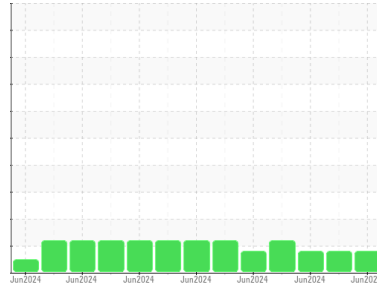




# OIL ANALYSIS REPORT

## Sample Rating Trend



ISO



Machine Id  
**QC240601HY**

Component  
**Hydraulic System**

Fluid  
**JOHN DEERE HY-GARD HYD/TRANS (--- GAL)**

### DIAGNOSIS

#### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is a high amount of silt (particulates < 6 microns in size) present in the oil.

#### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

### SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0952779</b>	WC0952778	WC0952776
Sample Date	Client Info		<b>21 Jun 2024</b>	20 Jun 2024	18 Jun 2024
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

### WEAR METALS

	method	limit/base	current	history1	history2	
PQ	ASTM D8184	>47	<b>14</b>	19	22	
Iron	ppm	ASTM D5185m	>78	<b>30</b>	22	27
Chromium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>1</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>5	<b>3</b>	2	2
Lead	ppm	ASTM D5185m	>11	<b>1</b>	<1	<1
Copper	ppm	ASTM D5185m	>84	<b>16</b>	12	14
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1

### ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	6	<b>3</b>	2	2
Barium	ppm	ASTM D5185m	0	<b>1</b>	0	<1
Molybdenum	ppm	ASTM D5185m	0	<b>1</b>	0	<1
Manganese	ppm	ASTM D5185m		<b>1</b>	1	1
Magnesium	ppm	ASTM D5185m	145	<b>101</b>	92	88
Calcium	ppm	ASTM D5185m	3570	<b>3868</b>	3363	3306
Phosphorus	ppm	ASTM D5185m	1290	<b>1195</b>	1083	918
Zinc	ppm	ASTM D5185m	1640	<b>1394</b>	1238	1201
Sulfur	ppm	ASTM D5185m		<b>4275</b>	4092	3636

### CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>11	<b>17</b>	17	15
Sodium	ppm	ASTM D5185m	>23	<b>8</b>	10	7
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	4	3
Water	%	ASTM D6304	>0.1669	<b>0.046</b>	0.048	0.035
ppm Water	ppm	ASTM D6304	>1669	<b>462</b>	486	360

### FLUID CLEANLINESS

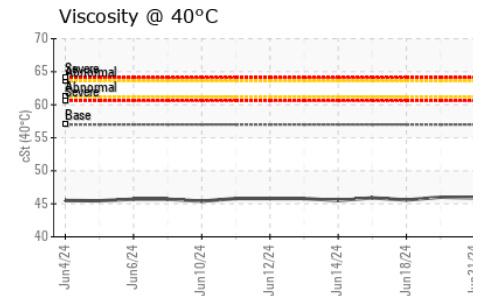
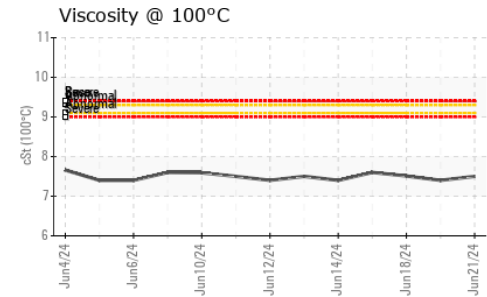
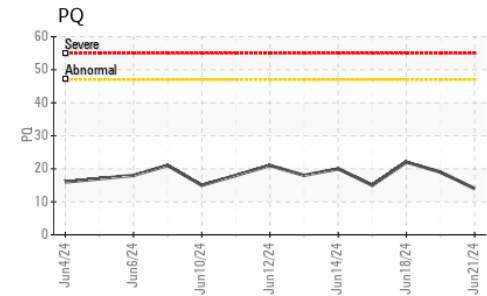
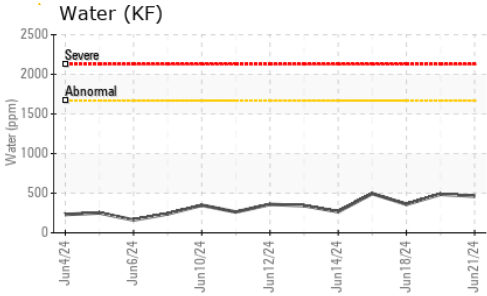
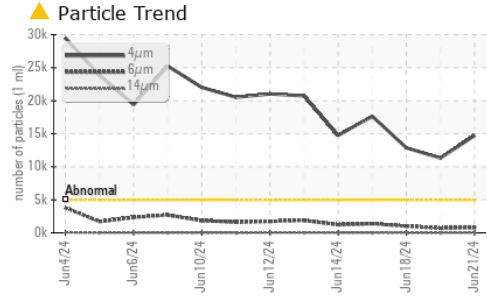
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>▲ 14746</b>	▲ 11316	▲ 12866
Particles >6µm	ASTM D7647	>1300	<b>810</b>	705	1009
Particles >14µm	ASTM D7647	>160	<b>9</b>	6	4
Particles >21µm	ASTM D7647	>40	<b>2</b>	1	1
Particles >38µm	ASTM D7647	>10	<b>1</b>	0	0
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>▲ 21/17/10</b>	▲ 21/17/10	▲ 21/17/9

### FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	1.8	<b>1.34</b>	1.19	1.45



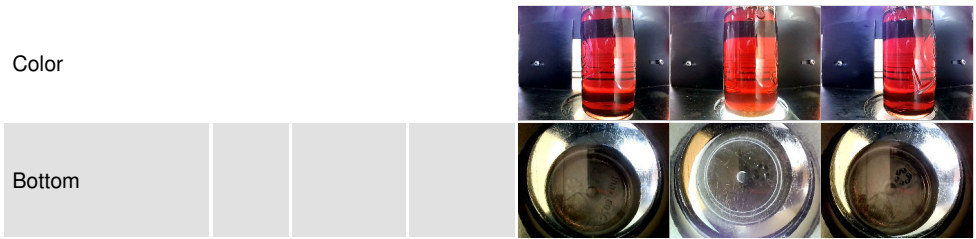
# OIL ANALYSIS REPORT



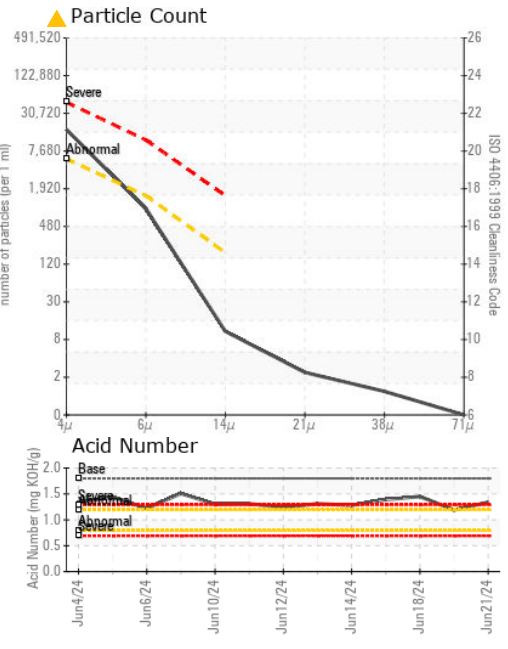
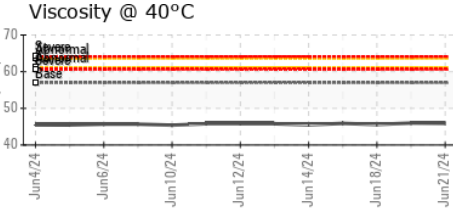
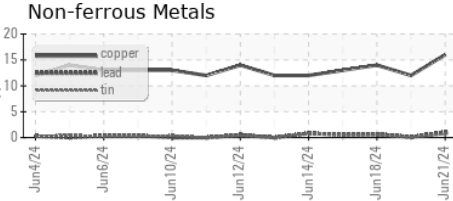
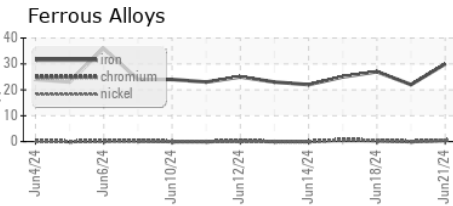
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1669	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	57.0	45.9	46.0
Visc @ 100°C	cSt	ASTM D445	9.4	7.5	7.4
Viscosity Index (VI)	Scale	ASTM D2270	147	128	124

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0952779 **Received** : 21 Jun 2024  
**Lab Number** : 06216854 **Tested** : 24 Jun 2024  
**Unique Number** : 11089718 **Diagnosed** : 24 Jun 2024 - Jonathan Hester  
**Test Package** : IND 2 ( Additional Tests: KF, KV100, PQ, VI )

**WEARCHECK LUBRICATION SERVICES QA ACCOUNT**  
 501 Madison Ave  
 Cary, NC  
 US 27513  
 Contact: WCLS CARY NC

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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