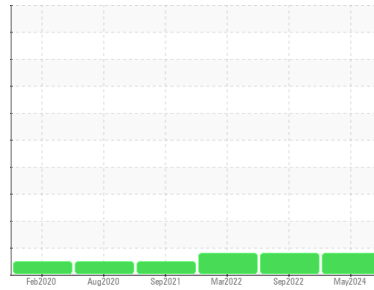


OIL ANALYSIS REPORT



Machine Id
JOHN DEERE 310E 1DW310EXTKF697898
 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. No corrective action is recommended at this time. Resample at the next service interval to monitor.

▲ Wear

Bearing and/or bushing wear is indicated.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

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

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		JR0211654	JR0135954	JR0110276
Sample Date	Client Info		28 May 2024	01 Sep 2022	04 Mar 2022
Machine Age	hrs	Client Info	4359	3515	2957
Oil Age	hrs	Client Info	4359	1468	910
Oil Changed	Client Info		Changed	Not Changd	Not Changd
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>.2	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184		164	202	424
Iron	ppm	ASTM D5185m >500	545	383	301
Chromium	ppm	ASTM D5185m >10	2	2	1
Nickel	ppm	ASTM D5185m >10	2	0	0
Titanium	ppm	ASTM D5185m	<1	<1	<1
Silver	ppm	ASTM D5185m	0	<1	<1
Aluminum	ppm	ASTM D5185m >25	1	2	2
Lead	ppm	ASTM D5185m >25	20	17	14
Copper	ppm	ASTM D5185m >100	▲ 342	▲ 240	▲ 167
Tin	ppm	ASTM D5185m >10	8	5	5
Antimony	ppm	ASTM D5185m >5	---	---	---
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	<1	0	0

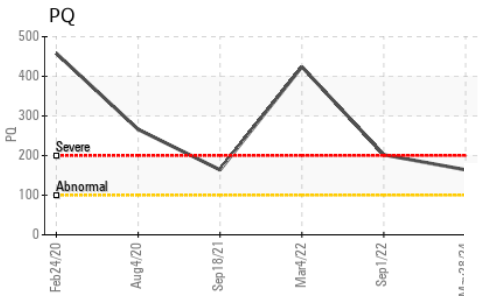
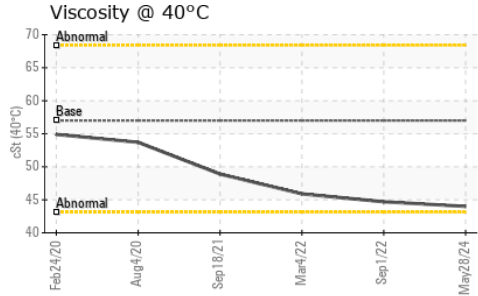
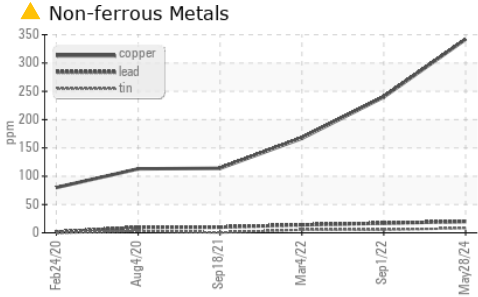
ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 6	61	57	55
Barium	ppm	ASTM D5185m 0	3	0	0
Molybdenum	ppm	ASTM D5185m 0	2	2	2
Manganese	ppm	ASTM D5185m	11	8	7
Magnesium	ppm	ASTM D5185m 145	59	54	60
Calcium	ppm	ASTM D5185m 3570	3350	3363	3389
Phosphorus	ppm	ASTM D5185m 1290	1171	1063	1055
Zinc	ppm	ASTM D5185m 1640	1354	1315	1260
Sulfur	ppm	ASTM D5185m	3700	3231	2760

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >75	15	13	12
Sodium	ppm	ASTM D5185m	3	2	0
Potassium	ppm	ASTM D5185m >20	2	2	0

OIL ANALYSIS REPORT



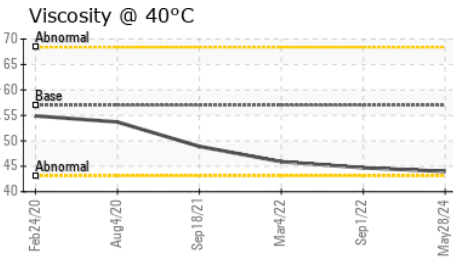
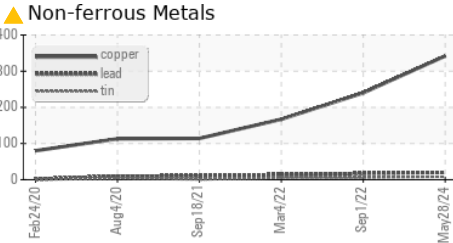
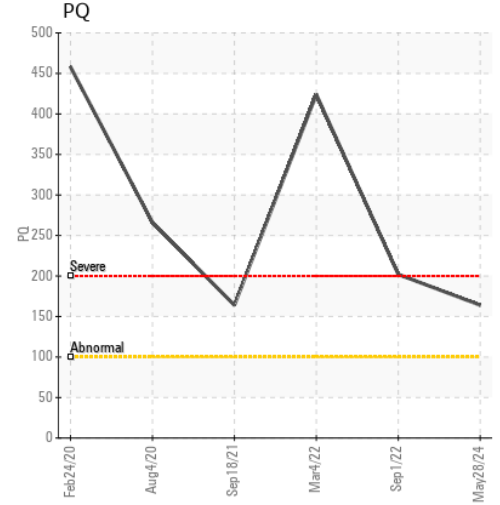
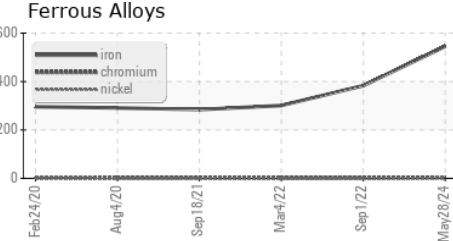
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	MODER	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445	57.0	44.0	44.7	45.9

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color				<i>no image</i>	<i>no image</i>	<i>no image</i>
Bottom				<i>no image</i>	<i>no image</i>	<i>no image</i>

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0211654 **Received** : 29 May 2024
Lab Number : **06194710** **Tested** : 31 May 2024
Unique Number : 11056833 **Diagnosed** : 31 May 2024 - Don Baldrige
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)