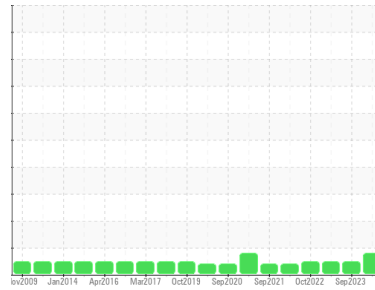




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**DUNHAM BUSH COMPRESSOR 6 (S/N 86C800061D)**  
 Component  
**Refrigeration Compressor**  
 Fluid  
**CAMCO 717 HT (70 GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is a moderate amount of silt (particulates < 6 microns in size) present in the oil.

### 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>USP248618</b>   | USP248608   | USP229610   |
| Sample Date   | Client Info |             | <b>26 Mar 2024</b> | 18 Sep 2023 | 29 Mar 2023 |
| Machine Age   | hrs         | Client Info | <b>68532</b>       | 67388       | 66599       |
| Oil Age       | hrs         | Client Info | <b>0</b>           | 0           | 0           |
| Oil Changed   | Client Info |             | <b>N/A</b>         | N/A         | Not Chngd   |
| Sample Status |             |             | <b>ATTENTION</b>   | NORMAL      | NORMAL      |

## WEAR METALS

|          | method | limit/base     | current      | history1 | history2 |
|----------|--------|----------------|--------------|----------|----------|
| Iron     | ppm    | ASTM D5185m >8 | <b>6</b>     | 5        | 4        |
| Chromium | ppm    | ASTM D5185m >2 | <b>&lt;1</b> | 0        | 0        |
| Nickel   | ppm    | ASTM D5185m    | <b>&lt;1</b> | <1       | 0        |
| Titanium | ppm    | ASTM D5185m    | <b>&lt;1</b> | 0        | 0        |
| Silver   | ppm    | ASTM D5185m >2 | <b>0</b>     | 0        | 0        |
| Aluminum | ppm    | ASTM D5185m >3 | <b>0</b>     | 0        | <1       |
| Lead     | ppm    | ASTM D5185m >2 | <b>&lt;1</b> | 0        | 0        |
| Copper   | ppm    | ASTM D5185m >8 | <b>&lt;1</b> | 0        | 0        |
| Tin      | ppm    | ASTM D5185m >4 | <b>&lt;1</b> | <1       | 0        |
| Vanadium | ppm    | ASTM D5185m    | <b>&lt;1</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>     | 0        | 0        |
| Molybdenum | ppm    | ASTM D5185m | <b>&lt;1</b> | 0        | 0        |
| Manganese  | ppm    | ASTM D5185m | <b>&lt;1</b> | 0        | <1       |
| Magnesium  | ppm    | ASTM D5185m | <b>0</b>     | 0        | 0        |
| Calcium    | ppm    | ASTM D5185m | <b>0</b>     | 0        | 0        |
| Phosphorus | ppm    | ASTM D5185m | <b>0</b>     | 0        | <1       |
| Zinc       | ppm    | ASTM D5185m | <b>1</b>     | 1        | 0        |
| Sulfur     | ppm    | ASTM D5185m | <b>0</b>     | 0        | 0        |

## CONTAMINANTS

|           | method | limit/base       | current      | history1 | history2 |
|-----------|--------|------------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >15  | <b>2</b>     | 1        | <1       |
| Sodium    | ppm    | ASTM D5185m      | <b>&lt;1</b> | 0        | 0        |
| Potassium | ppm    | ASTM D5185m >20  | <b>&lt;1</b> | 1        | 0        |
| Water     | %      | ASTM D6304 >0.01 | <b>0.001</b> | 0.001    | 0.003    |
| ppm Water | ppm    | ASTM D6304 >100  | <b>12</b>    | 13.3     | 33.4     |

## FLUID CLEANLINESS

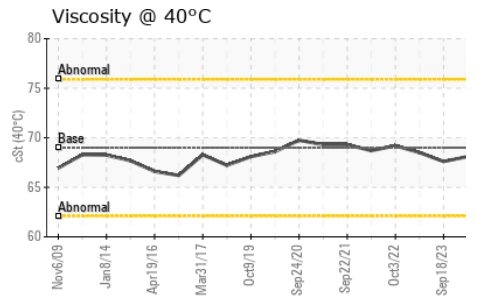
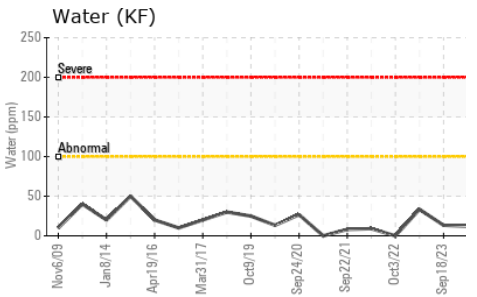
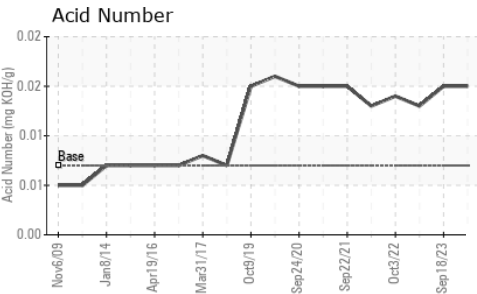
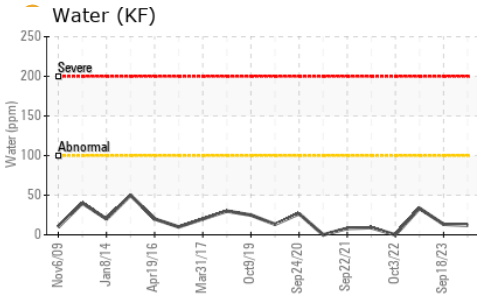
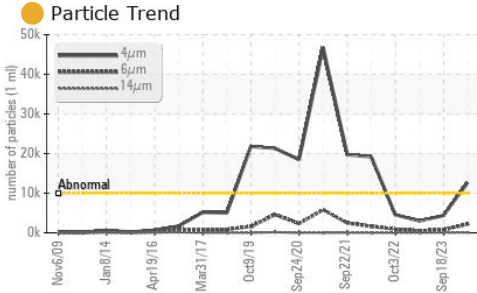
|                 | method       | limit/base | current         | history1 | history2 |
|-----------------|--------------|------------|-----------------|----------|----------|
| Particles >4µm  | ASTM D7647   | >10000     | <b>12695</b>    | 4389     | 2986     |
| Particles >6µm  | ASTM D7647   | >2500      | <b>2228</b>     | 767      | 513      |
| Particles >14µm | ASTM D7647   | >320       | <b>61</b>       | 29       | 12       |
| Particles >21µm | ASTM D7647   | >80        | <b>11</b>       | 7        | 3        |
| Particles >38µm | ASTM D7647   | >20        | <b>0</b>        | 1        | 0        |
| Particles >71µm | ASTM D7647   | >4         | <b>0</b>        | 0        | 0        |
| Oil Cleanliness | ISO 4406 (c) | >20/18/15  | <b>21/18/13</b> | 19/17/12 | 19/16/11 |

## FLUID DEGRADATION

|                  | method   | limit/base      | current      | history1 | history2 |
|------------------|----------|-----------------|--------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D974 0.007 | <b>0.015</b> | 0.015    | 0.013    |



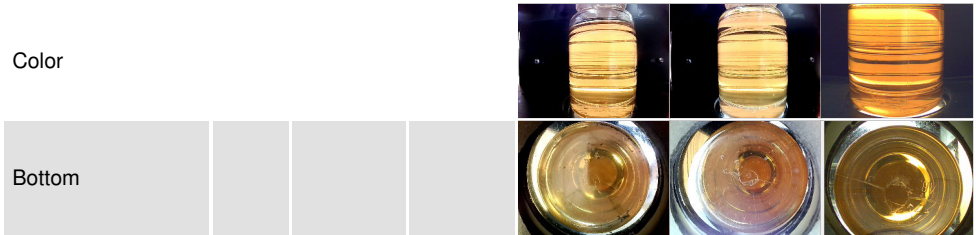
# OIL ANALYSIS REPORT



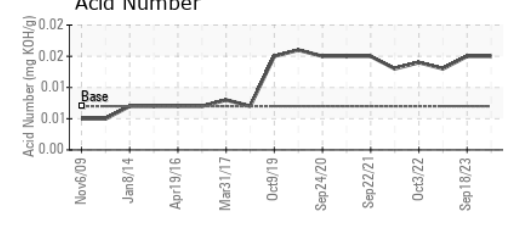
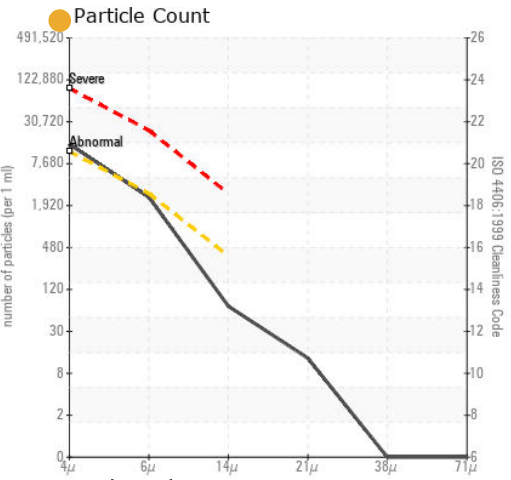
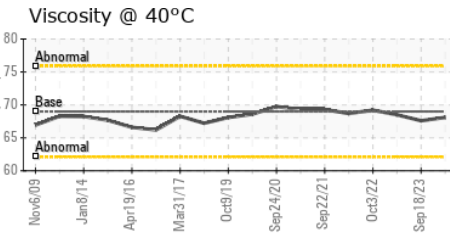
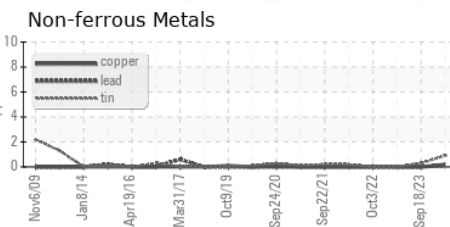
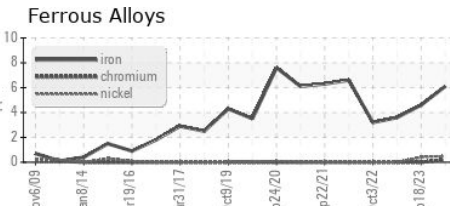
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| 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    | >0.01   | NEG      | NEG      |
| Free Water       | scalar | *Visual    |         | NEG      | NEG      |

| FLUID PROPERTIES | method | limit/base   | current | history1 | history2 |
|------------------|--------|--------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445 69 | 68.1    | 67.6     | 68.5     |

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



## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : USP248618  
 Lab Number : 06138096  
 Unique Number : 10962904  
 Test Package : IND 2

Received : 03 Apr 2024  
 Tested : 04 Apr 2024  
 Diagnosed : 05 Apr 2024 - Doug Bogart

AMERICOLD - AMEJEF  
 230 COLLINS RD.  
 JEFFERSON, WI  
 US 53549

Contact: DAVID LAUER  
 david.lauer@americold.com

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)

T:  
 F: (920)674-2092