



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Machine Id
JOHN DEERE 892D-LC FF892DL006513
 Component
Hydraulic System
 Fluid
HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)

RECOMMENDATION

Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0084562	JR0163021	---
Sample Date		Client Info		29 May 2024	09 Mar 2023	---
Machine Age	hrs	Client Info		2846	2846	---
Oil Age	hrs	Client Info		2846	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Not Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				ABNORMAL	ABNORMAL	---

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	15	13	---
Iron	ppm	ASTM D5185m	>32	3	3	---
Chromium	ppm	ASTM D5185m	>9	<1	2	---
Nickel	ppm	ASTM D5185m	>5	0	0	---
Titanium	ppm	ASTM D5185m		<1	1	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>9	0	<1	---
Lead	ppm	ASTM D5185m	>28	0	0	---
Copper	ppm	ASTM D5185m	>50	6	11	---
Tin	ppm	ASTM D5185m	>5	0	0	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

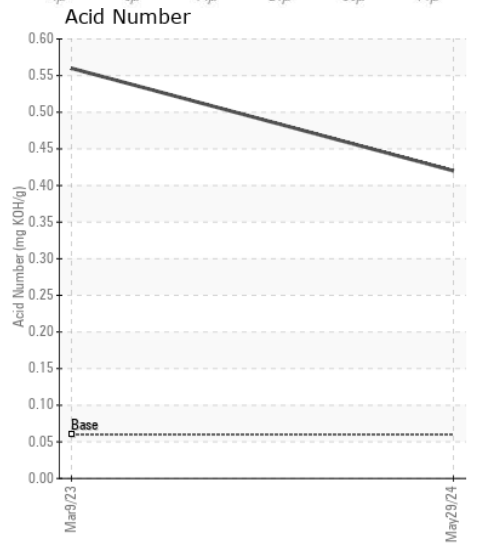
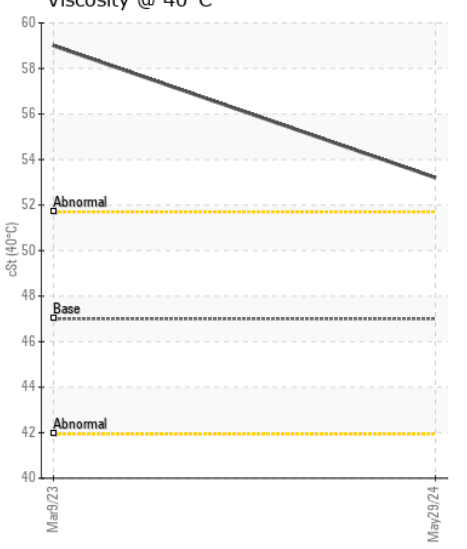
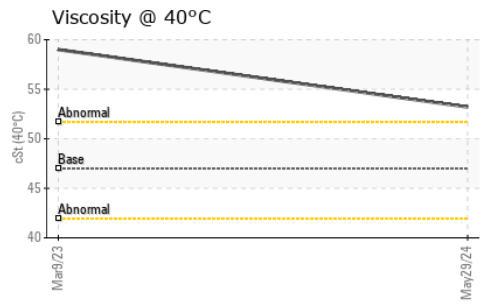
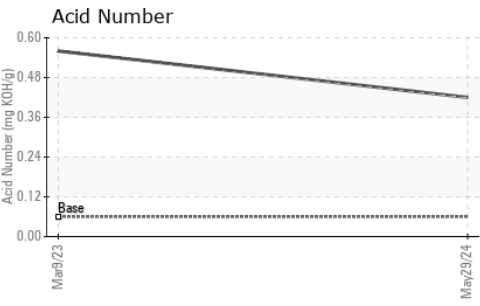
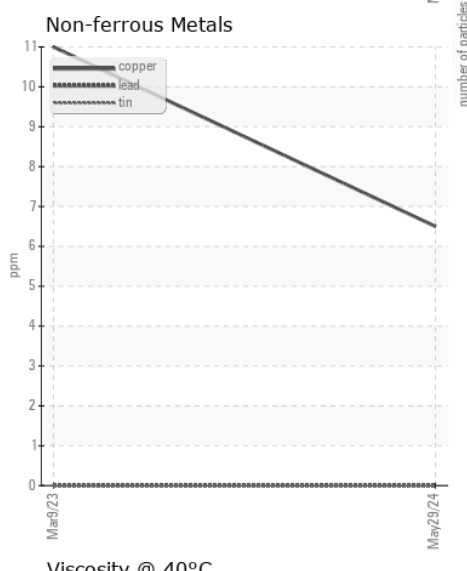
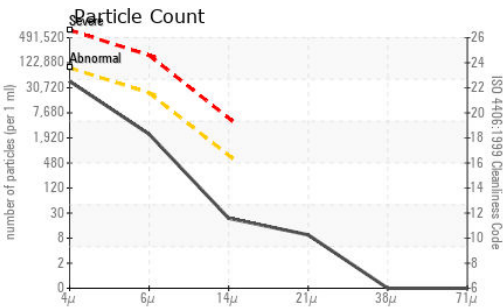
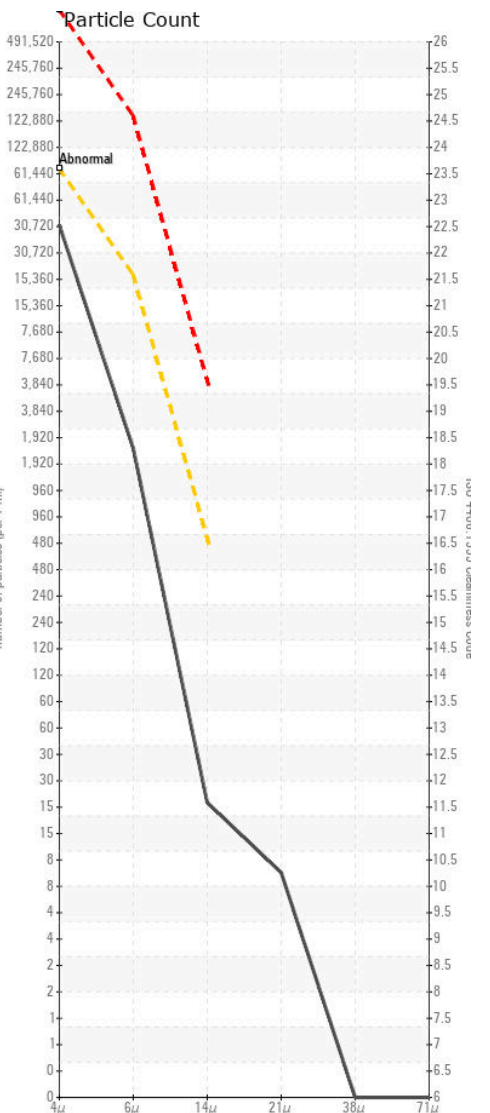
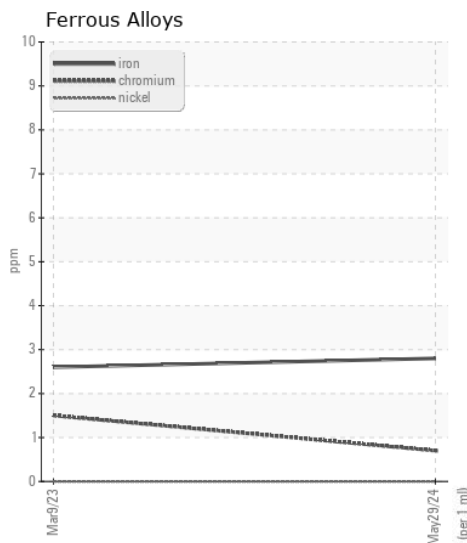
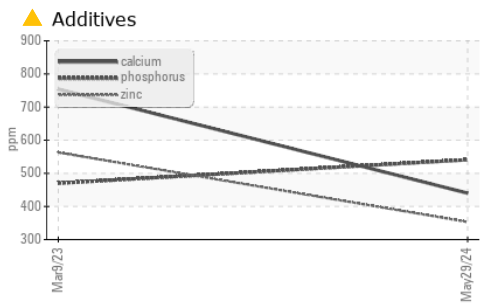
The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>11	2	2	---
Potassium	ppm	ASTM D5185m	>20	0	0	---
Water		WC Method	>0.075	NEG	NEG	---
Particles >4µm		ASTM D7647	>80000	38337	61406	---
Particles >6µm		ASTM D7647	>20000	2063	2169	---
Particles >14µm		ASTM D7647	>640	20	28	---
Particles >21µm		ASTM D7647	>160	8	7	---
Particles >38µm		ASTM D7647	>40	0	0	---
Particles >71µm		ASTM D7647	>10	0	0	---
Oil Cleanliness		ISO 4406 (c)	>23/21/16	22/18/11	23/18/12	---
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

Zinc level above manufacturer's recommendations. The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m	>21	5	9	---
Boron	ppm	ASTM D5185m		1	6	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		<1	2	---
Manganese	ppm	ASTM D5185m		0	<1	---
Magnesium	ppm	ASTM D5185m		20	35	---
Calcium	ppm	ASTM D5185m		440	754	---
Phosphorus	ppm	ASTM D5185m	827	541	470	---
Zinc	ppm	ASTM D5185m	0	353	563	---
Sulfur	ppm	ASTM D5185m	13	4349	6951	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.42	0.56	---
Visc @ 40°C	cSt	ASTM D445	47	53.2	59.0	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0084562 **Received** : 31 May 2024
Lab Number : 06196597 **Tested** : 03 Jun 2024
Unique Number : 11058720 **Diagnosed** : 03 Jun 2024 - Don Baldrige
Test Package : MOBCE (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)