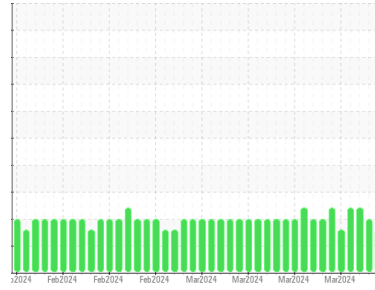




# OIL ANALYSIS REPORT

## Sample Rating Trend



ISO



Area  
**WCLSNC**  
 Machine Id  
**QC230801HY**  
 Component  
**Hydraulic System**  
 Fluid  
**JOHN DEERE HY-GARD HYD/TRANS (--- GAL)**

### DIAGNOSIS

#### Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is a high amount of particulates 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>WC0916256</b>	WC0916255	WC0916254
Sample Date	Client Info		<b>29 Mar 2024</b>	28 Mar 2024	27 Mar 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>82</b>	66	76	
Iron	ppm	ASTM D5185m	>78	<b>94</b>	74	75
Chromium	ppm	ASTM D5185m	>2	<b>1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>3	<b>2</b>	2	1
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>5	<b>3</b>	4	3
Lead	ppm	ASTM D5185m	>11	<b>8</b>	9	8
Copper	ppm	ASTM D5185m	>84	<b>80</b>	75	75
Tin	ppm	ASTM D5185m	>4	<b>4</b>	4	2
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

### ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	6	<b>108</b>	93	93
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	0
Manganese	ppm	ASTM D5185m		<b>25</b>	21	20
Magnesium	ppm	ASTM D5185m	145	<b>21</b>	24	16
Calcium	ppm	ASTM D5185m	3570	<b>3231</b>	3449	3413
Phosphorus	ppm	ASTM D5185m	1290	<b>1014</b>	1151	1100
Zinc	ppm	ASTM D5185m	1640	<b>1251</b>	1405	1369
Sulfur	ppm	ASTM D5185m		<b>3131</b>	3762	3713

### CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>11	<b>11</b>	10	9
Sodium	ppm	ASTM D5185m	>23	<b>19</b>	20	19
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	<1	0
Water	%	ASTM D6304	>0.1669	<b>0.064</b>	0.056	0.061
ppm Water	ppm	ASTM D6304	>1669	<b>641</b>	567	614

### FLUID CLEANLINESS

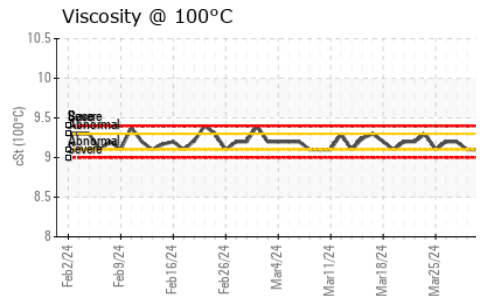
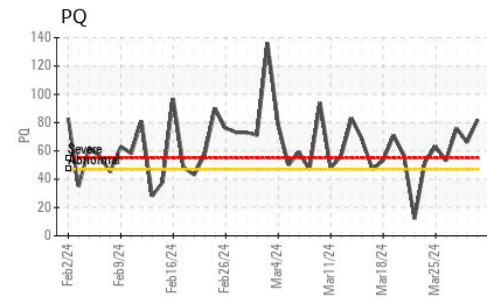
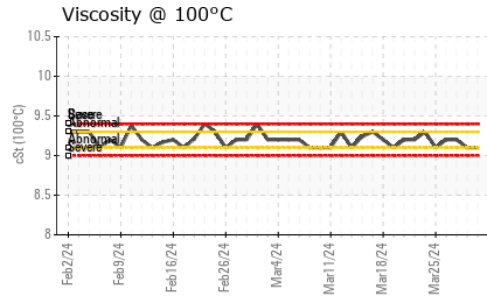
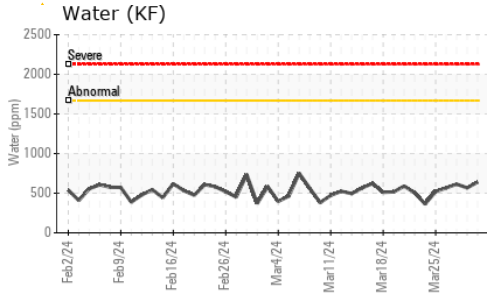
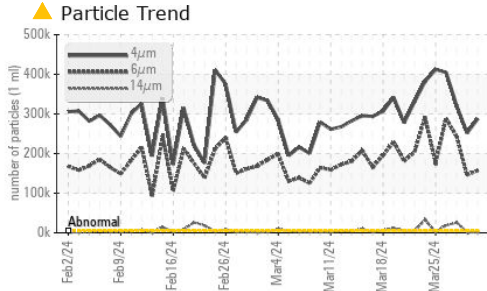
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>▲ 287516</b>	▲ 252017	▲ 321075
Particles >6µm	ASTM D7647	>1300	<b>▲ 157327</b>	▲ 146260	▲ 243399
Particles >14µm	ASTM D7647	>160	<b>▲ 1040</b>	▲ 1716	▲ 25847
Particles >21µm	ASTM D7647	>40	<b>20</b>	▲ 74	▲ 2099
Particles >38µm	ASTM D7647	>10	<b>0</b>	1	▲ 18
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	1
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>▲ 25/24/17</b>	▲ 25/24/18	▲ 26/25/22

### FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	1.8	<b>1.24</b>	0.87	0.92



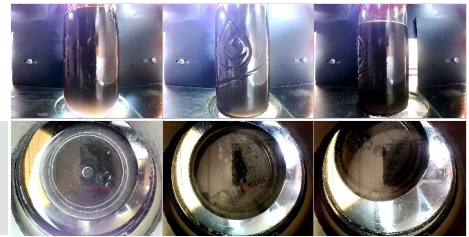
# OIL ANALYSIS REPORT



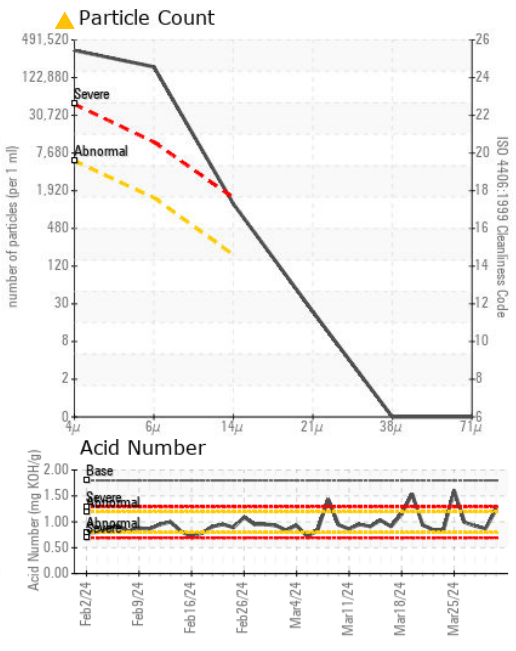
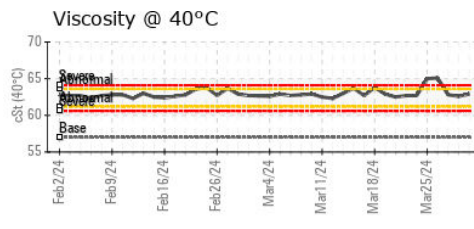
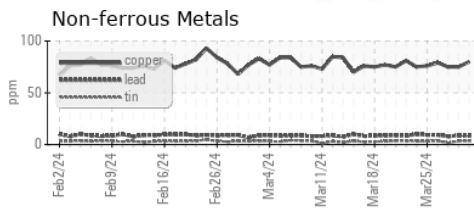
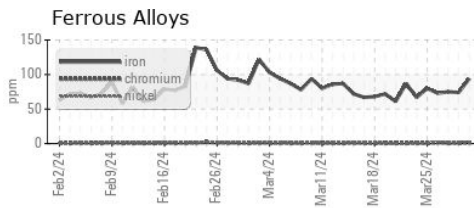
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	MODER	MODER
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	62.9	62.6
Visc @ 100°C	cSt	ASTM D445	9.4	9.1	9.2
Viscosity Index (VI)	Scale	ASTM D2270	147	121	122

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0916256 **Received** : 29 Mar 2024  
**Lab Number** : 06133295 **Tested** : 05 Apr 2024  
**Unique Number** : 10952760 **Diagnosed** : 05 Apr 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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