



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Area
[W22666-HOWELTON]

Machine Id
JOHN DEERE 135G 1FF135GXCMF502977

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		JR0225881	---	---
Sample Date		Client Info		25 Jun 2024	---	---
Machine Age	hrs	Client Info		431	---	---
Oil Age	hrs	Client Info		431	---	---
Filter Age	hrs	Client Info		431	---	---
Oil Changed		Client Info		Not Chngd	---	---
Filter Changed		Client Info		Not Chngd	---	---
Sample Status				ABNORMAL	---	---

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	18	---	---
Iron	ppm	ASTM D5185m	>32	4	---	---
Chromium	ppm	ASTM D5185m	>9	0	---	---
Nickel	ppm	ASTM D5185m	>5	0	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>9	1	---	---
Lead	ppm	ASTM D5185m	>28	<1	---	---
Copper	ppm	ASTM D5185m	>50	4	---	---
Tin	ppm	ASTM D5185m	>5	<1	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

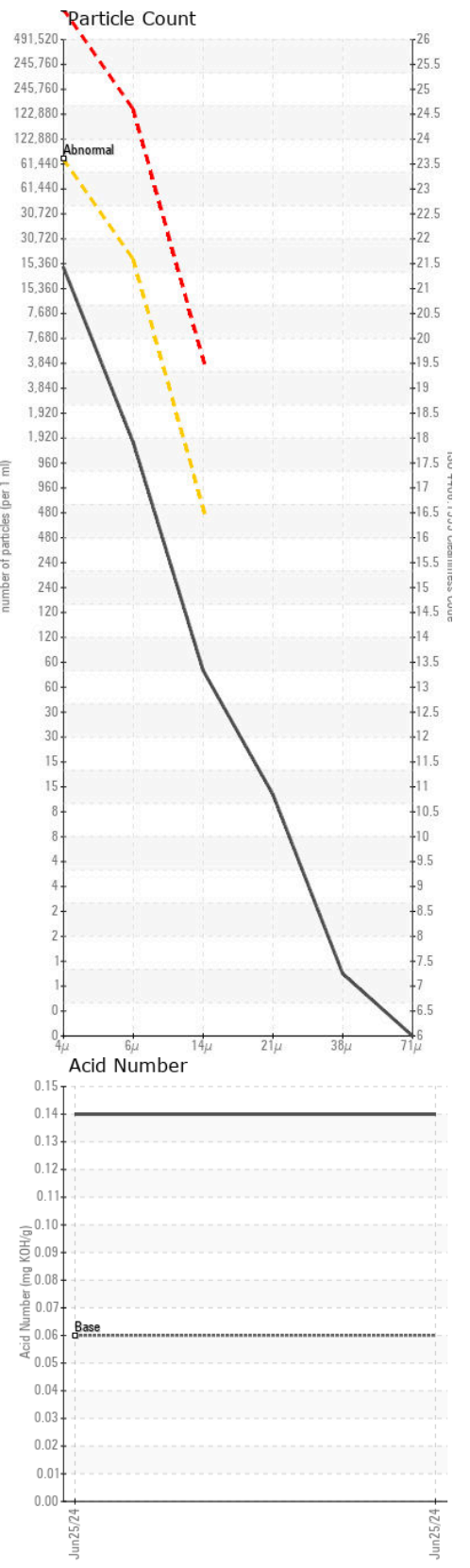
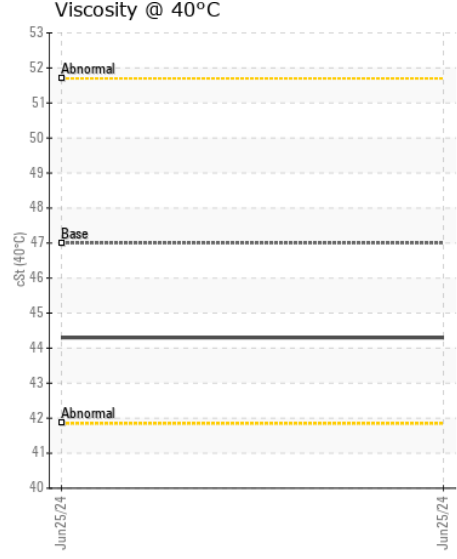
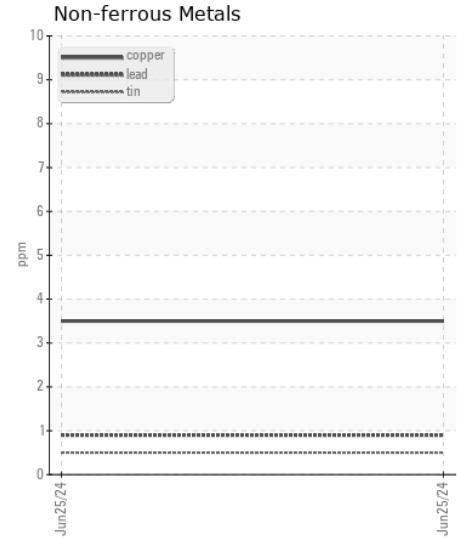
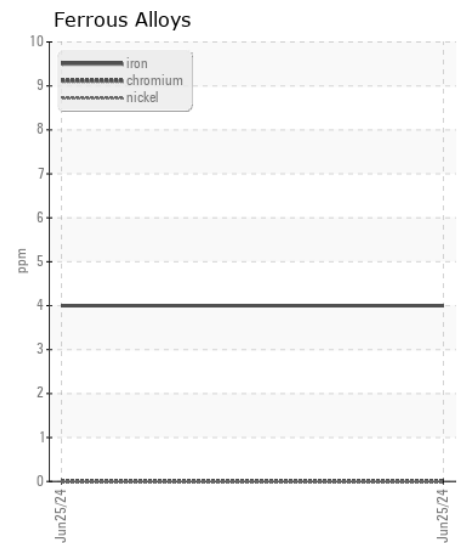
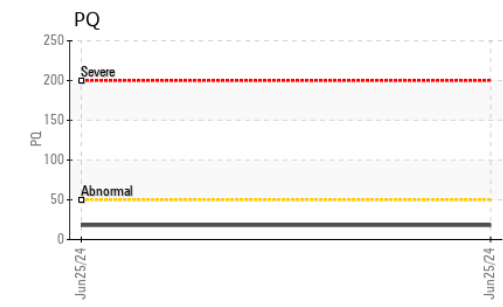
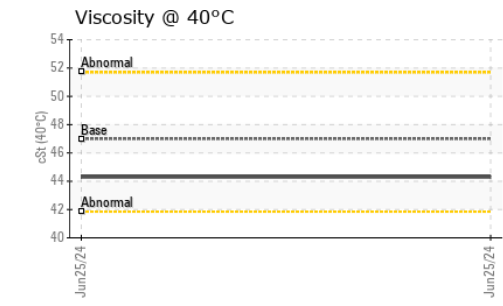
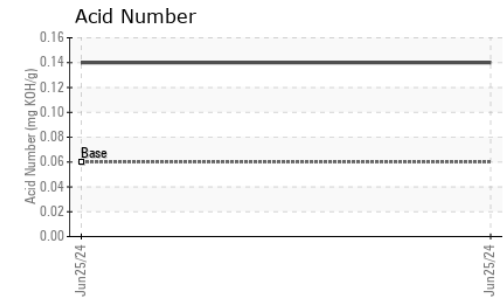
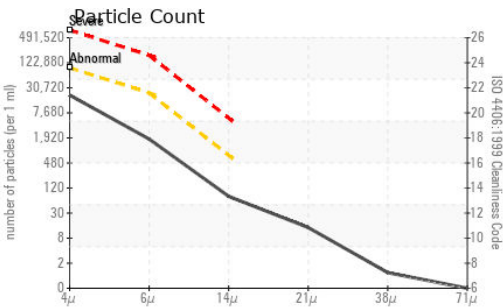
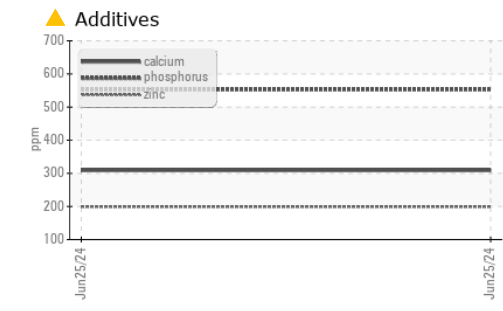
The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>11	4	---	---
Potassium	ppm	ASTM D5185m	>20	3	---	---
Water		WC Method	>0.075	NEG	---	---
Particles >4µm		ASTM D7647	>80000	17850	---	---
Particles >6µm		ASTM D7647	>20000	1578	---	---
Particles >14µm		ASTM D7647	>640	67	---	---
Particles >21µm		ASTM D7647	>160	12	---	---
Particles >38µm		ASTM D7647	>40	1	---	---
Particles >71µm		ASTM D7647	>10	0	---	---
Oil Cleanliness		ISO 4406 (c)	>23/21/16	21/18/13	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	LIGHT	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.075	NEG	---	---

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m	>21	1	---	---
Boron	ppm	ASTM D5185m		0	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		27	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m		0	---	---
Calcium	ppm	ASTM D5185m		309	---	---
Phosphorus	ppm	ASTM D5185m	827	553	---	---
Zinc	ppm	ASTM D5185m	0	▲ 199	---	---
Sulfur	ppm	ASTM D5185m	13	656	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.14	---	---
Visc @ 40°C	cSt	ASTM D445	47	44.3	---	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0225881 **Received** : 01 Jul 2024
Lab Number : 06224446 **Tested** : 02 Jul 2024
Unique Number : 11102643 **Diagnosed** : 02 Jul 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PQ)

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Certificate L2367
 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)