

## **COOLANT REPORT**

Sample Rating Trend





Area

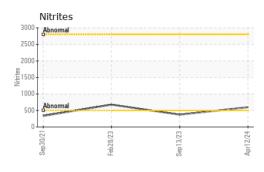
# OKLAHOMA/102/EG - LOADER 45.53L [OKLAHOMA^102^EG - LOADER] Coolant

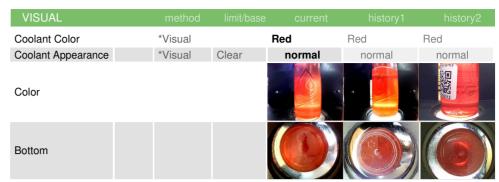
## Fluid CAT EXTENDED LIFE COOLANT (ELC) (9 GAL)

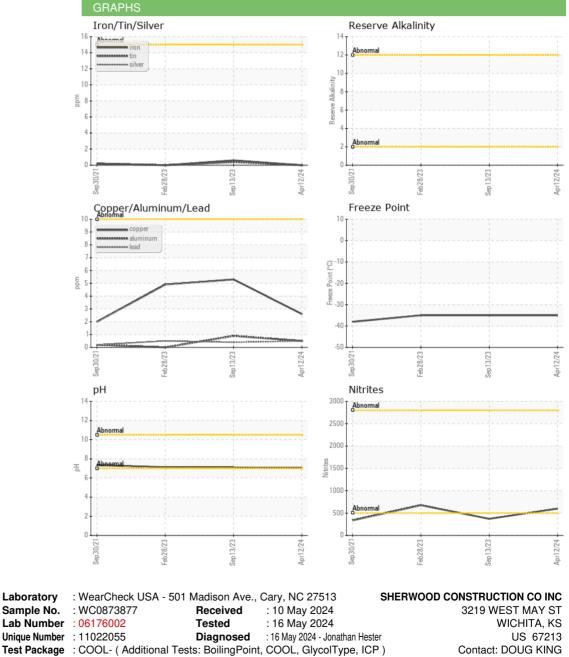
| Renormandation    Sample Number    Client Inio    WC0873871    WC0874907    WC0879071    WC0879071      No corrective action is recommended at this inter    Sample Date    Client Inio    12 Apr 2024    13 Sep 2023    28 Feb 2023      All metal levels are normal indicating no correston    Marchine Age    Inis    Client Inio    4742    4117    3562      Contaminants    Client Inio    VAT2    NO    Not Changel    Not Changel      Contaminants    Colond Condition    Client Inio    VAT2    NO    Not Changel      Cortacylate test failed. Glycol and nitrite levels are acceptable limits.    Specific Gravity    FT-IR  | DIAGNOSIS   | SAMPLE INFORM          | NATION     | method      | limit/base | current     | history1    | history2    |
|--|---|------------------------|------------|-------------|------------|-------------|-------------|-------------|
| All metal levels are normal indicating no corrors on<br>is metal levels are normal indicating no corrors on<br>contaminants<br>There is no indication of any contamination in the<br>coloant.  Client Info  NorMAA  NORMAA  NORMAA    Contaminants<br>There is no indication of any contamination in the<br>coloant.  Gly Changed  File   Nord  Nord  Nord  Nord  Nord  Nord    Carboxylate test laided. Glycol and nitrite levels are<br>acceptable limits.  Gly Changed  % Stimb D128  | No corrective action is recommended at this time.   | Sample Date            | hrs        | Client Info |            | 12 Apr 2024 | 13 Sep 2023 | 28 Feb 2023 |
| PHYSICAL TEST RESULTS    method    limit/base    current    history1    history2      Coolant Condition    Giycol Type    FT-IR          Carboxylate test failed. Glycol and nitrite levels are acceptable. The pH level of this fluid is within the acceptable limits.    PH    Scab V4    ASTM D1287    7.05    7.09    7.12      Nitrites    ppm    AP.0532209    600    372    676      Reserve Alkalinity    Scab V4    ASTM D3281    50.2    50.2    50.6      Freezing Point    °F    ASTM D3281    50.2    50.2    50.6      Freezing Point    °F    ASTM D3281    50.2    50.2    50.6      Glycol Stoke SidViside    1    329.5    361.0    383.0    Carboxylate    fail    fail    pass      CoRROSION INHIBITORS    method    Imit/base    current    history1    history1    history2      Silicon    ppm    ASTM D6130    0    20    47    64      Boron    ppm    ASTM D6130 <th>All metal levels are normal indicating no corrosion</th> <th>Oil Changed</th> <th>hrs</th> <th></th> <th></th> <th>Not Changd</th> <th>N/A</th> <th>Not Changd</th>  | All metal levels are normal indicating no corrosion | Oil Changed            | hrs        |             |            | Not Changd  | N/A         | Not Changd  |
| Coolant Condition    Specific Gravity    NSTM D1288    1.068    1.068    1.068      Carboxylate test failed. Glycol and nitrite levels are acceptable. Imites    PH    Soa 044    ASTM D1287    7.05    7.09    7.12      Nitrites    ppm    AP.053.2009    600    372    676      acceptable. Imites    Sae 00    % STM D1121         Percentage Glycol    %    ASTM D0321    -35    -35    -35      Carboxylate    Sae 00    % STM D1128          Percentage Glycol    %    ASTM D1321    -35    -35    -35    -35    -35    -35    -35    -36   | There is no indication of any contamination in the  | PHYSICAL TEST F        | RESULTS    | s method    | limit/base | current     | history1    | history2    |
| Carboxylate test failed. Glycol and nitrite levels ar  pH  Scile 04  ASTM D1287  7.05  7.09  7.12    Carboxylate test failed. Glycol this fluid is within the  Reserve Alkalinity  Scile 02  ASTM D1281  GOO  372  676    Reserve Alkalinity  Scile 02  % ASTM D1321  Sol.2  50.2  50.6  Freezing Point  °F  ASTM D5321  -35  -35  -35    Total Dissolved Solids    Sile 04  ASTM D6130  0  20  47  64    Prosphorus  ppm  ASTM D6130  0  20  47  64    Phosphorus  ppm  ASTM D6130  0  20  47  64    Phosphorus  ppm  ASTM D6130  0  42  80  118    Boron  ppm  ASTM D6130  0  42  80  118    Doron  ppm  ASTM D6130  0  43  1068  5  5    Correction  ppm  ASTM D6130  10  <1  1  1  1  1  1  1  1  1  1<  |   | Glycol Type            |            | FT-IR       |            |             |             |             |
| acceptable    Thrites    ppm    AP-9532009    600    372    676      Reserve Alkalinity    Scale M3    ASTM DT121         Percentage Glycol    %    ASTM D321    50.2    50.2    50.6      Freezing Point    %    ASTM D321    -35    -35    -35      Total Dissolved Solids      329.5    361.0    383.0      Carboxylate     fail    fail    pass      CORROSION INHIBITORS    method    limitbase    current    history1    history2      Silicon    ppm    ASTM D6130    0    20    47    64      Phosphorus    ppm    ASTM D6130    0    20    47    64      Phosphorus    ppm    ASTM D6130    0    20    42    80    118      Boron    ppm    ASTM D6130    10    1    1    0    16    16    16    16    16    16    16    16    16   | Coolant Condition                                   | Specific Gravity       |            | *ASTM D1298 |            | 1.068       | 1.068       | 1.068       |
| acceptable limits.  Reserve Alkalinity  Scile 0:20  ASTM D1121       Percentage Glycol  %  ASTM D321  50.2  50.2  50.6    Freezing Point  °F  ASTM D321  -35  -35  -35    Total Dissolved Solids  Imit/Dass  current  History1  History2    Silicon  ppm  ASTM D6130  0  20  47  64    Phosphorus  ppm  ASTM D6130  0  42  80  118    Boron  ppm  ASTM D6130  0  9  0  0    Molybdenum  ppm  ASTM D6130  0  9  0  0    Molybdenum  ppm  ASTM D6130  0  9  0  0    Molybdenum  ppm  ASTM D6130  5  0  1068  1068    COPROSION  method  Imit/base  current  History1  History2    Iron  ppm  ASTM D6130  10  <1  0  5    Lead  ppm  ASTM D6130  10  <1   |   | рН                     | Scale 0-14 | ASTM D1287  |            | 7.05        | 7.09        | 7.12        |
| Intersection Markaning Gaserols in Microscope  ASTM D6321  50.2  50.2  50.2  50.2  50.6    Freezing Point  °F  ASTM D6321  -35  -35  -35  -35    Total Dissolved Solids  329.5  361.0  383.0  280.5  361.0  383.0    Carboxylate  tail  fail  fail  pass  50.2  50.2  50.2  50.2    Solicon  ppm  ASTM D6130  0  20  47  64  50.2  |   | Nitrites               | ppm        | AP-053:2009 |            | 600         | 372         | 676         |
| Freezing Point  °F  ASTM D3321  -35  -35  -35    Total Dissolved Solids  Image: Solid Solids  Image: Solid Solids  Image: Solid Soli | acceptable limits.                                  | Reserve Alkalinity     | Scale 0-20 | *ASTM D1121 |            |             |             |             |
| Total Dissolved Solids<br>Carboxylate329.5361.0383.0CarboxylatefailfailpassCORROSION INHIBITORSmethodlimit/basecurrenthistory1SiliconppmASTM D61300204764PhosphorusppmASTM D613004280118BoronppmASTM D61300090MolydenumppmASTM D6130566338431068CORROSIONmethodlimit/basecurrenthistory1history2IronppmASTM D6130>10<1<10AluminumppmASTM D6130>10<1<10CopperppmASTM D6130>103555LeadppmASTM D6130>100<1<1<1TinppmASTM D6130>1001<1<1CONTAMINANTSmethodlimit/basecurrenthistory1history2ColorineppASTM D613011212727CARRIER SALTSmethodlimit/basecurrenthistory1history2SodiumppASTM D613070013962079SCALE POTENTI-LImethodlimit/basecurrenthistory1history2CalciumppASTM D613070013962079  |   | Percentage Glycol      | %          | ASTM D3321  |            | 50.2        | 50.2        | 50.6        |
| CarboxylatefailfailpassCORROSION INHEBITORSmethodlimit/basecurrenthistory1history2SiliconppASTM D61300204764PhosphorusppASTM D613004280118BoronppASTM D61300090MolybdenumppASTM D61309506338431068CORROSIONmethodlimit/basecurrenthistory1history1IronppASTM D6130>10<1<10AuminumppASTM D6130>10355LeadppASTM D6130>10<1<1<1TinppASTM D6130>100<1<1<1CONTAMINANTSmethodlimit/basecurrenthistory1history2ChlorineppASTM D6130112127CARRIER SALTSmethodlimit/basecurrenthistory1history2SodiumppASTM D61307001396500500PotassiumppASTM D613070013962079SCALE POTENTI-Lmethodlimit/basecurrenthistory1CalciumppASTM D6130111  |   | Freezing Point         | °F         | ASTM D3321  |            | -35         | -35         | -35         |
| CORROSION INHIBITORSmethodimit/basecurrenthistory1history2SiliconppmASTM D61300204764PhosphorusppmASTM D613004280118BoronppmASTM D61300090MolybdenumppmASTM D61309506338431068CORROSIONmethodimit/basecurrenthistory1history2IronppmASTM D6130>10<100AuminumppmASTM D6130>10<100CopperppmASTM D6130>10<1<11TinppmASTM D6130>10<1<1<1CONTAMINANTSmethodimit/basecurrenthistory1history2ContaminumppmASTM D6130>10<1<1<1TinppmASTM D6130>10<1<1<1CONTAMINANTSmethodimit/basecurrenthistory1history2ChlorinepmASTM D6130112127CARRIER SALTSmethodimit/basecurrenthistory1history2SodiumppmASTM D6130117351465909PotassiumppmASTM D613070013962079SCALE POTENTIALmethodimit/basecurrenthistory1history2CalciumppmASTM D6130  |   | Total Dissolved Solids |            |             |            | 329.5       | 361.0       | 383.0       |
| Silicon  ppm  ASTM D6130  0  20  47  64    Phosphorus  ppm  ASTM D6130  0  42  80  118    Boron  ppm  ASTM D6130  0  0  9  0    Molybdenum  ppm  ASTM D6130  950  633  843  1068    CORROSION  method  limit/base  current  history1  history2    Iron  ppm  ASTM D6130  >15  0  <1  0    Aluminum  ppm  ASTM D6130  >10  <1  0  20  20    Copper  ppm  ASTM D6130  >10  <1  <1  0  20  21   |   | Carboxylate            |            |             |            | fail        | fail        | pass        |
| Phosphorus  ppm  ASTM D6130  0  42  80  118    Boron  ppm  ASTM D6130  0  0  9  0    Molybdenum  ppm  ASTM D6130  950  633  843  1068    CORROSION  method  limit/bass  current  history1  history2    Iron  ppm  ASTM D6130  >15  0  <1   |   | CORROSION INH          | IBITORS    | s method    | limit/base | current     | history1    | history2    |
| BoronppmASTM D61300090MolybdenumppmASTM D61309506338431068CORROSIONmethodlimit/basecurrenthistory1history2IronppmASTM D6130>150<10AluminumppmASTM D6130>10<1<10CopperppmASTM D6130>103555LeadppmASTM D6130>10<1<1<1<1TinppmASTM D6130>10<1<1<1<1<1CONTAMINANTSmethodimit/basecurrenthistory1history2 </th <th></th> <th>Silicon</th> <th>ppm</th> <th>ASTM D6130</th> <th>0</th> <th>20</th> <th>47</th> <th>64</th>   |   | Silicon                | ppm        | ASTM D6130  | 0          | 20          | 47          | 64          |
| Molybdenum    ppm    ASTM D6130    950    633    843    1068      CORROSION    method    limit/base    current    history1    history2      Iron    ppm    ASTM D6130    >15    0    <1    0      Aluminum    ppm    ASTM D6130    >10    <1    <1    0      Copper    ppm    ASTM D6130    >10    <1    <1    0      Copper    ppm    ASTM D6130    >10    <1    <1    0      Copper    ppm    ASTM D6130    >10    <1    <1    <1    <1      Tin    ppm    ASTM D6130    >10    <1    <1    <1    <1      CONTAMINANTS    ppm    ASTM D6130    Imit/base    current    history1    history2      Chlorine    ppm    ASTM D6130    11    21    27      CARRIER SALTS    method    limit/base    current    history1    history2      Sodium    ppm    ASTM D6130  |   | Phosphorus             | ppm        | ASTM D6130  | 0          | 42          | 80          | 118         |
| CORROSIONmethodlimit/basecurrenthistory1history2IronppmASTM D6130>150<10AluminumppmASTM D6130>10<1<10CopperppmASTM D6130>10355LeadppmASTM D6130>10<1<1<1TinppmASTM D6130>10<1<1<1ZincppmASTM D6130>100<1<1CONTAMINANTnethodlimit/basecurrenthistory1history2ChorineppmASTM D6130112127CARRIER SALTSnethodlimit/basecurrenthistory1history2SodiumppmASTM D613070013962079SCALE POTENTI-Lnethodlimit/basecurrenthistory1history2CalciumppmASTM D61304111   |   | Boron                  | ppm        | ASTM D6130  | 0          | 0           | 9           | 0           |
| IronppmASTM D6130>150<1  |   | Molybdenum             | ppm        | ASTM D6130  | 950        | 633         | 843         | 1068        |
| AluminumppmASTM D6130>10<1   |   | CORROSION              |            | method      | limit/base | current     | history1    | history2    |
| CopperppmASTM D6130>10355LeadppmASTM D6130>10<1<1<1TinppmASTM D6130>100<10ZincppmASTM D6130>1001<1CONTAMINANTSmethodlimit/basecurrenthistory1history2ChlorineppmASTM D61301112127CARRIER SALTSmethodlimit/basecurrenthistory1history2SodiumppmASTM D6130151465909PotassiumppmASTM D613070013962079SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D6130411  |   | Iron                   | ppm        | ASTM D6130  | >15        | 0           | <1          | 0           |
| LeadppmASTM D6130>10<1   |   | Aluminum               | ppm        | ASTM D6130  | >10        | <1          | <1          | 0           |
| TinppmASTM D6130>10Q<1   |   | Copper                 | ppm        |             |            | 3           | 5           | 5           |
| TinppmASTM D6130>10Q<1   |   | Lead                   | ppm        | ASTM D6130  | >10        | <1          | <1          | <1          |
| ZincppmASTM D613001<1  |   | Tin                    | ppm        | ASTM D6130  | >10        |             | <1          | 0           |
| ChlorineppmASTM D6130112127CARRIER SALTSmethodlimit/basecurrenthistory1history2SodiumppmASTM D6130417351465909PotassiumppmASTM D613070013962079SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D6130411   |   | Zinc                   | ppm        | ASTM D6130  |            | 0           | 1           | <1          |
| CARRIER SALTSmethodlimit/basecurrenthistory1history2SodiumppmASTM D6130417351465909PotassiumppmASTM D613070013962079SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D6130411  |   | CONTAMINANTS           | ;          | method      | limit/base | current     | history1    | history2    |
| SodiumppmASTM D6130417351465909PotassiumppmASTM D613070013962079SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D6130411  |   | Chlorine               | ppm        | ASTM D6130  |            | 11          | 21          | 27          |
| PotassiumppmASTM D613070013962079SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D6130411   |   | CARRIER SALTS          | )          | method      | limit/base | current     | history1    | history2    |
| SCALE POTENTIALmethodlimit/basecurrenthistory1history2CalciumppmASTM D6130411  |   | Sodium                 | ppm        | ASTM D6130  |            | 4173        | 5146        | 5909        |
| Calcium    ppm    ASTM D6130    4    1    1  |   | Potassium              | ppm        | ASTM D6130  |            | 700         | 1396        | 2079        |
| Press Press Press  |   | SCALE POTENT           | AL         | method      | limit/base | current     | history1    | history2    |
|  |   | Calcium                | ppm        | ASTM D6130  |            | 4           | 1           | 1           |
|  |   | Magnesium              | ppm        | ASTM D6130  |            |             | <1          | 0           |

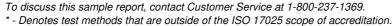


## **COOLANT REPORT**









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

Report Id: SHEWIC [WUSCAR] 06176002 (Generated: 05/16/2024 18:04:03) Rev: 1

Certificate 12367

Submitted By: RUSTY RILEY

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