



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
JOHN DEERE 310E 1DW310EXTKF697898
Component
Front Differential
Fluid
JOHN DEERE HY-GARD HYD/TRANS (--- GAL)

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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0211655	JR0135950	JR0110274
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
Filter Age	hrs	Client Info		4359	558	910
Oil Changed		Client Info		Changed	Not Chngd	Not Chngd
Filter Changed		Client Info		Changed	Not Chngd	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

Bearing and/or bushing wear is indicated.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		188	136	300
Iron	ppm	ASTM D5185m	>500	486	320	249
Chromium	ppm	ASTM D5185m	>10	2	2	1
Nickel	ppm	ASTM D5185m	>10	6	3	2
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>25	1	2	2
Lead	ppm	ASTM D5185m	>25	<1	<1	1
Copper	ppm	ASTM D5185m	>100	▲ 296	▲ 207	▲ 148
Tin	ppm	ASTM D5185m	>10	7	5	5
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	MODER	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

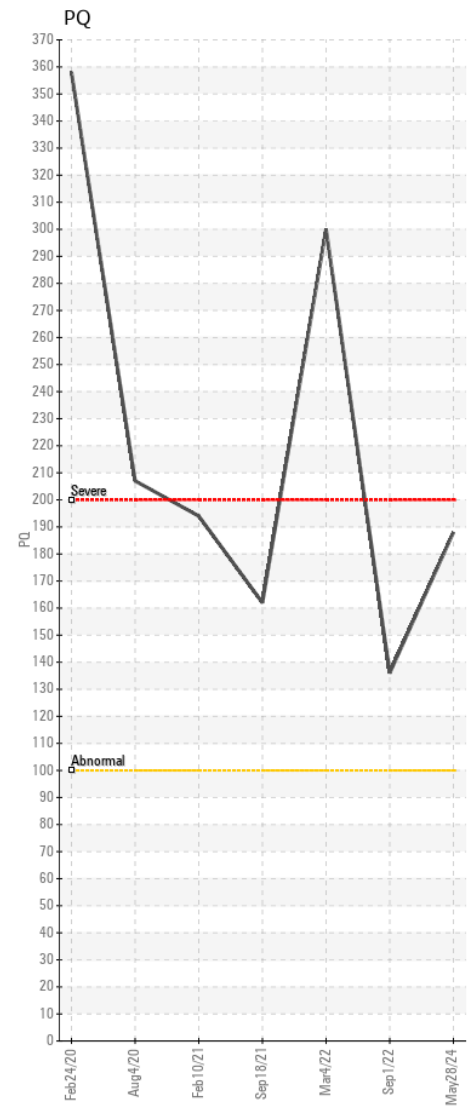
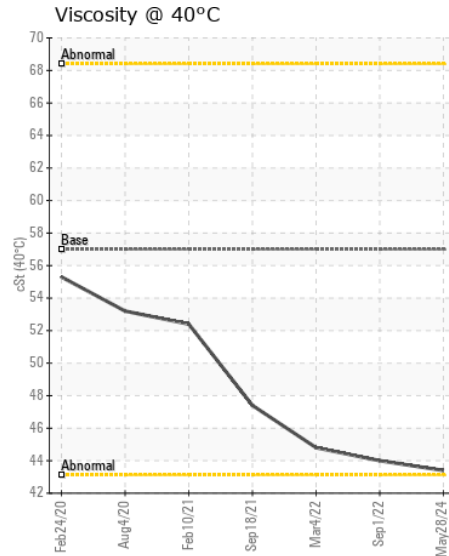
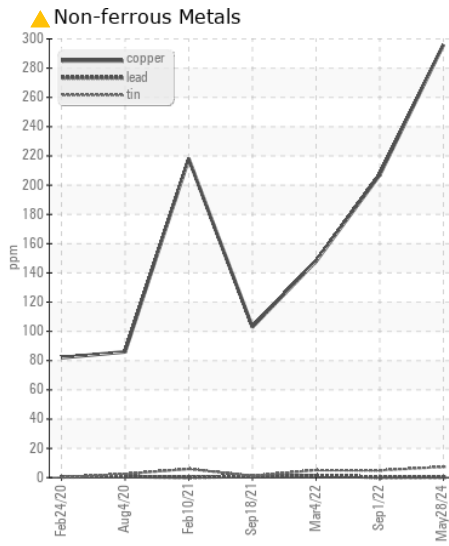
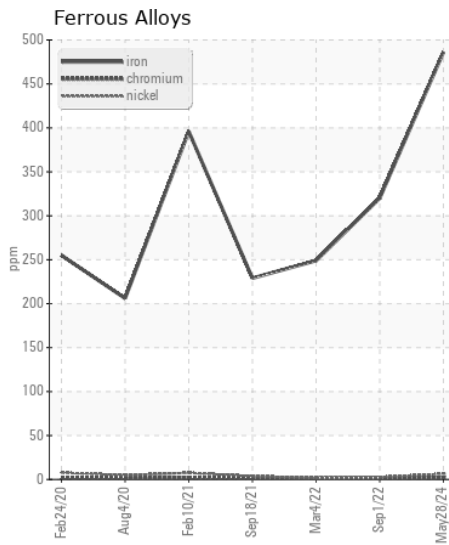
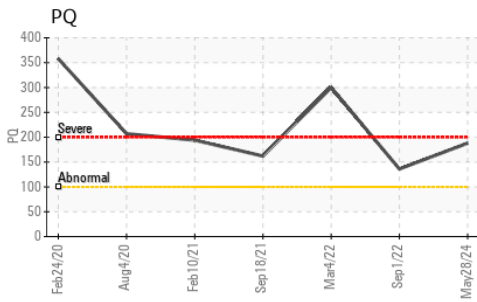
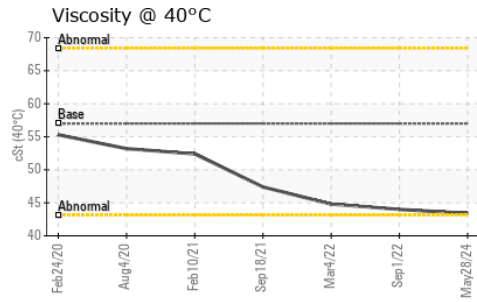
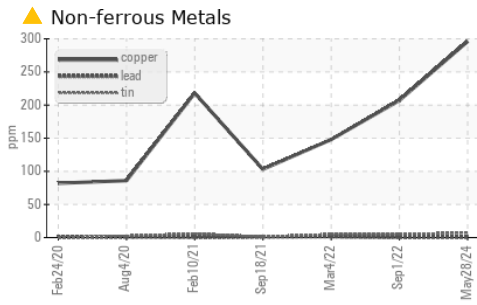
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	15	12	12
Potassium	ppm	ASTM D5185m	>20	2	2	0
Water		WC Method	>.2	NEG	NEG	NEG
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	>.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		3	3	0
Boron	ppm	ASTM D5185m	6	61	59	56
Barium	ppm	ASTM D5185m	0	2	0	0
Molybdenum	ppm	ASTM D5185m	0	4	2	2
Manganese	ppm	ASTM D5185m		12	9	8
Magnesium	ppm	ASTM D5185m	145	68	55	60
Calcium	ppm	ASTM D5185m	3570	3305	3417	3401
Phosphorus	ppm	ASTM D5185m	1290	1103	1089	1049
Zinc	ppm	ASTM D5185m	1640	1302	1334	1246
Sulfur	ppm	ASTM D5185m		3384	3356	2726
Visc @ 40°C	cSt	ASTM D445	57.0	43.4	44.0	44.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0211655 **Received** : 29 May 2024
Lab Number : 06194709 **Tested** : 31 May 2024
Unique Number : 11056832 **Diagnosed** : 31 May 2024 - Don Baldrige
Test Package : CONST (Additional Tests: 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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