





# CELL 1 DC-1 Component Hydraulic System CROSS FLUID-RITE 200 (700 GAL)

Machine Id

#### Recommendation

No corrective action is recommended at this time. 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 oil. The amount and size of particulates present in the system are acceptable.

#### Fluid Condition

The pH level of this fluid is within the acceptable limits at 9.0. The condition of the oil is acceptable for the time in service.

|                                    | IATION | method                   | limit/base | current     | history1 | history2 |
|------------------------------------|--------|--------------------------|------------|-------------|----------|----------|
| Sample Number                      |        | Client Info              |            | SBP0001592  |          |          |
| Sample Date                        |        | Client Info              |            | 27 Mar 2024 |          |          |
| Machine Age                        | hrs    | Client Info              |            | 0           |          |          |
| Oil Age                            | hrs    | Client Info              |            | 0           |          |          |
| Oil Changed                        |        | Client Info              |            | N/A         |          |          |
| Sample Status                      |        |                          |            | NORMAL      |          |          |
| WEAR METALS                        |        | method                   | limit/base | current     | history1 | history2 |
| PQ                                 |        | ASTM D8184               |            | 65          |          |          |
| Iron                               | ppm    | ASTM D5185m              | >20        | 0           |          |          |
| Chromium                           | ppm    | ASTM D5185m              | >20        | <1          |          |          |
| Nickel                             | ppm    | ASTM D5185m              | >20        | <1          |          |          |
| Titanium                           | ppm    | ASTM D5185m              |            | <1          |          |          |
| Silver                             | ppm    | ASTM D5185m              |            | 0           |          |          |
| Aluminum                           | ppm    | ASTM D5185m              | >20        | 1           |          |          |
| Lead                               | ppm    | ASTM D5185m              | >20        | 0           |          |          |
| Copper                             | ppm    | ASTM D5185m              | >20        | <1          |          |          |
| Tin                                | ppm    | ASTM D5185m              | >20        | <1          |          |          |
| Vanadium                           | ppm    | ASTM D5185m              |            | 0           |          |          |
| Cadmium                            | ppm    | ASTM D5185m              |            | 2           |          |          |
| 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              |            | <1          |          |          |
| Calcium                            | ppm    | ASTM D5185m              |            | 3           |          |          |
| Phosphorus                         | ppm    | ASTM D5185m              |            | 2           |          |          |
| Zinc                               | ppm    | ASTM D5185m              |            | 3           |          |          |
| Sulfur                             | ppm    | ASTM D5185m              |            | 0           |          |          |
| CONTAMINANTS                       |        | method                   | limit/base | current     | history1 | history2 |
| Silicon                            | ppm    | ASTM D5185m              | >15        | <1          |          |          |
| Sodium                             | ppm    | ASTM D5185m              |            | 2           |          |          |
| Potassium                          | ppm    | ASTM D5185m              | >20        | 1           |          |          |
| Water                              | %      | ASTM D6304               | >0.05      | 39.2        |          |          |
| ppm Water                          | ppm    | ASTM D6304               | >500       | 392000      |          |          |
| FLUID CLEANLIN                     | ESS    | method                   | limit/base | current     | history1 | history2 |
| Particles >4µm                     |        | ASTM D7647               | >5000      | 1000        |          |          |
| Particles >6µm                     |        | ASTM D7647               | >1300      | 545         |          |          |
| Particles >14µm                    |        | ASTM D7647               | >160       | 93          |          |          |
|                                    |        | ASTM D7647               | >40        | 31          |          |          |
| Particles >21µm                    |        |                          |            | F           |          |          |
| Particles >21µm<br>Particles >38µm |        | ASTM D7647               | >10        | 5           |          |          |
| •                                  |        | ASTM D7647<br>ASTM D7647 |            | 0           |          |          |



## **OIL ANALYSIS REPORT**

| White Metal<br>Yellow Metal<br>Precipitate<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Free Water<br>FLUID PROPERT<br>PH<br>Visc @ 40°C<br>SAMPLE IMAGES<br>Color<br>Bottom<br>GRAPHS<br>Ferrous Alloys | Scale 0-14<br>cSt  | *Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br><b>method</b><br>ASTM D1287<br>ASTM D445<br><b>method</b> | NONE<br>NONE<br>NONE<br>NONE<br>NORML<br>>0.05<br>Iimit/base | NONE         NONE         NONE         NONE         NONE         NORML         0.2%         NEG         Current         9.00         54.5         Current         OUTION         OUTION         NONE |
|---|--|---|--|--|
| Yellow Metal<br>Precipitate<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Free Water<br>FLUID PROPERT<br>pH<br>Visc @ 40°C<br>SAMPLE IMAGES<br>Color<br>Bottom<br>GRAPHS<br>Ferrous Alloys                | scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar | *Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br><b>method</b><br>ASTM D1287<br>ASTM D445       | NONE<br>NONE<br>NONE<br>NONE<br>NORML<br>>0.05<br>limit/base | NONE<br>NONE<br>NONE<br>NONE<br>NORML<br>NORML<br>0.2%<br>NEG<br>Current<br>9.00<br>54.5<br>Current  |
| Precipitate Silt Debris Sand/Dirt Appearance Odor Emulsified Water Free Water FLUID PROPERT pH Visc @ 40°C SAMPLE IMAGES Color Bottom GRAPHS Ferrous Alloys   | scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar           | *Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br><b>method</b><br>ASTM D1287<br>ASTM D445                             | NONE<br>NONE<br>NONE<br>NORML<br>NORML<br>>0.05              | NONE<br>NONE<br>NONE<br>NORML<br>0.2%<br>NEG<br>current<br>9.00<br>54.5<br>current   |
| Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Free Water<br>FLUID PROPERT<br>PH<br>Visc @ 40°C<br>SAMPLE IMAGES<br>Color<br>Bottom<br>GRAPHS<br>Ferrous Alloys   | scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar                     | *Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br><b>method</b><br>ASTM D1287<br>ASTM D445  | NONE<br>NONE<br>NORML<br>NORML<br>>0.05                      | NONE<br>NONE<br>NORML<br>NORML<br>0.2%<br>NEG<br>Current<br>9.00<br>54.5<br>Current  |
| Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Free Water<br>FLUID PROPERT<br>PH<br>Visc @ 40°C<br>SAMPLE IMAGES<br>Color<br>Bottom<br>GRAPHS<br>Ferrous Alloys   | scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br><b>IES</b><br>Scale 0-14<br>cSt                | *Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br><b>method</b><br>ASTM D1287<br>ASTM D445  | NONE<br>NORML<br>NORML<br>>0.05<br>limit/base                | NONE<br>NORML<br>NORML<br>0.2%<br>NEG<br>Current<br>9.00<br>54.5<br>Current  |
| Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Free Water<br>FLUID PROPERT<br>pH<br>Visc @ 40°C<br>SAMPLE IMAGES<br>Color<br>Bottom<br>GRAPHS<br>Ferrous Alloys   | scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>IES<br>Scale 0-14<br>cSt                                 | *Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br><b>method</b><br>ASTM D1287<br>ASTM D445   | NONE<br>NORML<br>>0.05<br>limit/base                         | NONE<br>NORML<br>0.2%<br>NEG<br>Current<br>9.00<br>54.5<br>Current   |
| Appearance<br>Odor<br>Emulsified Water<br>Free Water<br>FLUID PROPERT<br>pH<br>Visc @ 40°C<br>SAMPLE IMAGES<br>Color<br>Bottom<br>GRAPHS<br>Ferrous Alloys  | scalar<br>scalar<br>scalar<br>scalar<br>IES<br>Scale 0-14<br>cSt   | *Visual<br>*Visual<br>*Visual<br>*Visual<br><b>method</b><br>ASTM D1287<br>ASTM D445  | NORML<br>NORML<br>>0.05<br>limit/base                        | NORML<br>NORML<br>0.2%<br>NEG<br>current<br>9.00<br>54.5<br>current  |
| Odor<br>Emulsified Water<br>Free Water<br>FLUID PROPERT<br>pH<br>Visc @ 40°C<br>SAMPLE IMAGES<br>Color<br>Bottom<br>GRAPHS<br>Ferrous Alloys  | scalar<br>scalar<br>scalar<br>IES<br>Scale 0-14<br>cSt   | *Visual<br>*Visual<br>*Visual<br><b>method</b><br>ASTM D1287<br>ASTM D445   | NORML<br>>0.05<br>limit/base                                 | NORML<br>0.2%<br>NEG<br>current<br>9.00<br>54.5<br>current   |
| Emulsified Water<br>Free Water<br>FLUID PROPERT<br>pH<br>Visc @ 40°C<br>SAMPLE IMAGES<br>Color<br>Bottom<br>GRAPHS<br>Ferrous Alloys  | scalar<br>scalar<br>IES<br>Scale 0-14<br>cSt   | *Visual<br>*Visual<br>method<br>ASTM D1287<br>ASTM D445   | >0.05<br>limit/base  | 0.2%<br>NEG<br>current<br>9.00<br>54.5<br>current  |
| Free Water<br>FLUID PROPERT<br>pH<br>Visc @ 40°C<br>SAMPLE IMAGES<br>Color<br>Bottom<br>GRAPHS<br>Ferrous Alloys  | scalar<br>TES<br>Scale 0-14<br>cSt   | *Visual<br>method<br>ASTM D1287<br>ASTM D445  | limit/base   | NEG<br>current<br>9.00<br>54.5<br>current  |
| FLUID PROPERT<br>pH<br>Visc @ 40°C<br>SAMPLE IMAGES<br>Color<br>Bottom<br>GRAPHS<br>Ferrous Alloys  | TIES<br>Scale 0-14<br>cSt  | method<br>ASTM D1287<br>ASTM D445   |  | current<br>9.00<br>54.5<br>current   |
| pH<br>Visc @ 40°C<br>SAMPLE IMAGES<br>Color<br>Bottom<br>GRAPHS<br>Ferrous Alloys   | Scale 0-14<br>cSt  | ASTM D1287<br>ASTM D445   |  | 9.00<br>54.5<br>Current  |
| Visc @ 40°C<br>SAMPLE IMAGES<br>Color<br>Bottom<br>GRAPHS<br>Ferrous Alloys   | cSt  | ASTM D445   | limit/base   | 54.5<br>current  |
| Visc @ 40°C<br>SAMPLE IMAGES<br>Color<br>Bottom<br>GRAPHS<br>Ferrous Alloys   | cSt  | ASTM D445   | limit/base   | 54.5<br>current  |
| SAMPLE IMAGES<br>Color<br>Bottom<br>GRAPHS<br>Ferrous Alloys  |  |   | limit/base   | current  |
| Color<br>Bottom<br>GRAPHS<br>Ferrous Alloys   |  | method  | limit/base   |  |
| Bottom<br>GRAPHS<br>Ferrous Alloys  |  |   |  |  |
| Bottom<br>GRAPHS<br>Ferrous Alloys  |  |   |  |  |
| Bottom<br>GRAPHS<br>Ferrous Alloys  |  |   |  |  |
| GRAPHS<br>Ferrous Alloys  |  |   |  |  |
| GRAPHS<br>Ferrous Alloys  |  |   |  |  |
| GRAPHS<br>Ferrous Alloys  |  |   |  |  |
| Ferrous Alloys  |  |   |  |  |
| Ferrous Alloys  |  |   |  |  |
| Ferrous Alloys  |  |   |  |  |
| 0 iron  |  |   |  |  |
| 8 - iron<br>chromium  |  |   |  | Particle Count   |
| ***************** chromium  |  |   | 491,52   | Ī  |
|   |  |   | 122,88   | D-   |
| * *   |  |   | 30,72  | Severe   |
| 2   |  |   |  |  |
|   |  |   | 7,680  | Abnormal   |
| ar27/4  |  |   | ar27/2   | -  |
|   |  |   | M<br>cles (f   |  |
| Non-ferrous Metal   | S  |   | 18 481   |  |
| 8 copper  |  |   | lag 12   | -  |
| 6 - management tin  |  |   |  |  |
| 4-  |  |   | 31   |  |
| 2   |  |   |  | 3-   |
| 724   |  |   | /24  | 2-   |
| Mar27   |  |   | /lar27   |  |
|   |  |   | -  | 0<br>4μ 6μ   |
|   |  |   | ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;                      | Acid Number  |
| 5 - Abnomal   |  |   | KOH/6  |  |
|   |  |   | Bull of a  |  |
|   |  |   |  |  |
|   |  |   | cid Ni   |  |
| 54+<br>2  |  |   | and a  | 724  |
| /lar27  |  |   | Aar27  | Mar27/24   |
|   | Copper<br>lead<br>tin<br>tin<br>Viscosity @ 40°C   | Non-ferrous Metals  | Non-ferrous Metals   | Non-ferrous Metals   |



**NEBRASKA ALUMINUM CASTINGS** 

38µ

21µ

Report Id: NEBHASNE [WUSCAR] 06138590 (Generated: 04/12/2024 15:13:29) Rev: 1

Contact/Location: LOREN MYERS - NEBHASNE

14µ

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14 Code

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