



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
[W63329]
 Machine Id
JOHN DEERE 310E 1DW310EXLMF710338
 Component
Center Differential
 Fluid
JOHN DEERE HY-GARD HYDRAULIC/RANSMISSION (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor. (Customer Sample Comment: W63329)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0198391	JR0171095	JR0143262
Sample Date		Client Info		16 Jan 2024	14 Jul 2023	22 Dec 2022
Machine Age	hrs	Client Info		3758	3119	2447
Oil Age	hrs	Client Info		2692	2725	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changed	Not Changed	N/A
Filter Changed		Client Info		Not Changed	Changed	N/A
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

Bearing and/or bushing wear is indicated.

PQ		ASTM D8184		139	173	5
Iron	ppm	ASTM D5185m	>500	297	262	4
Chromium	ppm	ASTM D5185m	>10	1	2	<1
Nickel	ppm	ASTM D5185m	>10	6	7	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	4	4	<1
Lead	ppm	ASTM D5185m	>25	18	<1	0
Copper	ppm	ASTM D5185m	>100	▲ 279	▲ 190	0
Tin	ppm	ASTM D5185m	>10	▲ 12	9	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

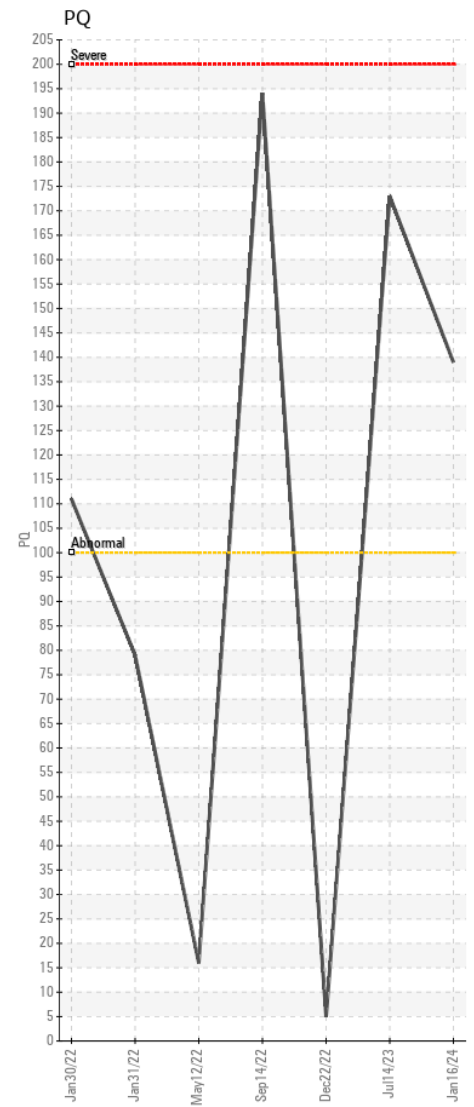
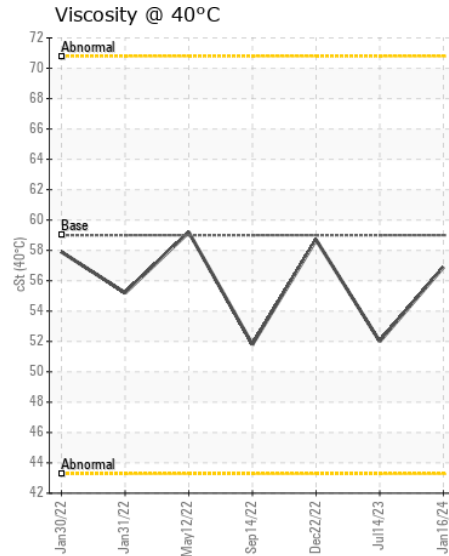
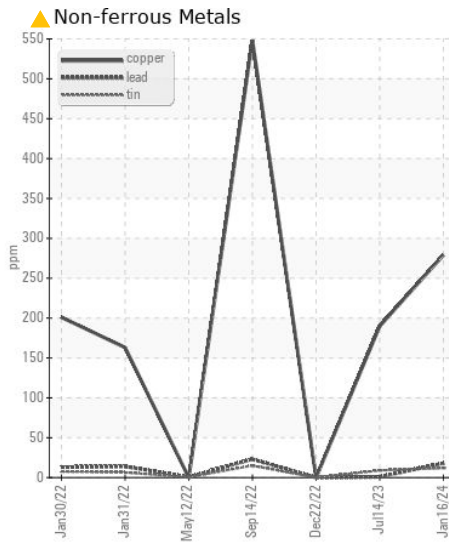
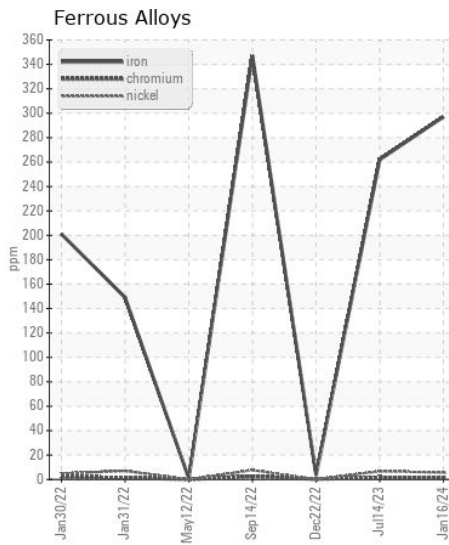
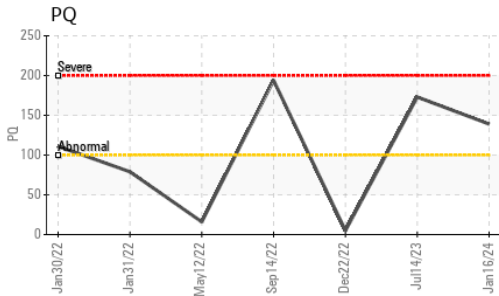
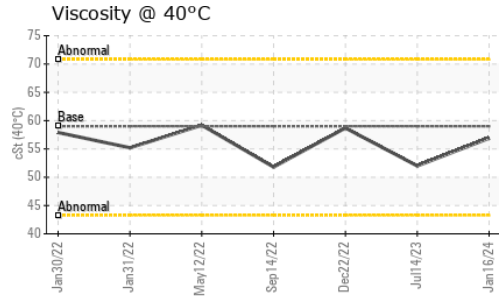
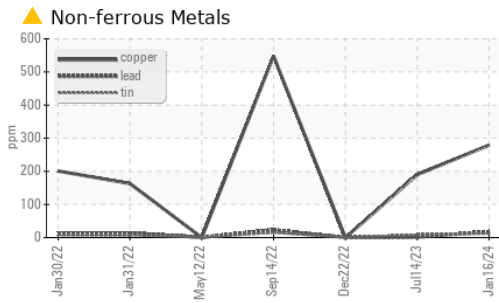
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	13	13	6
Potassium	ppm	ASTM D5185m	>20	<1	1	<1
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		6	8	0
Boron	ppm	ASTM D5185m		12	18	3
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		0	<1	<1
Manganese	ppm	ASTM D5185m		12	15	<1
Magnesium	ppm	ASTM D5185m		94	87	97
Calcium	ppm	ASTM D5185m		3417	3775	3457
Phosphorus	ppm	ASTM D5185m		1073	1096	994
Zinc	ppm	ASTM D5185m		1320	1317	1209
Sulfur	ppm	ASTM D5185m		3523	4599	4178
Visc @ 40°C	cSt	ASTM D445	59	56.9	52.0	58.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0198391 **Received** : 18 Jan 2024
Lab Number : 06064549 **Diagnosed** : 21 Jan 2024
Unique Number : 10835931 **Diagnostician** : Don Baldrige
Test Package : CONST (Additional Tests: 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)