



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
JOHN DEERE 310E 1DW310EXCKF697812
Component
Hydraulic System
Fluid
{not provided} (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0213373	JR0187325	JR0145734
Sample Date		Client Info		09 May 2024	23 Oct 2023	27 Dec 2022
Machine Age	hrs	Client Info		3542	3001	2190
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
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	>50	14	6	7
Iron	ppm	ASTM D5185m	>71	0	10	0
Chromium	ppm	ASTM D5185m	>11	<1	2	0
Nickel	ppm	ASTM D5185m	>6	0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>11	2	2	0
Lead	ppm	ASTM D5185m	>13	0	<1	0
Copper	ppm	ASTM D5185m	>21	<1	3	<1
Tin	ppm	ASTM D5185m	>5	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

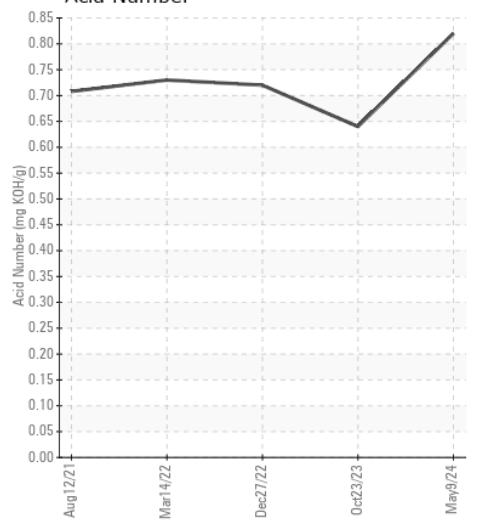
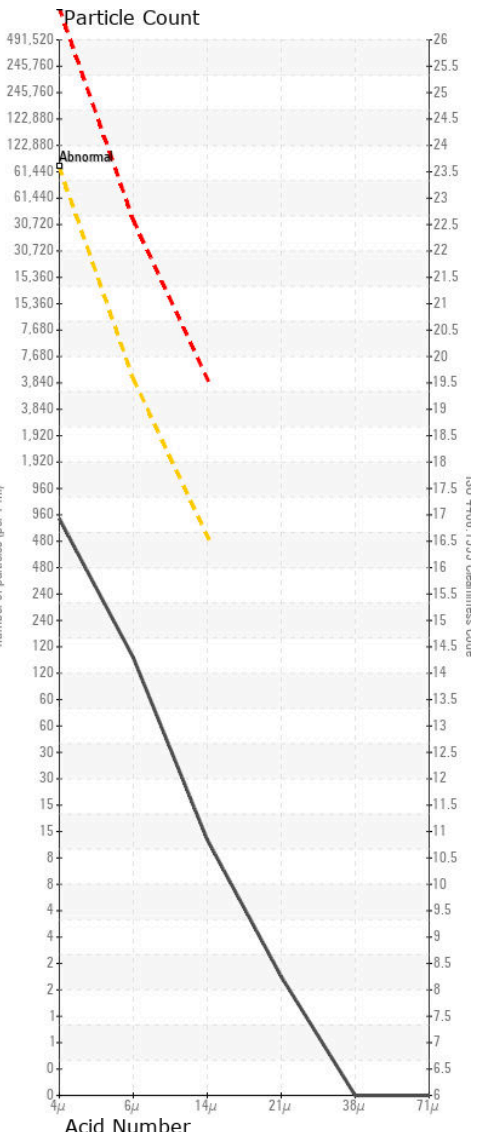
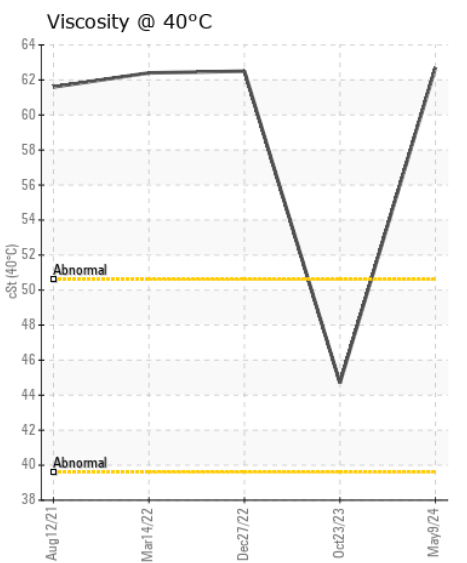
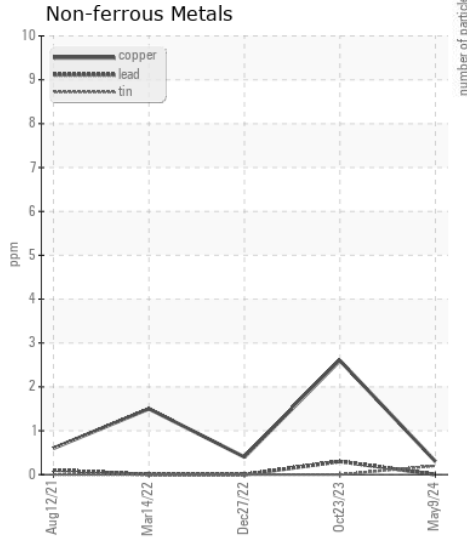
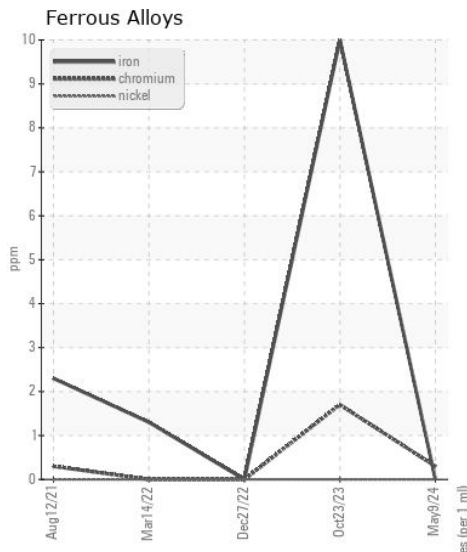
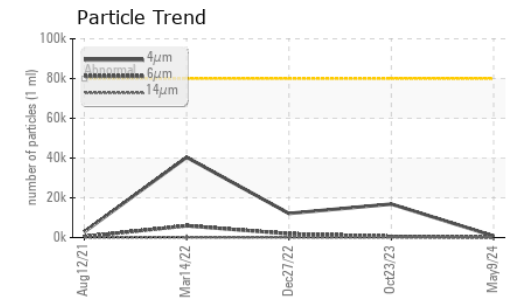
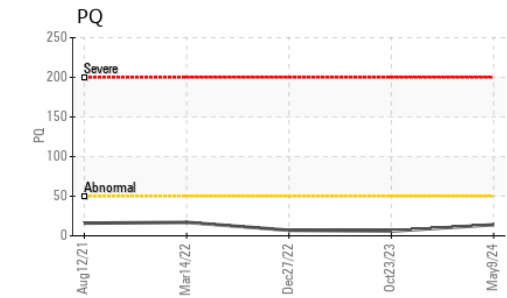
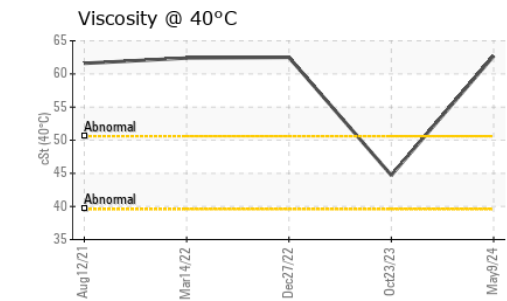
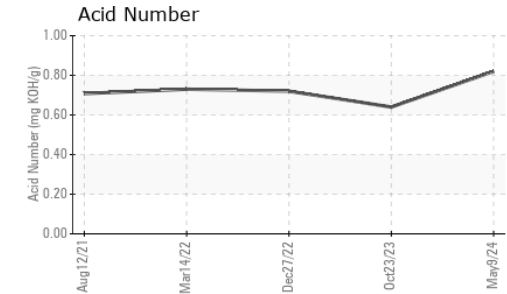
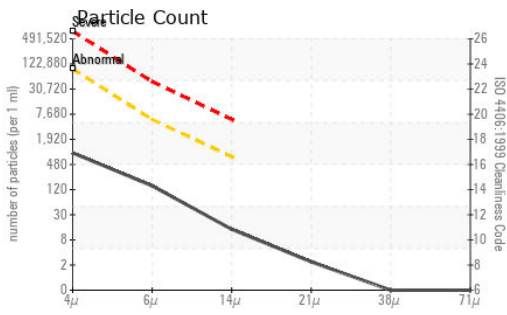
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>24	<1	3	<1
Potassium	ppm	ASTM D5185m	>20	1	2	0
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	801	16859	12131
Particles >6µm		ASTM D7647	>5000	130	559	1918
Particles >14µm		ASTM D7647	>640	12	51	57
Particles >21µm		ASTM D7647	>160	2	13	8
Particles >38µm		ASTM D7647	>40	0	1	0
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>23/19/16	17/14/11	21/16/13	21/18/13
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	>0.075	NEG	NEG	NEG

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>21	0	0	0
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	10	0
Molybdenum	ppm	ASTM D5185m		0	<1	<1
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m		<1	5	0
Calcium	ppm	ASTM D5185m		87	214	84
Phosphorus	ppm	ASTM D5185m		694	573	645
Zinc	ppm	ASTM D5185m		866	806	796
Sulfur	ppm	ASTM D5185m		1691	1731	1854
Acid Number (AN)	mg KOH/g	ASTM D8045		0.82	0.64	0.72
Visc @ 40°C	cSt	ASTM D445		62.7	44.7	62.5



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0213373 **Received** : 10 May 2024
Lab Number : 06175365 **Tested** : 13 May 2024
Unique Number : 11021418 **Diagnosed** : 13 May 2024 - 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)