



# LIEBHERR

## OIL ANALYSIS REPORT

|                 |        |
|-----------------|--------|
| WEAR            | NORMAL |
| CONTAMINATION   | NORMAL |
| FLUID CONDITION | NORMAL |



Machine Id  
**LIEBHERR HS883 3069**  
Component  
**Rear Drum Gearbox**  
Fluid  
**CHEVRON DELO GEAR ESI OIL 80W90 (30 LTR)**

### RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current     | History1 | History2 |
|----------------|-----|-------------|-----------|-------------|----------|----------|
| Sample Number  |     | Client Info |           | LH0281135   | ---      | ---      |
| Sample Date    |     | Client Info |           | 25 Nov 2023 | ---      | ---      |
| Machine Age    | hrs | Client Info |           | 1000        | ---      | ---      |
| Oil Age        | hrs | Client Info |           | 0           | ---      | ---      |
| Filter Age     | hrs | Client Info |           | 0           | ---      | ---      |
| Oil Changed    |     | Client Info |           | Changed     | ---      | ---      |
| Filter Changed |     | Client Info |           | N/A         | ---      | ---      |
| Sample Status  |     |             |           | NORMAL      | ---      | ---      |

### WEAR

All component wear rates are normal.

|              |        |               |      |      |     |     |
|--------------|--------|---------------|------|------|-----|-----|
| Iron         | ppm    | ASTM D5185(m) | >200 | 65   | --- | --- |
| Chromium     | ppm    | ASTM D5185(m) | >10  | <1   | --- | --- |
| Nickel       | ppm    | ASTM D5185(m) | >10  | <1   | --- | --- |
| Titanium     | ppm    | ASTM D5185(m) |      | 0    | --- | --- |
| Silver       | ppm    | ASTM D5185(m) |      | 0    | --- | --- |
| Aluminum     | ppm    | ASTM D5185(m) |      | <1   | --- | --- |
| Lead         | ppm    | ASTM D5185(m) |      | <1   | --- | --- |
| Copper       | ppm    | ASTM D5185(m) |      | 3    | --- | --- |
| Tin          | ppm    | ASTM D5185(m) |      | 0    | --- | --- |
| Vanadium     | ppm    | ASTM D5185(m) |      | 0    | --- | --- |
| White Metal  | scalar | Visual*       | NONE | NONE | --- | --- |
| Yellow Metal | scalar | Visual*       | NONE | NONE | --- | --- |

### CONTAMINATION

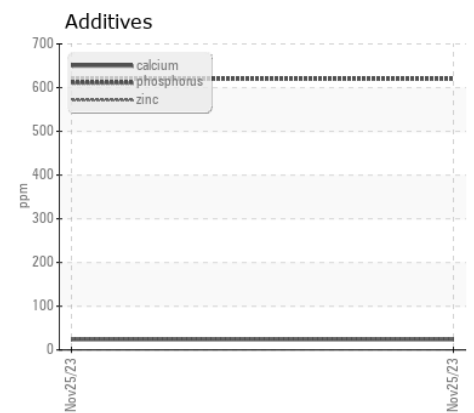
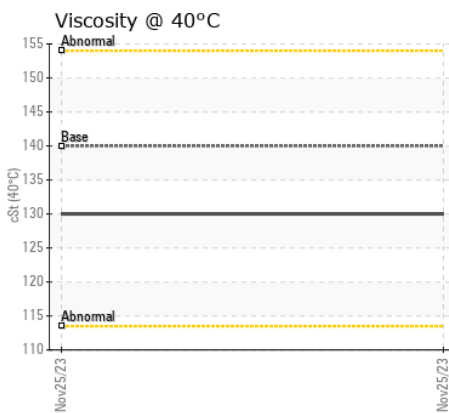
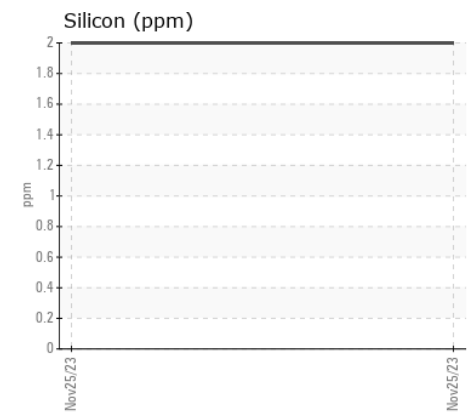
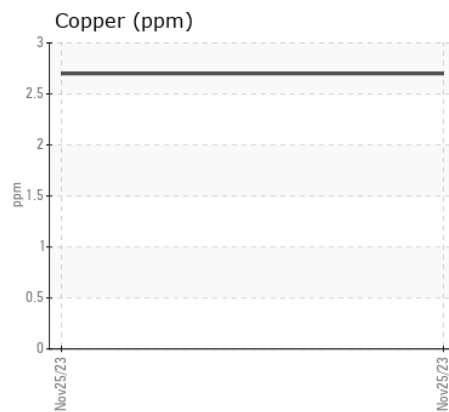
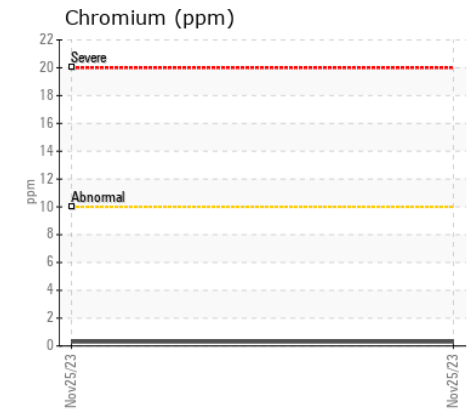
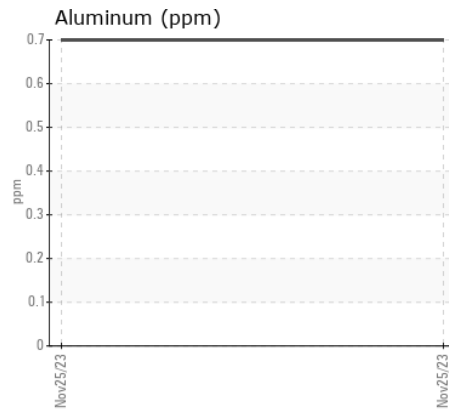
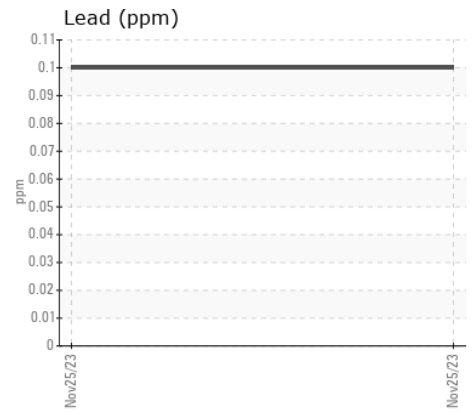
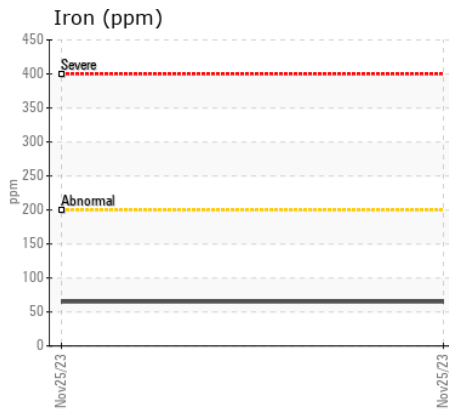
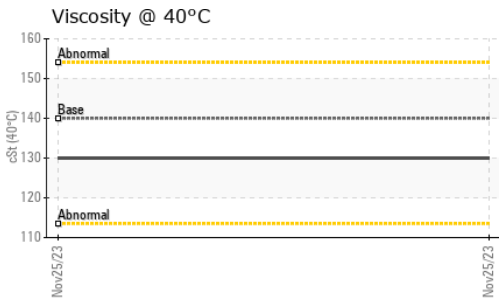
There is no indication of any contamination in the oil.

|                  |        |               |       |       |     |     |
|------------------|--------|---------------|-------|-------|-----|-----|
| Silicon          | ppm    | ASTM D5185(m) |       | 2     | --- | --- |
| Potassium        | ppm    | ASTM D5185(m) | >20   | 3     | --- | --- |
| Water            |        | WC Method     | >0.2  | NEG   | --- | --- |
| Silt             | scalar | Visual*       | NONE  | VLITE | --- | --- |
| 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*       | >0.2  | NEG   | --- | --- |

### FLUID CONDITION

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

|             |     |               |       |       |     |     |
|-------------|-----|---------------|-------|-------|-----|-----|
| Sodium      | ppm | ASTM D5185(m) |       | <1    | --- | --- |
| Boron       | ppm | ASTM D5185(m) | 15    | 25    | --- | --- |
| Barium      | ppm | ASTM D5185(m) | 0     | <1    | --- | --- |
| Molybdenum  | ppm | ASTM D5185(m) | 0     | 0     | --- | --- |
| Manganese   | ppm | ASTM D5185(m) |       | 0     | --- | --- |
| Magnesium   | ppm | ASTM D5185(m) | 0     | 2     | --- | --- |
| Calcium     | ppm | ASTM D5185(m) | 5     | 24    | --- | --- |
| Phosphorus  | ppm | ASTM D5185(m) | 600   | 620   | --- | --- |
| Zinc        | ppm | ASTM D5185(m) | 0     | 26    | --- | --- |
| Sulfur      | ppm | ASTM D5185(m) | 22000 | 17759 | --- | --- |
| Visc @ 40°C | cSt | ASTM D7279(m) | 140   | 130   | --- | --- |



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0281135 **Received** : 10 Jan 2024  
**Lab Number** : 02607965 **Diagnosed** : 10 Jan 2024  
**Unique Number** : 5709051 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1

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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.