



|                 |                 |
|-----------------|-----------------|
| WEAR            | <b>ABNORMAL</b> |
| CONTAMINATION   | <b>ABNORMAL</b> |
| FLUID CONDITION | <b>NORMAL</b>   |

Machine Id  
**JOHN DEERE 3038E 1LV3038EHKK129394**

Component  
**Hydraulic System**

Fluid  
**JOHN DEERE HY-GARD HYD/TRANS LOW VIS (--- GAL)**

### RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>JR0189670</b>   | JR0093492   | JR0048460   |
| Sample Date    |     | Client Info |           | <b>28 Dec 2023</b> | 30 Dec 2021 | 04 Jan 2021 |
| Machine Age    | hrs | Client Info |           | <b>89</b>          | 53          | 50          |
| Oil Age        | hrs | Client Info |           | <b>0</b>           | 0           | 50          |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 0           | 50          |
| Oil Changed    |     | Client Info |           | <b>N/A</b>         | Not Changd  | Not Changd  |
| Filter Changed |     | Client Info |           | <b>N/A</b>         | Not Changd  | Not Changd  |
| Sample Status  |     |             |           | <b>ABNORMAL</b>    | ABNORMAL    | ABNORMAL    |

### WEAR

The iron level is abnormal. All other component wear rates are normal.

| PQ           | UOM    | Method      | Limit/Abn | Current      | History1 | History2 |
|--------------|--------|-------------|-----------|--------------|----------|----------|
| Iron         | ppm    | ASTM D5185m | >20       | <b>54</b>    | 41       | 23       |
| Chromium     | ppm    | ASTM D5185m | >10       | <b>&lt;1</b> | <1       | <1       |
| Nickel       | ppm    | ASTM D5185m | >10       | <b>0</b>     | 0        | <1       |
| Titanium     | ppm    | ASTM D5185m |           | <b>&lt;1</b> | <1       | <1       |
| Silver       | ppm    | ASTM D5185m |           | <b>2</b>     | 1        | <1       |
| Aluminum     | ppm    | ASTM D5185m | >10       | <b>3</b>     | 6        | 3        |
| Lead         | ppm    | ASTM D5185m | >10       | <b>2</b>     | 2        | 2        |
| Copper       | ppm    | ASTM D5185m | >75       | <b>67</b>    | 50       | 28       |
| Tin          | ppm    | ASTM D5185m | >10       | <b>1</b>     | <1       | 0        |
| Vanadium     | ppm    | ASTM D5185m |           | <b>0</b>     | <1       | 0        |
| White Metal  | scalar | *Visual     | NONE      | <b>NONE</b>  | NONE     | NONE     |
| Yellow Metal | scalar | *Visual     | NONE      | <b>NONE</b>  | NONE     | NONE     |

### CONTAMINATION

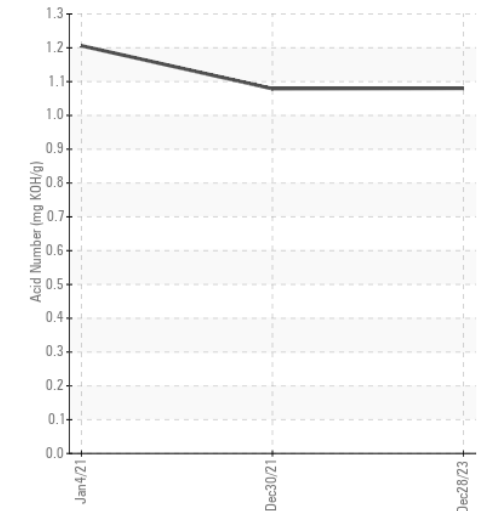
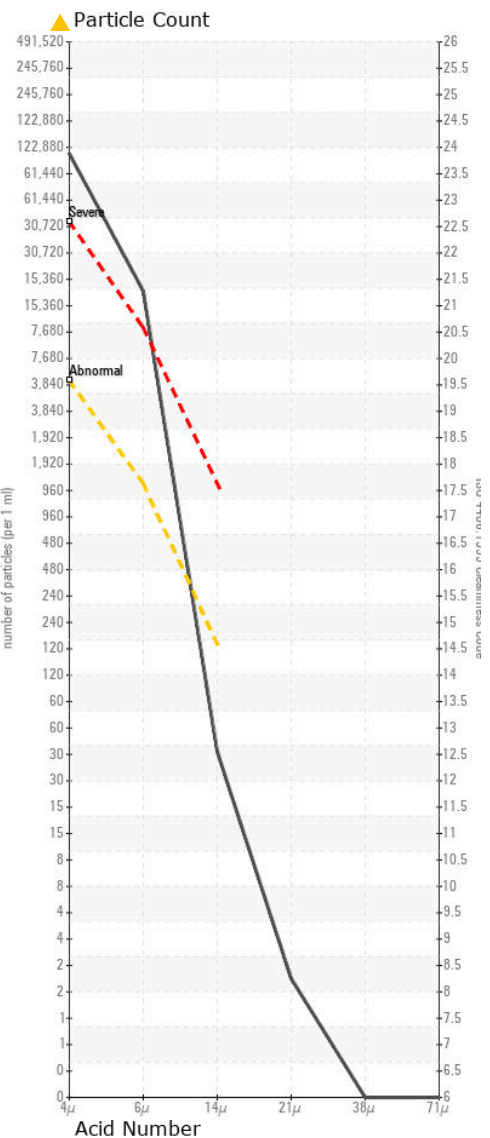
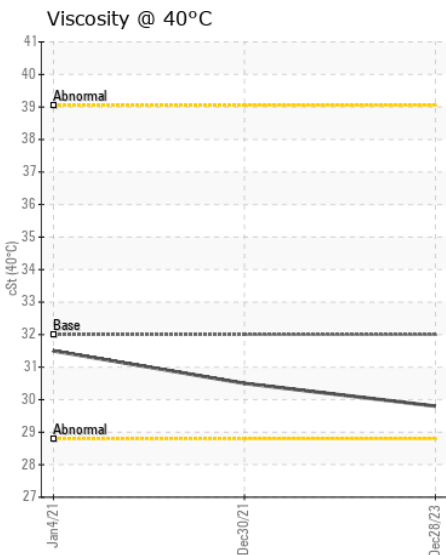
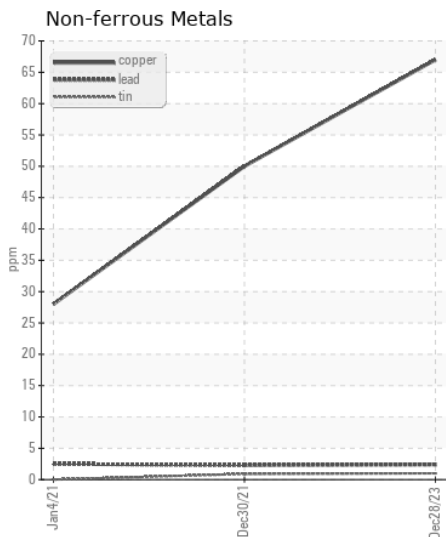
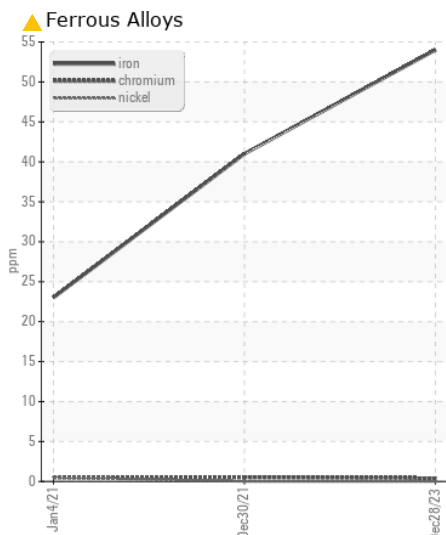
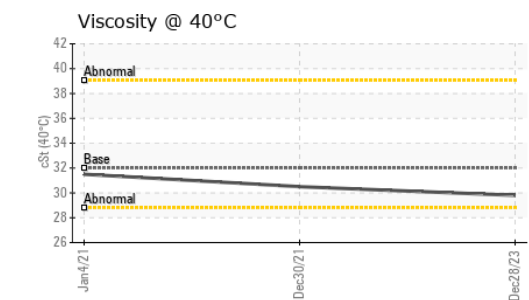
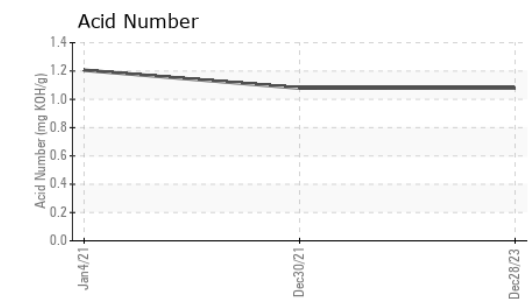
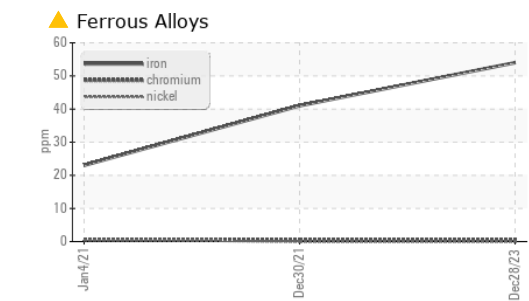
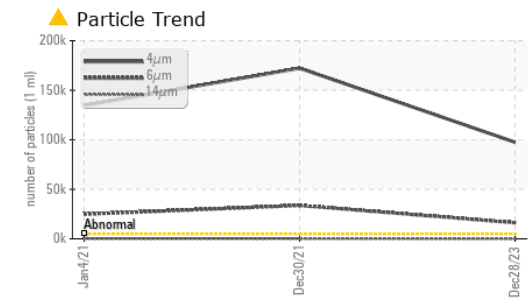
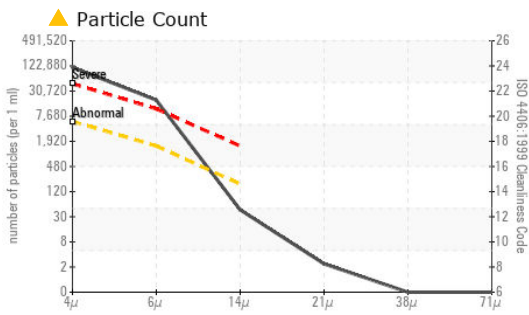
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

|                  |        |              |           |                 |          |          |
|------------------|--------|--------------|-----------|-----------------|----------|----------|
| Silicon          | ppm    | ASTM D5185m  | >20       | <b>12</b>       | 12       | 16       |
| Potassium        | ppm    | ASTM D5185m  | >20       | <b>6</b>        | 4        | 0        |
| Water            |        | WC Method    | >0.1      | <b>NEG</b>      | NEG      | NEG      |
| Particles >4µm   |        | ASTM D7647   | >5000     | <b>97522</b>    | 172264   | 134567   |
| Particles >6µm   |        | ASTM D7647   | >1300     | <b>16170</b>    | 33692    | 24826    |
| Particles >14µm  |        | ASTM D7647   | >160      | <b>39</b>       | 189      | 136      |
| Particles >21µm  |        | ASTM D7647   | >40       | <b>2</b>        | 6        | 30       |
| Particles >38µm  |        | ASTM D7647   | >10       | <b>0</b>        | 0        | 3        |
| Particles >71µm  |        | ASTM D7647   | >3        | <b>0</b>        | 0        | 0        |
| Oil Cleanliness  |        | ISO 4406 (c) | >19/17/14 | <b>24/21/12</b> | 25/22/15 | 24/22/14 |
| Silt             | scalar | *Visual      | NONE      | <b>NONE</b>     | NONE     | NONE     |
| Debris           | scalar | *Visual      | NONE      | <b>NONE</b>     | NONE     | NONE     |
| Sand/Dirt        | scalar | *Visual      | NONE      | <b>NONE</b>     | NONE     | NONE     |
| Appearance       | scalar | *Visual      | NORML     | <b>NORML</b>    | NORML    | NORML    |
| Odor             | scalar | *Visual      | NORML     | <b>NORML</b>    | NORML    | NORML    |
| Emulsified Water | scalar | *Visual      | >0.1      | <b>NEG</b>      | NEG      | NEG      |

### FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oils additive package is suitable for further service.

|                  |          |             |    |              |       |       |
|------------------|----------|-------------|----|--------------|-------|-------|
| Sodium           | ppm      | ASTM D5185m |    | <b>&lt;1</b> | <1    | 5     |
| Boron            | ppm      | ASTM D5185m |    | <b>2</b>     | 5     | 3     |
| Barium           | ppm      | ASTM D5185m |    | <b>0</b>     | <1    | 0     |
| Molybdenum       | ppm      | ASTM D5185m |    | <b>1</b>     | <1    | 3     |
| Manganese        | ppm      | ASTM D5185m |    | <b>2</b>     | 2     | 2     |
| Magnesium        | ppm      | ASTM D5185m |    | <b>94</b>    | 100   | 109   |
| Calcium          | ppm      | ASTM D5185m |    | <b>3245</b>  | 3409  | 3879  |
| Phosphorus       | ppm      | ASTM D5185m |    | <b>993</b>   | 1014  | 1016  |
| Zinc             | ppm      | ASTM D5185m |    | <b>1156</b>  | 1218  | 1242  |
| Sulfur           | ppm      | ASTM D5185m |    | <b>3790</b>  | 3239  | 2990  |
| Acid Number (AN) | mg KOH/g | ASTM D8045  |    | <b>1.08</b>  | 1.079 | 1.206 |
| Visc @ 40°C      | cSt      | ASTM D445   | 32 | <b>29.8</b>  | 30.5  | 31.5  |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : JR0189670 Recieved : 11 Jan 2024  
 Lab Number : 06057991 Diagnosed : 12 Jan 2024  
 Unique Number : 10829373 Diagnostician : Don Baldridge  
 Test Package : CONST ( Additional Tests: PQ )

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)

JRE - LA CROSSE

38431 HWY 58

LA CROSSE, VA

US 23950-1807

Contact: HUNTER GREEN

hgreen@jamesriverequipment.com

T: (434)447-4325

F: (434)447-1329