



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
JOHN DEERE 310E 1DW310EXVMF710644
Component
Rear Differential
Fluid
JOHN DEERE HY-GARD HYD/TRANS (10 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0214978	JR0205365	JR0206352
Sample Date		Client Info		07 May 2024	26 Mar 2024	14 Mar 2024
Machine Age	hrs	Client Info		3470	3322	3302
Oil Age	hrs	Client Info		148	2080	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changed	Changed	Not Changed
Filter Changed		Client Info		Not Changed	Changed	Not Changed
Sample Status				NORMAL	NORMAL	SEVERE

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		13	12	79
Iron	ppm	ASTM D5185m	>500	6	4	228
Chromium	ppm	ASTM D5185m	>10	<1	0	2
Nickel	ppm	ASTM D5185m	>10	0	<1	3
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m		0	<1	0
Aluminum	ppm	ASTM D5185m	>25	2	2	3
Lead	ppm	ASTM D5185m	>25	0	0	10
Copper	ppm	ASTM D5185m	>100	<1	<1	▲ 532
Tin	ppm	ASTM D5185m	>10	<1	<1	▲ 14
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

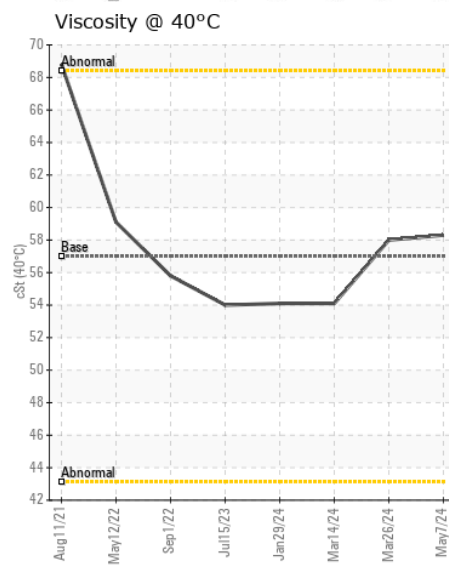
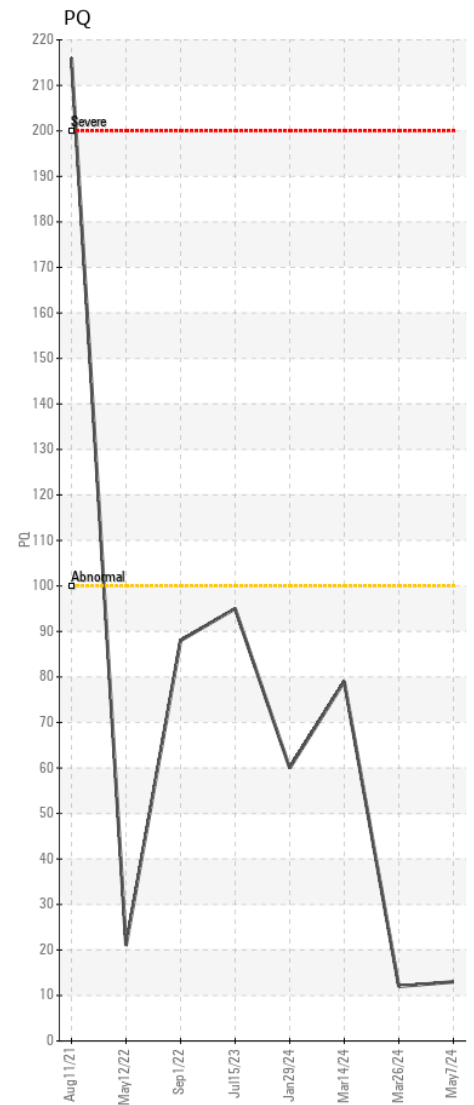
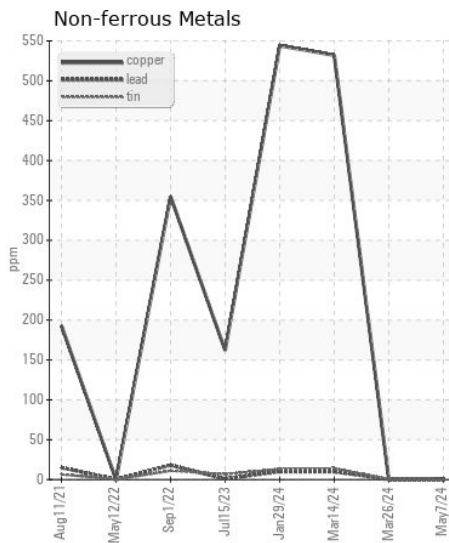
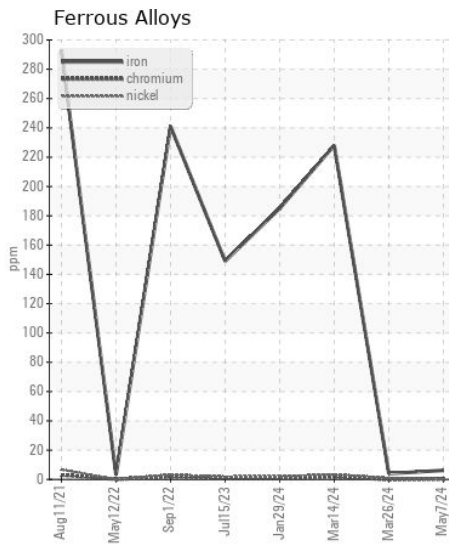
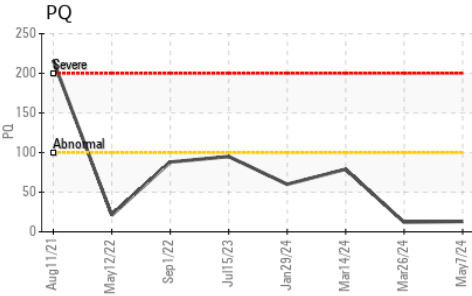
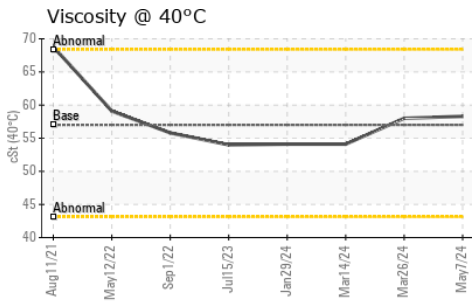
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	6	7	15
Potassium	ppm	ASTM D5185m	>20	2	1	2
Water		WC Method	>.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	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		0	2	3
Boron	ppm	ASTM D5185m	6	0	1	10
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	<1	<1	<1
Manganese	ppm	ASTM D5185m		<1	<1	9
Magnesium	ppm	ASTM D5185m	145	95	101	88
Calcium	ppm	ASTM D5185m	3570	3308	3262	3314
Phosphorus	ppm	ASTM D5185m	1290	1110	950	983
Zinc	ppm	ASTM D5185m	1640	1211	1176	1281
Sulfur	ppm	ASTM D5185m		4215	3818	3747
Visc @ 40°C	cSt	ASTM D445	57.0	58.3	58.0	54.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0214978 **Received** : 10 May 2024
Lab Number : 06175798 **Tested** : 13 May 2024
Unique Number : 11021851 **Diagnosed** : 13 May 2024 - Wes Davis
Test Package : CONST (Additional Tests: PQ)

CARLTON'S BACKHOE
 9550 STATESVILLE ROAD
 CHARLOTTE, NC
 US 28269
 Contact: LEO

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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