



WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL



Area
[W52665]
 Machine Id
JOHN DEERE 350GLC 1FF350GXLDE809738
 Component
Hydraulic System
 Fluid
HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)

RECOMMENDATION

We advise that you check all areas where dirt can enter the system. 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		JR0224885	JR0180017	JR0148669
Sample Date		Client Info		25 Jun 2024	26 Sep 2023	25 Feb 2023
Machine Age	hrs	Client Info		7956	7470	6991
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

The iron level is abnormal. All other component wear rates are normal.

Test	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184	>50	23	23	13
Iron	ppm	ASTM D5185m	>32	▲ 47	▲ 39	▲ 41
Chromium	ppm	ASTM D5185m	>9	4	4	4
Nickel	ppm	ASTM D5185m	>5	0	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>9	● 12	▲ 10	▲ 10
Lead	ppm	ASTM D5185m	>28	<1	<1	0
Copper	ppm	ASTM D5185m	>50	4	4	4
Tin	ppm	ASTM D5185m	>5	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	LIGHT	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

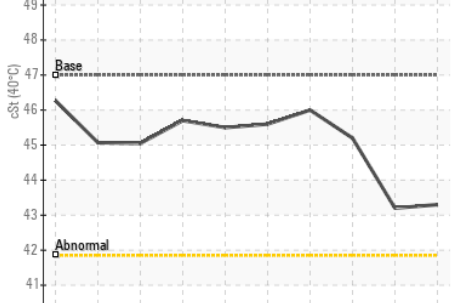
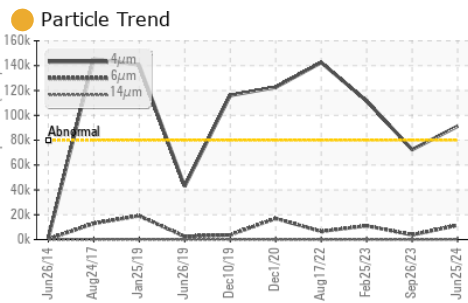
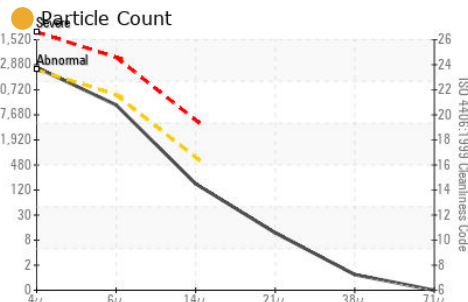
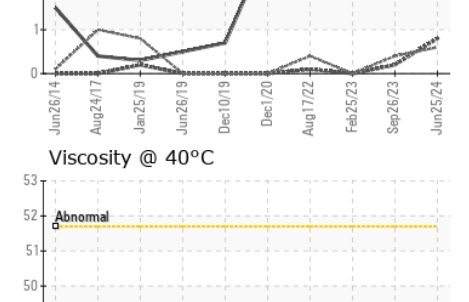
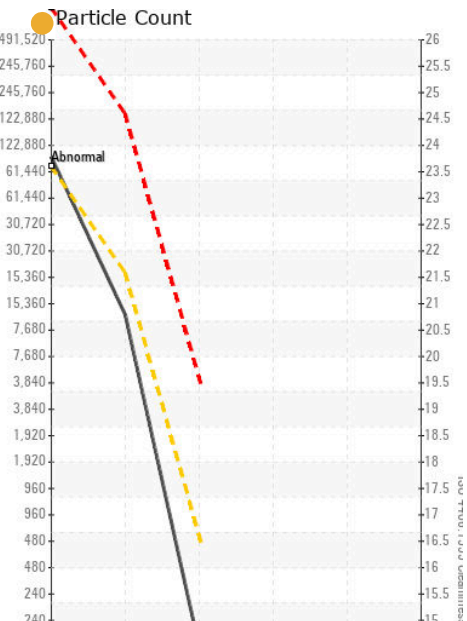
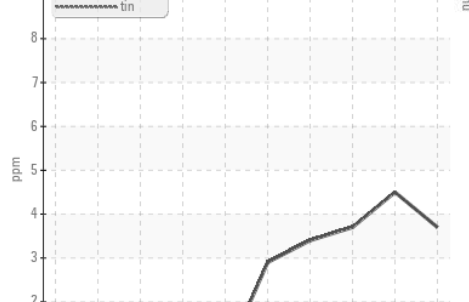
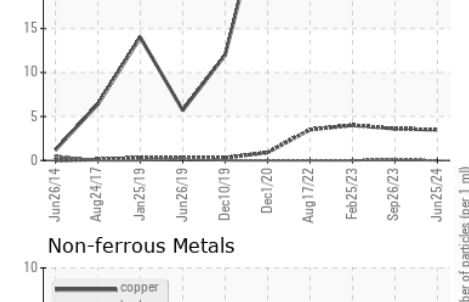
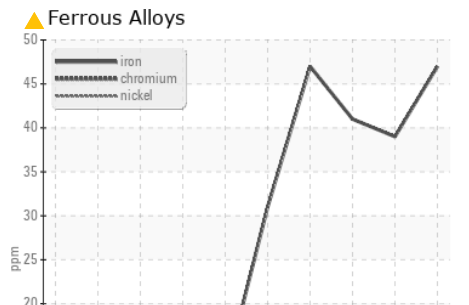
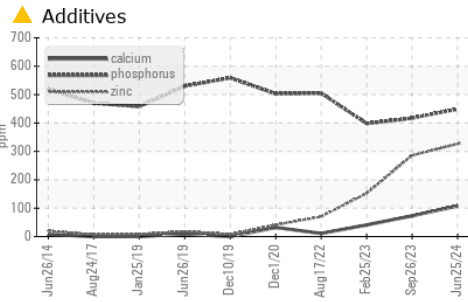
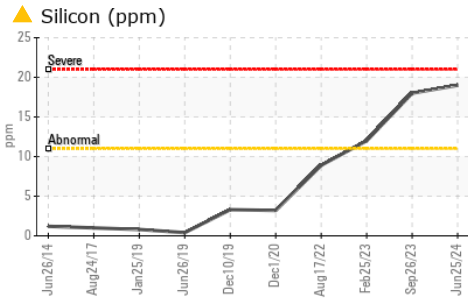
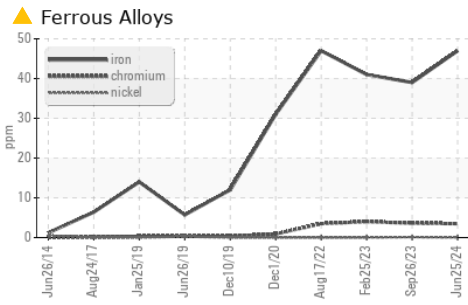
There is a moderate amount of silt (particulates < 6 microns in size) present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>11	▲ 19	▲ 18	▲ 12
Potassium	ppm	ASTM D5185m	>20	4	2	0
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	● 91241	72385	● 111613
Particles >6µm		ASTM D7647	>20000	11523	3787	11028
Particles >14µm		ASTM D7647	>640	149	15	32
Particles >21µm		ASTM D7647	>160	10	4	4
Particles >38µm		ASTM D7647	>40	1	0	0
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	● 24/21/14	23/19/11	● 24/21/12
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	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	<1	0	<1
Boron	ppm	ASTM D5185m		4	2	1
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		3	4	2
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		0	14	4
Calcium	ppm	ASTM D5185m		108	73	41
Phosphorus	ppm	ASTM D5185m	827	449	417	398
Zinc	ppm	ASTM D5185m	0	▲ 326	▲ 286	▲ 152
Sulfur	ppm	ASTM D5185m	13	861	659	52
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.416	0.32	0.30
Visc @ 40°C	cSt	ASTM D445	47	43.3	43.2	45.2



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0224885 **Received** : 01 Jul 2024
Lab Number : 06224434 **Tested** : 02 Jul 2024
Unique Number : 11102631 **Diagnosed** : 02 Jul 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: PQ)

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 WILLIAMSBURG, VA
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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)