



# OIL ANALYSIS REPORT

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



Area  
**Store 1 - Cowen [122136]**  
Machine Id  
**JOHN DEERE 310SL 1T0310SLLKF355368**  
Component  
**Hydraulic System**  
Fluid  
**JOHN DEERE HYDRAU (34 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|----------|----------|
| Sample Number  |     | Client Info |           | <b>LEC0023867</b>  | ---      | ---      |
| Sample Date    |     | Client Info |           | <b>05 Nov 2021</b> | ---      | ---      |
| Machine Age    | hrs | Client Info |           | <b>452</b>         | ---      | ---      |
| Oil Age        | hrs | Client Info |           | <b>452</b>         | ---      | ---      |
| Filter Age     | hrs | Client Info |           | <b>452</b>         | ---      | ---      |
| Oil Changed    |     | Client Info |           | <b>Not Chngd</b>   | ---      | ---      |
| Filter Changed |     | Client Info |           | <b>Not Chngd</b>   | ---      | ---      |
| Sample Status  |     |             |           | <b>NORMAL</b>      | ---      | ---      |

## WEAR

All component wear rates are normal.

|              |        |             |      |              |     |     |
|--------------|--------|-------------|------|--------------|-----|-----|
| PQ           |        | ASTM D8184  | >50  | <b>14</b>    | --- | --- |
| Iron         | ppm    | ASTM D5185m | >71  | <b>2</b>     | --- | --- |
| Chromium     | ppm    | ASTM D5185m | >11  | <b>1</b>     | --- | --- |
| Nickel       | ppm    | ASTM D5185m | >6   | <b>&lt;1</b> | --- | --- |
| Titanium     | ppm    | ASTM D5185m |      | <b>0</b>     | --- | --- |
| Silver       | ppm    | ASTM D5185m |      | <b>0</b>     | --- | --- |
| Aluminum     | ppm    | ASTM D5185m | >11  | <b>1</b>     | --- | --- |
| Lead         | ppm    | ASTM D5185m | >13  | <b>&lt;1</b> | --- | --- |
| Copper       | ppm    | ASTM D5185m | >21  | <b>1</b>     | --- | --- |
| Tin          | ppm    | ASTM D5185m | >5   | <b>0</b>     | --- | --- |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>     | --- | --- |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | --- | --- |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | --- | --- |

## CONTAMINATION

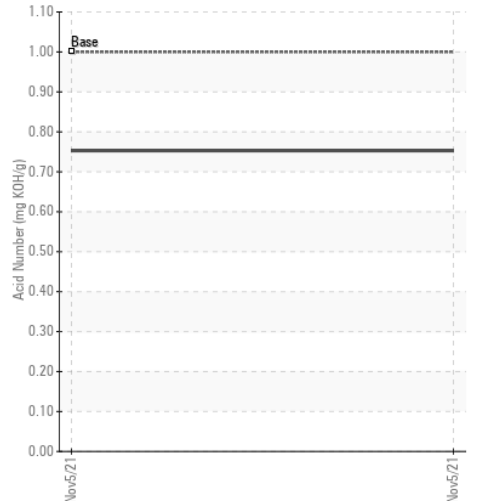
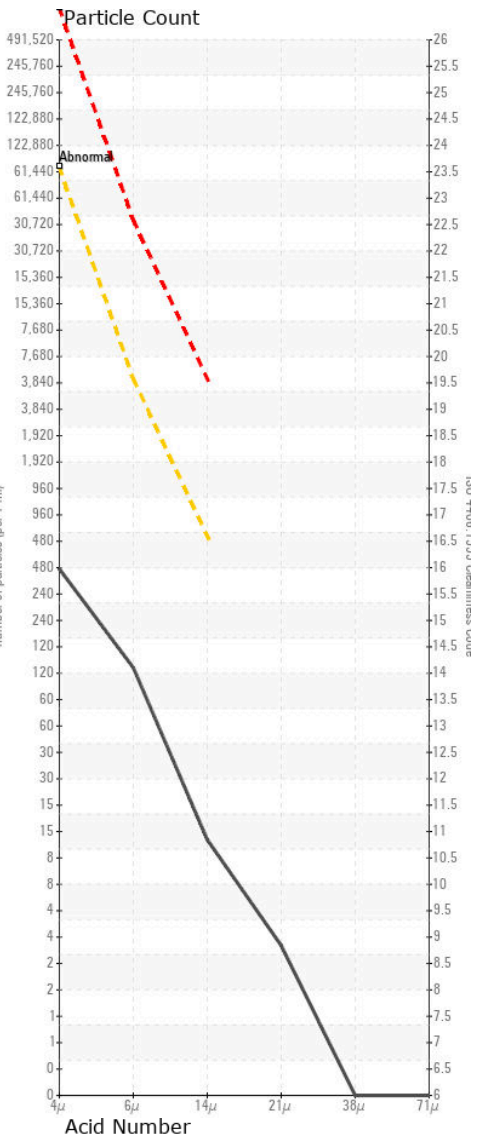
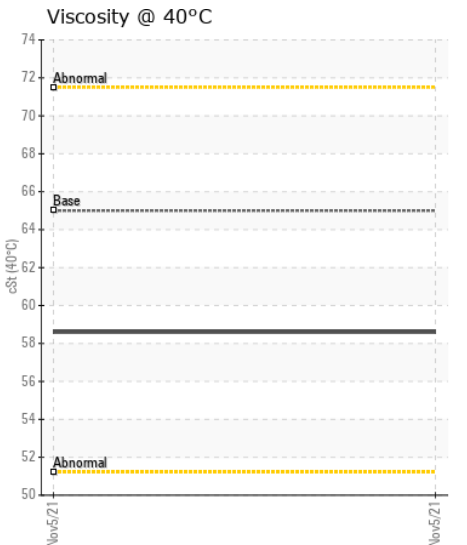
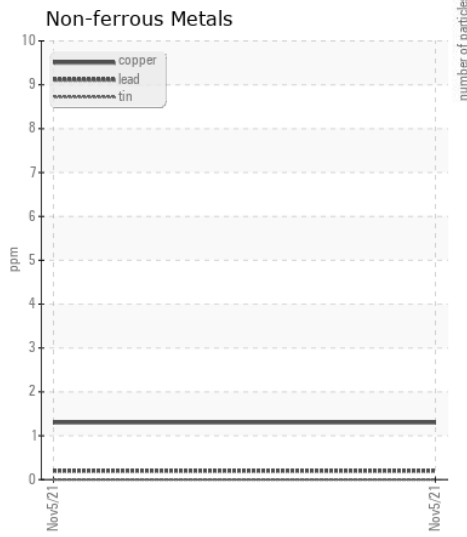
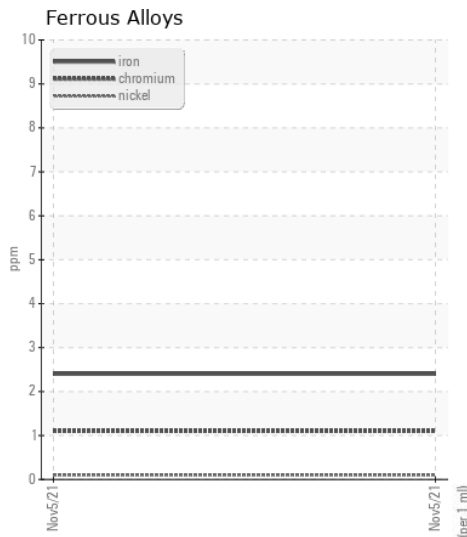
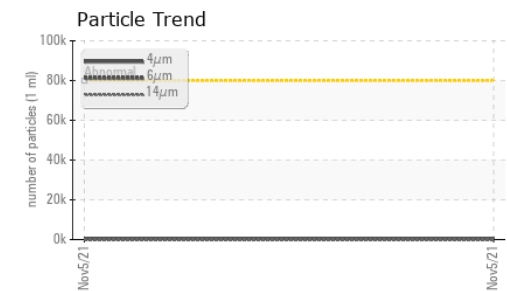
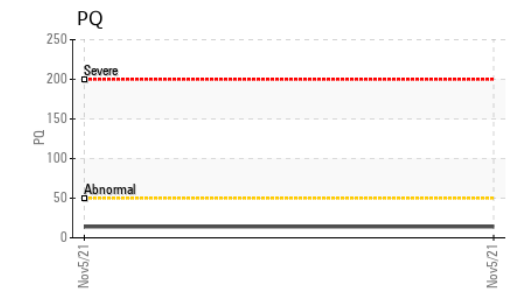
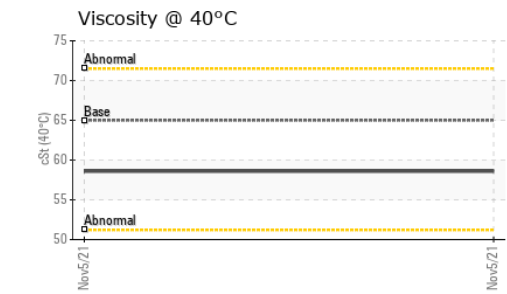
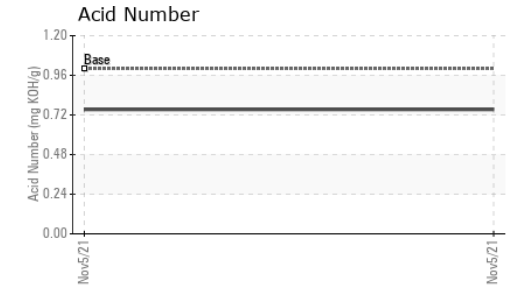
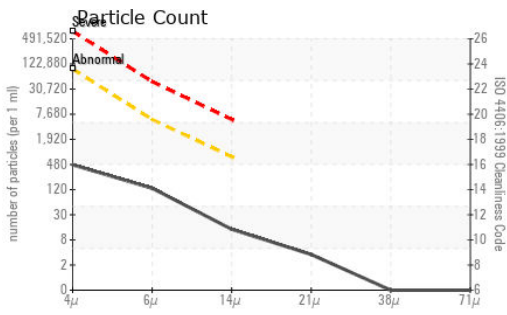
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

|                  |        |              |           |                 |     |     |
|------------------|--------|--------------|-----------|-----------------|-----|-----|
| Silicon          | ppm    | ASTM D5185m  | >24       | <b>3</b>        | --- | --- |
| Potassium        | ppm    | ASTM D5185m  | >20       | <b>14</b>       | --- | --- |
| Water            |        | WC Method    | >0.075    | <b>NEG</b>      | --- | --- |
| Particles >4µm   |        | ASTM D7647   | >80000    | <b>415</b>      | --- | --- |
| Particles >6µm   |        | ASTM D7647   | >5000     | <b>114</b>      | --- | --- |
| Particles >14µm  |        | ASTM D7647   | >640      | <b>12</b>       | --- | --- |
| Particles >21µm  |        | ASTM D7647   | >160      | <b>3</b>        | --- | --- |
| Particles >38µm  |        | ASTM D7647   | >40       | <b>0</b>        | --- | --- |
| Particles >71µm  |        | ASTM D7647   | >10       | <b>0</b>        | --- | --- |
| Oil Cleanliness  |        | ISO 4406 (c) | >23/19/16 | <b>16/14/11</b> | --- | --- |
| Silt             | scalar | *Visual      | NONE      | <b>NONE</b>     | --- | --- |
| Debris           | scalar | *Visual      | NONE      | <b>NONE</b>     | --- | --- |
| Sand/Dirt        | scalar | *Visual      | NONE      | <b>NONE</b>     | --- | --- |
| Appearance       | scalar | *Visual      | NORML     | <b>NORML</b>    | --- | --- |
| Odor             | scalar | *Visual      | NORML     | <b>NORML</b>    | --- | --- |
| Emulsified Water | scalar | *Visual      | >0.075    | <b>NEG</b>      | --- | --- |

## FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

|                  |          |             |      |              |     |     |
|------------------|----------|-------------|------|--------------|-----|-----|
| Sodium           | ppm      | ASTM D5185m | >21  | <b>2</b>     | --- | --- |
| Boron            | ppm      | ASTM D5185m |      | <b>&lt;1</b> | --- | --- |
| Barium           | ppm      | ASTM D5185m |      | <b>&lt;1</b> | --- | --- |
| Molybdenum       | ppm      | ASTM D5185m |      | <b>&lt;1</b> | --- | --- |
| Manganese        | ppm      | ASTM D5185m |      | <b>&lt;1</b> | --- | --- |
| Magnesium        | ppm      | ASTM D5185m |      | <b>2</b>     | --- | --- |
| Calcium          | ppm      | ASTM D5185m | 87   | <b>91</b>    | --- | --- |
| Phosphorus       | ppm      | ASTM D5185m | 727  | <b>621</b>   | --- | --- |
| Zinc             | ppm      | ASTM D5185m | 900  | <b>897</b>   | --- | --- |
| Sulfur           | ppm      | ASTM D5185m | 1500 | <b>2212</b>  | --- | --- |
| Acid Number (AN) | mg KOH/g | ASTM D8045  | 1.0  | <b>0.753</b> | --- | --- |
| Visc @ 40°C      | cSt      | ASTM D445   | 65   | <b>58.6</b>  | --- | --- |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LEC0023867 **Received** : 10 Nov 2021  
**Lab Number** : 05397468 **Tested** : 11 Nov 2021  
**Unique Number** : 9736618 **Diagnosed** : 11 Nov 2021 - Jonathan Hester  
**Test Package** : MOBCE ( Additional Tests: PQ )

**LESLIE EQUIPMENT COMPANY**  
 105 TENNIS CENTER DR.  
 MARIETTA, OH  
 US 45750-9765  
 Contact: LEANNE KENDALL  
 KendalLeanne@lec1.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)

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