



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
JOHN DEERE 310E 1DW310EXKMF711403
Component
Front 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		JR0218757	JR0183432	JR0157994
Sample Date		Client Info		07 Jun 2024	12 Sep 2023	04 May 2023
Machine Age	hrs	Client Info		4185	3137	2578
Oil Age	hrs	Client Info		0	3137	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changed	N/A
Filter Changed		Client Info		N/A	Changed	N/A
Sample Status				NORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		120	158	307
Iron	ppm	ASTM D5185m	>500	348	230	424
Chromium	ppm	ASTM D5185m	>10	3	3	4
Nickel	ppm	ASTM D5185m	>10	8	6	10
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	6	<1	2
Lead	ppm	ASTM D5185m	>25	<1	2	<1
Copper	ppm	ASTM D5185m	>100	213	▲ 116	▲ 249
Tin	ppm	ASTM D5185m	>10	11	8	▲ 11
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	MODER	MODER	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

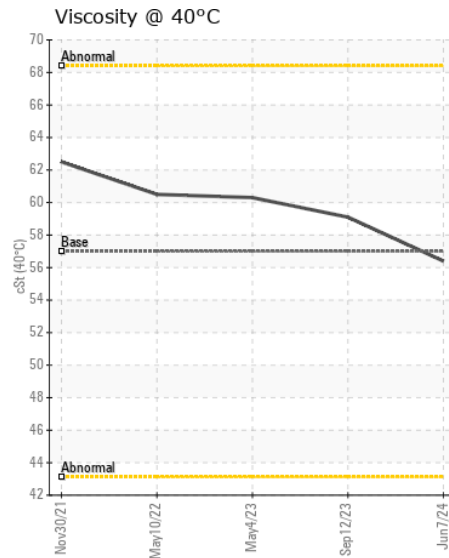
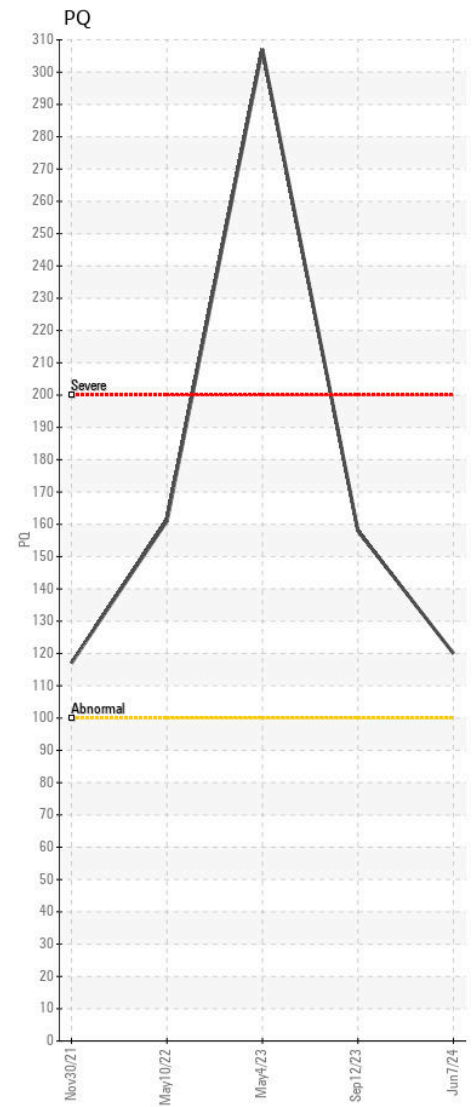
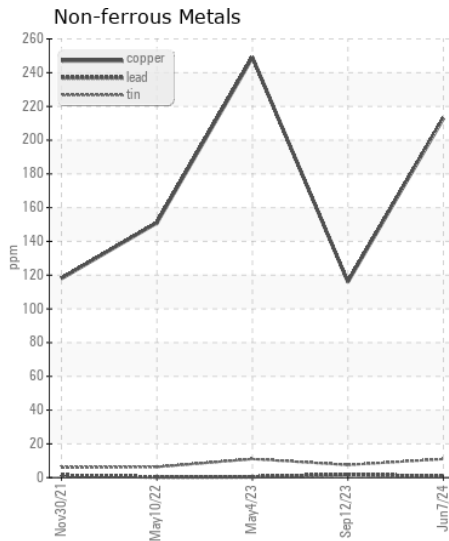
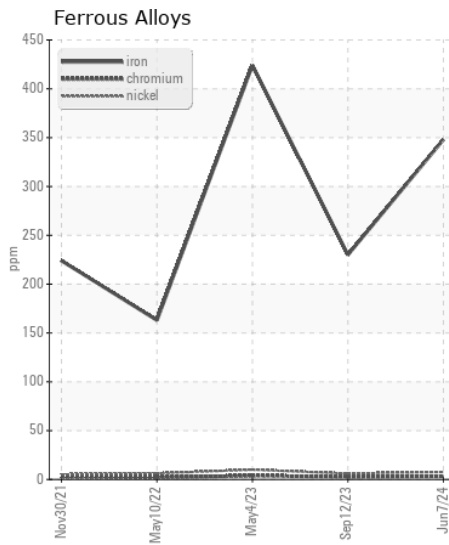
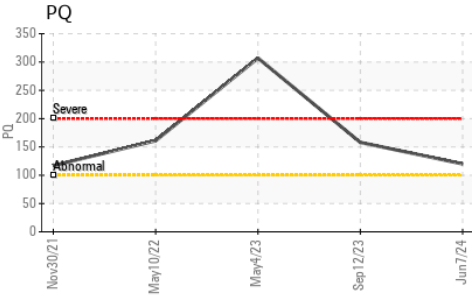
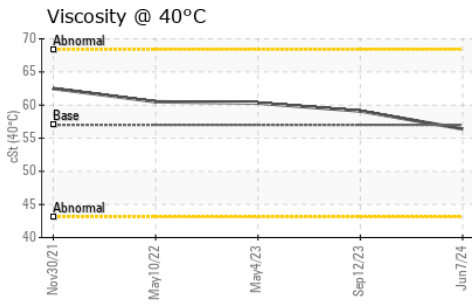
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	21	17	23
Potassium	ppm	ASTM D5185m	>20	2	2	2
Water		WC Method	>.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	MODER
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		15	14	23
Boron	ppm	ASTM D5185m	6	74	81	92
Barium	ppm	ASTM D5185m	0	2	0	0
Molybdenum	ppm	ASTM D5185m	0	32	30	<1
Manganese	ppm	ASTM D5185m		42	40	51
Magnesium	ppm	ASTM D5185m	145	166	165	21
Calcium	ppm	ASTM D5185m	3570	3409	3407	3379
Phosphorus	ppm	ASTM D5185m	1290	1097	1064	1113
Zinc	ppm	ASTM D5185m	1640	1365	1337	1413
Sulfur	ppm	ASTM D5185m		3727	4101	3334
Visc @ 40°C	cSt	ASTM D445	57.0	56.4	59.1	60.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0218757 **Received** : 14 Jun 2024
Lab Number : 06210435 **Tested** : 18 Jun 2024
Unique Number : 11083299 **Diagnosed** : 18 Jun 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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