



WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Area

[W68111]

Machine Id

JOHN DEERE 310E 1DW310EXKHF682023

Component

Front Differential

Fluid

JOHN DEERE HY-GARD HYDRAULIC/RANSMISSION (10 GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: W68111)

WEAR

The copper level is abnormal. All other component wear rates are normal.

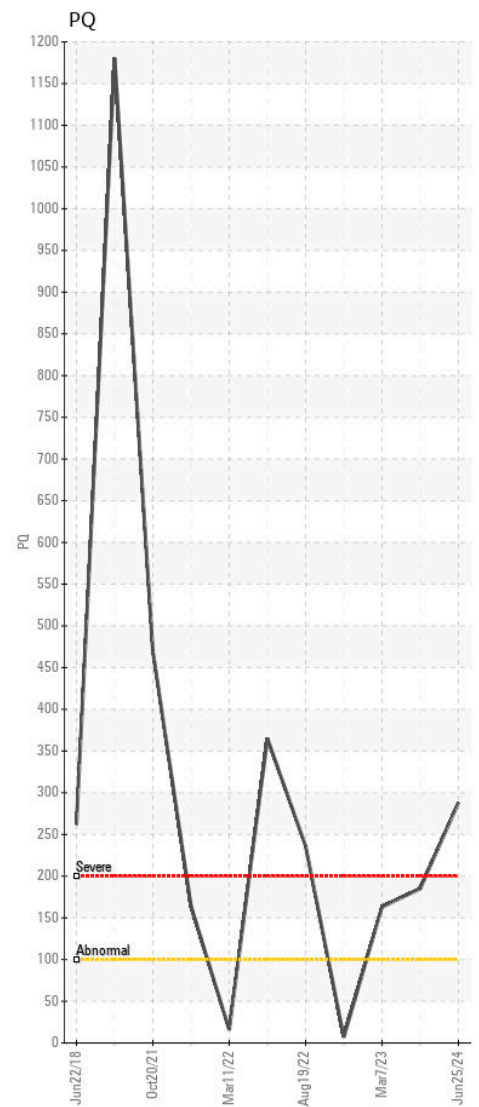
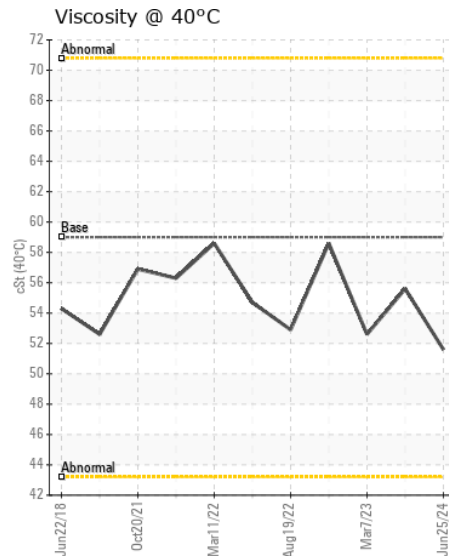
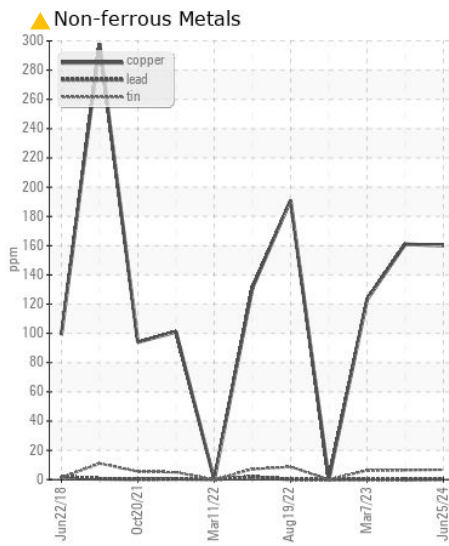
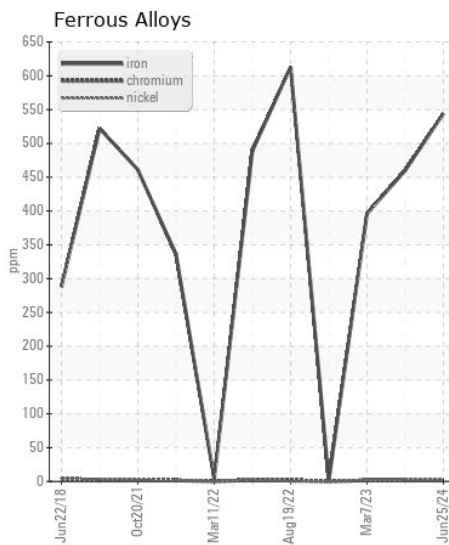
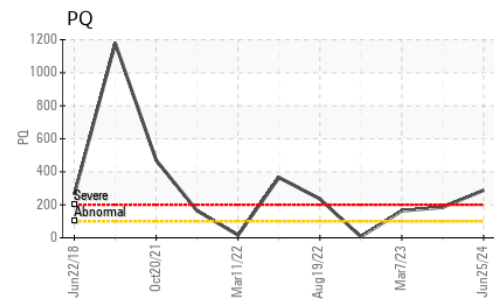
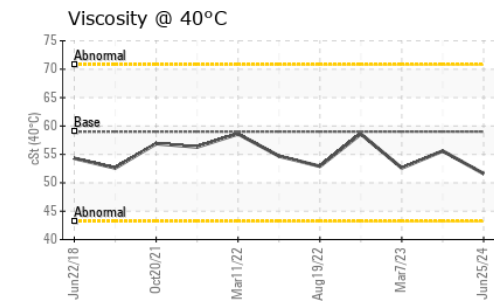
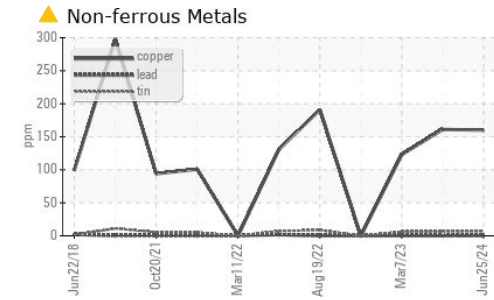
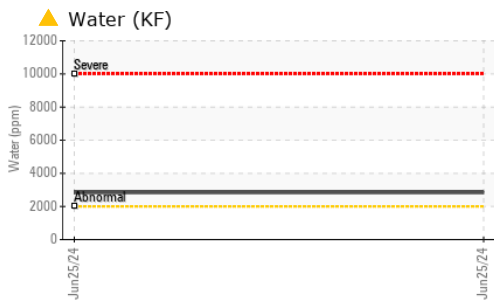
CONTAMINATION

There is a light concentration of water present in the oil.

FLUID CONDITION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0219757	JR0205522	JR0142329
Sample Date		Client Info		25 Jun 2024	13 Mar 2024	07 Mar 2023
Machine Age	hrs	Client Info		7837	7306	5093
Oil Age	hrs	Client Info		5624	2213	500
Filter Age	hrs	Client Info		0	0	500
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
PQ		ASTM D8184		288	185	163
Iron	ppm	ASTM D5185m	>500	544	460	396
Chromium	ppm	ASTM D5185m	>10	2	2	2
Nickel	ppm	ASTM D5185m	>10	2	2	3
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	3	2	4
Lead	ppm	ASTM D5185m	>25	<1	0	<1
Copper	ppm	ASTM D5185m	>100	▲ 160	▲ 161	▲ 123
Tin	ppm	ASTM D5185m	>10	7	6	6
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>75	9	9	9
Potassium	ppm	ASTM D5185m	>20	2	2	2
Water	%	ASTM D6304	>.2	▲ 0.284	---	---
ppm Water	ppm	ASTM D6304	>2000	▲ 2840	---	---
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	0.2%	NEG	NEG
Sodium	ppm	ASTM D5185m		2	1	<1
Boron	ppm	ASTM D5185m		10	11	13
Barium	ppm	ASTM D5185m		11	0	0
Molybdenum	ppm	ASTM D5185m		3	3	4
Manganese	ppm	ASTM D5185m		9	9	9
Magnesium	ppm	ASTM D5185m		83	84	103
Calcium	ppm	ASTM D5185m		3232	3272	4316
Phosphorus	ppm	ASTM D5185m		1061	994	1241
Zinc	ppm	ASTM D5185m		1216	1201	1511
Sulfur	ppm	ASTM D5185m		4932	4047	4682
Visc @ 40°C	cSt	ASTM D445	59	51.6	55.6	52.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0219757 **Received** : 27 Jun 2024
Lab Number : 06222534 **Tested** : 01 Jul 2024
Unique Number : 11100731 **Diagnosed** : 01 Jul 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: KF, PQ)

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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)