



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
JOHN DEERE 310E 1DW310EXLMF709450
Component
Center Differential
Fluid
JOHN DEERE HY-GARD HYD/TRANS (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0158698	JR0188116	JR0161420
Sample Date		Client Info		20 Feb 2024	18 Oct 2023	09 May 2023
Machine Age	hrs	Client Info		3505	3235	2593
Oil Age	hrs	Client Info		0	1170	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Not Changd	Not Changd
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184		310	87	114
Iron	ppm	ASTM D5185m	>500	326	205	172
Chromium	ppm	ASTM D5185m	>10	3	1	2
Nickel	ppm	ASTM D5185m	>10	7	4	3
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>25	2	3	2
Lead	ppm	ASTM D5185m	>25	<1	0	0
Copper	ppm	ASTM D5185m	>100	173	129	89
Tin	ppm	ASTM D5185m	>10	10	5	5
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	MODER	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

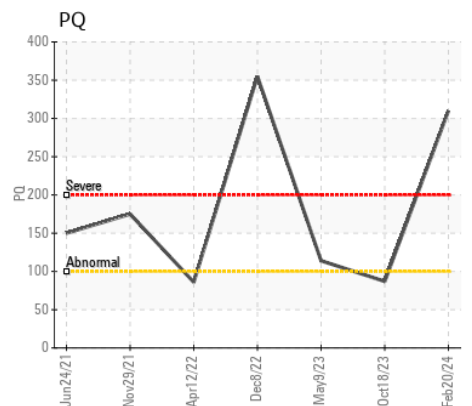
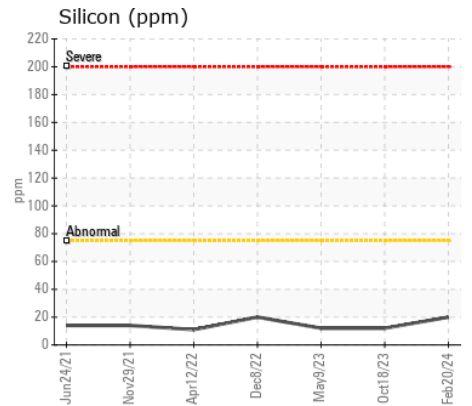
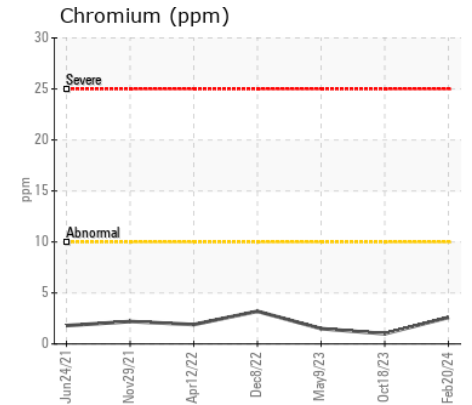
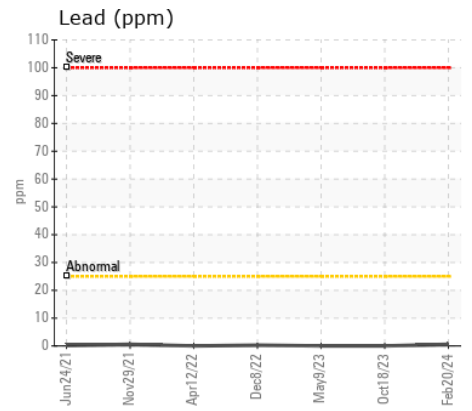
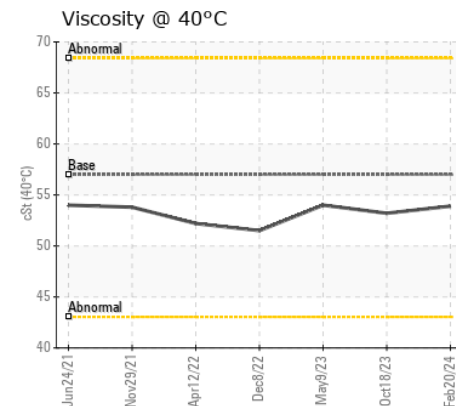
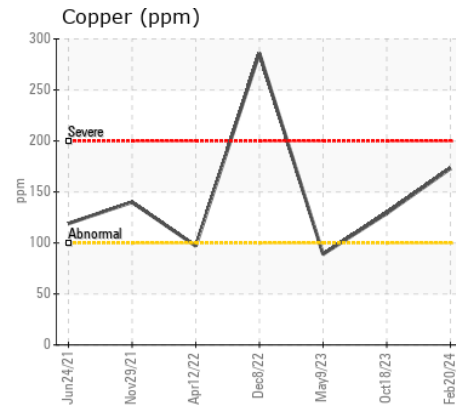
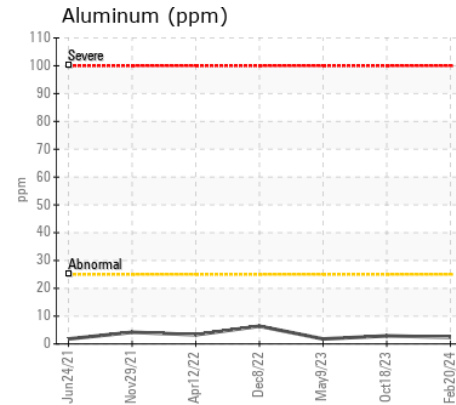
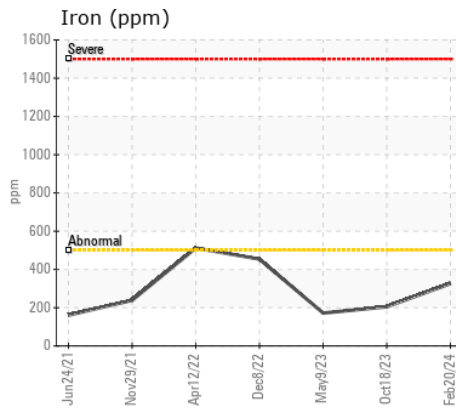
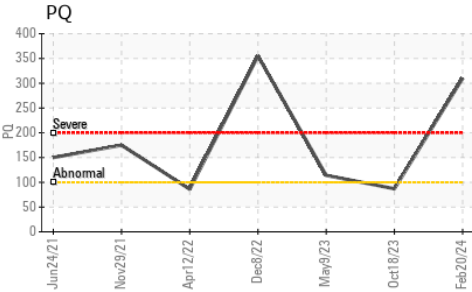
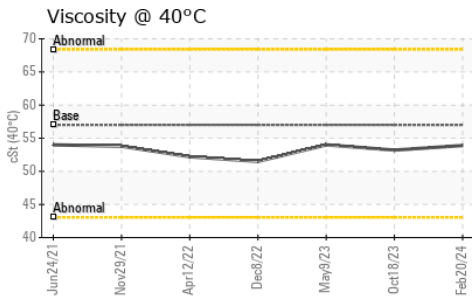
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	20	12	12
Potassium	ppm	ASTM D5185m	>20	2	3	0
Water		WC Method	>.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	MODER	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		3	3	5
Boron	ppm	ASTM D5185m	6	14	14	17
Barium	ppm	ASTM D5185m	0	6	1	0
Molybdenum	ppm	ASTM D5185m	0	1	<1	<1
Manganese	ppm	ASTM D5185m		26	13	14
Magnesium	ppm	ASTM D5185m	145	87	91	91
Calcium	ppm	ASTM D5185m	3570	3196	3531	3437
Phosphorus	ppm	ASTM D5185m	1290	927	1021	1028
Zinc	ppm	ASTM D5185m	1640	1198	1304	1280
Sulfur	ppm	ASTM D5185m		3351	4029	4506
Visc @ 40°C	cSt	ASTM D445	57.0	53.9	53.2	54.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : JR0158698

Lab Number : 06097977

Unique Number : 10896207

Test Package : MOBCE (Additional Tests: PQ)

Received : 22 Feb 2024

Tested : 23 Feb 2024

Diagnosed : 25 Feb 2024 - Don Baldrige

JRE - FISHERSVILLE

98 EXPO ROAD

FISHERSVILLE, VA

US 22939

Contact: MIKE JENKINS

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F: (540)337-1495

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)