

# **OIL ANALYSIS REPORT**

Sample Number

### **NORMAL**



TO60000155

# COMPRESSOR STATIONS/ZENA AREA **HERCULES (S/N 5309X5145)**

Component

Compressor

**TULCO LUBSOIL LPG WS 150 (--- GAL)** 

## DIAGNOSIS Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor. ( Customer Sample Comment:

Top Up Amount: 3 GAL)

All component wear rates are normal.

#### Contamination

The amount and size of particulates present in the system are acceptable.

#### **Fluid Condition**

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



Client Info

TO60001216

TO60000852

| Sample Number    |          | Client Into  |            | 1060001216  | 1060000852       | 1060000155        |
|------------------|----------|--------------|------------|-------------|------------------|-------------------|
| Sample Date      |          | Client Info  |            | 01 Aug 2023 | 18 Apr 2023      | 20 Nov 2022       |
| Machine Age      | hrs      | Client Info  |            | 58885       | 58885            | 55282             |
| Oil Age          | hrs      | Client Info  |            | 58885       | 58885            | 1584              |
| Oil Changed      |          | Client Info  |            | Oil Added   | N/A              | Oil Added         |
| Sample Status    |          |              |            | NORMAL      | ATTENTION        | ATTENTION         |
| WEAR METALS      |          | method       | limit/base | current     | history1         | history2          |
| Iron             | ppm      | ASTM D5185m  | >50        | <1          | <1               | <1                |
| Chromium         | ppm      | ASTM D5185m  | >10        | 0           | <1               | 0                 |
| Nickel           | ppm      | ASTM D5185m  |            | 0           | <1               | <1                |
| Titanium         | ppm      | ASTM D5185m  |            | 0           | 0                | 0                 |
| Silver           | ppm      | ASTM D5185m  |            | 0           | 0                | 0                 |
| Aluminum         | ppm      | ASTM D5185m  | >25        | <1          | 0                | <1                |
| Lead             | ppm      | ASTM D5185m  | >25        | 0           | 0                | <1                |
| Copper           | ppm      | ASTM D5185m  | >50        | <1          | <1               | <1                |
| Tin              | ppm      | ASTM D5185m  | >15        | <1          | <1               | 1                 |
| Vanadium         | ppm      | ASTM D5185m  | -          | 0           | <1               | 0                 |
| Cadmium          | ppm      | ASTM D5185m  |            | 0           | <1               | 0                 |
| ADDITIVES        | Pless    | method       | limit/base | current     | history1         | history2          |
| Boron            | ppm      |              | 0          | 0           | 0                | 1                 |
| Barium           |          |              | 0          | 0           | 0                | 0                 |
| Molybdenum       | ppm      | ASTM D5185m  | 0          | 0           | 0                | 0                 |
| Manganese        | ppm      | ASTM D5185m  | U          | <1          | <1               | 0                 |
| Magnesium        | ppm      | ASTM D5185m  | 0          | <1          | 1                | 2                 |
| Calcium          | ppm      |              | 0          | 0           | 3                | 2                 |
| Phosphorus       | ppm      | ASTM D5185m  | 0          | 242         | 546              | 414               |
| Zinc             | ppm      | ASTM D5185m  | 0          | 0           | 5                | 2                 |
| Sulfur           | ppm      | ASTM D5185m  | 0          | 406         | 1284             | 1101              |
|                  | ppm      |              |            |             |                  |                   |
| CONTAMINANTS     |          | method       | limit/base | current     | history1         | history2          |
| Silicon          | ppm      | ASTM D5185m  | >25        | 0           | <1               | <1                |
| Sodium           | ppm      | ASTM D5185m  |            | 26          | 23               | 16                |
| Potassium        | ppm      | ASTM D5185m  | >20        | 0           | 1                | 1                 |
| Water            | %        | ASTM D6304   | >2.26      | 0.458       | 0.351            | 0.413             |
| ppm Water        | ppm      | ASTM D6304   | >22600     | 4588.4      | 3510             | 4130              |
| FLUID CLEANLIN   | IESS     | method       | limit/base | current     | history1         | history2          |
| Particles >4µm   |          | ASTM D7647   | >10000     | 3630        | 8054             | 6312              |
| Particles >6μm   |          | ASTM D7647   | >1300      | 768         | <u>1946</u>      | <u>▲</u> 1605     |
| Particles >14µm  |          | ASTM D7647   | >320       | 45          | 63               | 77                |
| Particles >21µm  |          | ASTM D7647   | >80        | 9           | 13               | 16                |
| Particles >38µm  |          | ASTM D7647   | >20        | 0           | 1                | 1                 |
| Particles >71µm  |          | ASTM D7647   | >4         | 0           | 0                | 0                 |
| Oil Cleanliness  |          | ISO 4406 (c) | >20/17/15  | 19/17/13    | <b>2</b> 0/18/13 | <u>^</u> 20/18/13 |
| FLUID DEGRADA    | TION     | method       | limit/base | current     | history1         | history2          |
| Acid Number (AN) | mg KOH/g | ASTM D8045   |            | 0.44        | 1.02             | 0.73              |



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