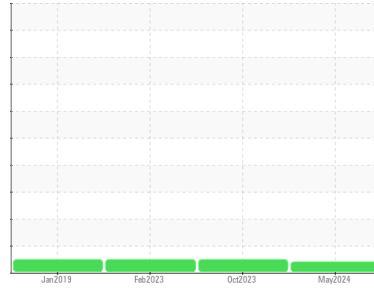


# OIL ANALYSIS REPORT

## Sample Rating Trend



## ADDITIVES



Machine Id  
**JOHN DEERE 85G 1FF085GXCJJ019712**  
 Component  
**Hydraulic System**  
 Fluid  
**HITACHI HYDRAULIC SUPER EX 46HN (15 GAL)**

### DIAGNOSIS

#### ▲ Recommendation

Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil.

#### Wear

All component wear rates are normal.

#### Contamination

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

#### ▲ Fluid Condition

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>JR0195490</b>	JR0184245	JR0159643
Sample Date	Client Info			<b>15 May 2024</b>	19 Oct 2023	21 Feb 2023
Machine Age	hrs	Client Info		<b>2543</b>	2240	1914
Oil Age	hrs	Client Info		<b>2240</b>	0	0
Oil Changed	Client Info			<b>N/A</b>	Changed	Not Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.075	<b>NEG</b>	NEG	NEG

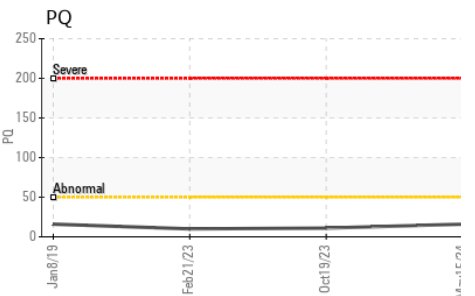
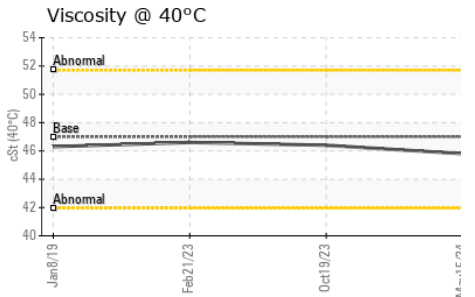
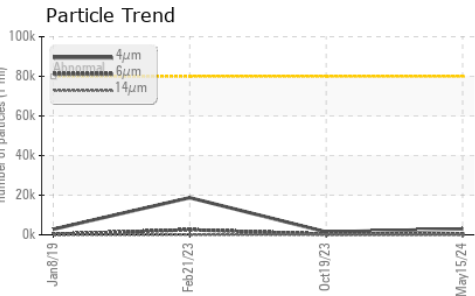
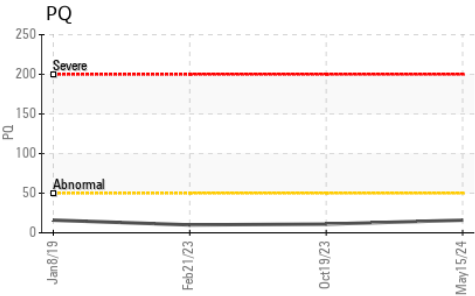
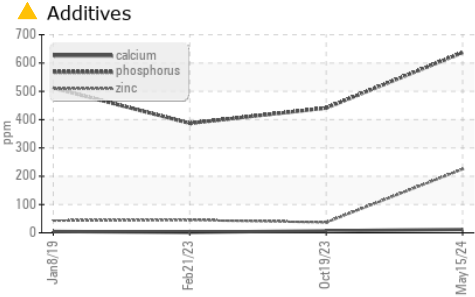
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184	>50	<b>16</b>	11	10
Iron	ppm	ASTM D5185m	>32	<b>12</b>	9	12
Chromium	ppm	ASTM D5185m	>9	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m		<b>1</b>	0	0
Aluminum	ppm	ASTM D5185m	>9	<b>2</b>	1	1
Lead	ppm	ASTM D5185m	>28	<b>&lt;1</b>	<1	0
Copper	ppm	ASTM D5185m	>50	<b>3</b>	0	<1
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	0
Antimony	ppm	ASTM D5185m		<b>---</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>2</b>	7	0
Calcium	ppm	ASTM D5185m		<b>12</b>	7	2
Phosphorus	ppm	ASTM D5185m	827	<b>637</b>	441	387
Zinc	ppm	ASTM D5185m	0	<b>▲ 225</b>	37	45
Sulfur	ppm	ASTM D5185m	13	<b>517</b>	286	373

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>11	<b>4</b>	4	2
Sodium	ppm	ASTM D5185m	>21	<b>2</b>	2	2
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	0

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>80000	<b>2972</b>	1429	18736
Particles >6µm		ASTM D7647	>20000	<b>384</b>	332	2538
Particles >14µm		ASTM D7647	>640	<b>21</b>	26	37
Particles >21µm		ASTM D7647	>160	<b>4</b>	7	4
Particles >38µm		ASTM D7647	>40	<b>0</b>	0	0
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	<b>19/16/12</b>	18/16/12	21/19/12

# OIL ANALYSIS REPORT

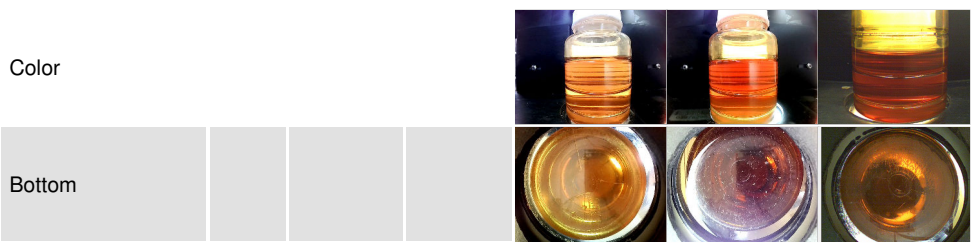


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.30</b>	0.164	0.16

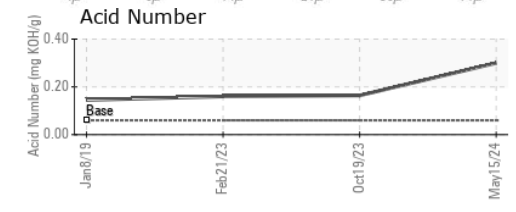
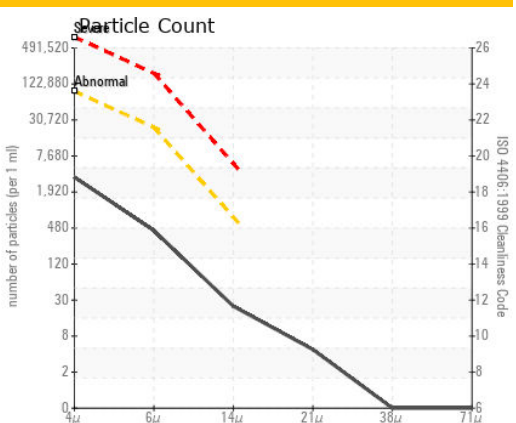
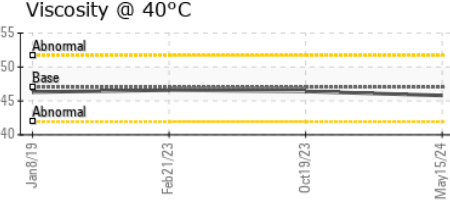
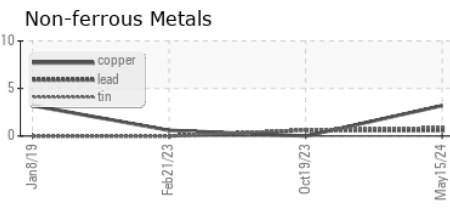
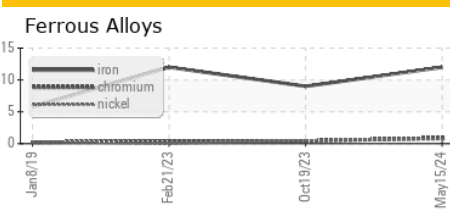
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	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
Free Water	scalar	*Visual		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	47	<b>45.8</b>	46.4	46.6

SAMPLE IMAGES		method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0195490  
**Lab Number** : **06183277**  
**Unique Number** : 11034603  
**Test Package** : CONST ( Additional Tests: PQ )

**Received** : 17 May 2024  
**Tested** : 20 May 2024  
**Diagnosed** : 21 May 2024 - Don Baldrige

**JRE - STEPHENSON**  
 245 YARDMASTER COURT  
 STEPHENSON, VA  
 US 22656-1761  
 Contact: PHIL DAUGHERTY  
 pdaugherty@jamesriverequipment.com

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)

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