



OIL ANALYSIS REPORT

|                 |        |
|-----------------|--------|
| WEAR            | NORMAL |
| CONTAMINATION   | NORMAL |
| FLUID CONDITION | NORMAL |

Area  
**Store 2 - Beaver [RO#144610]**  
 Machine Id  
**JOHN DEERE 437E 1T0437EDEPL438581**  
 Component  
**Hydraulic System**  
 Fluid  
**JOHN DEERE HYDRAU (40 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current     | History1 | History2 |
|----------------|-----|-------------|-----------|-------------|----------|----------|
| Sample Number  |     | Client Info |           | LEC0045679  | ---      | ---      |
| Sample Date    |     | Client Info |           | 30 Oct 2023 | ---      | ---      |
| Machine Age    | hrs | Client Info |           | 430         | ---      | ---      |
| Oil Age        | hrs | Client Info |           | 430         | ---      | ---      |
| Filter Age     | hrs | Client Info |           | 430         | ---      | ---      |
| Oil Changed    |     | Client Info |           | Not Chngd   | ---      | ---      |
| Filter Changed |     | Client Info |           | Not Chngd   | ---      | ---      |
| Sample Status  |     |             |           | NORMAL      | ---      | ---      |

**WEAR**

All component wear rates are normal.

|              |        |             |      |      |     |     |
|--------------|--------|-------------|------|------|-----|-----|
| PQ           |        | ASTM D8184  | >50  | 7    | --- | --- |
| Iron         | ppm    | ASTM D5185m | >71  | 0    | --- | --- |
| Chromium     | ppm    | ASTM D5185m | >11  | <1   | --- | --- |
| Nickel       | ppm    | ASTM D5185m | >6   | 0    | --- | --- |
| Titanium     | ppm    | ASTM D5185m |      | 0    | --- | --- |
| Silver       | ppm    | ASTM D5185m |      | 0    | --- | --- |
| Aluminum     | ppm    | ASTM D5185m | >11  | 0    | --- | --- |
| Lead         | ppm    | ASTM D5185m | >13  | <1   | --- | --- |
| Copper       | ppm    | ASTM D5185m | >21  | <1   | --- | --- |
| Tin          | ppm    | ASTM D5185m | >5   | <1   | --- | --- |
| Vanadium     | ppm    | ASTM D5185m |      | 0    | --- | --- |
| White Metal  | scalar | *Visual     | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual     | NONE | NONE | --- | --- |

**CONTAMINATION**

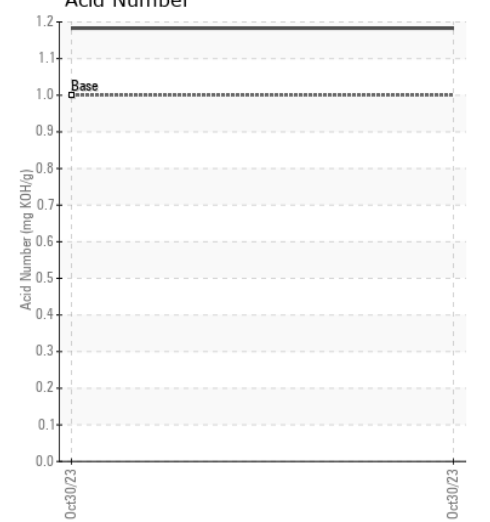
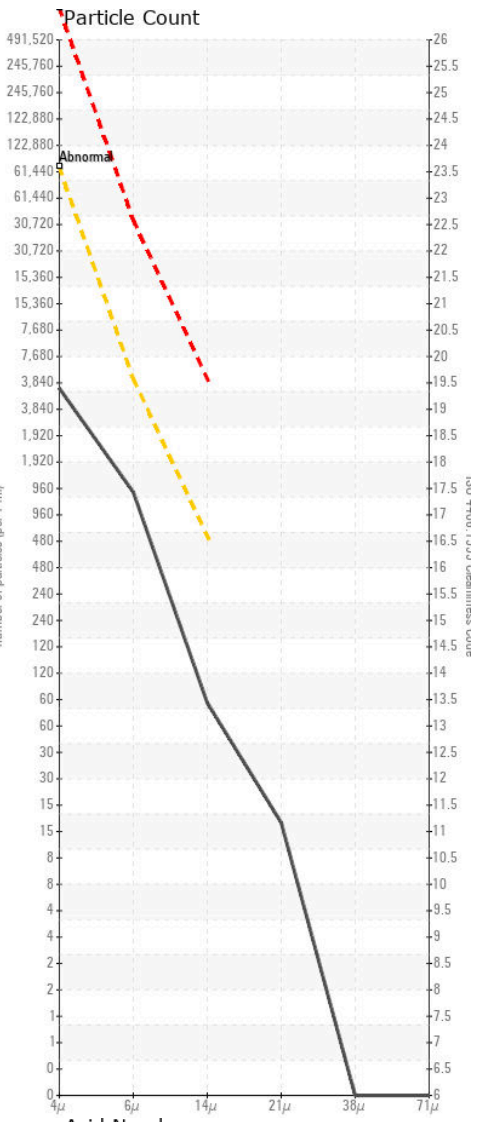
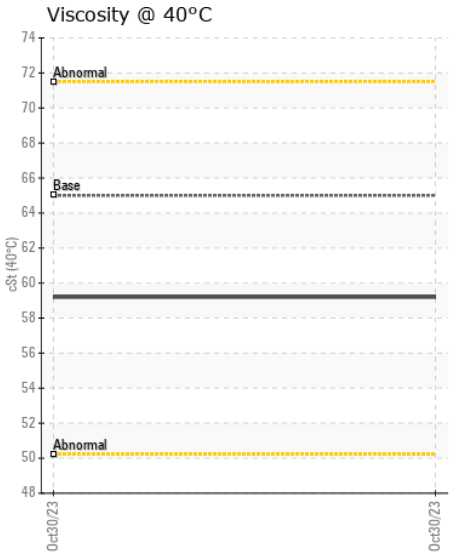
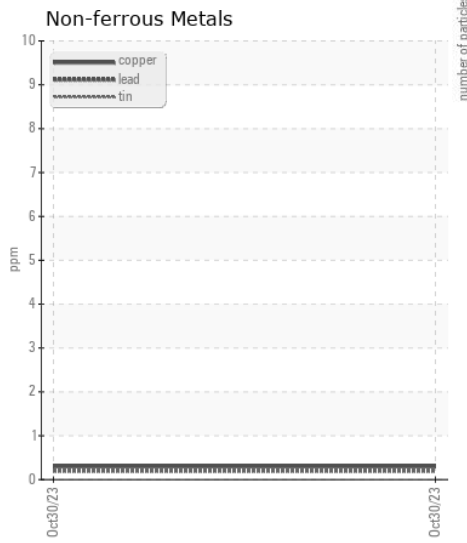
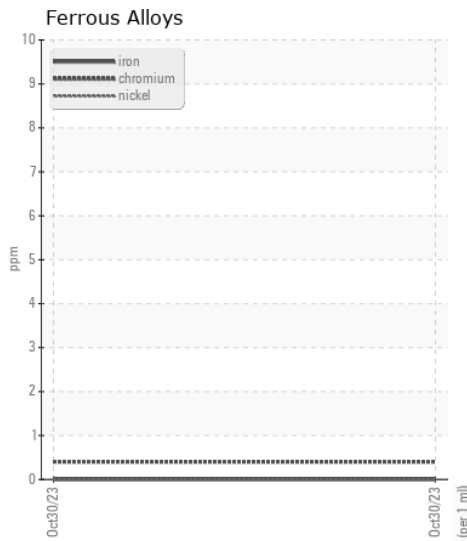
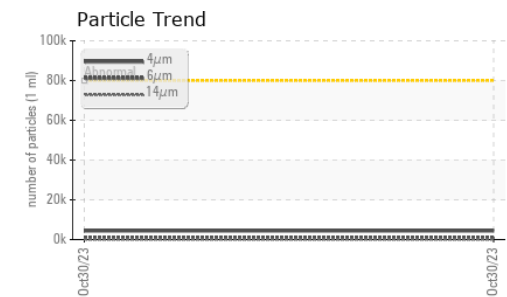
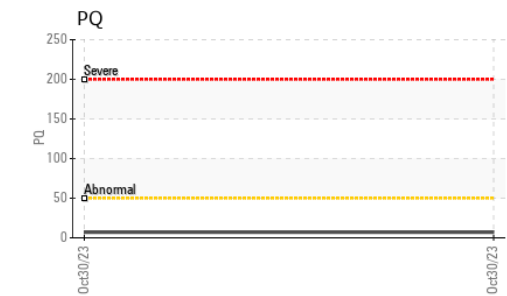
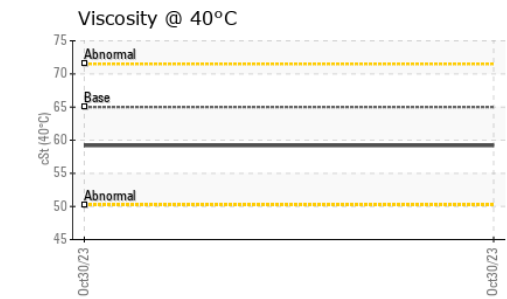
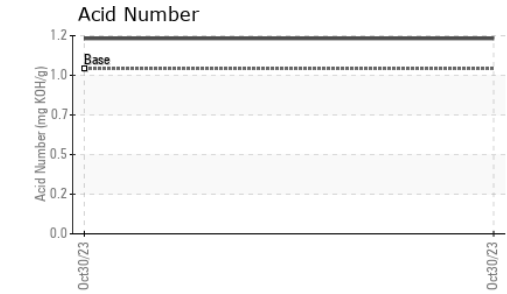
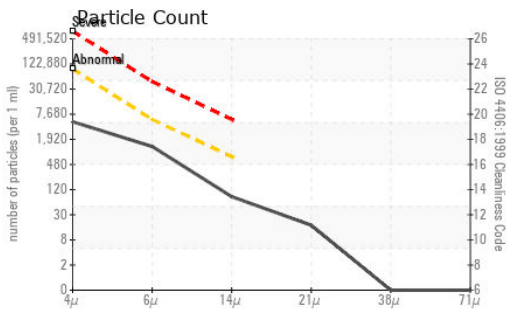
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

|                  |        |              |           |          |     |     |
|------------------|--------|--------------|-----------|----------|-----|-----|
| Silicon          | ppm    | ASTM D5185m  | >24       | 1        | --- | --- |
| Potassium        | ppm    | ASTM D5185m  | >20       | 2        | --- | --- |
| Water            |        | WC Method    | >0.075    | NEG      | --- | --- |
| Particles >4µm   |        | ASTM D7647   | >80000    | 4413     | --- | --- |
| Particles >6µm   |        | ASTM D7647   | >5000     | 1133     | --- | --- |
| Particles >14µm  |        | ASTM D7647   | >640      | 72       | --- | --- |
| Particles >21µm  |        | ASTM D7647   | >160      | 15       | --- | --- |
| Particles >38µm  |        | ASTM D7647   | >40       | 0        | --- | --- |
| Particles >71µm  |        | ASTM D7647   | >10       | 0        | --- | --- |
| Oil Cleanliness  |        | ISO 4406 (c) | >23/19/16 | 19/17/13 | --- | --- |
| Silt             | scalar | *Visual      | NONE      | NONE     | --- | --- |
| Debris           | scalar | *Visual      | NONE      | NONE     | --- | --- |
| Sand/Dirt        | scalar | *Visual      | NONE      | NONE     | --- | --- |
| Appearance       | scalar | *Visual      | NORML     | NORML    | --- | --- |
| Odor             | scalar | *Visual      | NORML     | NORML    | --- | --- |
| Emulsified Water | scalar | *Visual      | >0.075    | NEG      | --- | --- |

**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  | 0     | --- | --- |
| Boron            | ppm      | ASTM D5185m |      | 0     | --- | --- |
| Barium           | ppm      | ASTM D5185m |      | 0     | --- | --- |
| Molybdenum       | ppm      | ASTM D5185m |      | 0     | --- | --- |
| Manganese        | ppm      | ASTM D5185m |      | <1    | --- | --- |
| Magnesium        | ppm      | ASTM D5185m |      | 2     | --- | --- |
| Calcium          | ppm      | ASTM D5185m | 87   | 93    | --- | --- |
| Phosphorus       | ppm      | ASTM D5185m | 727  | 630   | --- | --- |
| Zinc             | ppm      | ASTM D5185m | 900  | 823   | --- | --- |
| Sulfur           | ppm      | ASTM D5185m | 1500 | 1649  | --- | --- |
| Acid Number (AN) | mg KOH/g | ASTM D8045  | 1.0  | 1.183 | --- | --- |
| Visc @ 40°C      | cSt      | ASTM D445   | 65   | 59.2  | --- | --- |



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LEC0045679 **Received** : 03 Nov 2023  
**Lab Number** : 05997893 **Tested** : 06 Nov 2023  
**Unique Number** : 10726253 **Diagnosed** : 06 Nov 2023 - Wes Davis  
**Test Package** : CONST ( Additional Tests: PQ )

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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)