## **OIL ANALYSIS REPORT**

#### Sample Rating Trend



# DAY TANK FEEDS ENGINES - CHEVRON CYL 460/PC LD 3000

New (Unused) Oil

{not provided} (--- GAL)

## DIAGNOSIS

### Recommendation

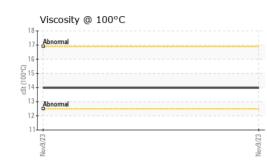
This is a baseline read-out on the submitted sample. Please note that this is a corrected copy for laboratory data update for TBN.

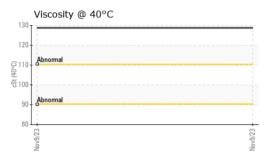
|                  |               |             |            | Nov2023     |          |          |
|------------------|---------------|-------------|------------|-------------|----------|----------|
| SAMPLE INFORM    | <b>/ATION</b> | method      | limit/base | current     | history1 | history2 |
| Sample Number    |               | Client Info |            | PCA0097953  |          |          |
| Sample Date      |               | Client Info |            | 09 Nov 2023 |          |          |
| Machine Age      | hrs           | Client Info |            | 0           |          |          |
| Oil Age          | hrs           | Client Info |            | 0           |          |          |
| Oil Changed      |               | Client Info |            | N/A         |          |          |
| Sample Status    |               |             |            | NORMAL      |          |          |
| WEAR METALS      | S             | method      | limit/base | current     | history1 | history2 |
| Iron             | ppm           | ASTM D5185m |            | 0           |          |          |
| Chromium         | ppm           | ASTM D5185m |            | 0           |          |          |
| Nickel           | ppm           | ASTM D5185m |            | <1          |          |          |
| Titanium         | ppm           | ASTM D5185m |            | 0           |          |          |
| Silver           | ppm           | ASTM D5185m |            | 0           |          |          |
| Aluminum         | ppm           | ASTM D5185m |            | <1          |          |          |
| Lead             | ppm           | ASTM D5185m |            | <1          |          |          |
| Copper           | ppm           | ASTM D5185m |            | <1          |          |          |
| Tin              | ppm           | ASTM D5185m |            | 0           |          |          |
| Vanadium         | ppm           | ASTM D5185m |            | 0           |          |          |
| Cadmium          | ppm           | ASTM D5185m |            | 0           |          |          |
| ADDITIVES        |               | method      | limit/base | current     | history1 | history2 |
| Boron            | ppm           | ASTM D5185m |            | 0           |          |          |
| Barium           | ppm           | ASTM D5185m |            | 0           |          |          |
| Molybdenum       | ppm           | ASTM D5185m |            | 0           |          |          |
| Manganese        | ppm           | ASTM D5185m |            | <1          |          |          |
| Magnesium        | ppm           | ASTM D5185m |            | 9           |          |          |
| Calcium          | ppm           | ASTM D5185m |            | 1133        |          |          |
| Phosphorus       | ppm           | ASTM D5185m |            | 257         |          |          |
| Zinc             | ppm           | ASTM D5185m |            | 313         |          |          |
| Sulfur           | ppm           | ASTM D5185m |            | 2392        |          |          |
| CONTAMINAN       | TS            | method      | limit/base | current     | history1 | history2 |
| Silicon          | ppm           | ASTM D5185m |            | 6           |          |          |
| Sodium           | ppm           | ASTM D5185m |            | <1          |          |          |
| Potassium        | ppm           | ASTM D5185m | >20        | <1          |          |          |
| INFRA-RED        |               | method      | limit/base | current     | history1 | history2 |
| Soot %           | %             | *ASTM D7844 |            | 0           |          |          |
| Nitration        | Abs/cm        | *ASTM D7624 |            | 2.5         |          |          |
| Sulfation        | Abs/.1mm      | *ASTM D7415 |            | 13.9        |          |          |
| FLUID DEGRAD     | ATION         | method      | limit/base | current     | history1 | history2 |
| Oxidation        | Abs/.1mm      | *ASTM D7414 |            | 7.5         |          |          |
| Acid Number (AN) | mg KOH/g      | ASTM D8045  |            | 0.33        |          |          |
| Base Number (BN) | mg KOH/g      | ASTM D2896  |            | 3.93        |          |          |

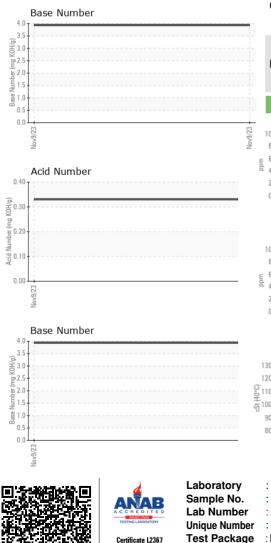


# **OIL ANALYSIS REPORT**

VICLIAI







|  | VISUAL  |                            | method                    | limit/base   | current             | history1     | history2                             |
|--|---|----------------------------|---------------------------|--|---------------------|--------------|--------------------------------------|
|  | White Metal   | scalar                     | *Visual                   | NONE   | NONE                |              |                                      |
|  | Yellow Metal  | scalar                     | *Visual                   | NONE   | NONE                |              |                                      |
|  | Precipitate   | scalar                     | *Visual                   | NONE   | NONE                |              |                                      |
|  | Silt  | scalar                     | *Visual                   | NONE   | NONE                |              |                                      |
|  | Debris  | scalar                     | *Visual                   | NONE   | NONE                |              |                                      |
|  | Sand/Dirt   | scalar                     | *Visual                   | NONE   | NONE                |              |                                      |
|  | Appearance  | scalar                     | *Visual                   | NORML  | NORML               |              |                                      |
|  | <sup>≥</sup> Odor   | scalar                     | *Visual                   | NORML  | NORML               |              |                                      |
|  | Emulsified Water  | scalar                     | *Visual                   |  | NEG                 |              |                                      |
|  | Free Water  | scalar                     | *Visual                   |  | NEG                 |              |                                      |
|  | FLUID PROPE   | RTIES                      | method                    | limit/base   | current             | history1     | history2                             |
|  | Visc @ 40°C   | cSt                        | ASTM D445                 |  | 128.8               |              |                                      |
|  | Visc @ 100°C  | cSt                        | ASTM D445                 |  | 13.97               |              |                                      |
|  | Viscosity Index (VI)  |                            | ASTM D2270                |  | 105                 |              |                                      |
|  | SAMPLE IMAG   |                            | method                    | limit/base   | current             | history1     | history2                             |
|  |   |                            | method                    | Innibase   |                     | motory       | Thotoryz                             |
|  | Color   |                            |                           |  |                     | no image     | no image                             |
|  | Bottom  |                            |                           |  |                     | no image     | no image                             |
|  | CRAPHS<br>Ferrous Alloys  |                            |                           | 133  |                     |              |                                      |
|  | Non-ferrous Meta  | ls                         |                           | Nov9/23  |                     |              |                                      |
|  | Viscosity @ 40°C  |                            |                           | Nov9/23  | Acid Number         |              |                                      |
|  | 120<br>5 110 - Abnormal<br>5 100 - 5<br>5 100 - 5 |                            |                           | (B)(HO, 4)<br>D) (B)(HO, 2)<br>B)(HO, 2)<br>B | ]-                  |              |                                      |
|  | 90 + Abhomai  |                            |                           | N 0.1  | )                   |              |                                      |
|  | 804   |                            |                           | 0.0 Acid   |                     |              |                                      |
| Laborato<br>Sample N                             |   | 501 Madi<br><b>Receive</b> |                           | ry, NC 2751:<br>Nov 2023   | B BLARNE            | EY CASTLE OI | <b>L &amp; PROPAN</b><br>2320 WEST S |
| Lab Num<br>Unique Nu<br>tificate L2367 Test Pacl | iber : 06004795<br>imber : 10738557   | Diagnos<br>Diagnos         | ed : 15 l<br>tician : Dou | Nov 2023<br>Ig Bogart  | atFuel DrtCount TDK | E            | BEAR LAKE, N<br>US 4961              |

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Т:

F: