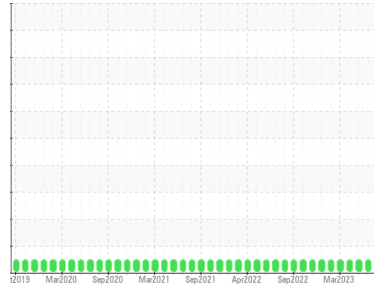




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**Direct Strip Mill/Finishing**  
 Machine Id  
**#1 DESCALER PUMP LUBE SYSTEM (DSC041) (S/N 1000009689)**  
 Component  
**Gear Lube System**  
 Fluid  
**SHELL OMALA 68 (150 LTR)**

## 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 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>WC0837312</b>   | WC0813695   | WC0780819   |
| Sample Date   | Client Info |             | <b>26 Sep 2023</b> | 21 Jun 2023 | 15 May 2023 |
| 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      |

## WEAR METALS

|           | method      | limit/base         | current      | history1 | history2 |
|-----------|-------------|--------------------|--------------|----------|----------|
| PQ        | ASTM D8184* |                    | <b>0</b>     | 0        | 0        |
| Iron      | ppm         | ASTM D5185(m) >150 | <b>0</b>     | <1       | <1       |
| Chromium  | ppm         | ASTM D5185(m) >10  | <b>0</b>     | 0        | 0        |
| Nickel    | ppm         | ASTM D5185(m) >10  | <b>0</b>     | <1       | 0        |
| Titanium  | ppm         | ASTM D5185(m)      | <b>0</b>     | 0        | 0        |
| Silver    | ppm         | ASTM D5185(m)      | <b>&lt;1</b> | 0        | 0        |
| Aluminum  | ppm         | ASTM D5185(m) >25  | <b>&lt;1</b> | 1        | 1        |
| Lead      | ppm         | ASTM D5185(m) >100 | <b>&lt;1</b> | 0        | 0        |
| Copper    | ppm         | ASTM D5185(m) >50  | <b>1</b>     | 3        | 3        |
| Tin       | ppm         | ASTM D5185(m) >10  | <b>0</b>     | 0        | 0        |
| Antimony  | ppm         | ASTM D5185(m) >5   | <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) | <b>4</b>     | 16       | 16       |
| Barium     | ppm    | ASTM D5185(m) | <b>&lt;1</b> | 0        | 0        |
| Molybdenum | ppm    | ASTM D5185(m) | <b>0</b>     | 0        | 0        |
| Manganese  | ppm    | ASTM D5185(m) | <b>0</b>     | 0        | 0        |
| Magnesium  | ppm    | ASTM D5185(m) | <b>2</b>     | 16       | 16       |
| Calcium    | ppm    | ASTM D5185(m) | <b>2</b>     | 3        | 0        |
| Phosphorus | ppm    | ASTM D5185(m) | <b>185</b>   | 294      | 304      |
| Zinc       | ppm    | ASTM D5185(m) | <b>4</b>     | 5        | 2        |
| Sulfur     | ppm    | ASTM D5185(m) | <b>3615</b>  | 2637     | 2638     |
| Lithium    | ppm    | ASTM D5185(m) | <b>&lt;1</b> | <1       | <1       |

## CONTAMINANTS

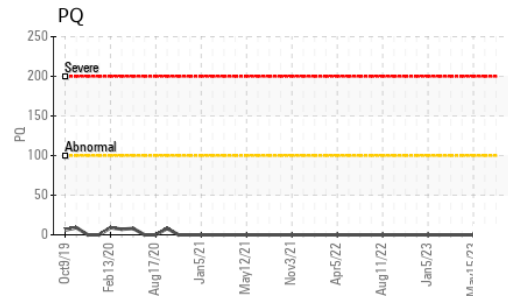
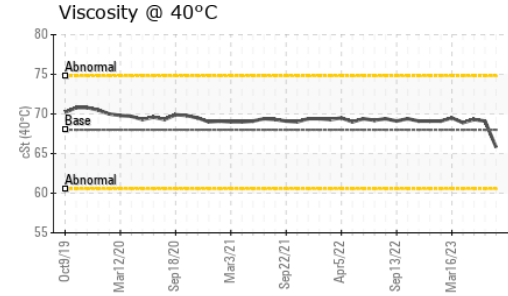
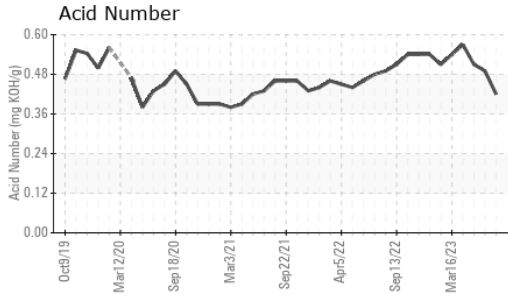
|           | method | limit/base        | current      | history1 | history2 |
|-----------|--------|-------------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185(m) >50 | <b>4</b>     | 1        | 1        |
| Sodium    | ppm    | ASTM D5185(m)     | <b>&lt;1</b> | 2        | 1        |
| Potassium | ppm    | ASTM D5185(m) >20 | <b>0</b>     | <1       | 0        |

## FLUID DEGRADATION

|                  | method   | limit/base | current     | history1 | history2 |
|------------------|----------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D974* | <b>0.42</b> | 0.49     | 0.51     |



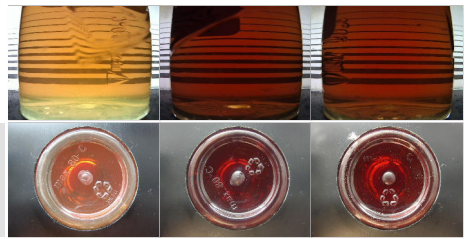
# OIL ANALYSIS REPORT



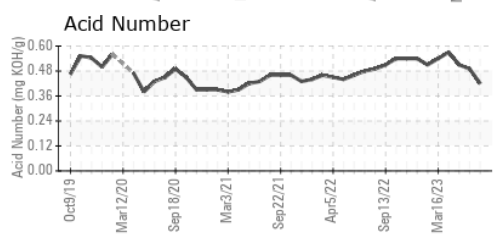
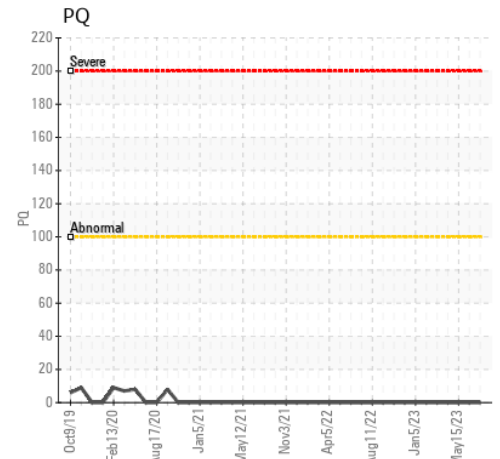
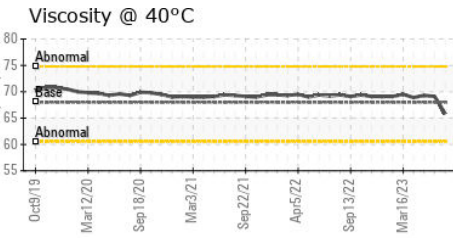
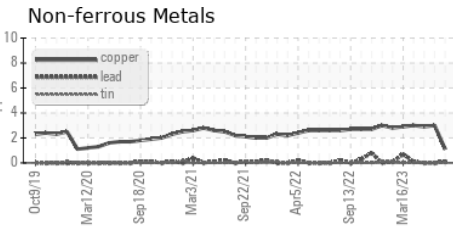
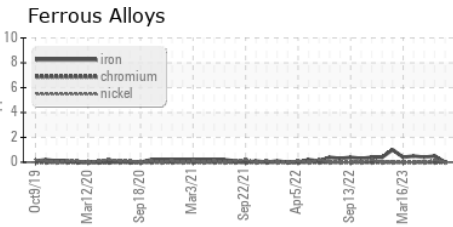
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | Visual*    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | Visual*    | NONE    | NONE     | NONE     |
| 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 D7279(m) | 68.0    | 65.8     | 69.1     |

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



## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **ALGOMA STEEL INC. - STORES DEPT.**  
**Sample No.** : WC0837312 **Received** : 02 Oct 2023 301 WALLACE TERRACE  
**Lab Number** : 02586199 **Diagnosed** : 02 Oct 2023 SAULT STE MARIE, ON  
**Unique Number** : 5655265 **Diagnostician** : Wes Davis CA P6C 1K8  
**Test Package** : IND 2 ( Additional Tests: TAN Man ) Contact: Algoma Reliability  
 algomareliability@algoma.com

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.  
 T: (705)206-1059  
 F: (705)945-3585