



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

Machine Id  
**JOHN DEERE 245G 1FF245GXVNF802609**

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. ( Customer Sample Comment: Top Up Amount: 3 QTS )

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0208190</b>	JR0187667	JR0172807
Sample Date		Client Info		<b>28 Feb 2024</b>	14 Sep 2023	03 May 2023
Machine Age	hrs	Client Info		<b>2438</b>	1937	1453
Oil Age	hrs	Client Info		<b>2438</b>	1937	1453
Filter Age	hrs	Client Info		<b>2438</b>	0	0
Oil Changed		Client Info		<b>Oil Added</b>	N/A	N/A
Filter Changed		Client Info		<b>Not Changd</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

### WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	<b>10</b>	12	12
Iron	ppm	ASTM D5185m	>32	<b>4</b>	4	2
Chromium	ppm	ASTM D5185m	>9	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>9	<b>2</b>	0	0
Lead	ppm	ASTM D5185m	>28	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>50	<b>5</b>	4	5
Tin	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

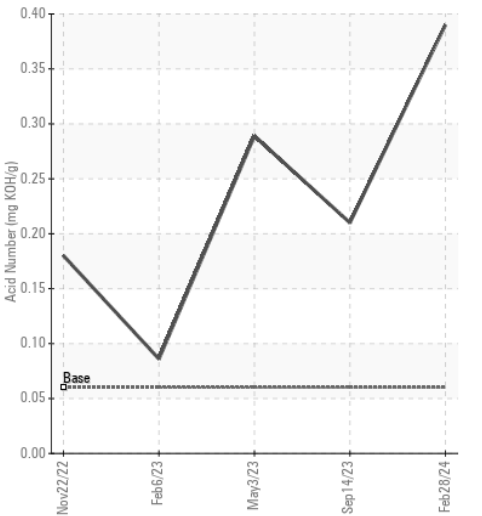
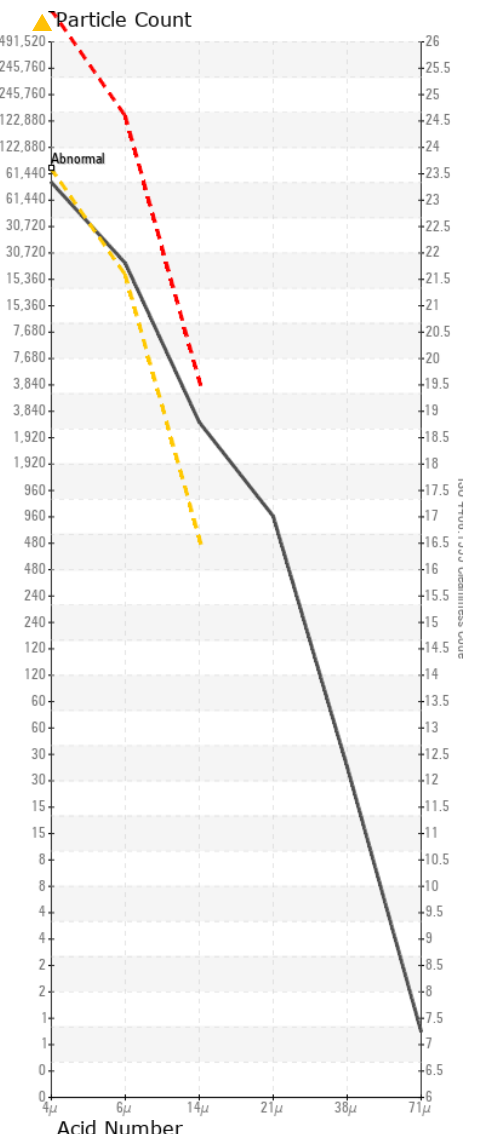
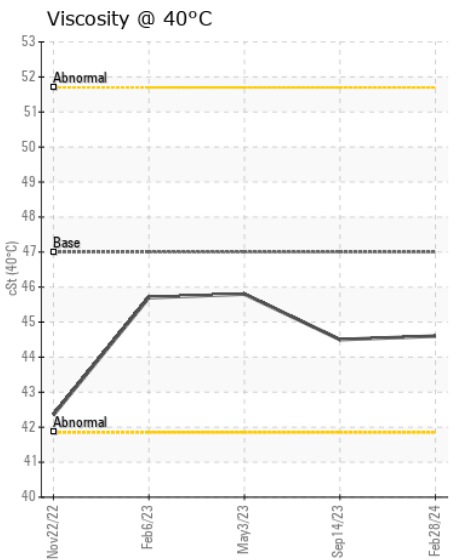
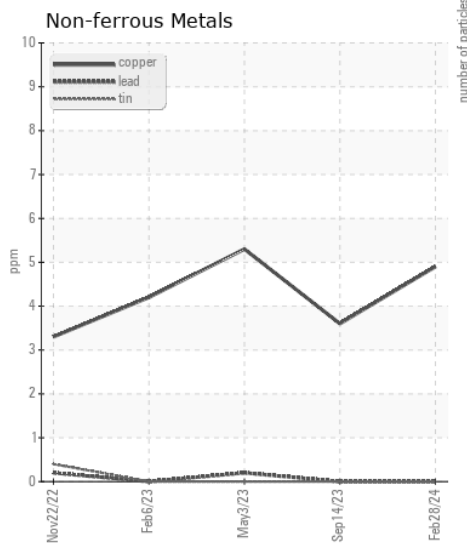
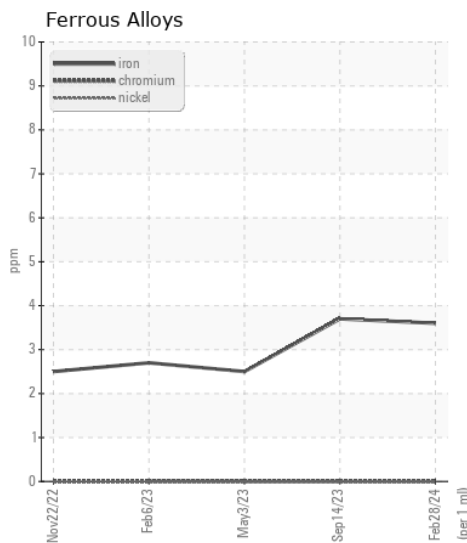
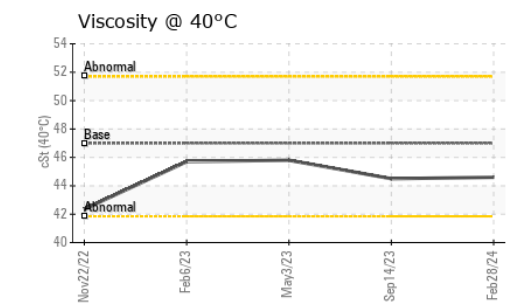
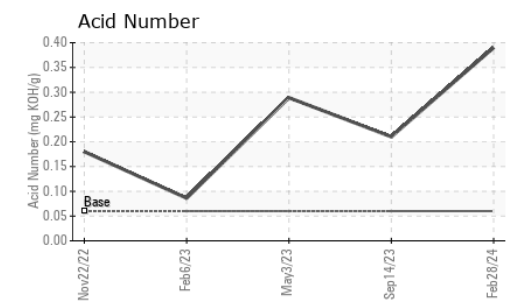
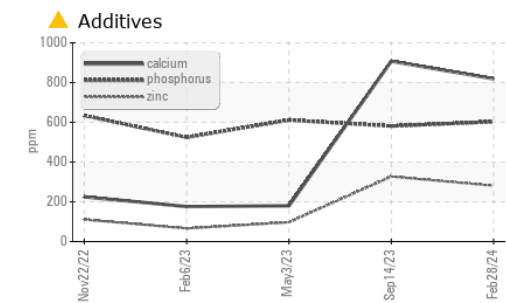
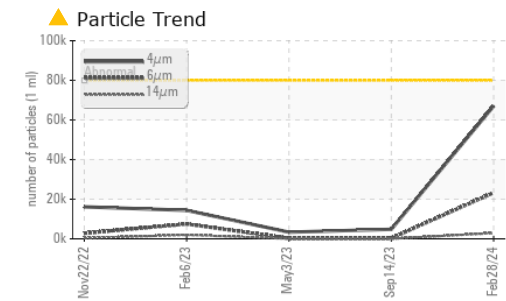
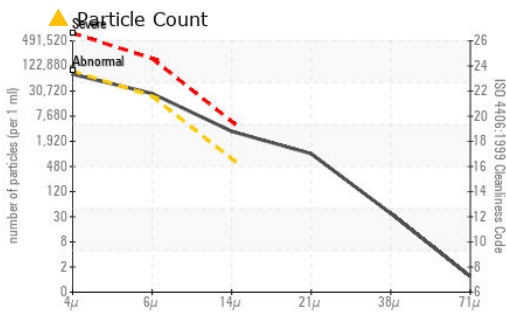
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>11	<b>2</b>	2	<1
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	2
Water		WC Method	>0.075	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>80000	<b>67028</b>	4796	3342
Particles >6µm		ASTM D7647	>20000	<b>▲ 23297</b>	315	273
Particles >14µm		ASTM D7647	>640	<b>▲ 2905</b>	18	12
Particles >21µm		ASTM D7647	>160	<b>▲ 849</b>	7	2
Particles >38µm		ASTM D7647	>40	<b>32</b>	0	0
Particles >71µm		ASTM D7647	>10	<b>1</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	<b>▲ 23/22/19</b>	19/15/11	19/15/11
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</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

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

Sodium	ppm	ASTM D5185m	>21	<b>1</b>	<1	0
Boron	ppm	ASTM D5185m		<b>4</b>	3	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>3</b>	2	<1
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>21</b>	29	3
Calcium	ppm	ASTM D5185m		<b>819</b>	907	180
Phosphorus	ppm	ASTM D5185m	827	<b>603</b>	581	611
Zinc	ppm	ASTM D5185m	0	<b>▲ 281</b>	▲ 327	▲ 97
Sulfur	ppm	ASTM D5185m	13	<b>1656</b>	2217	408
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.39</b>	0.21	0.289
Visc @ 40°C	cSt	ASTM D445	47	<b>44.6</b>	44.5	45.8



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0208190 **Received** : 01 Mar 2024  
**Lab Number** : 06105944 **Tested** : 04 Mar 2024  
**Unique Number** : 10909441 **Diagnosed** : 05 Mar 2024 - Don Baldrige  
**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)