



PROBLEM SUMMARY

Sample Rating Trend

WEAR

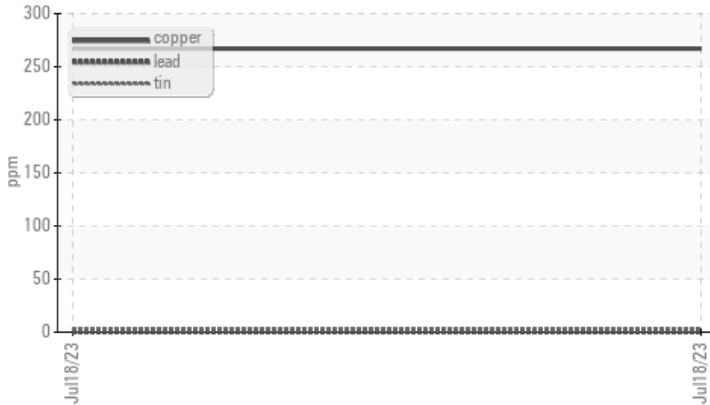


Area
Store 1 - Cowen
 Machine Id
JOHN DEERE 210G 1FF210GXVMF529638
 Component
Diesel Engine
 Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (6 GAL)

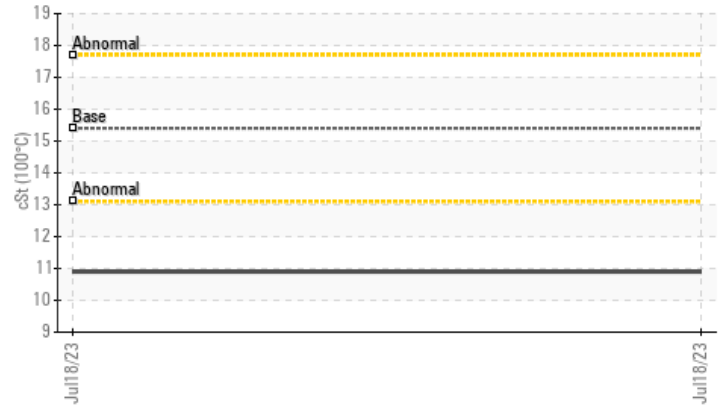


COMPONENT CONDITION SUMMARY

▲ Non-ferrous Metals



▲ Viscosity @ 100°C



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	---	---
Copper	ppm	ASTM D5185m	>26	▲ 267	---	---
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 10.9	---	---

Customer Id: LESMAROH
 Sample No.: LEC0042852
 Lab Number: 05903136
 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Doug Bogart +1 (800)237-1369 x4016
dougb@wearcheckusa.com

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

HISTORICAL DIAGNOSIS



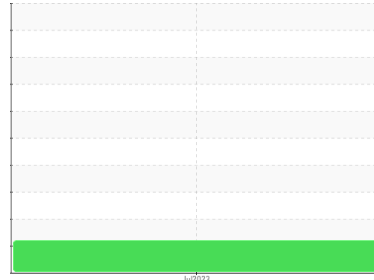
OIL ANALYSIS REPORT

Sample Rating Trend

WEAR



Area
Store 1 - Cowen
 Machine Id
JOHN DEERE 210G 1FF210GXVMF529638
 Component
Diesel Engine
 Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (6 GAL)



DIAGNOSIS

▲ Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

▲ Wear

The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other metal levels are typical for a new component breaking in.

Contamination

Fuel content negligible. No other contaminants were detected in the oil.

▲ Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	LEC0042852	---	---
Sample Date	Client Info	18 Jul 2023	---	---
Machine Age	hrs	742	---	---
Oil Age	hrs	742	---	---
Oil Changed	Client Info	Changed	---	---
Sample Status		ABNORMAL	---	---

CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	NEG	---	---

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >51	63	---	---
Chromium	ppm	ASTM D5185m >11	2	---	---
Nickel	ppm	ASTM D5185m >5	15	---	---
Titanium	ppm	ASTM D5185m	<1	---	---
Silver	ppm	ASTM D5185m >3	0	---	---
Aluminum	ppm	ASTM D5185m >31	5	---	---
Lead	ppm	ASTM D5185m >26	0	---	---
Copper	ppm	ASTM D5185m >26	▲ 267	---	---
Tin	ppm	ASTM D5185m >4	3	---	---
Vanadium	ppm	ASTM D5185m	0	---	---
Cadmium	ppm	ASTM D5185m	0	---	---

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	129	---	---
Barium	ppm	ASTM D5185m	<1	---	---
Molybdenum	ppm	ASTM D5185m	235	---	---
Manganese	ppm	ASTM D5185m	6	---	---
Magnesium	ppm	ASTM D5185m	903	---	---
Calcium	ppm	ASTM D5185m	1529	---	---
Phosphorus	ppm	ASTM D5185m	894	---	---
Zinc	ppm	ASTM D5185m	1137	---	---
Sulfur	ppm	ASTM D5185m	3312	---	---

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >120	11	---	---
Sodium	ppm	ASTM D5185m >31	7	---	---
Potassium	ppm	ASTM D5185m >20	3	---	---
Fuel	%	ASTM D3524 >2.1	0.4	---	---

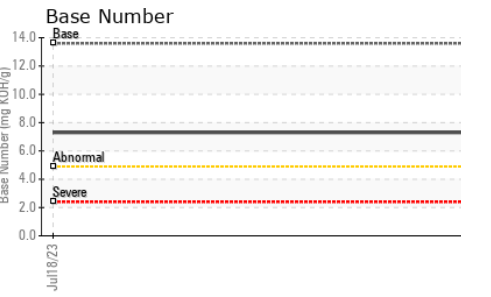
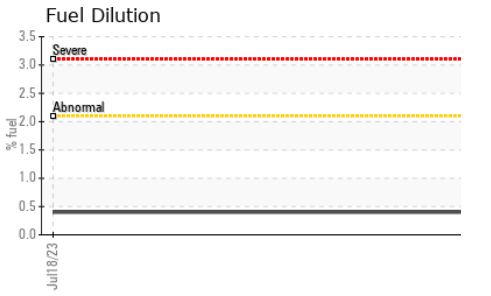
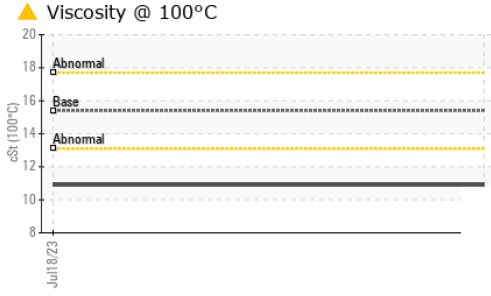
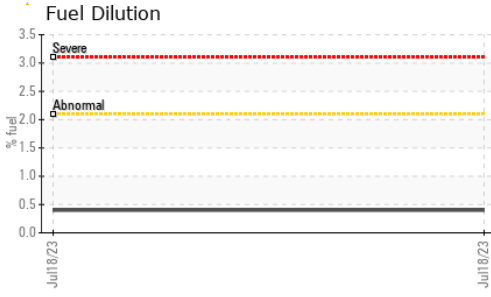
INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844 >3	0.5	---	---
Nitration	Abs/cm	*ASTM D7624 >20	10.4	---	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	25.8	---	---

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	22.5	---	---
Base Number (BN)	mg KOH/g	ASTM D2896 13.6	7.3	---	---

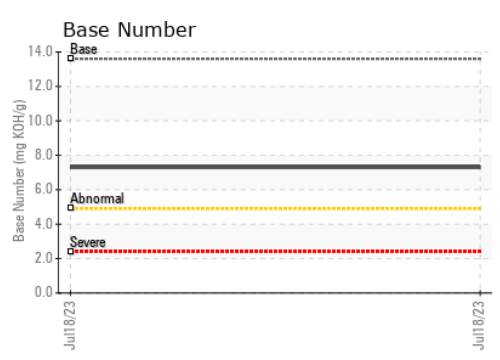
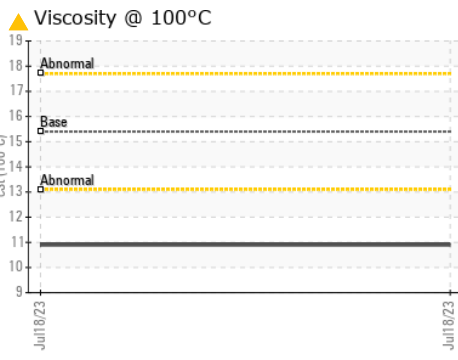
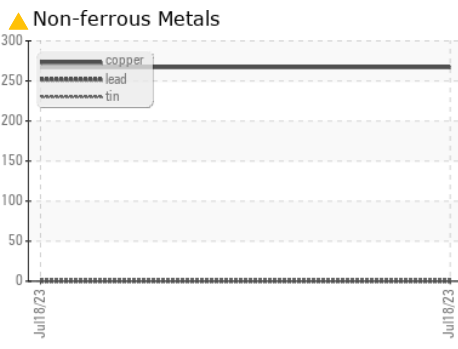
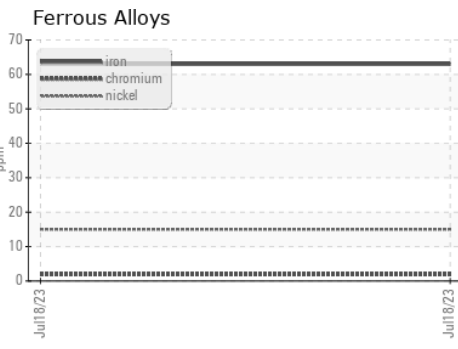
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Precipitate	scalar	*Visual	NONE	NONE	---	---
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	>0.21	NEG	---	---
Free Water	scalar	*Visual		NEG	---	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4 ▲ 10.9	---	---

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0042852 **Received** : 20 Jul 2023
Lab Number : 05903136 **Diagnosed** : 23 Jul 2023
Unique Number : 10564492 **Diagnostician** : Doug Bogart
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

LESLIE EQUIPMENT COMPANY
 105 TENNIS CENTER DR.
 MARIETTA, OH
 US 45750-9765
 Contact: LEANNE KENDALL
 KendallLeanne@lec1.com
 T:
 F: (740)373-5570

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)