



WEAR	SEVERE
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Area
[W65260-1]
Machine Id
JOHN DEERE 310E 1DW310EXVMF710644
Component
Center Differential
Fluid
JOHN DEERE HY-GARD HYD/TRANS (--- GAL)

RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

WEAR

Bearing and/or bushing wear is indicated.

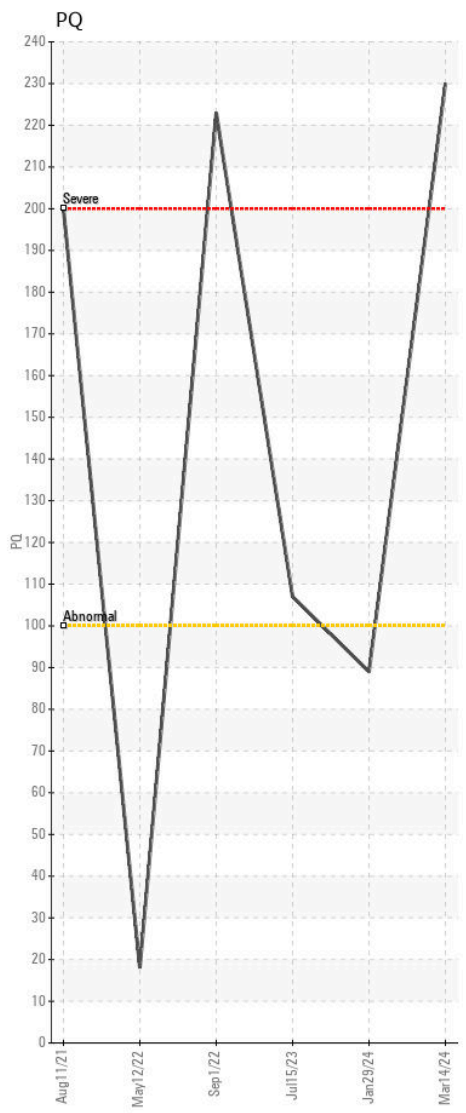
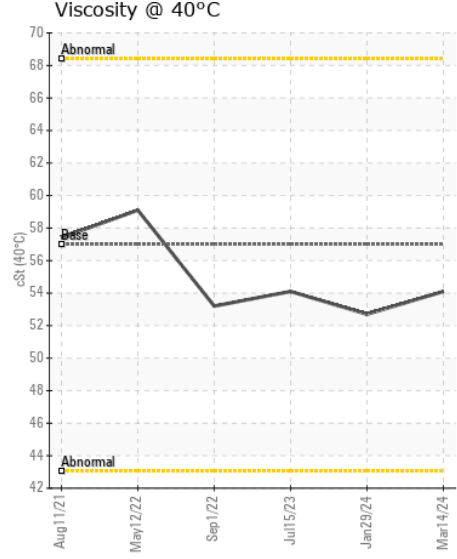
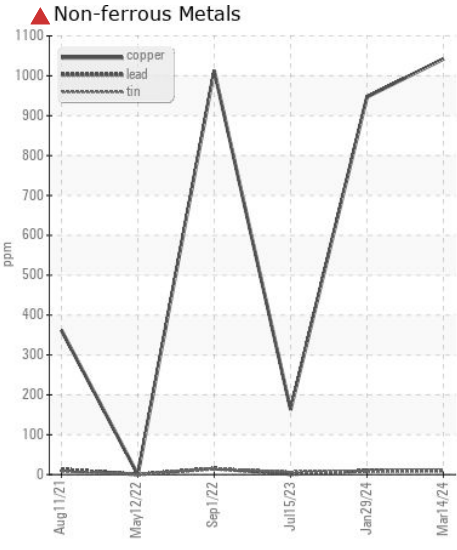
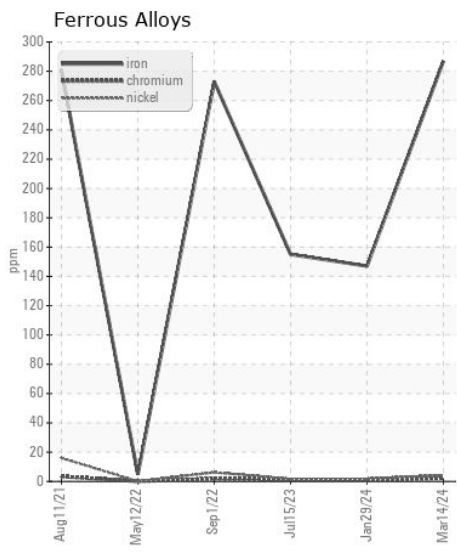
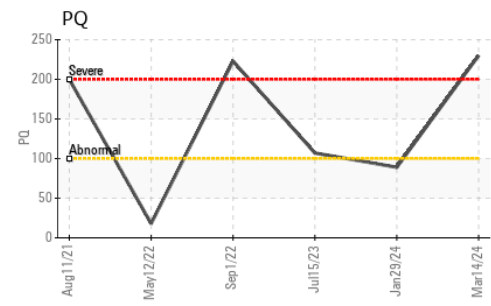
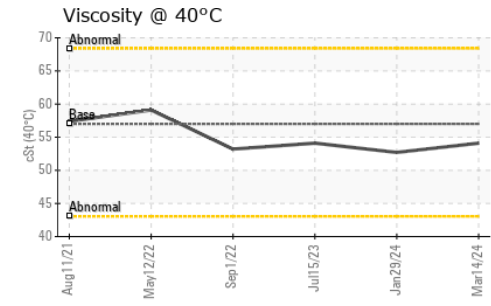
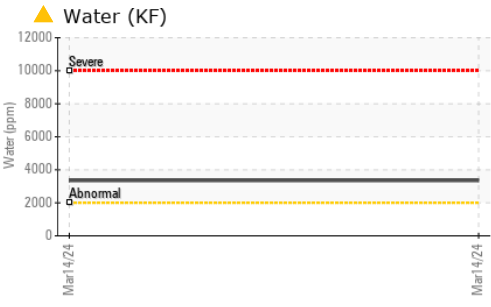
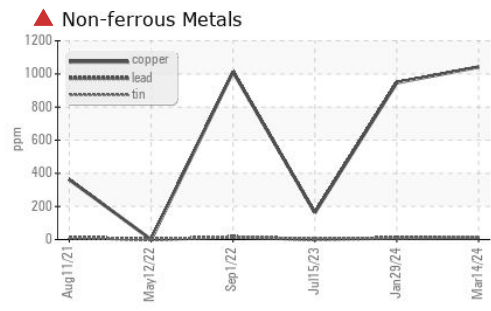
CONTAMINATION

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

FLUID CONDITION

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0206360	JR0198032	JR0170702
Sample Date		Client Info		14 Mar 2024	29 Jan 2024	15 Jul 2023
Machine Age	hrs	Client Info		3302	3299	2640
Oil Age	hrs	Client Info		0	3299	2060
Filter Age	hrs	Client Info		0	3299	0
Oil Changed		Client Info		Not Changd	N/A	Not Changd
Filter Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				SEVERE	SEVERE	ABNORMAL
PQ		ASTM D8184		230	89	107
Iron	ppm	ASTM D5185m	>500	287	147	155
Chromium	ppm	ASTM D5185m	>10	2	<1	1
Nickel	ppm	ASTM D5185m	>10	4	2	2
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	<1	2
Lead	ppm	ASTM D5185m	>25	10	9	<1
Copper	ppm	ASTM D5185m	>100	▲ 1042	▲ 947	▲ 163
Tin	ppm	ASTM D5185m	>10	▲ 12	9	6
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>75	15	7	12
Potassium	ppm	ASTM D5185m	>20	3	0	1
Water	%	ASTM D6304	>.2	▲ 0.335	---	---
ppm Water	ppm	ASTM D6304	>2000	▲ 3350	---	---
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		<1	2	5
Boron	ppm	ASTM D5185m	6	11	8	13
Barium	ppm	ASTM D5185m	0	0	<1	0
Molybdenum	ppm	ASTM D5185m	0	<1	0	<1
Manganese	ppm	ASTM D5185m		8	5	18
Magnesium	ppm	ASTM D5185m	145	56	41	95
Calcium	ppm	ASTM D5185m	3570	3247	3063	3888
Phosphorus	ppm	ASTM D5185m	1290	983	1000	1133
Zinc	ppm	ASTM D5185m	1640	1018	889	1360
Sulfur	ppm	ASTM D5185m		3886	3104	4859
Visc @ 40°C	cSt	ASTM D445	57.0	54.1	52.7	54.1



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0206360 **Received** : 19 Mar 2024
Lab Number : 06122701 **Tested** : 20 Mar 2024
Unique Number : 10936852 **Diagnosed** : 21 Mar 2024 - Don Baldrige
Test Package : CONST (Additional Tests: KF, PQ)

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

Certificate L2367
 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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