



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Area
Store 8 - Pikeville
Machine Id
JOHN DEERE 50D E-50 (S/N FF050DX270596)
Component
Hydraulic System
Fluid
HITACHI HYDRAULIC SUPER EX 46HN (--- QTS)

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		LEC0044159	---	---
Sample Date		Client Info		09 Feb 2024	---	---
Machine Age	hrs	Client Info		1825	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
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	11	---	---
Iron	ppm	ASTM D5185m	>32	10	---	---
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	2	---	---
Copper	ppm	ASTM D5185m	>50	5	---	---
Tin	ppm	ASTM D5185m	>5	<1	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

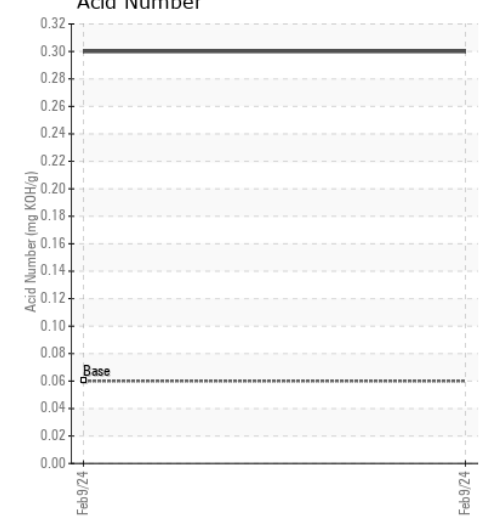
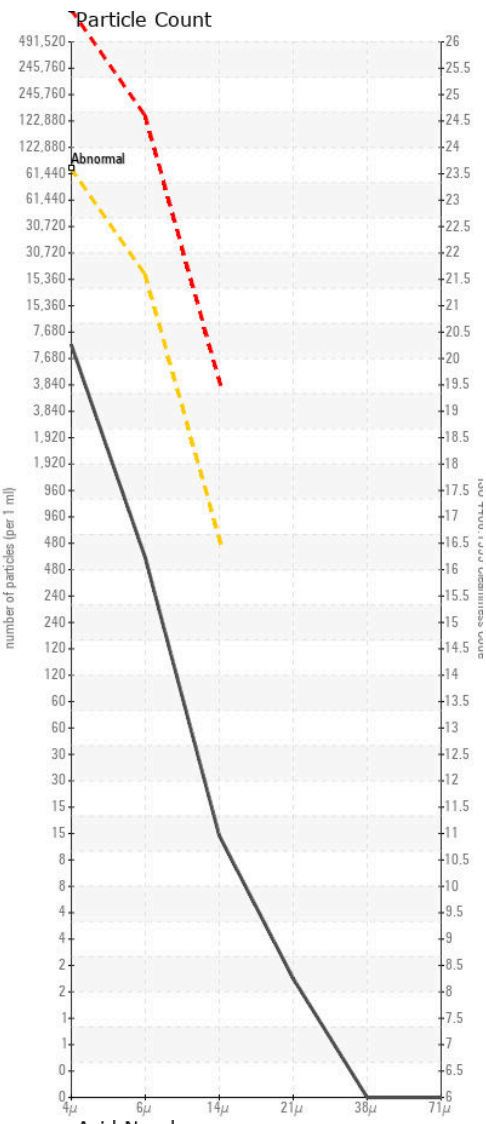
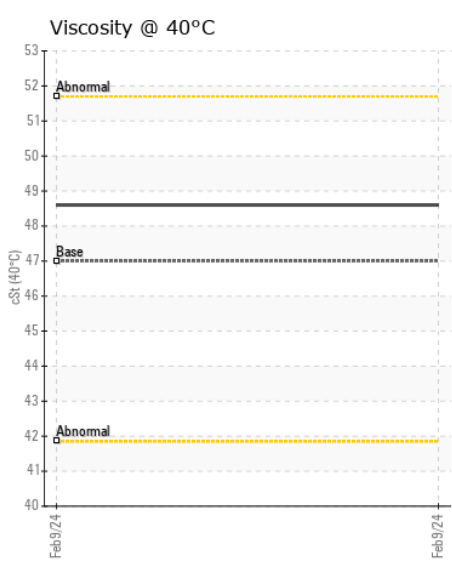
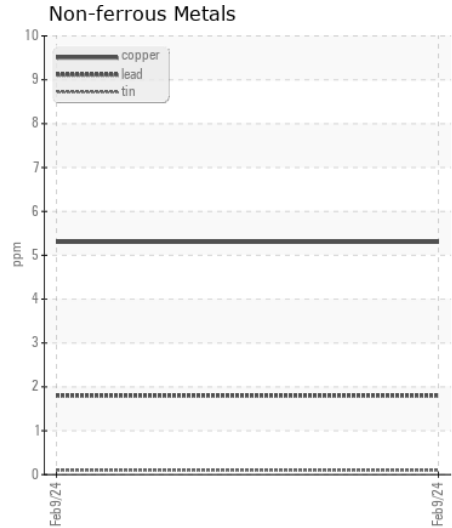
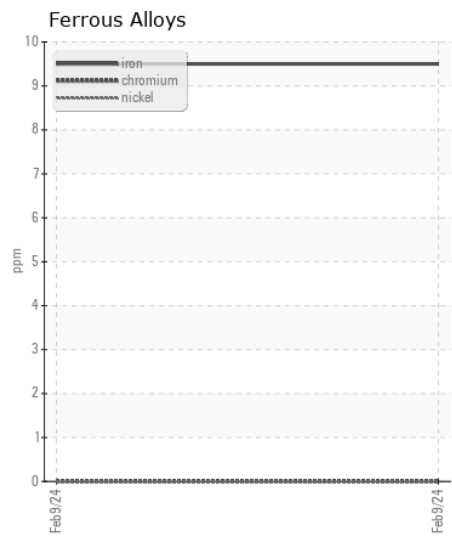
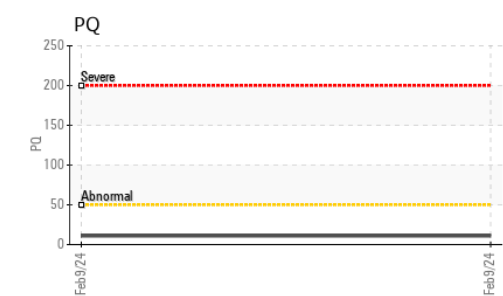
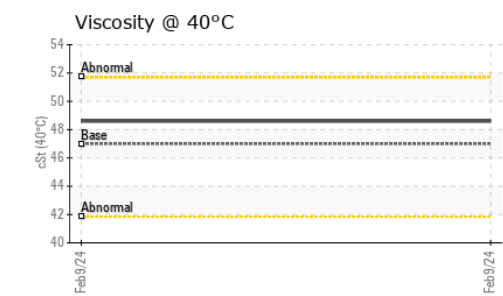
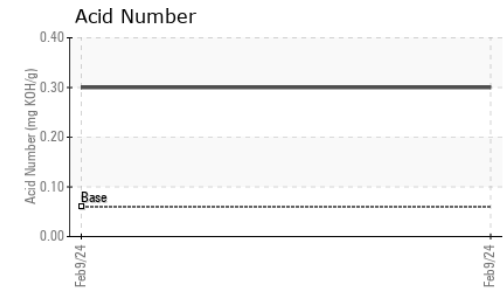
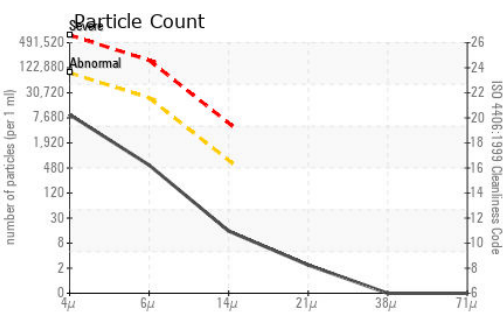
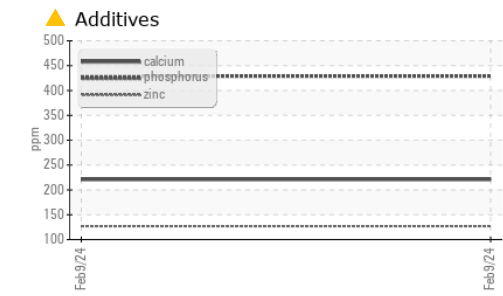
The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>11	3	---	---
Potassium	ppm	ASTM D5185m	>20	0	---	---
Water		WC Method	>0.075	NEG	---	---
Particles >4µm		ASTM D7647	>80000	7995	---	---
Particles >6µm		ASTM D7647	>20000	493	---	---
Particles >14µm		ASTM D7647	>640	13	---	---
Particles >21µm		ASTM D7647	>160	2	---	---
Particles >38µm		ASTM D7647	>40	0	---	---
Particles >71µm		ASTM D7647	>10	0	---	---
Oil Cleanliness		ISO 4406 (c)	>23/21/16	20/16/11	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
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		0	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m		5	---	---
Calcium	ppm	ASTM D5185m		221	---	---
Phosphorus	ppm	ASTM D5185m	827	429	---	---
Zinc	ppm	ASTM D5185m	0	▲ 127	---	---
Sulfur	ppm	ASTM D5185m	13	660	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.30	---	---
Visc @ 40°C	cSt	ASTM D445	47	48.6	---	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0044159 **Received** : 14 Feb 2024
Lab Number : 06088702 **Tested** : 15 Feb 2024
Unique Number : 10876147 **Diagnosed** : 15 Feb 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: PQ)

COUNTRY BOYZ METAL
 P.O. BOX 2442
 PIKEVILLE, KY
 US 41502
 Contact: DAVID ROBINSON

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)