



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>ABNORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Area

**[BENCHMARK]**

Machine Id

**JOHN DEERE 350G 1FF350GXKEE809751**

Component

**Hydraulic System**

Fluid

**HITACHI HYDRAULIC SUPER EX 46HN (51 GAL)**

### RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0203076</b>	JR0153269	JR0132854
Sample Date		Client Info		<b>29 Jan 2024</b>	17 Mar 2023	27 Jun 2022
Machine Age	hrs	Client Info		<b>10096</b>	9283	8481
Oil Age	hrs	Client Info		<b>0</b>	5757	5856
Filter Age	hrs	Client Info		<b>0</b>	902	0
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	ATTENTION	ATTENTION

### WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	<b>15</b>	14	19
Iron	ppm	ASTM D5185m	>32	<b>29</b>	35	32
Chromium	ppm	ASTM D5185m	>9	<b>3</b>	5	6
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>9	<b>6</b>	12	12
Lead	ppm	ASTM D5185m	>28	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>50	<b>3</b>	1	1
Tin	ppm	ASTM D5185m	>5	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

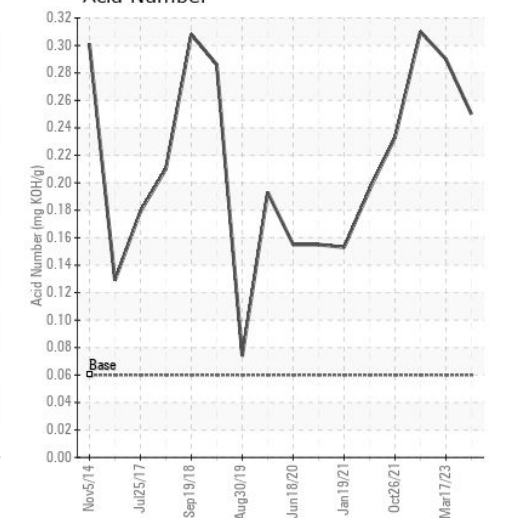
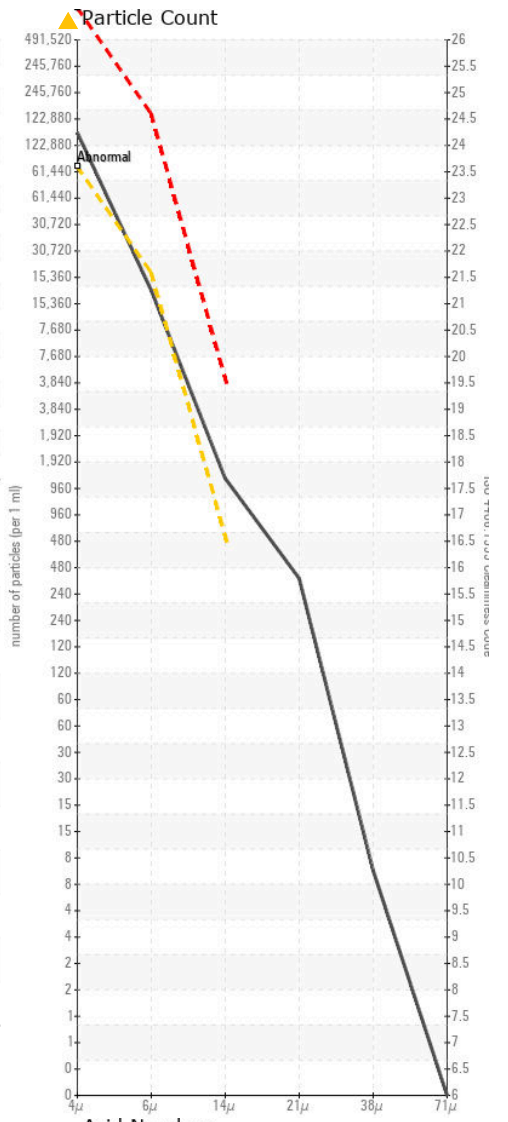
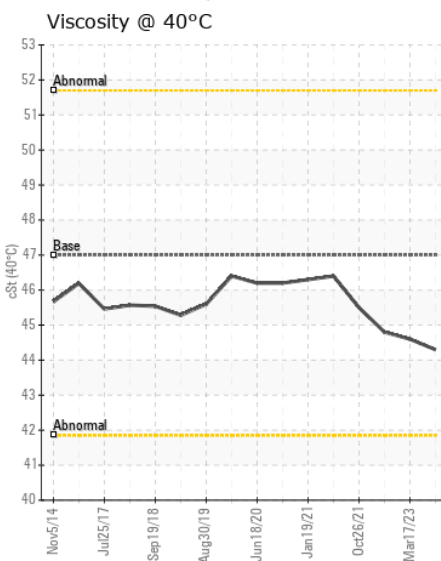
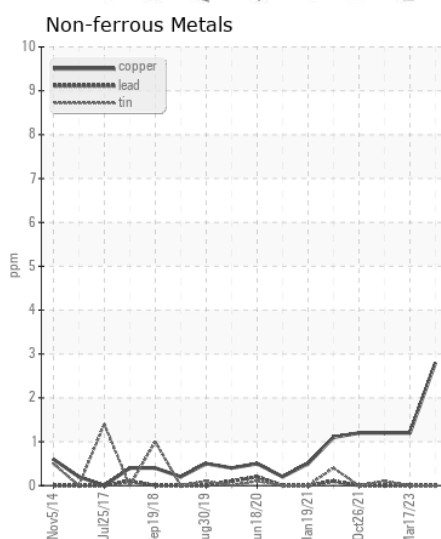
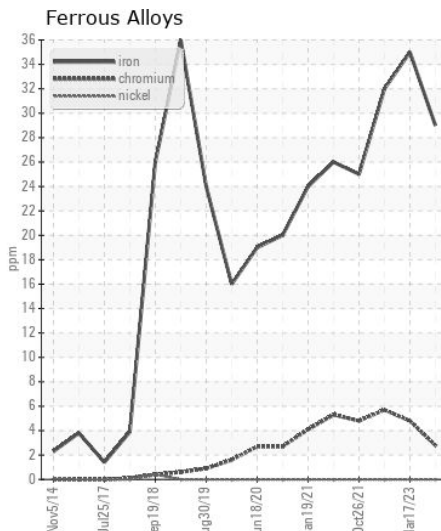
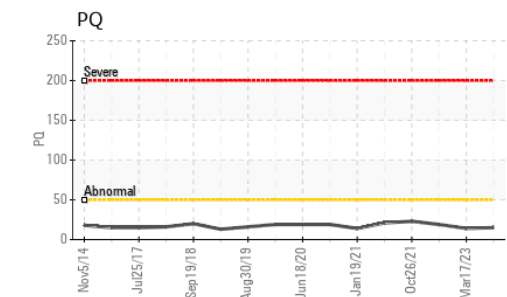
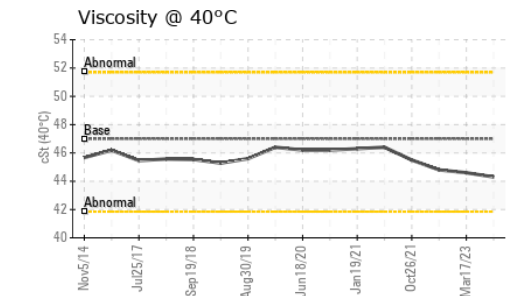
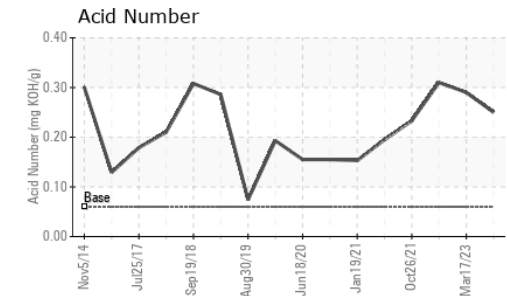
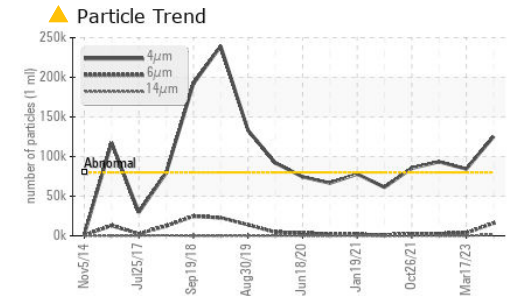
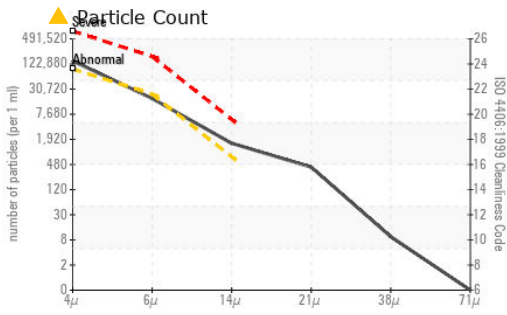
There is a moderate amount of particulates (2 to 100 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>11	<b>10</b>	13	15
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	<1	2
Water		WC Method	>0.075	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>80000	<b>▲ 125303</b>	▲ 84298	▲ 93491
Particles >6µm		ASTM D7647	>20000	<b>15872</b>	3753	2672
Particles >14µm		ASTM D7647	>640	<b>▲ 1354</b>	87	32
Particles >21µm		ASTM D7647	>160	<b>▲ 366</b>	20	6
Particles >38µm		ASTM D7647	>40	<b>8</b>	1	2
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	<b>▲ 24/21/18</b>	▲ 24/19/14	▲ 24/19/12
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>LIGHT</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.075	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Sodium	ppm	ASTM D5185m	>21	<b>0</b>	1	0
Boron	ppm	ASTM D5185m		<b>0</b>	0	<1
Barium	ppm	ASTM D5185m		<b>2</b>	0	2
Molybdenum	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>4</b>	5	2
Calcium	ppm	ASTM D5185m		<b>20</b>	4	14
Phosphorus	ppm	ASTM D5185m	827	<b>315</b>	468	493
Zinc	ppm	ASTM D5185m	0	<b>74</b>	18	37
Sulfur	ppm	ASTM D5185m	13	<b>302</b>	0	227
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.25</b>	0.29	0.31
Visc @ 40°C	cSt	ASTM D445	47	<b>44.3</b>	44.6	44.8



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0203076 **Received** : 14 Feb 2024  
**Lab Number** : 06089513 **Tested** : 15 Feb 2024  
**Unique Number** : 10876958 **Diagnosed** : 15 Feb 2024 - Wes Davis  
**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)