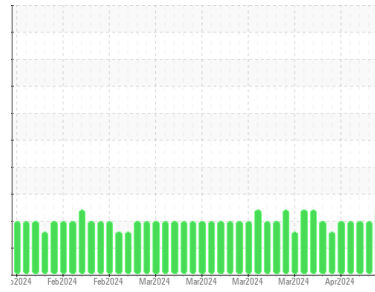




# OIL ANALYSIS REPORT

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>WC0929389</b>	WC0929388	WC0929387
Sample Date	Client Info		<b>05 Apr 2024</b>	04 Apr 2024	03 Apr 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>97</b>	47	72	
Iron	ppm	ASTM D5185m	>78	<b>65</b>	81	91
Chromium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	2	1
Nickel	ppm	ASTM D5185m	>3	<b>2</b>	2	2
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>5	<b>3</b>	3	3
Lead	ppm	ASTM D5185m	>11	<b>9</b>	10	9
Copper	ppm	ASTM D5185m	>84	<b>78</b>	84	84
Tin	ppm	ASTM D5185m	>4	<b>3</b>	4	3
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	<1	0

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	6	<b>99</b>	125	109
Barium	ppm	ASTM D5185m	0	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	2	0
Manganese	ppm	ASTM D5185m		<b>19</b>	24	24
Magnesium	ppm	ASTM D5185m	145	<b>21</b>	43	23
Calcium	ppm	ASTM D5185m	3570	<b>3514</b>	3619	3687
Phosphorus	ppm	ASTM D5185m	1290	<b>1068</b>	1213	1262
Zinc	ppm	ASTM D5185m	1640	<b>1354</b>	1463	1482
Sulfur	ppm	ASTM D5185m		<b>3770</b>	3777	3670

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>11	<b>8</b>	11	10
Sodium	ppm	ASTM D5185m	>23	<b>17</b>	19	20
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	2
Water	%	ASTM D6304	>0.1669	<b>0.064</b>	0.053	0.058
ppm Water	ppm	ASTM D6304	>1669	<b>645</b>	536	585

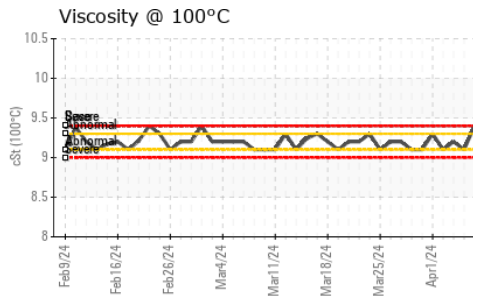
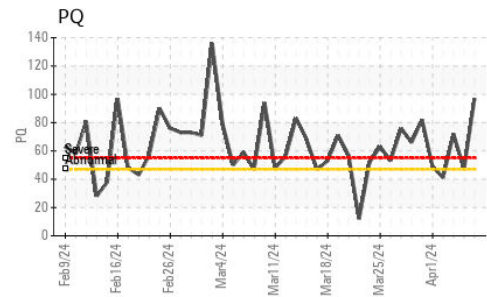
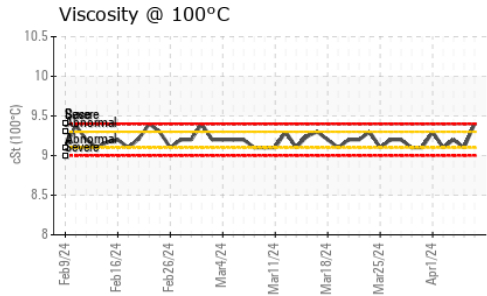
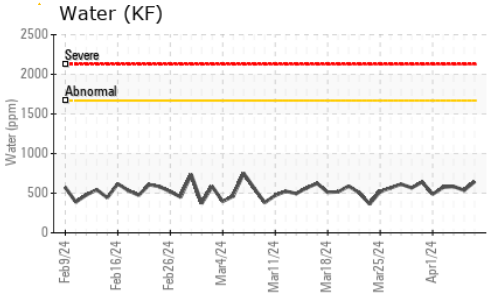
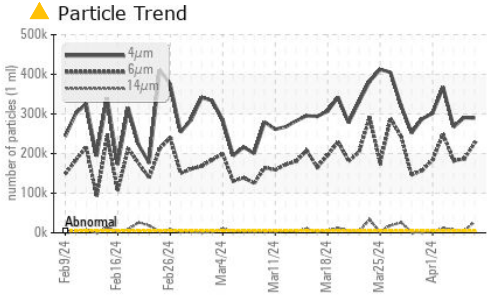
## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>▲ 289459</b>	▲ 290786	▲ 267103
Particles >6µm	ASTM D7647	>1300	<b>▲ 226223</b>	▲ 186490	▲ 182757
Particles >14µm	ASTM D7647	>160	<b>▲ 27905</b>	▲ 4727	▲ 7596
Particles >21µm	ASTM D7647	>40	<b>▲ 2494</b>	▲ 251	▲ 380
Particles >38µm	ASTM D7647	>10	<b>▲ 21</b>	3	1
Particles >71µm	ASTM D7647	>3	<b>▲ 1</b>	1	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>▲ 25/25/22</b>	▲ 25/25/19	▲ 25/25/20

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	1.8	<b>0.89</b>	0.97	0.49

# 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	62.8
Visc @ 100°C	cSt	ASTM D445	9.4	9.4	9.1
Viscosity Index (VI)	Scale	ASTM D2270	147	129	122

### SAMPLE IMAGES

method	limit/base	current	history1	history2
Color				
Bottom				

### GRAPHS

#### Ferrous Alloys

#### Non-ferrous Metals

#### Viscosity @ 40°C

#### Particle Count

#### Acid Number



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0929389 **Received** : 05 Apr 2024  
**Lab Number** : 06139882 **Tested** : 11 Apr 2024  
**Unique Number** : 10964690 **Diagnosed** : 11 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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