

## **OIL ANALYSIS REPORT**

Sample Rating Trend

NORMAL



Area Haul Truck Machine Id HT5023 Component Drop Box Fluid

### GEAR OIL SAE 80W90 (--- GAL)

### 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

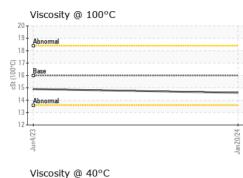
The condition of the oil is acceptable for the time in service.

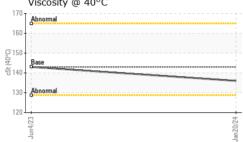
| SAMPLE INFORM | MATION | method        | limit/base | current     | history1    | history2 |
|---------------|--------|---------------|------------|-------------|-------------|----------|
| Sample Number |        | Client Info   |            | PC0067111   | PC0050697   |          |
| Sample Date   |        | Client Info   |            | 20 Jan 2024 | 04 Jun 2023 |          |
| Machine Age   | hrs    | Client Info   |            | 10587       | 9532        |          |
| Oil Age       | hrs    | Client Info   |            | 0           | 0           |          |
| Oil Changed   |        | Client Info   |            | N/A         | N/A         |          |
| Sample Status |        |               |            | NORMAL      | NORMAL      |          |
| CONTAMINAT    | ION    | method        | limit/base | current     | history1    | history2 |
| Water         |        | WC Method     | >0.2       | NEG         | NEG         |          |
| WEAR METAL    | S      | method        | limit/base | current     | history1    | history2 |
| Iron          | ppm    | ASTM D5185(m) | >400       | 6           | 20          |          |
| Chromium      | ppm    | ASTM D5185(m) | >4         | 0           | 0           |          |
| Nickel        | ppm    | ASTM D5185(m) | >3         | <1          | <1          |          |
| Titanium      | ppm    | ASTM D5185(m) |            | 0           | 0           |          |
| Silver        | ppm    | ASTM D5185(m) |            | 0           | 0           |          |
| Aluminum      | ppm    | ASTM D5185(m) | >15        | <1          | 2           |          |
| Lead          | ppm    | ASTM D5185(m) | >20        | 0           | <1          |          |
| Copper        | ppm    | ASTM D5185(m) | >50        | 1           | 5           |          |
| Tin           | ppm    | ASTM D5185(m) | >3         | 0           | 0           |          |
| Antimony      | ppm    | ASTM D5185(m) | >5         | 0           | 0           |          |
| Vanadium      | ppm    | ASTM D5185(m) |            | 0           | 0           |          |
| Beryllium     | ppm    | ASTM D5185(m) |            | 0           | 0           |          |
| Cadmium       | ppm    | ASTM D5185(m) |            | 0           | 0           |          |
| ADDITIVES     |        | method        | limit/base | current     | history1    | history2 |
| Boron         | ppm    | ASTM D5185(m) | 400        | 230         | 10          |          |
| Barium        | ppm    | ASTM D5185(m) | 200        | 0           | 0           |          |
| Molybdenum    | ppm    | ASTM D5185(m) | 12         | 0           | 0           |          |
| Manganese     | ppm    | ASTM D5185(m) |            | 0           | <1          |          |
| Magnesium     | ppm    | ASTM D5185(m) | 12         | <1          | 6           |          |
| Calcium       | ppm    | ASTM D5185(m) | 150        | 50          | 23          |          |
| Phosphorus    | ppm    | ASTM D5185(m) | 1650       | 970         | 621         |          |
| Zinc          | ppm    | ASTM D5185(m) | 125        | 21          | 41          |          |
| Sulfur        | ppm    | ASTM D5185(m) | 22500      | 16908       | 19617       |          |
| Lithium       | ppm    | ASTM D5185(m) |            | <1          | <1          |          |
| CONTAMINAN    | TS     | method        | limit/base | current     | history1    | history2 |
| Silicon       | ppm    | ASTM D5185(m) | >60        | 6           | 5           |          |
| Sodium        | ppm    | ASTM D5185(m) | >170       | <1          | 6           |          |
| Potassium     | ppm    | ASTM D5185(m) | >20        | <1          | 2           |          |



# **OIL ANALYSIS REPORT**

VISUAL





| VISUAL                                |                            | method        | limit/base                | current               | nistory i        | nistory2          |
|---------------------------------------|----------------------------|---------------|---------------------------|-----------------------|------------------|-------------------|
| White Metal                           | scalar                     | Visual*       | NONE                      | NONE                  | NONE             |                   |
| Yellow Metal                          | scalar                     | Visual*       | NONE                      | NONE                  | NONE             |                   |
| Precipitate                           | scalar                     | Visual*       | NONE                      | VLITE                 | 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*       | >0.2                      | NEG                   | NEG              |                   |
| Free Water                            | scalar                     | Visual*       |                           | NEG                   | NEG              |                   |
| FLUID PROPE                           | RTIES                      | method        | limit/base                | current               | history1         | history2          |
| Visc @ 40°C                           | cSt                        | ASTM D7279(m) | 143                       | 136                   | 143              |                   |
| Visc @ 100°C                          | cSt                        | ASTM D7279(m) | 16.0                      | 14.6                  | 14.9             |                   |
| Viscosity Index (VI)                  | Scale                      | ASTM D2270*   | 117                       | 106                   | 104              |                   |
| SAMPLE IMAG                           | EQ                         | method        | limit/base                | current               | history1         | history?          |
| SAIVIFLE IIVIAC                       |                            | methou        | liitiit/base              | Current               | history1         | history2          |
| Color                                 |                            |               |                           |                       |                  | no image          |
|                                       |                            |               |                           |                       |                  |                   |
| Bottom                                |                            |               |                           | 00                    |                  | no image          |
| GRAPHS                                |                            |               |                           |                       |                  |                   |
| Iron (ppm)                            |                            |               |                           | Lead (ppm)            |                  |                   |
| <sup>00</sup> Severe                  |                            |               | 10                        |                       |                  |                   |
| 00 - Abnormal                         |                            |               | udd                       | Severe                |                  |                   |
| 0                                     |                            |               |                           | Abnormal              |                  |                   |
| Jun4/23                               |                            |               | Jan20/24                  | Jun4/23               |                  |                   |
|                                       |                            |               | 7                         |                       |                  |                   |
| Aluminum (ppm)                        |                            |               |                           | Chromium (            | ppm)             |                   |
| Severe                                |                            |               |                           | Jevere                |                  |                   |
| 20 - Abnormal                         |                            |               | udd                       | - Abnormal            |                  |                   |
| 0 unit.23                             |                            |               | Jan20/24                  |                       |                  | -                 |
| m                                     |                            |               | Jan2                      | nnfr                  |                  |                   |
| Copper (ppm)                          |                            |               | -                         | Silicon (ppm          | )                |                   |
| 00<br>Severe<br>00 - 9                |                            |               | 20                        | 5                     |                  |                   |
| Abnormal                              |                            |               | a                         | Automa                |                  |                   |
| -<br>- E2./hun0                       |                            |               | m20/24                    | - EZ./juni            |                  |                   |
| Viscosity @ 400C                      |                            |               | 2                         | م ما طائلہ اور م      |                  |                   |
| Viscosity @ 40°C                      |                            |               | 200                       | Additives             |                  |                   |
| Abnormal<br>50 Base                   |                            |               | - <u>§</u> 100            | calcium               | 1                |                   |
|                                       |                            |               | 8.100                     | Executive Sinc        |                  |                   |
| n4/23                                 |                            |               | 20/24                     | - 52./ <del>j</del> u |                  |                   |
| →<br>VearCheck - C8-1175<br>2C0067111 | 5 Appleby<br><b>Rece</b> i |               | igton, ON L7I<br>Feb 2024 | _ 5H9 I               | _akeshore Gold 1 |                   |
| 2614455                               | Teste                      | d : 12        | 2 Feb 2024                |                       |                  | Timmins, O        |
| 723550                                |                            |               | 2 Feb 2024 - W            | les Davis             | -                | CA                |
| IOB 1 (Additional Te                  |                            |               |                           | -1 - ···              |                  | Dale Arsenea      |
| ntact Customer Servi                  |                            |               |                           |                       | neau@ca.paname   |                   |
| accreditation, (m) m                  |                            |               |                           |                       | 1:               | 705)269-434)<br>F |

To discuss this sample report, contact Customer Service at 1-800-268-2131.darseneaTest 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.

CALA

ISO 17025:2017 Accredited Laboratory

Laboratory

Sample No. Lab Number

Unique Number Test Package

F: