



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL



Area
Store 8 - Pikeville
Machine Id
JOHN DEERE 350G 1FF350GXCF812424
Component
Hydraulic System
Fluid
HITACHI HYDRAULIC SUPER EX 46HN (77 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		LEC0042708	LEC0047298	LEC0037459
Sample Date		Client Info		24 Jan 2024	12 Jan 2024	06 Sep 2023
Machine Age	hrs	Client Info		4386	4343	4069
Oil Age	hrs	Client Info		4386	4343	4069
Filter Age	hrs	Client Info		1373	1192	1689
Oil Changed		Client Info		Not Chngd	Not Chngd	Not Chngd
Filter Changed		Client Info		Not Chngd	Changed	Not Chngd
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	16	16	21
Iron	ppm	ASTM D5185m	>32	32	31	▲ 37
Chromium	ppm	ASTM D5185m	>9	9	8	5
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>9	2	3	4
Lead	ppm	ASTM D5185m	>28	<1	0	0
Copper	ppm	ASTM D5185m	>50	11	9	6
Tin	ppm	ASTM D5185m	>5	1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

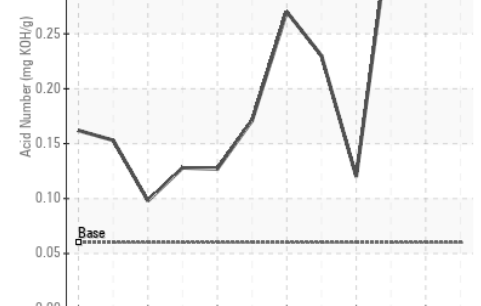
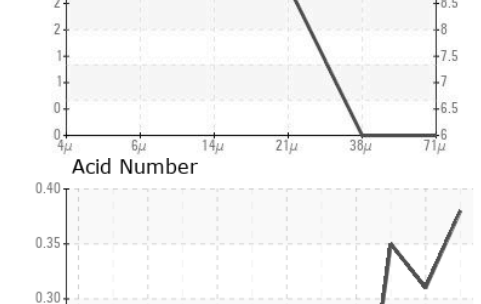
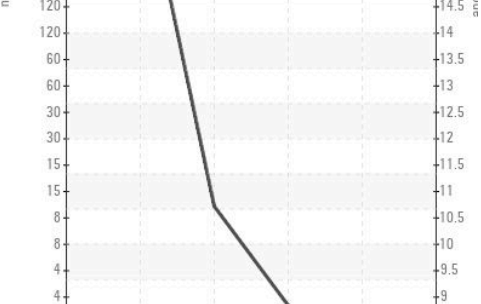
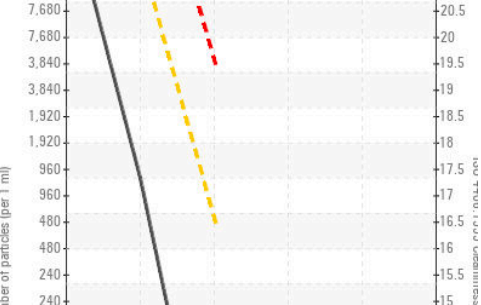
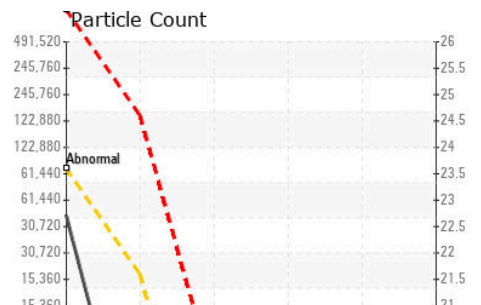
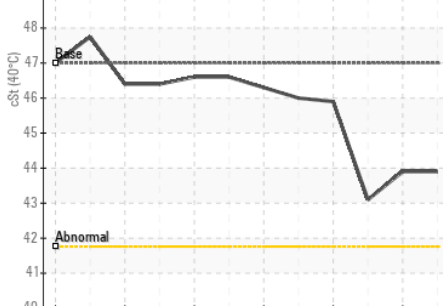
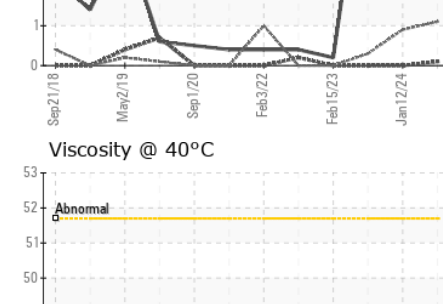
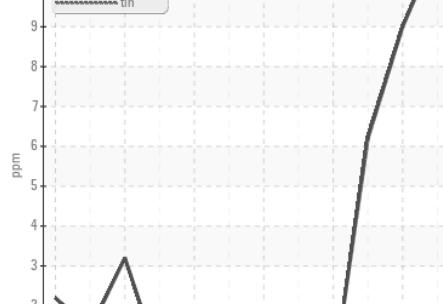
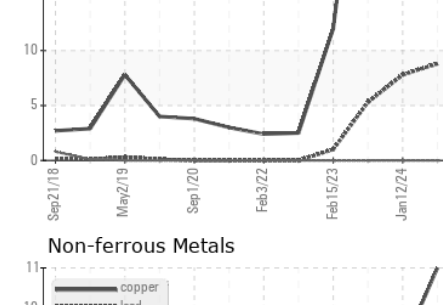
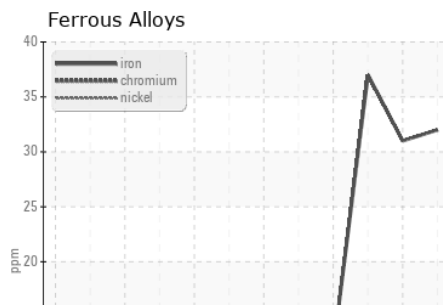
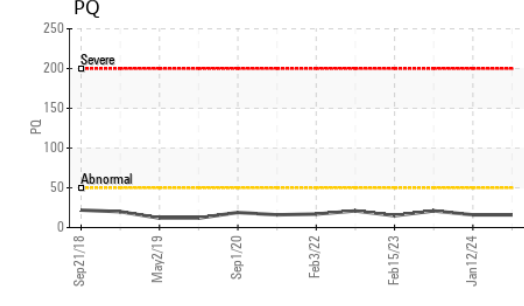
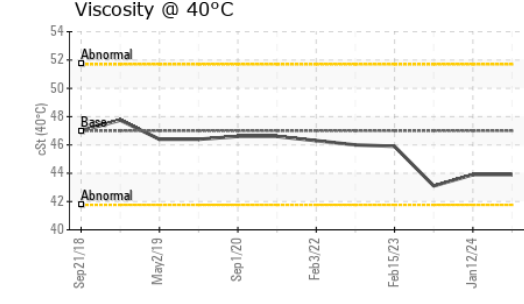
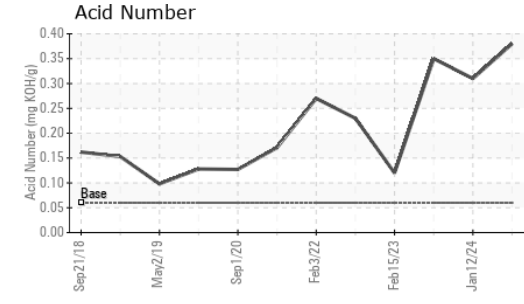
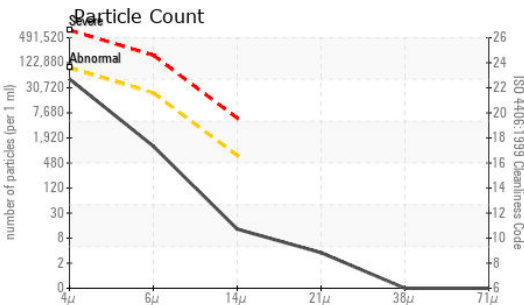
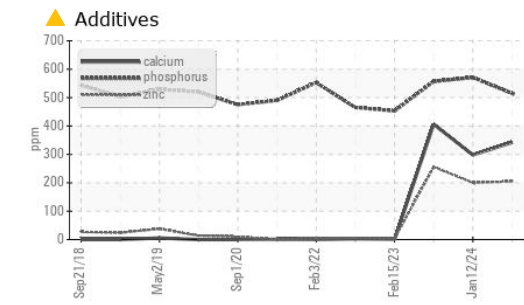
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>11	8	8	10
Potassium	ppm	ASTM D5185m	>20	4	2	2
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	43389	72571	21224
Particles >6µm		ASTM D7647	>20000	1064	4644	91
Particles >14µm		ASTM D7647	>640	11	14	8
Particles >21µm		ASTM D7647	>160	3	3	3
Particles >38µm		ASTM D7647	>40	0	1	0
Particles >71µm		ASTM D7647	>10	0	1	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	23/17/11	23/19/11	22/14/10
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT	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	>0.075	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m	>21	0	2	4
Boron	ppm	ASTM D5185m		13	13	19
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		13	9	15
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		62	61	76
Calcium	ppm	ASTM D5185m		342	298	406
Phosphorus	ppm	ASTM D5185m	827	515	571	557
Zinc	ppm	ASTM D5185m	0	▲ 205	▲ 200	▲ 256
Sulfur	ppm	ASTM D5185m	13	1063	952	1484
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.38	0.31	0.35
Visc @ 40°C	cSt	ASTM D445	47	43.9	43.9	43.1



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0042708 **Received** : 30 Jan 2024
Lab Number : 06074599 **Diagnosed** : 01 Feb 2024
Unique Number : 10856690 **Diagnostician** : Jonathan Hester
Test Package : CONST (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)