



OIL ANALYSIS REPORT

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

Area
Store 1 - Cowen
Machine Id
Hitachi ZX250 1FFDCB70JDE430225
Component
Right Propel Gearbox
Fluid
JOHN DEERE HY-GARD HYD/TRANS (2 GAL)

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

Gear wear is indicated.

CONTAMINATION

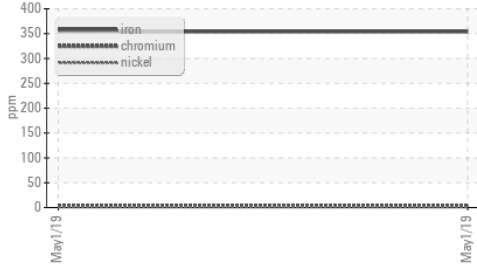
There is a high amount of visible silt present in the sample. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

FLUID CONDITION

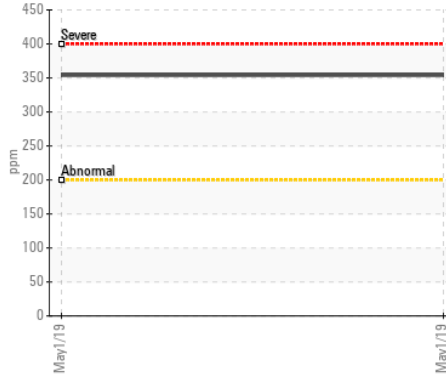
The condition of the oil is acceptable for the time in service.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|------------------|--------|-------------|-----------|-------------|----------|----------|
| Sample Number | | Client Info | | LECP194069 | --- | --- |
| Sample Date | | Client Info | | 01 May 2019 | --- | --- |
| Machine Age | hrs | Client Info | | 4281 | --- | --- |
| Oil Age | hrs | Client Info | | 525 | --- | --- |
| Filter Age | hrs | Client Info | | 0 | --- | --- |
| Oil Changed | | Client Info | | Changed | --- | --- |
| Filter Changed | | Client Info | | N/A | --- | --- |
| Sample Status | | | | ABNORMAL | --- | --- |
| PQ | | ASTM D8184 | | 165 | --- | --- |
| Iron | ppm | ASTM D5185m | >200 | ▲ 354 | --- | --- |
| Chromium | ppm | ASTM D5185m | >10 | 3 | --- | --- |
| Nickel | ppm | ASTM D5185m | >10 | <1 | --- | --- |
| Titanium | ppm | ASTM D5185m | | 5 | --- | --- |
| Silver | ppm | ASTM D5185m | | 0 | --- | --- |
| Aluminum | ppm | ASTM D5185m | | ● 85 | --- | --- |
| Lead | ppm | ASTM D5185m | | <1 | --- | --- |
| Copper | ppm | ASTM D5185m | | 0 | --- | --- |
| Tin | ppm | ASTM D5185m | | 0 | --- | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | --- | --- |
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Silicon | ppm | ASTM D5185m | | ▲ 246 | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | 321 | --- | --- |
| Water | | WC Method | >0.2 | NEG | --- | --- |
| Silt | scalar | *Visual | NONE | ▲ HEAVY | --- | --- |
| 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 | >0.2 | NEG | --- | --- |
| Sodium | ppm | ASTM D5185m | | 2 | --- | --- |
| Boron | ppm | ASTM D5185m | 6 | 232 | --- | --- |
| Barium | ppm | ASTM D5185m | 0 | <1 | --- | --- |
| Molybdenum | ppm | ASTM D5185m | 0 | 0 | --- | --- |
| Manganese | ppm | ASTM D5185m | | 4 | --- | --- |
| Magnesium | ppm | ASTM D5185m | 145 | 72 | --- | --- |
| Calcium | ppm | ASTM D5185m | 3570 | 2549 | --- | --- |
| Phosphorus | ppm | ASTM D5185m | 1290 | 752 | --- | --- |
| Zinc | ppm | ASTM D5185m | 1640 | 868 | --- | --- |
| Sulfur | ppm | ASTM D5185m | | 4826 | --- | --- |
| Visc @ 40°C | cSt | ASTM D445 | 57.0 | 61.9 | --- | --- |

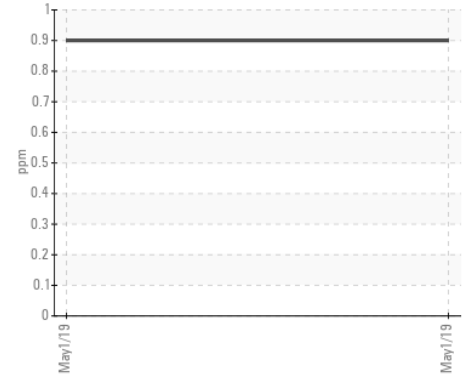
▲ Ferrous Alloys



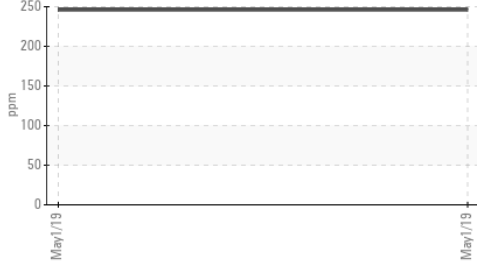
▲ Iron (ppm)



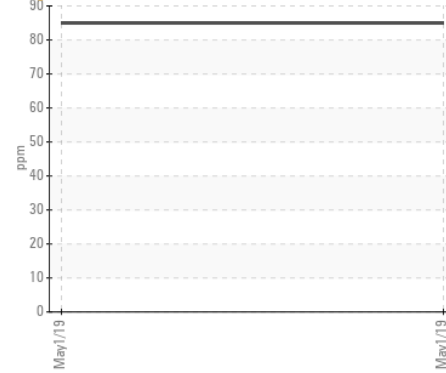
Lead (ppm)



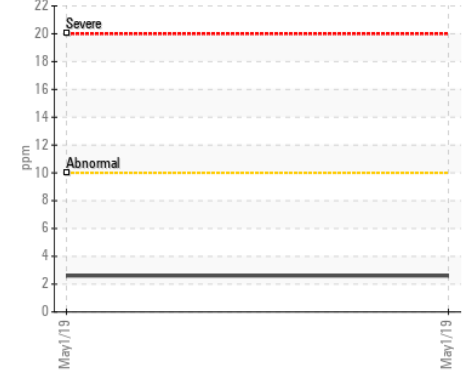
▲ Silicon (ppm)



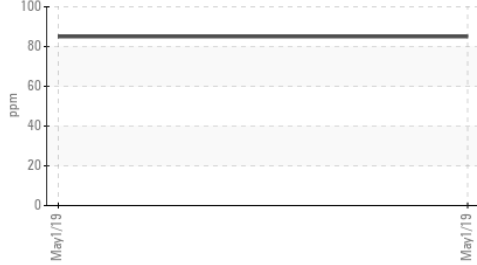
● Aluminum (ppm)



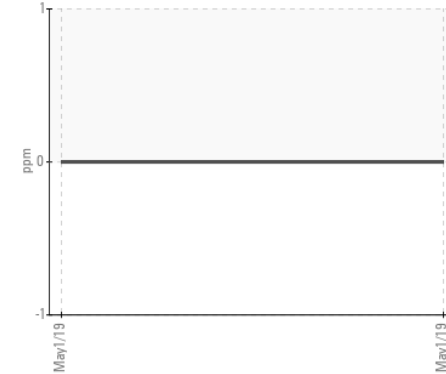
Chromium (ppm)



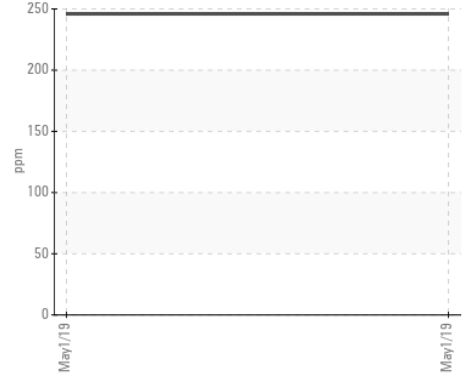
● Aluminum (ppm)



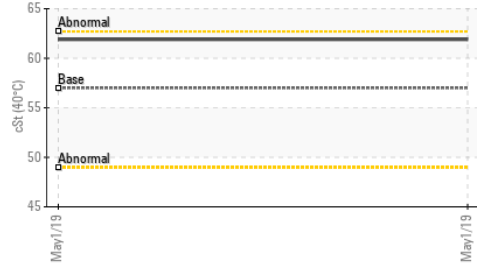
Copper (ppm)



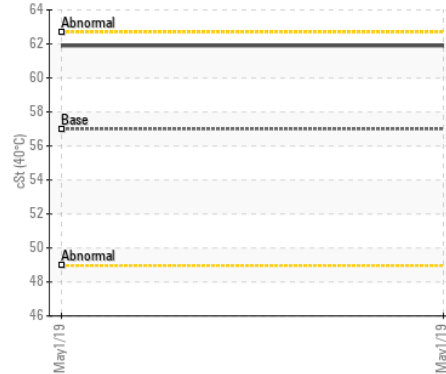
▲ Silicon (ppm)



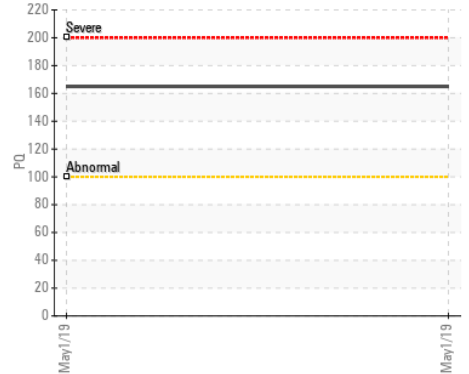
Viscosity @ 40°C



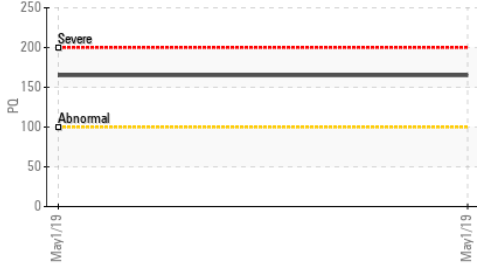
Viscosity @ 40°C



PQ



PQ



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : LEC194069
 Lab Number : 04707272
 Unique Number : 8588816
 Test Package : MOB 1 (Additional Tests: KV100, PQ, VI)

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)

T:
 F: (740)373-5570