



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 702891

Component
Hydraulic System

Fluid
HITACHI HYDRAULIC SUPER EX 46HN (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment:
Top Up Amount: .5 QTS)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0217863	JR0168845	---
Sample Date		Client Info		20 May 2024	21 Apr 2023	---
Machine Age	hrs	Client Info		1065	511	---
Oil Age	hrs	Client Info		1065	511	---
Filter Age	hrs	Client Info		1065	511	---
Oil Changed		Client Info		Oil Added	Not Changd	---
Filter Changed		Client Info		Not Changd	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	13	9	---
Iron	ppm	ASTM D5185m	>32	4	4	---
Chromium	ppm	ASTM D5185m	>9	0	0	---
Nickel	ppm	ASTM D5185m	>5	0	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>9	0	0	---
Lead	ppm	ASTM D5185m	>28	<1	<1	---
Copper	ppm	ASTM D5185m	>50	2	4	---
Tin	ppm	ASTM D5185m	>5	<1	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

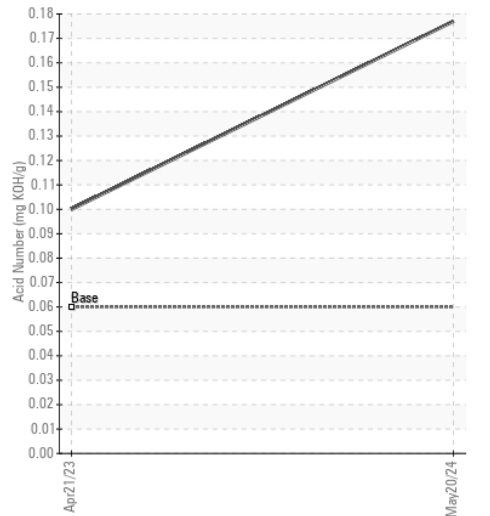
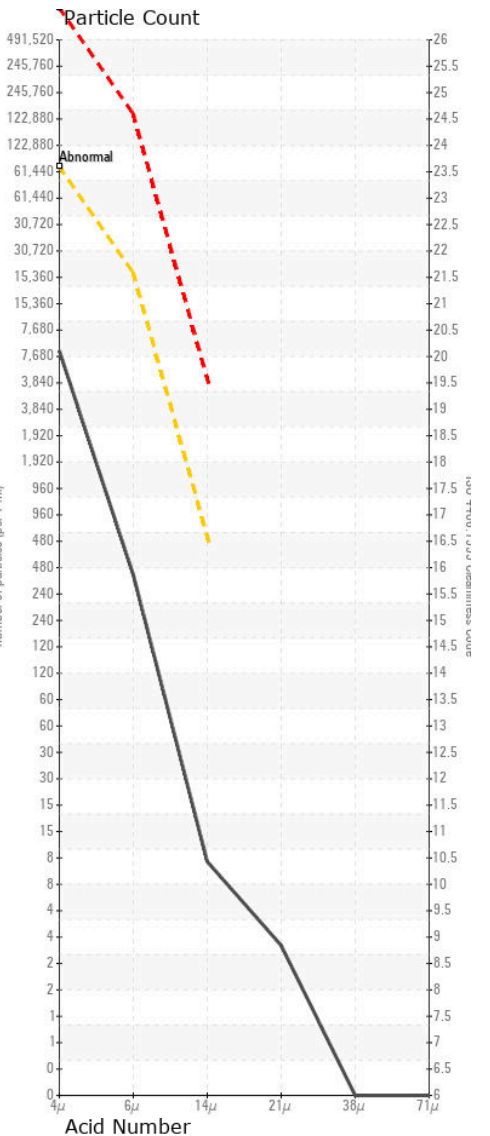
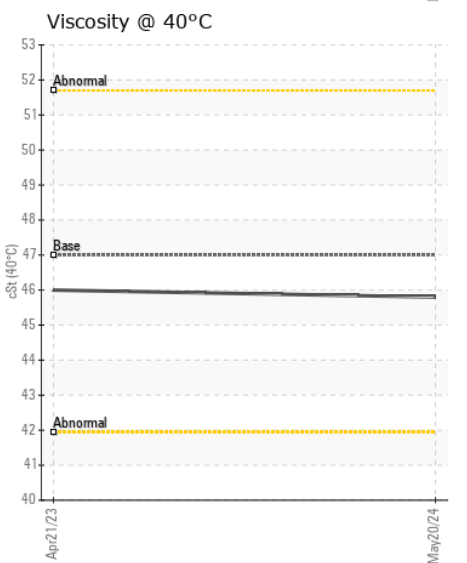
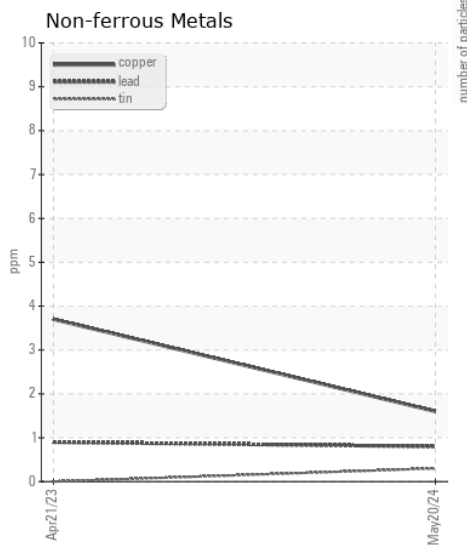
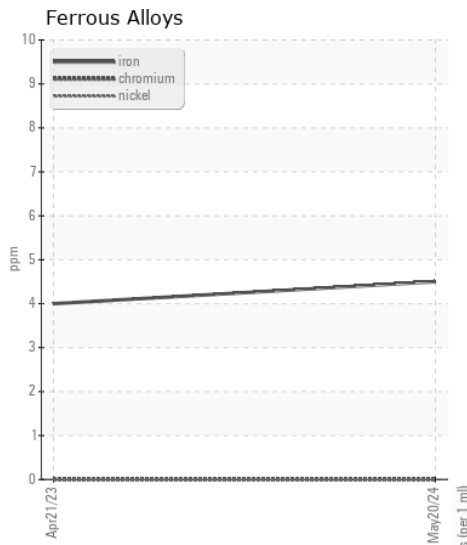
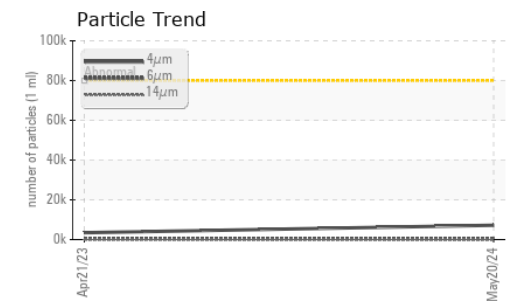
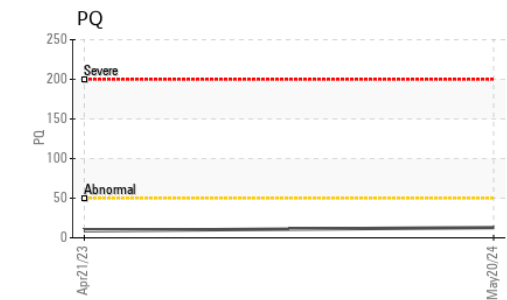
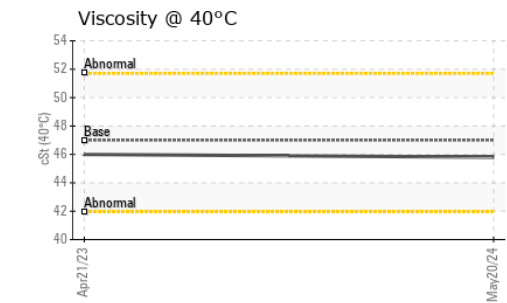
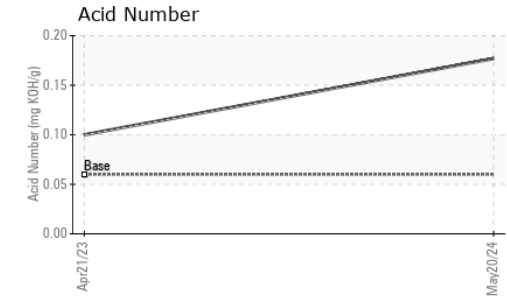
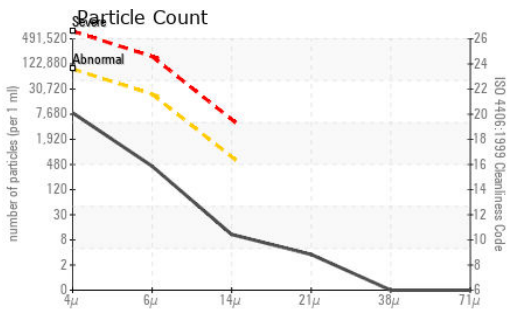
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>11	2	1	---
Potassium	ppm	ASTM D5185m	>20	0	1	---
Water		WC Method	>0.075	NEG	NEG	---
Particles >4µm		ASTM D7647	>80000	7211	3452	---
Particles >6µm		ASTM D7647	>20000	384	493	---
Particles >14µm		ASTM D7647	>640	9	27	---
Particles >21µm		ASTM D7647	>160	3	8	---
Particles >38µm		ASTM D7647	>40	0	1	---
Particles >71µm		ASTM D7647	>10	0	1	---
Oil Cleanliness		ISO 4406 (c)	>23/21/16	20/16/10	19/16/12	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.075	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	<1	0	---
Boron	ppm	ASTM D5185m		0	0	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		<1	0	---
Manganese	ppm	ASTM D5185m		<1	0	---
Magnesium	ppm	ASTM D5185m		2	6	---
Calcium	ppm	ASTM D5185m		<1	4	---
Phosphorus	ppm	ASTM D5185m	827	395	403	---
Zinc	ppm	ASTM D5185m	0	37	45	---
Sulfur	ppm	ASTM D5185m	13	1012	905	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.177	0.10	---
Visc @ 40°C	cSt	ASTM D445	47	45.8	46.0	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0217863 **Received** : 21 May 2024
Lab Number : 06186052 **Tested** : 22 May 2024
Unique Number : 11042804 **Diagnosed** : 23 May 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PQ)

NPL CONSTRUCTION
 7611 COPPERMINE DR
 MANASSAS, VA
 US 20109-2668
 Contact: BRANDON

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)

T:
F: