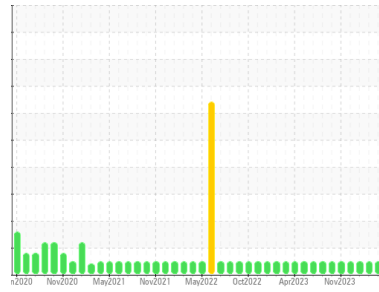




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**Direct Strip Mill/Finishing**  
 Machine Id  
**HSM 460 BLK (S/N DSC 200)**  
 Component  
**Bulk Fluid Tank**  
 Fluid  
**GEAR OIL ISO 460 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

### Wear

All component wear rates are normal.

### Contamination

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 |             |            | <b>WC0837469</b>   | WC0837390   | WC0837433   |
| Sample Date        | Client Info |             |            | <b>11 Jun 2024</b> | 16 Apr 2024 | 28 Feb 2024 |
| Machine Age        | hrs         | Client Info |            | <b>0</b>           | 0           | 0           |
| Oil Age            | hrs         | Client Info |            | <b>0</b>           | 0           | 0           |
| Oil Changed        | Client Info |             |            | <b>N/A</b>         | N/A         | N/A         |
| Sample Status      |             |             |            | <b>NORMAL</b>      | NORMAL      | NORMAL      |

| CONTAMINATION |           | method | limit/base | current    | history1 | history2 |
|---------------|-----------|--------|------------|------------|----------|----------|
| Water         | WC Method |        |            | <b>NEG</b> | NEG      | NEG      |

| WEAR METALS |     | method        | limit/base | current      | history1 | history2 |
|-------------|-----|---------------|------------|--------------|----------|----------|
| PQ          |     | ASTM D8184*   |            | <b>0</b>     | 0        | 0        |
| Iron        | ppm | ASTM D5185(m) |            | <b>&lt;1</b> | 0        | 1        |
| Chromium    | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | 0        |
| Nickel      | ppm | ASTM D5185(m) |            | <b>0</b>     | <1       | <1       |
| Titanium    | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | 0        |
| Silver      | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | 0        |
| Aluminum    | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | <1       |
| Lead        | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | 0        |
| Copper      | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | <1       |
| Tin         | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | 0        |
| Antimony    | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | 0        |
| Vanadium    | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | 0        |
| Beryllium   | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | 0        |
| Cadmium     | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | 0        |

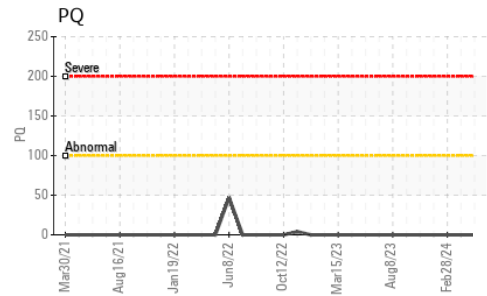
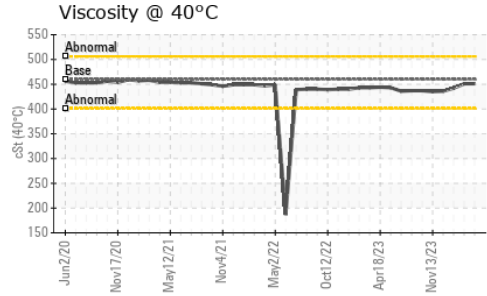
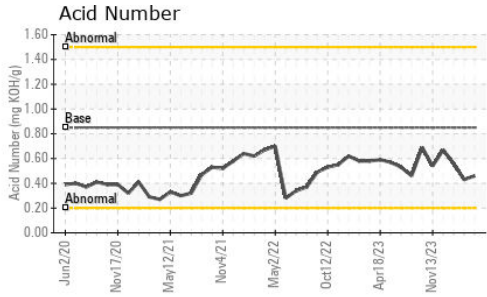
| ADDITIVES  |     | method        | limit/base | current      | history1 | history2 |
|------------|-----|---------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185(m) | 50         | <b>&lt;1</b> | <1       | <1       |
| Barium     | ppm | ASTM D5185(m) | 15         | <b>0</b>     | 0        | 0        |
| Molybdenum | ppm | ASTM D5185(m) | 15         | <b>0</b>     | 0        | 0        |
| Manganese  | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | 0        |
| Magnesium  | ppm | ASTM D5185(m) | 50         | <b>&lt;1</b> | <1       | <1       |
| Calcium    | ppm | ASTM D5185(m) | 50         | <b>&lt;1</b> | 1        | 1        |
| Phosphorus | ppm | ASTM D5185(m) | 350        | <b>227</b>   | 224      | 224      |
| Zinc       | ppm | ASTM D5185(m) | 100        | <b>1</b>     | 2        | 1        |
| Sulfur     | ppm | ASTM D5185(m) | 12500      | <b>9187</b>  | 8704     | 9630     |
| Lithium    | ppm | ASTM D5185(m) |            | <b>&lt;1</b> | <1       | <1       |

| CONTAMINANTS |     | method        | limit/base | current      | history1 | history2 |
|--------------|-----|---------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185(m) |            | <b>5</b>     | 5        | 5        |
| Sodium       | ppm | ASTM D5185(m) |            | <b>&lt;1</b> | 0        | 0        |
| Potassium    | ppm | ASTM D5185(m) | >20        | <b>&lt;1</b> | <1       | <1       |

| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D974* | 0.85       | <b>0.46</b> | 0.43     | 0.56     |



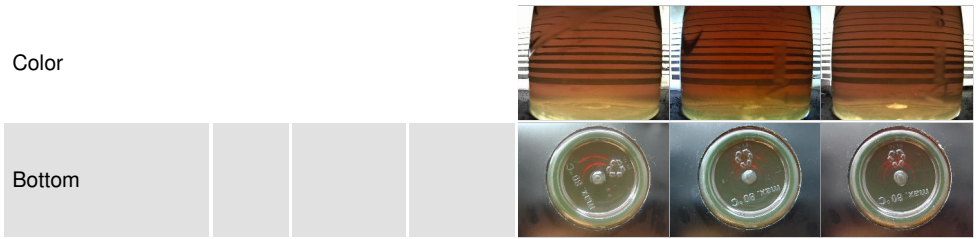
# OIL ANALYSIS REPORT



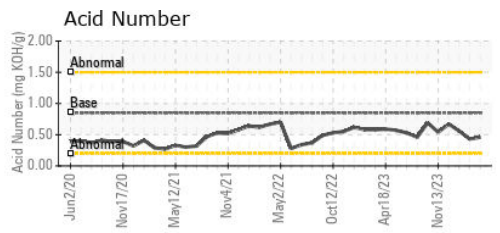
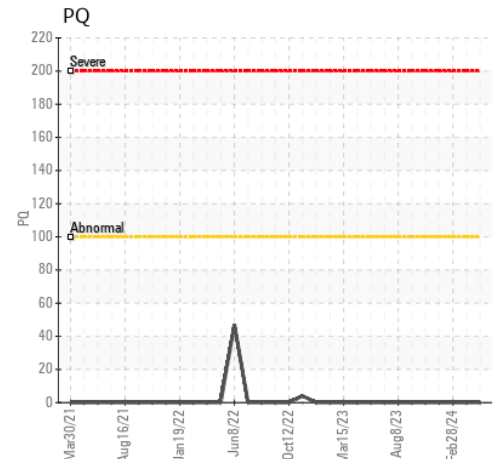
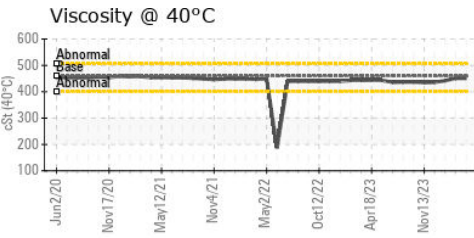
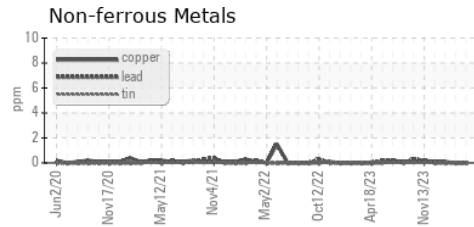
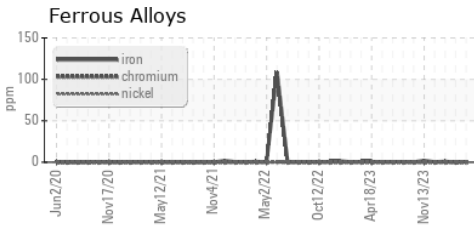
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | Visual*    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | Visual*    | NONE    | NONE     | NONE     |
|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

| FLUID PROPERTIES | method | limit/base    | current | history1 | history2 |
|------------------|--------|---------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D7279(m) | 460     | 451      | 442      |

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



## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9     **ALGOMA STEEL INC. - STORES DEPT.**  
**Sample No.** : WC0837469     **Received** : 14 Jun 2024     301 WALLACE TERRACE  
**Lab Number** : 02642113     **Tested** : 18 Jun 2024     SAULT STE MARIE, ON  
**Unique Number** : 5799652     **Diagnosed** : 18 Jun 2024 - Wes Davis     CA P6C 1K8  
**Test Package** : IND 2

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 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.  
 Contact: Algoma Reliability  
 algomareliability@algoma.com  
 T: (705)206-1059  
 F: (705)945-3585