



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
JOHN DEERE 310E 1DW310EXJNF714367
Component
Hydraulic System
Fluid
JOHN DEERE HYDRAU (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0209718	JR0168216	JR0156945
Sample Date		Client Info		14 Jun 2024	08 May 2023	30 Jan 2023
Machine Age	hrs	Client Info		1681	1021	547
Oil Age	hrs	Client Info		1681	1021	547
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	13	19	6
Iron	ppm	ASTM D5185m	>71	6	2	2
Chromium	ppm	ASTM D5185m	>11	<1	<1	<1
Nickel	ppm	ASTM D5185m	>6	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>11	4	0	<1
Lead	ppm	ASTM D5185m	>13	<1	0	0
Copper	ppm	ASTM D5185m	>21	2	1	<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

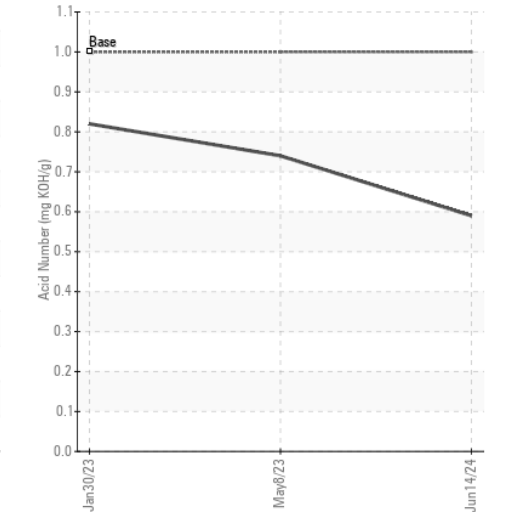
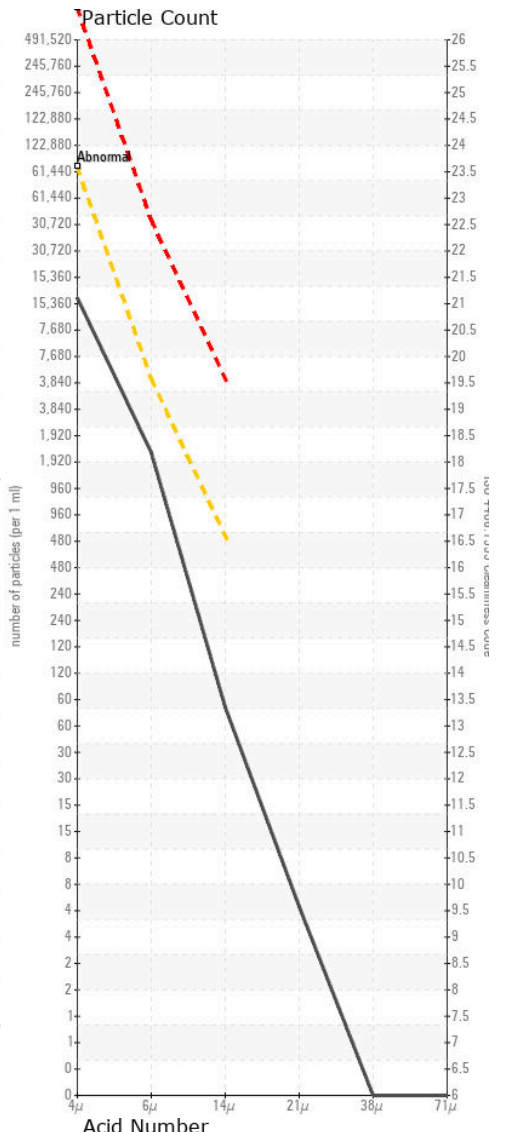
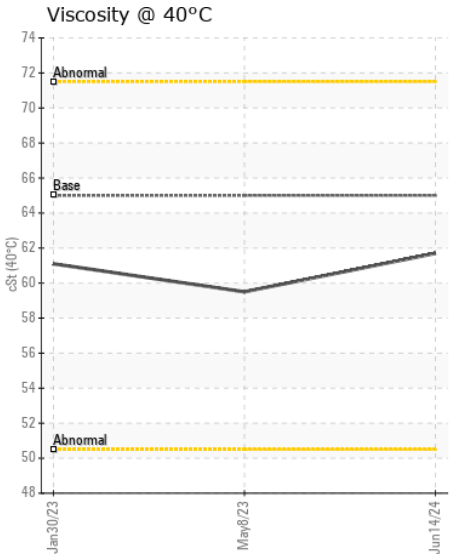
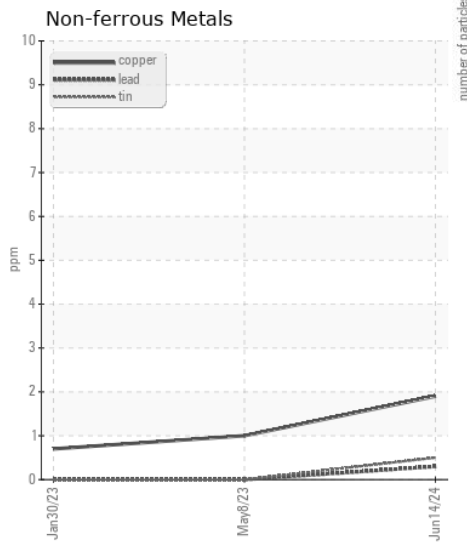
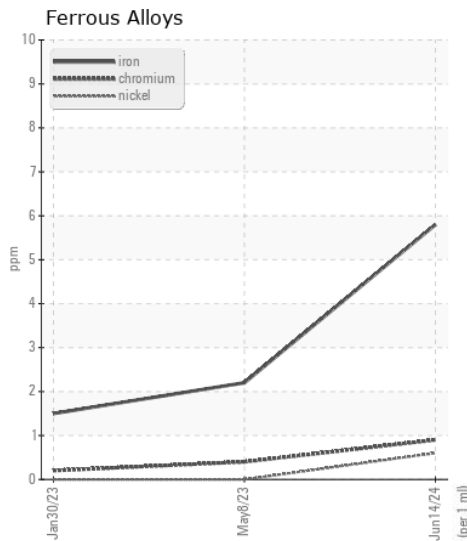
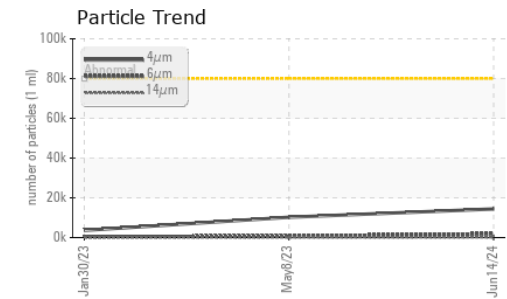
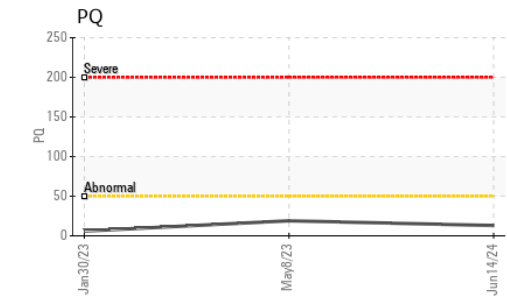
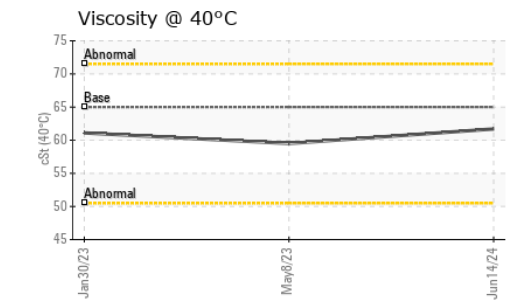
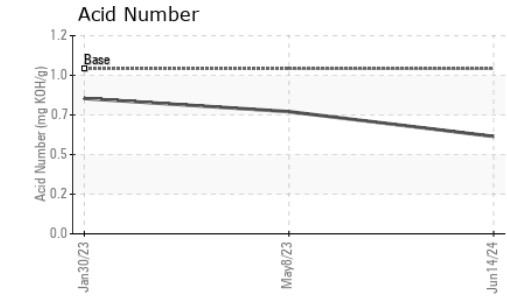
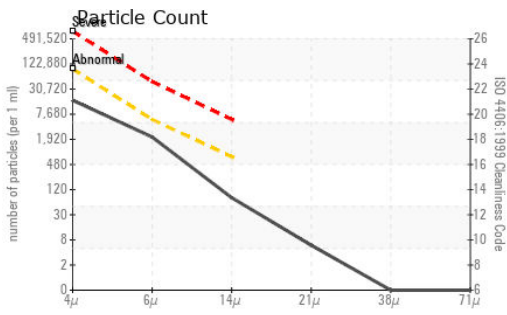
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>24	6	2	1
Potassium	ppm	ASTM D5185m	>20	2	3	<1
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	14407	10229	3637
Particles >6µm		ASTM D7647	>5000	1905	720	441
Particles >14µm		ASTM D7647	>640	68	46	33
Particles >21µm		ASTM D7647	>160	5	8	8
Particles >38µm		ASTM D7647	>40	0	0	0
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>23/19/16	21/18/13	21/17/13	19/16/12
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.

Sodium	ppm	ASTM D5185m	>21	3	1	1
Boron	ppm	ASTM D5185m		9	0	0
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		9	<1	<1
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m		29	2	1
Calcium	ppm	ASTM D5185m	87	115	99	95
Phosphorus	ppm	ASTM D5185m	727	592	656	607
Zinc	ppm	ASTM D5185m	900	804	918	857
Sulfur	ppm	ASTM D5185m	1500	1603	1848	1749
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.59	0.74	0.82
Visc @ 40°C	cSt	ASTM D445	65	61.7	59.5	61.1



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0209718 **Received** : 17 Jun 2024
Lab Number : 06211493 **Tested** : 18 Jun 2024
Unique Number : 11084357 **Diagnosed** : 18 Jun 2024 - Angela Borella
Test Package : CONST (Additional Tests: PQ)

JRE - GARNER
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 US 27529
 Contact: RALEIGH SHOP
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 F: (919)779-5432

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)