



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
[47782]
 Machine Id
JOHN DEERE 310E 1DW310EXTPF716411
 Component
Rear Axle
 Fluid
JOHN DEERE HY-GARD HYD/TRANS (39 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0225352	JR0208324	JR0190182
Sample Date		Client Info		09 Jul 2024	28 Mar 2024	12 Oct 2023
Machine Age	hrs	Client Info		2509	2017	1449
Oil Age	hrs	Client Info		492	2017	1000
Filter Age	hrs	Client Info		0	2017	500
Oil Changed		Client Info		Not Changed	Changed	Not Changed
Filter Changed		Client Info		Not Changed	Changed	Not Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184		60	165	158
Iron	ppm	ASTM D5185m	>1501	90	208	203
Chromium	ppm	ASTM D5185m	>11	<1	1	2
Nickel	ppm	ASTM D5185m	>10	4	8	9
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>21	2	2	1
Lead	ppm	ASTM D5185m	>51	7	15	13
Copper	ppm	ASTM D5185m	>101	53	120	109
Tin	ppm	ASTM D5185m	>10	2	6	7
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

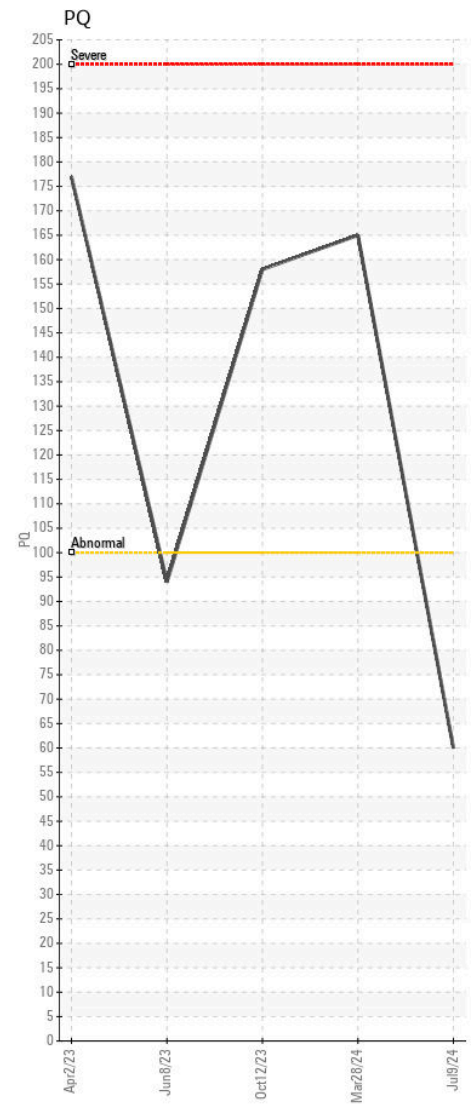
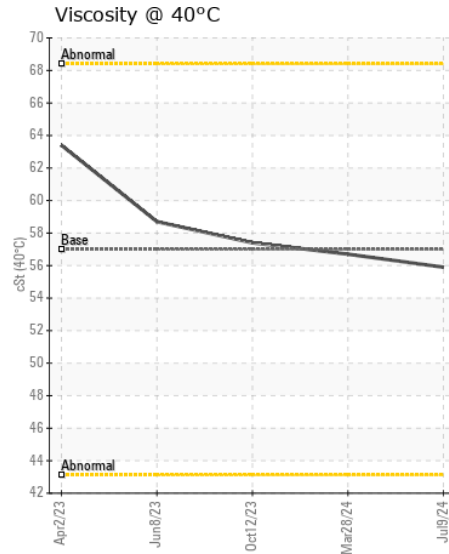
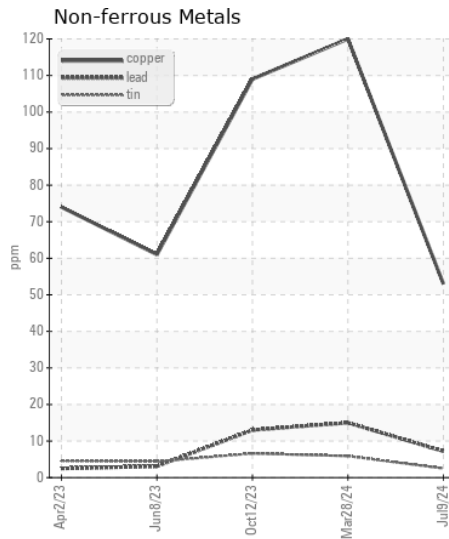
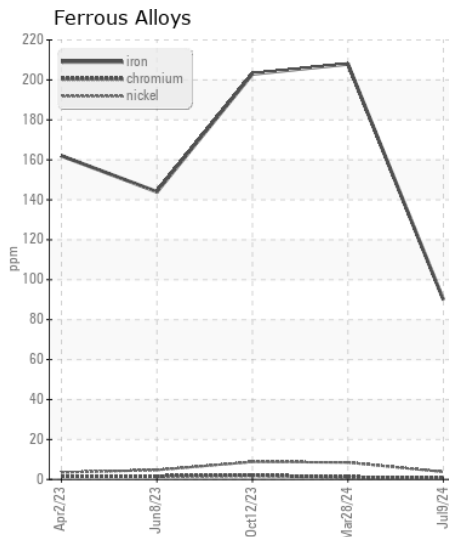
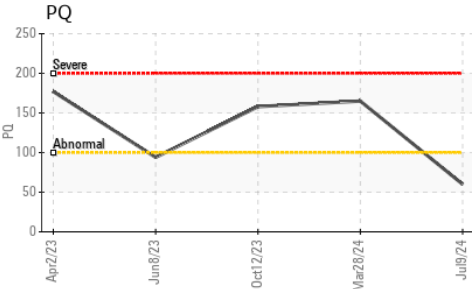
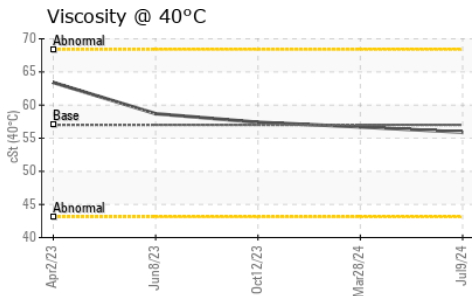
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>31	8	10	12
Potassium	ppm	ASTM D5185m	>20	2	0	2
Water		WC Method	>0.1	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	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	>0.1	NEG	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>51	0	10	8
Boron	ppm	ASTM D5185m	6	23	45	47
Barium	ppm	ASTM D5185m	0	0	2	0
Molybdenum	ppm	ASTM D5185m	0	8	5	7
Manganese	ppm	ASTM D5185m		8	22	26
Magnesium	ppm	ASTM D5185m	145	116	87	89
Calcium	ppm	ASTM D5185m	3570	3483	3406	3392
Phosphorus	ppm	ASTM D5185m	1290	1035	1076	1110
Zinc	ppm	ASTM D5185m	1640	1275	1267	1407
Sulfur	ppm	ASTM D5185m		3516	3815	5148
Visc @ 40°C	cSt	ASTM D445	57.0	55.9	56.7	57.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0225352 **Received** : 11 Jul 2024
Lab Number : 06233487 **Tested** : 12 Jul 2024
Unique Number : 11116980 **Diagnosed** : 12 Jul 2024 - Wes Davis
Test Package : CONST (Additional Tests: PQ)

JRE - MANASSAS PARK
 9107 OWENS DRIVE
 MANASSAS PARK, VA
 US 20111
 Contact: DON VEST
 dvest@jamesriverequipment.com
 T: (703)631-8500
 F: (703)631-4715

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)