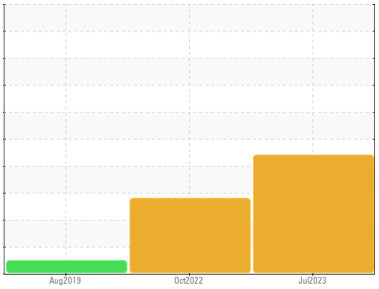
LESLIE EQUIPMENT CO.

# PROBLEM SUMMARY

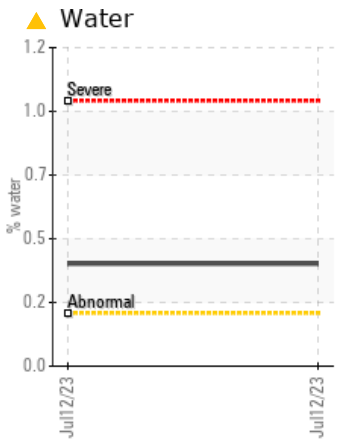
Sample Rating Trend

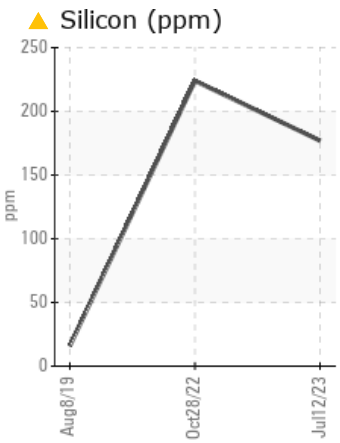


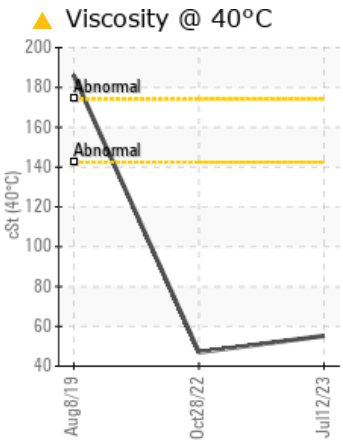

**WATER**

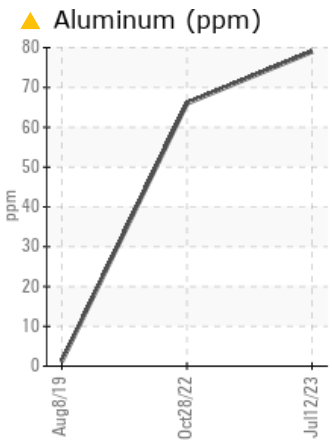
Area
## Store 8 - Pikeville
Machine Id
## JOHN DEERE 350G 1FF350GXKKF813448
Component
**Left Propel Gearbox**
Fluid
**JOHN DEERE GL-5 80W90 (2 GAL)**

## COMPONENT CONDITION SUMMARY




## RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

| Sample Status | | | | **ABNORMAL** | ABNORMAL | NORMAL |
|---|---|---|---|---|---|---|
| Aluminum | ppm | ASTM D5185m | | ▲ **79** | ▲ 66 | 1 |
| Silicon | ppm | ASTM D5185m | | ▲ **177** | ▲ 224 | 16 |
| Water | % | ASTM D6304 | >0.2 | ▲ **0.386** | --- | --- |
| ppm Water | ppm | ASTM D6304 | >2000 | ▲ **3860** | --- | --- |
| Visc @ 40°C | cSt | ASTM D445 | | ▲ **55.2** | ▲ 47.0 | 186 |

**Customer Id:** LESMAROH
**Sample No.:** LEC0042848
**Lab Number:** 05898801
**Test Package:** CONST

*To manage this report scan the QR code*

*To discuss the diagnosis or test data:*
Don Baldridge +1
don.b505@comcast.net

*To change component or sample information:*
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

## RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|---|---|---|---|---|
| Check Dirt Access | --- | --- | ? | We advise that you check all areas where dirt can enter the system. |

## HISTORICAL DIAGNOSIS

**28 Oct 2022 Diag: Don Baldridge**

DIRT

We advise that you check all areas where dirt can enter the system. Resample at the next service interval to monitor.All component wear rates are normal. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The oil viscosity is lower than normal. This plus the additive levels indicates the addition of a different brand, or type of oil. Confirm oil type.

view report

**08 Aug 2019 Diag: Don Baldridge**

NORMAL

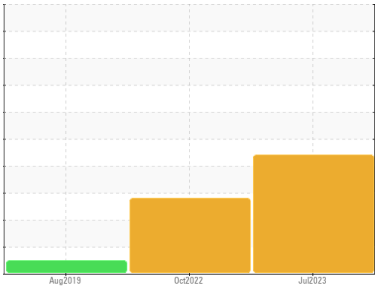
Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

view report

# OIL ANALYSIS REPORT

Area
## Store 8 - Pikeville
Machine Id
## JOHN DEERE 350G 1FF350GXKKF813448
Component
**Left Propel Gearbox**
Fluid
**JOHN DEERE GL-5 80W90 (2 GAL)**

Sample Rating Trend




**WATER**

## DIAGNOSIS

**Recommendation**
We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

**Wear**
All component wear rates are normal.

**Contamination**
There is a light concentration of water present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

**Fluid Condition**
The oil viscosity is lower than normal. This plus the additive levels indicates the addition of a different brand, or type of oil. Confirm oil type.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **LEC0042848** | LEC0033002 | LEC0001462 |
| Sample Date | | Client Info | | **12 Jul 2023** | 28 Oct 2022 | 08 Aug 2019 |
| Machine Age | hrs | Client Info | | **4221** | 3844 | 653 |
| Oil Age | hrs | Client Info | | **4221** | 3844 | 653 |
| Oil Changed | | Client Info | | **Changed** | Not Changd | Not Changd |
| Sample Status | | | | **ABNORMAL** | ABNORMAL | NORMAL |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| PQ | | ASTM D8184 | | **88** | 164 | 164 |
| Iron | ppm | ASTM D5185m | >1250 | **284** | 600 | 226 |
| Chromium | ppm | ASTM D5185m | >10 | **2** | 5 | 4 |
| Nickel | ppm | ASTM D5185m | >10 | **2** | 2 | <1 |
| Titanium | ppm | ASTM D5185m | | **4** | 5 | <1 |
| Silver | ppm | ASTM D5185m | | **0** | 2 | 0 |
| Aluminum | ppm | ASTM D5185m | | ▲ **79** | ▲ 66 | 1 |
| Lead | ppm | ASTM D5185m | | **0** | <1 | 2 |
| Copper | ppm | ASTM D5185m | | **1** | 2 | <1 |
| Tin | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Antimony | ppm | ASTM D5185m | >5 | **---** | --- | 0 |
| Vanadium | ppm | ASTM D5185m | | **<1** | <1 | 0 |
| Cadmium | ppm | ASTM D5185m | | **0** | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **10** | 26 | 66 |
| Barium | ppm | ASTM D5185m | | **3** | 0 | 5 |
| Molybdenum | ppm | ASTM D5185m | | **4** | 3 | 0 |
| Manganese | ppm | ASTM D5185m | | **3** | 7 | 4 |
| Magnesium | ppm | ASTM D5185m | | **109** | 83 | <1 |
| Calcium | ppm | ASTM D5185m | | **3371** | 1870 | 8 |
| Phosphorus | ppm | ASTM D5185m | | **1007** | 642 | 460 |
| Zinc | ppm | ASTM D5185m | | **1218** | 700 | 17 |
| Sulfur | ppm | ASTM D5185m | | **4774** | 3302 | 13175 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | | ▲ **177** | ▲ 224 | 16 |
| Sodium | ppm | ASTM D5185m | | **3** | 6 | <1 |
| Potassium | ppm | ASTM D5185m | >20 | **22** | 27 | 0 |
| Water | % | ASTM D6304 | >0.2 | ▲ **0.386** | --- | --- |
| ppm Water | ppm | ASTM D6304 | >2000 | ▲ **3860** | --- | --- |

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | LIGHT | VLITE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Silt | scalar | *Visual | NONE | **LIGHT** | NONE | NONE |
| Debris | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Appearance | scalar | *Visual | NORML | **NORML** | NORML | NORML |
| Odor | scalar | *Visual | NORML | **NORML** | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.2 | **0.2%** | NEG | NEG |
| Free Water | scalar | *Visual | | **NEG** | NEG | NEG |

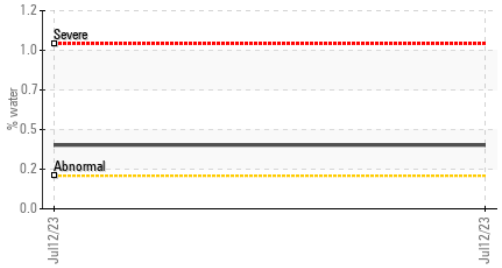
# OIL ANALYSIS REPORT

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | | ▲ **55.2** | ▲ 47.0 | 186 |

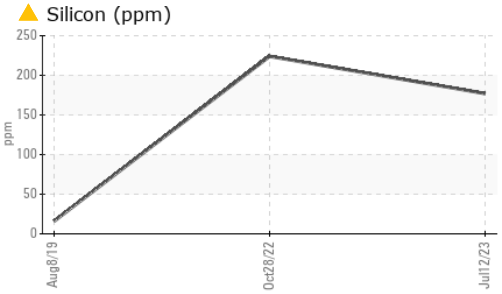
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | | *no image* | *no image* | *no image* |
| Bottom | | | *no image* | *no image* | *no image* |

## GRAPHS

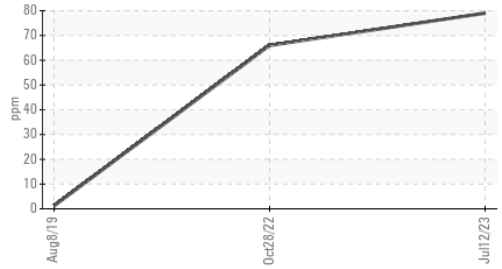
▲ Water



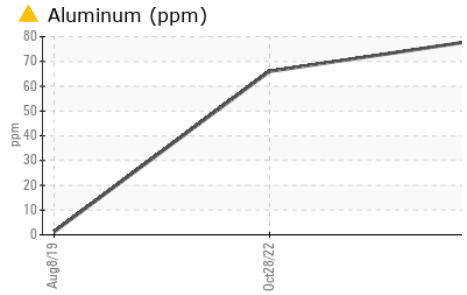

▲ Silicon (ppm)



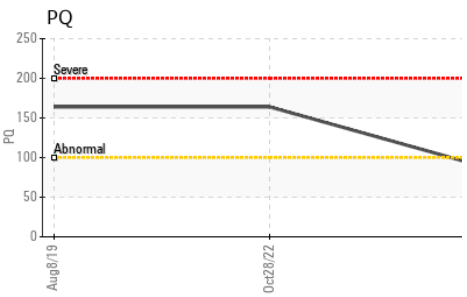

▲ Aluminum (ppm)



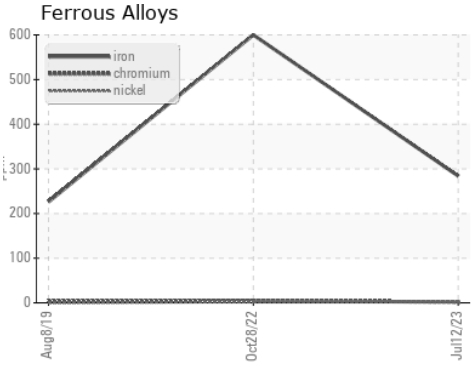

▲ Aluminum (ppm)



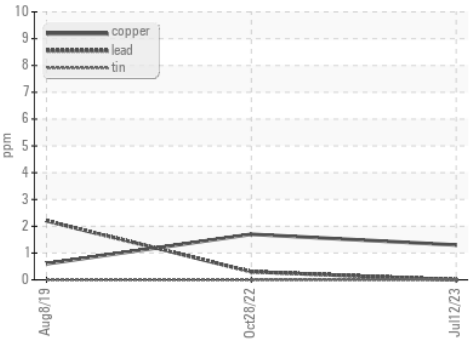

PQ



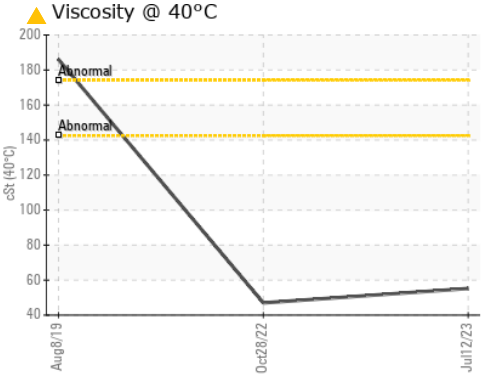

Ferrous Alloys



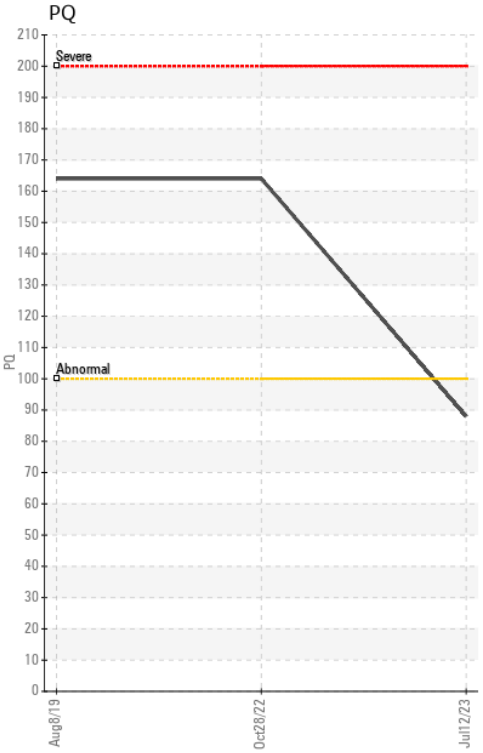

Non-ferrous Metals




▲ Viscosity @ 40°C




PQ




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : LEC0042848 **Received** : 14 Jul 2023
**Lab Number** : 05898801 **Diagnosed** : 18 Jul 2023
**Unique Number** : 10560157 **Diagnostician** : Don Baldridge
**Test Package** : CONST ( Additional Tests: KF, 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)*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