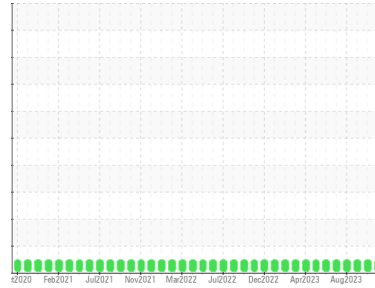




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**CP-63**  
 Component  
**Screw Compressor**  
 Fluid  
**SYNTHOSOL 100 (--- 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 component. The amount and size of particulates present in the system is acceptable.

### 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>WC0820256</b>   | WC0820279   | WC0820283   |
| Sample Date        | Client Info |             |            | <b>14 Nov 2023</b> | 03 Oct 2023 | 07 Sep 2023 |
| Machine Age        | days        | Client Info |            | <b>0</b>           | 0           | 0           |
| Oil Age            | days        | 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 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185m | >60        | <b>0</b>     | <1       | <1       |
| Chromium    | ppm | ASTM D5185m | >4         | <b>&lt;1</b> | 0        | 0        |
| Nickel      | ppm | ASTM D5185m |            | <b>0</b>     | 0        | <1       |
| Titanium    | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | 0        |
| Silver      | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Aluminum    | ppm | ASTM D5185m | >5         | <b>0</b>     | 0        | 0        |
| Lead        | ppm | ASTM D5185m | >10        | <b>0</b>     | 0        | 0        |
| Copper      | ppm | ASTM D5185m | >30        | <b>2</b>     | 1        | 0        |
| Tin         | ppm | ASTM D5185m | >15        | <b>&lt;1</b> | <1       | 2        |
| Vanadium    | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Cadmium     | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | 0        |

| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Barium     | ppm | ASTM D5185m |            | <b>0</b>     | <1       | 0        |
| Molybdenum | ppm | ASTM D5185m |            | <b>&lt;1</b> | 5        | 0        |
| Manganese  | ppm | ASTM D5185m |            | <b>0</b>     | 0        | <1       |
| Magnesium  | ppm | ASTM D5185m |            | <b>&lt;1</b> | <1       | 2        |
| Calcium    | ppm | ASTM D5185m |            | <b>&lt;1</b> | 3        | 0        |
| Phosphorus | ppm | ASTM D5185m |            | <b>139</b>   | 161      | 171      |
| Zinc       | ppm | ASTM D5185m |            | <b>0</b>     | 12       | 0        |
| Sulfur     | ppm | ASTM D5185m |            | <b>0</b>     | 33       | 0        |

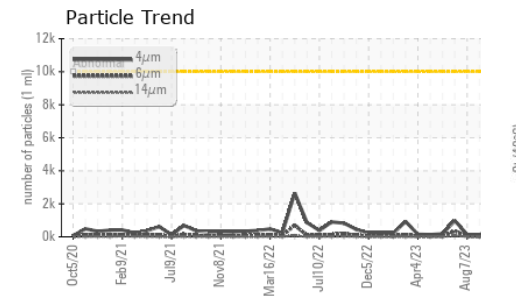
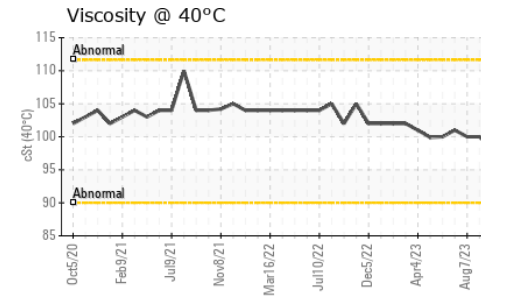
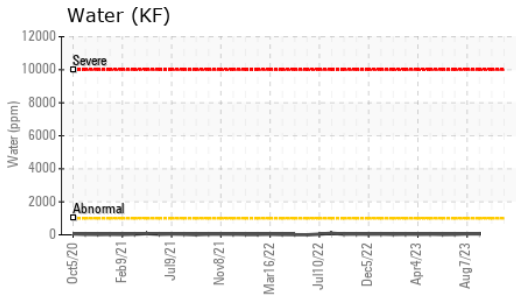
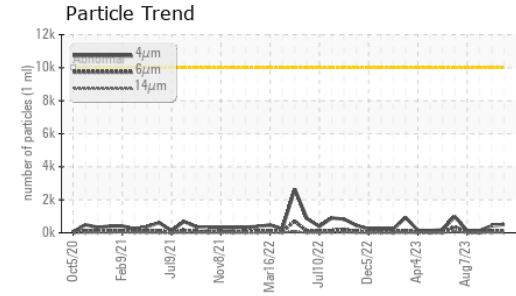
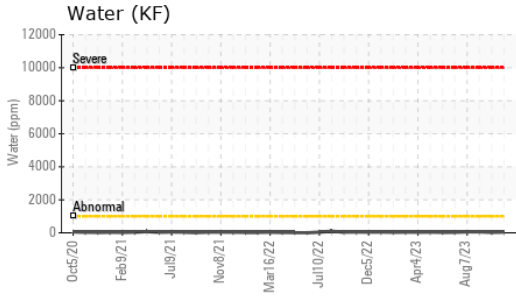
| CONTAMINANTS |     | method      | limit/base | current      | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >50        | <b>&lt;1</b> | <1       | <1       |
| Sodium       | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 1        |
| Potassium    | ppm | ASTM D5185m | >20        | <b>&lt;1</b> | 1        | <1       |
| Water        | %   | ASTM D6304  | >0.1       | <b>0.004</b> | 0.002    | 0.006    |
| ppm Water    | ppm | ASTM D6304  | >1000      | <b>43</b>    | 21.6     | 61.4     |

| FLUID CLEANLINESS |  | method       | limit/base | current         | history1 | history2 |
|-------------------|--|--------------|------------|-----------------|----------|----------|
| Particles >4µm    |  | ASTM D7647   | >10000     | <b>502</b>      | 425      | 134      |
| Particles >6µm    |  | ASTM D7647   | >2500      | <b>132</b>      | 106      | 33       |
| Particles >14µm   |  | ASTM D7647   | >320       | <b>18</b>       | 12       | 2        |
| Particles >21µm   |  | ASTM D7647   | >80        | <b>5</b>        | 3        | 0        |
| Particles >38µm   |  | ASTM D7647   | >20        | <b>0</b>        | 0        | 0        |
| Particles >71µm   |  | ASTM D7647   | >4         | <b>0</b>        | 0        | 0        |
| Oil Cleanliness   |  | ISO 4406 (c) | >20/18/15  | <b>16/14/11</b> | 16/14/11 | 14/12/9  |

| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 |            | <b>0.41</b> | 0.47     | 0.40     |



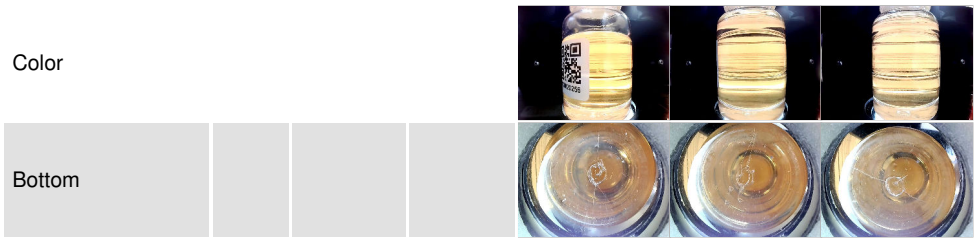
# OIL ANALYSIS REPORT



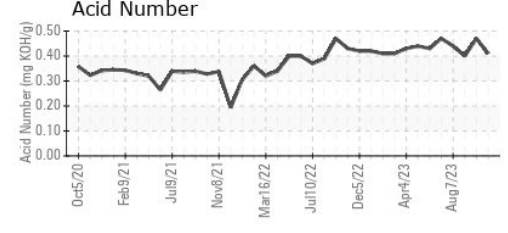
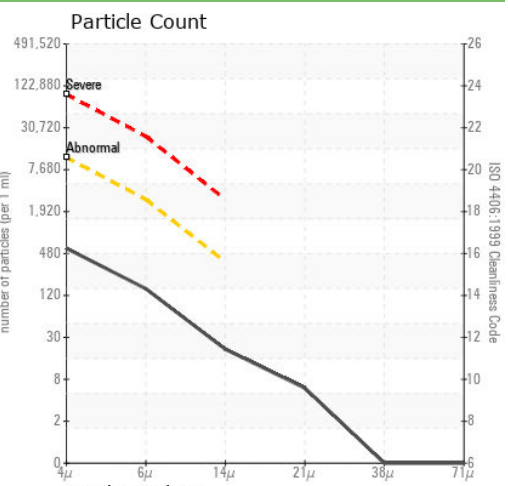
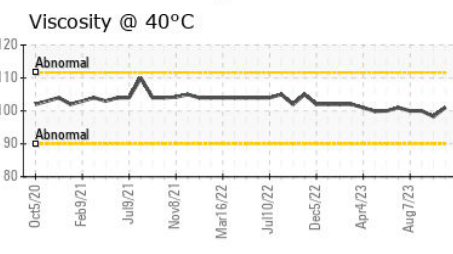
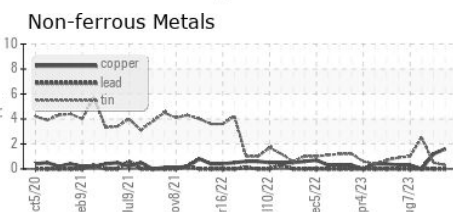
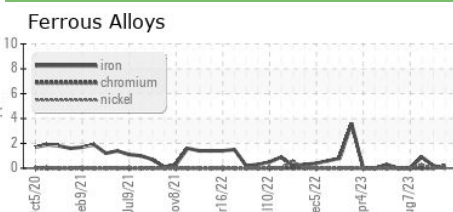
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| 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 D445  | 101     | 98.3     | 100      |

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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0820256 **Received** : 21 Nov 2023  
**Lab Number** : 06014094 **Diagnosed** : 24 Nov 2023  
**Unique Number** : 10753238 **Diagnostician** : Doug Bogart  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**UGI ENERGY SERVICES - LNG FACILITY**  
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 MESHOPPEN, PA  
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 T:  
 F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - 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)