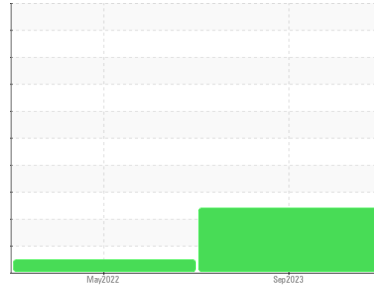


PROBLEM SUMMARY



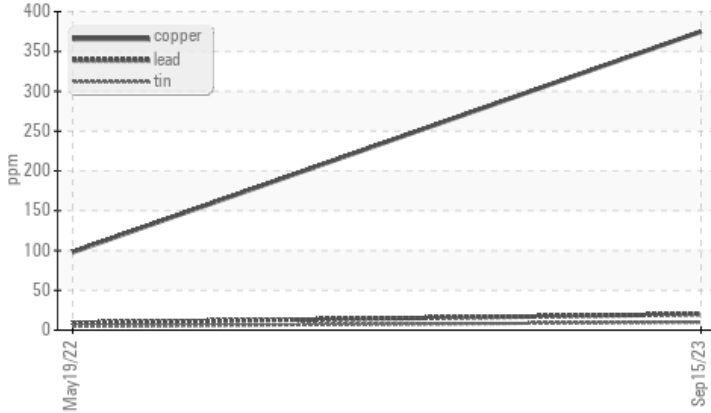
Area
[W46585]
 Machine Id
JOHN DEERE 310E 1DW310EXPMF712243
 Component
Rear Differential
 Fluid
JOHN DEERE HY-GARD HYD/TRANS (--- GAL)

Sample Rating Trend



COMPONENT CONDITION SUMMARY

▲ Non-ferrous Metals



RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	NORMAL	---
Lead	ppm	ASTM D5185m	>25	▲ 20	9	---
Copper	ppm	ASTM D5185m	>100	▲ 375	98	---
Tin	ppm	ASTM D5185m	>10	▲ 10	5	---

Customer Id: JAMASH
 Sample No.: JR0179983
 Lab Number: 05963708
 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Angela Borella +1 800-237-1369
angela.borella@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
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

19 May 2022 Diag: Don Baldrige

NORMAL



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

view report

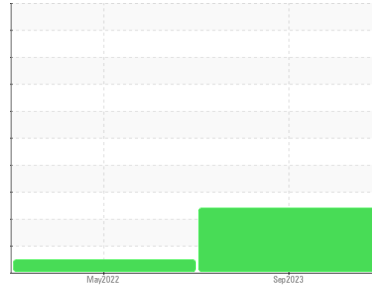


OIL ANALYSIS REPORT



Area
[W46585]
Machine Id
JOHN DEERE 310E 1DW310EXPMF712243
Component
Rear Differential
Fluid
JOHN DEERE HY-GARD HYD/TRANS (--- GAL)

Sample Rating Trend



WEAR



DIAGNOSIS

▲ Recommendation

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

▲ Wear

Copper, tin and lead ppm levels are abnormal. Thrust washer and/or bearing/bushing wear is indicated.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		JR0179983	JR0124357	---
Sample Date	Client Info		15 Sep 2023	19 May 2022	---
Machine Age	hrs	Client Info	2016	501	---
Oil Age	hrs	Client Info	0	501	---
Oil Changed	Client Info		Changed	Changed	---
Sample Status			ABNORMAL	NORMAL	---

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184		143	231	---
Iron	ppm	ASTM D5185m >500	293	252	---
Chromium	ppm	ASTM D5185m >10	2	3	---
Nickel	ppm	ASTM D5185m >10	9	7	---
Titanium	ppm	ASTM D5185m	<1	<1	---
Silver	ppm	ASTM D5185m	0	<1	---
Aluminum	ppm	ASTM D5185m >25	4	3	---
Lead	ppm	ASTM D5185m >25	▲ 20	9	---
Copper	ppm	ASTM D5185m >100	▲ 375	98	---
Tin	ppm	ASTM D5185m >10	▲ 10	5	---
Vanadium	ppm	ASTM D5185m	0	0	---
Cadmium	ppm	ASTM D5185m	0	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 6	20	108	---
Barium	ppm	ASTM D5185m 0	3	0	---
Molybdenum	ppm	ASTM D5185m 0	<1	<1	---
Manganese	ppm	ASTM D5185m	17	49	---
Magnesium	ppm	ASTM D5185m 145	86	27	---
Calcium	ppm	ASTM D5185m 3570	3438	3594	---
Phosphorus	ppm	ASTM D5185m 1290	1072	1172	---
Zinc	ppm	ASTM D5185m 1640	1329	1421	---
Sulfur	ppm	ASTM D5185m	3834	2832	---

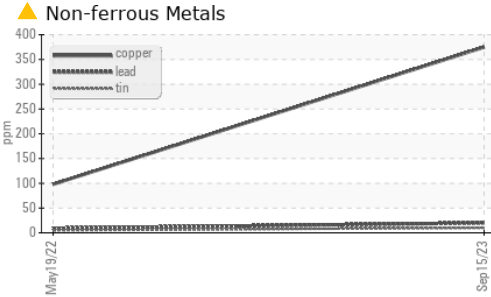
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >75	15	16	---
Sodium	ppm	ASTM D5185m	5	20	---
Potassium	ppm	ASTM D5185m >20	2	0	---

VISUAL

	method	limit/base	current	history1	history2
White Metal	scalar	*Visual NONE	NONE	MODER	---
Yellow Metal	scalar	*Visual NONE	NONE	NONE	---
Precipitate	scalar	*Visual NONE	NONE	NONE	---
Silt	scalar	*Visual NONE	NONE	NONE	---
Debris	scalar	*Visual NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual NONE	NONE	NONE	---
Appearance	scalar	*Visual NORML	NORML	NORML	---
Odor	scalar	*Visual NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual >.2	NEG	NEG	---
Free Water	scalar	*Visual	NEG	NEG	---

OIL ANALYSIS REPORT

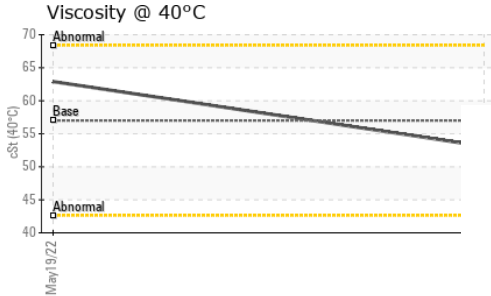


FLUID PROPERTIES	method	limit/base	current	history1	history2
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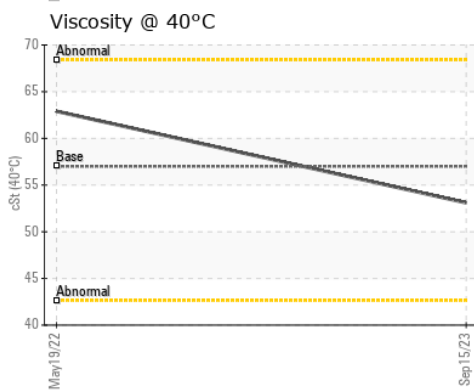
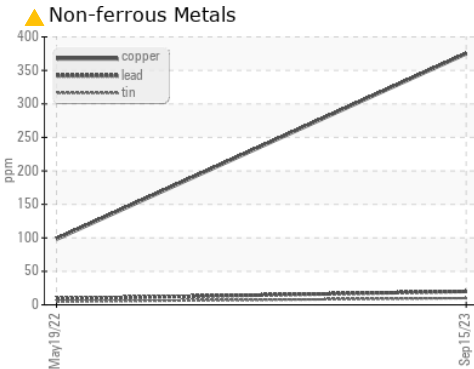
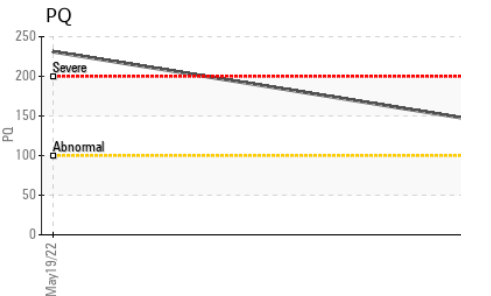
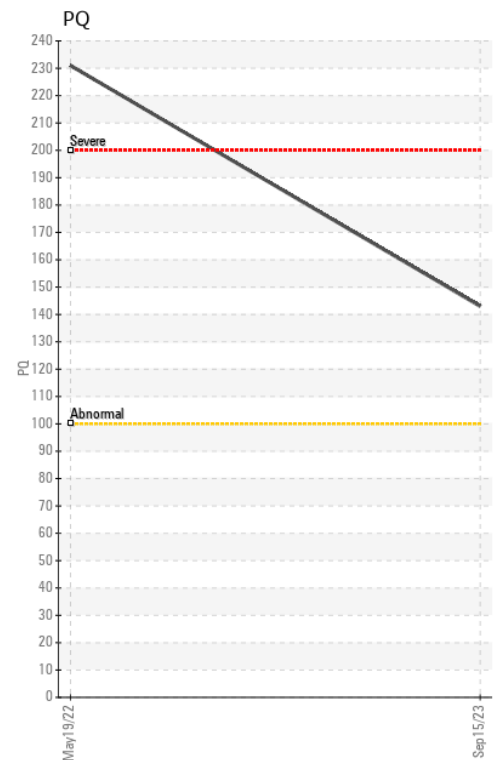
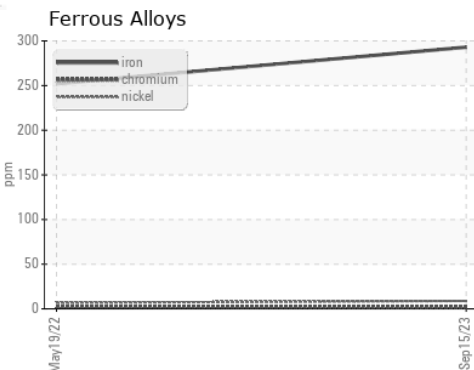
Visc @ 40°C	cSt	ASTM D445	57.0	53.1	62.9	---
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SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color			no image	no image	no image
Bottom			no image	no image	no image



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0179983 **Received** : 28 Sep 2023
Lab Number : **05963708** **Diagnosed** : 29 Sep 2023
Unique Number : 10670259 **Diagnostician** : Angela Borella
Test Package : CONST (Additional Tests: PQ)

JRE - ASHLAND
 11047 LEADBETTER RD
 ASHLAND, VA
 US 23005
 Contact: DAVID ZIEG
 dzieg@jamesriverequipment.com
 T: (804)798-6001
 F: (804)798-0292

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)