Wear**  
 Copper and iron ppm levels are noted.
- ▲ **Contamination**  
 Water and ppm water contamination levels are severe. Particles >14µm are severely high. Particles >21µm are severely high. Particles >6µm are severely high. Particles >4µm are severely high. Oil Cleanliness are severely high.

## SAMPLE INFORMATION

|                  | method      | limit/base  | current            | history1 | history2 |
|------------------|-------------|-------------|--------------------|----------|----------|
| Batch #          | Client Info |             | <b>Mobile</b>      | ---      | ---      |
| Department       | Client Info |             | <b>Production</b>  | ---      | ---      |
| Sample From      | Client Info |             | <b>Machine</b>     | ---      | ---      |
| Production Stage | Client Info |             | <b>Initial</b>     | ---      | ---      |
| Sent to WC       | Client Info |             | <b>04/10/2024</b>  | ---      | ---      |
| Sample Number    | Client Info |             | <b>E30001819</b>   | ---      | ---      |
| Sample Date      | Client Info |             | <b>05 Apr 2024</b> | ---      | ---      |
| Machine Age      | kms         | Client Info | <b>0</b>           | ---      | ---      |
| Oil Age          | kms         | Client Info | <b>0</b>           | ---      | ---      |
| Oil Changed      | Client Info |             | <b>N/A</b>         | ---      | ---      |
| Sample Status    |             |             | <b>SEVERE</b>      | ---      | ---      |

## WEAR METALS

|           | method | limit/base        | current      | history1 | history2 |
|-----------|--------|-------------------|--------------|----------|----------|
| Iron      | ppm    | ASTM D5185(m) >20 | ● <b>24</b>  | ---      | ---      |
| Chromium  | ppm    | ASTM D5185(m) >20 | <b>0</b>     | ---      | ---      |
| Nickel    | ppm    | ASTM D5185(m) >20 | <b>&lt;1</b> | ---      | ---      |
| Titanium  | ppm    | ASTM D5185(m)     | <b>0</b>     | ---      | ---      |
| Silver    | ppm    | ASTM D5185(m)     | <b>0</b>     | ---      | ---      |
| Aluminum  | ppm    | ASTM D5185(m) >20 | <b>3</b>     | ---      | ---      |
| Lead      | ppm    | ASTM D5185(m) >20 | <b>2</b>     | ---      | ---      |
| Copper    | ppm    | ASTM D5185(m) >20 | ● <b>33</b>  | ---      | ---      |
| Tin       | ppm    | ASTM D5185(m) >20 | <b>0</b>     | ---      | ---      |
| Antimony  | ppm    | ASTM D5185(m)     | <b>0</b>     | ---      | ---      |
| Vanadium  | ppm    | ASTM D5185(m)     | <b>0</b>     | ---      | ---      |
| Beryllium | ppm    | ASTM D5185(m)     | <b>0</b>     | ---      | ---      |
| Cadmium   | ppm    | ASTM D5185(m)     | <b>0</b>     | ---      | ---      |

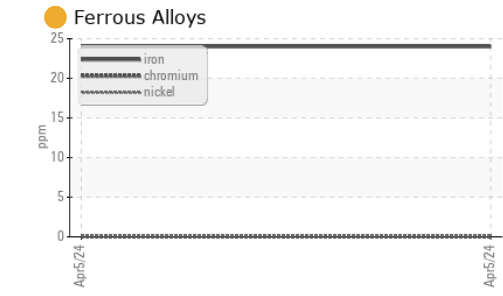
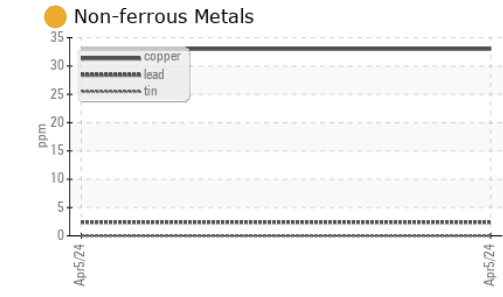
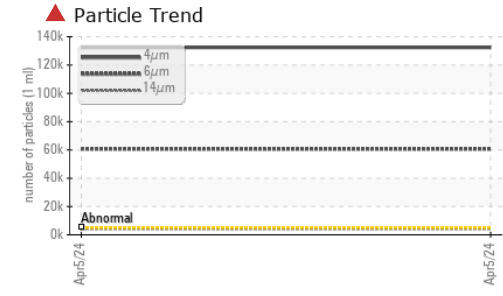
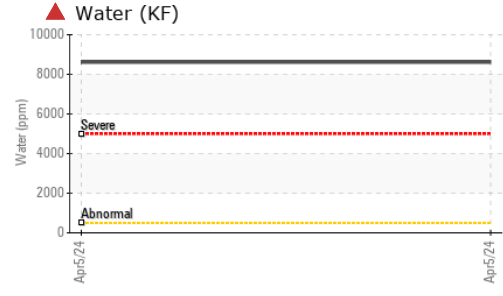
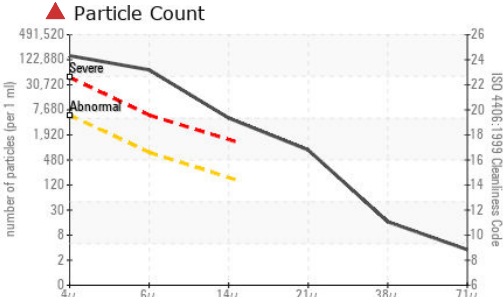
## ADDITIVES

|            | method | limit/base    | current      | history1 | history2 |
|------------|--------|---------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185(m) | <b>1</b>     | ---      | ---      |
| Barium     | ppm    | ASTM D5185(m) | <b>&lt;1</b> | ---      | ---      |
| Molybdenum | ppm    | ASTM D5185(m) | <b>0</b>     | ---      | ---      |
| Manganese  | ppm    | ASTM D5185(m) | <b>&lt;1</b> | ---      | ---      |
| Magnesium  | ppm    | ASTM D5185(m) | <b>3</b>     | ---      | ---      |
| Calcium    | ppm    | ASTM D5185(m) | <b>34</b>    | ---      | ---      |
| Phosphorus | ppm    | ASTM D5185(m) | <b>744</b>   | ---      | ---      |
| Zinc       | ppm    | ASTM D5185(m) | <b>410</b>   | ---      | ---      |
| Sulfur     | ppm    | ASTM D5185(m) | <b>2426</b>  | ---      | ---      |
| Lithium    | ppm    | ASTM D5185(m) | <b>&lt;1</b> | ---      | ---      |

## CONTAMINANTS

|           | method | limit/base        | current        | history1 | history2 |
|-----------|--------|-------------------|----------------|----------|----------|
| Silicon   | ppm    | ASTM D5185(m) >15 | <b>8</b>       | ---      | ---      |
| Sodium    | ppm    | ASTM D5185(m)     | <b>&lt;1</b>   | ---      | ---      |
| Potassium | ppm    | ASTM D5185(m) >20 | <b>&lt;1</b>   | ---      | ---      |
| Water     | %      | ASTM D6304* >0.05 | ▲ <b>0.861</b> | ---      | ---      |
| ppm Water | ppm    | ASTM D6304* >500  | ▲ <b>8615</b>  | ---      | ---      |

# OIL ANALYSIS REPORT



| FLUID CLEANLINESS | method       | limit/base | current    | history1 | history2 |
|-------------------|--------------|------------|------------|----------|----------|
| Particles >4µm    | ASTM D7647   | >5000      | ▲ 132357   | ---      | ---      |
| Particles >6µm    | ASTM D7647   | >640       | ▲ 60695    | ---      | ---      |
| Particles >14µm   | ASTM D7647   | >160       | ▲ 4260     | ---      | ---      |
| Particles >21µm   | ASTM D7647   | >40        | ▲ 732      | ---      | ---      |
| Particles >38µm   | ASTM D7647   | >10        | 14         | ---      | ---      |
| Particles >71µm   | ASTM D7647   | >3         | 3          | ---      | ---      |
| Oil Cleanliness   | ISO 4406 (c) | >19/16/14  | ▲ 24/23/19 | ---      | ---      |

| FLUID DEGRADATION | method   | limit/base | current | history1 | history2 |
|-------------------|----------|------------|---------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D974* | 0.60    | ---      | ---      |

| 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    | VLITE    | ---      | --- |
| Debris           | scalar | Visual*    | NONE    | VLITE    | ---      | --- |
| Sand/Dirt        | scalar | Visual*    | NONE    | NONE     | ---      | --- |
| Appearance       | scalar | Visual*    | NORML   | NORML    | ---      | --- |
| Odor             | scalar | Visual*    | NORML   | NORML    | ---      | --- |
| Emulsified Water | scalar | Visual*    | >0.05   | ▲ .5%    | ---      | --- |
| Free Water       | scalar | Visual*    |         | ▲ 1%     | ---      | --- |

| FLUID PROPERTIES     | method | limit/base    | current | history1 | history2 |
|----------------------|--------|---------------|---------|----------|----------|
| Visc @ 40°C          | cSt    | ASTM D7279(m) | 68.3    | ---      | ---      |
| Visc @ 100°C         | cSt    | ASTM D7279(m) | 9.1     | ---      | ---      |
| Viscosity Index (VI) | Scale  | ASTM D2270*   | 108     | ---      | ---      |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
| Color         |        |            |         | no image | no image |
| Bottom        |        |            |         | no image | no image |



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : E30001819      **Received** : 12 Apr 2024  
**Lab Number** : 02628507      **Tested** : 15 Apr 2024  
**Unique Number** : 5761639      **Diagnosed** : 15 Apr 2024 - Tatiana Sorkina  
**Test Package** : IND 2 ( Additional Tests: KF, KV100, TAN Man, VI )

**Environmental 360 Solutions Ltd.**  
 640 Victoria Street  
 Cobourg, ON  
 CA K9A 5H5  
 Contact: Tatiana Sorkina  
 tsorkina@e360s.ca  
 T: (800)263-3939  
 F: (905)373-4950

To discuss this sample report, contact Customer Service at 1-905-372-2251.  
 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.