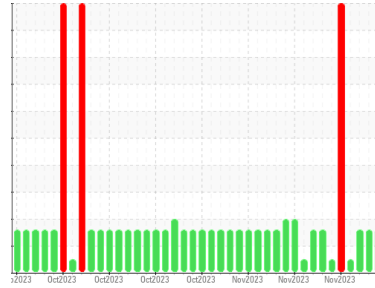




PROBLEM SUMMARY

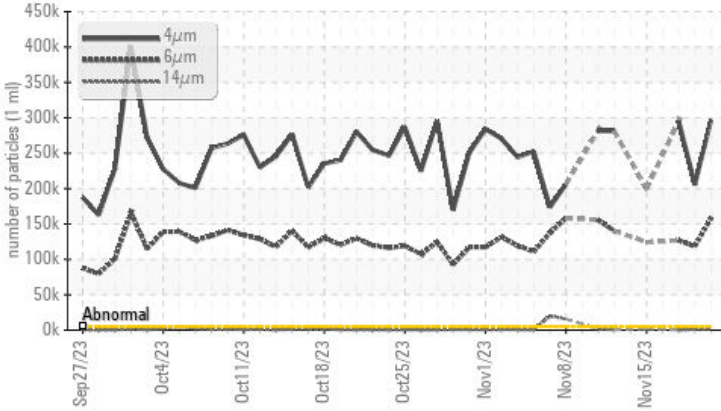
Area
WCLSNC
 Machine Id
QC230801HY
 Component
Hydraulic System
 Fluid
JOHN DEERE HY-GARD HYD/TRANS (--- GAL)

Sample Rating Trend



COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

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

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	ABNORMAL	ABNORMAL
Particles >4µm	ASTM D7647	>5000	▲ 296526	▲ 205673	▲ 295001
Particles >6µm	ASTM D7647	>1300	▲ 157517	▲ 118517	▲ 126623
Particles >14µm	ASTM D7647	>160	▲ 1469	▲ 1074	▲ 295
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 25/24/18	▲ 25/24/17	▲ 25/24/15

Customer Id: WEACARQA
 Sample No.: WC0877806
 Lab Number: 06014029
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.

HISTORICAL DIAGNOSIS

20 Nov 2023 Diag: Jonathan Hester

ISO



We recommend you service the filters on this component. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



17 Nov 2023 Diag: Jonathan Hester

ISO



We recommend you service the filters on this component. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



16 Nov 2023 Diag:

UNKNOWN



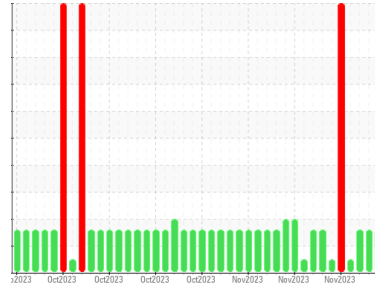
view report





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		WC0877806	WC0877805	WC0877802
Sample Date	Client Info		21 Nov 2023	20 Nov 2023	17 Nov 2023
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2	
PQ	ASTM D8184	>47	52	56	29	
Iron	ppm	ASTM D5185m	>78	73	76	77
Chromium	ppm	ASTM D5185m	>2	<1	1	1
Nickel	ppm	ASTM D5185m	>3	1	1	1
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>5	2	4	3
Lead	ppm	ASTM D5185m	>11	10	8	10
Copper	ppm	ASTM D5185m	>84	77	77	71
Tin	ppm	ASTM D5185m	>4	3	3	4
Vanadium	ppm	ASTM D5185m		<1	<1	<1
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	6	93	98	93
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	2	0	<1
Manganese	ppm	ASTM D5185m		20	19	20
Magnesium	ppm	ASTM D5185m	145	9	10	0
Calcium	ppm	ASTM D5185m	3570	3321	3189	3199
Phosphorus	ppm	ASTM D5185m	1290	1063	1046	995
Zinc	ppm	ASTM D5185m	1640	1316	1282	1266
Sulfur	ppm	ASTM D5185m		2916	3004	2784

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>11	9	12	9
Sodium	ppm	ASTM D5185m	>23	20	29	19
Potassium	ppm	ASTM D5185m	>20	0	0	<1
Water	%	ASTM D6304	>0.1669	0.063	0.058	0.047
ppm Water	ppm	ASTM D6304	>1669	631	580.9	477.3

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ 296526	▲ 205673	▲ 295001
Particles >6µm	ASTM D7647	>1300	▲ 157517	▲ 118517	▲ 126623
Particles >14µm	ASTM D7647	>160	▲ 1469	▲ 1074	▲ 295
Particles >21µm	ASTM D7647	>40	33	24	5
Particles >38µm	ASTM D7647	>10	0	0	0
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 25/24/18	▲ 25/24/17	▲ 25/24/15

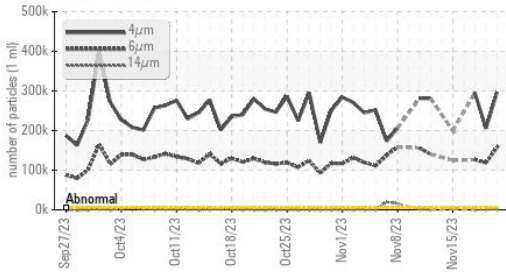
FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	1.8	0.76	0.72	0.81

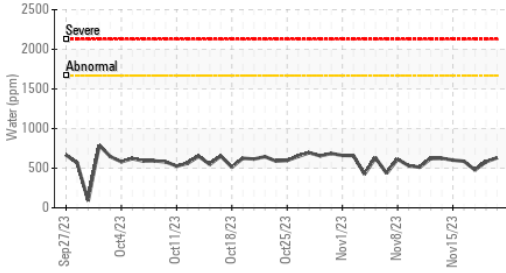


OIL ANALYSIS REPORT

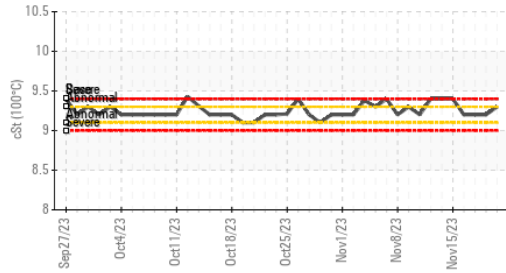
Particle Trend



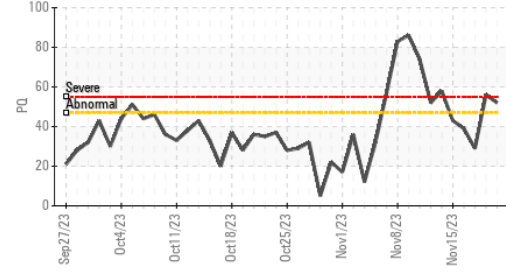
Water (KF)



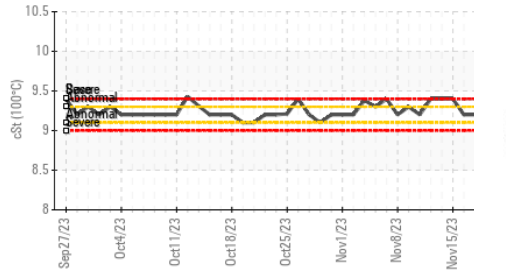
Viscosity @ 100°C



PQ



Viscosity @ 100°C

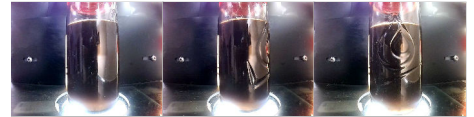


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	MODER	MODER
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	62.6	62.81
Visc @ 100°C	cSt	ASTM D445	9.4	9.3	9.2
Viscosity Index (VI)	Scale	ASTM D2270	147	127	124

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color

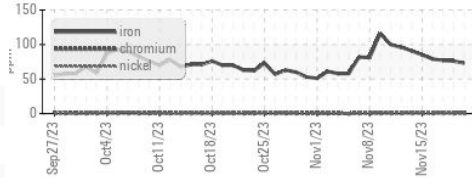


Bottom

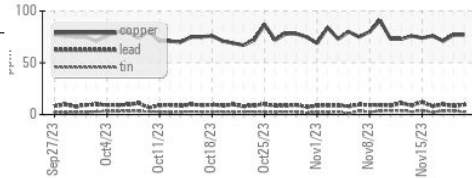


GRAPHS

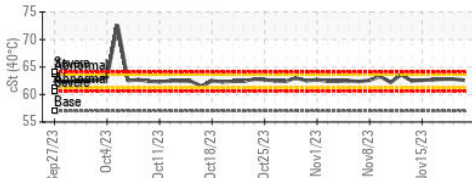
Ferrous Alloys



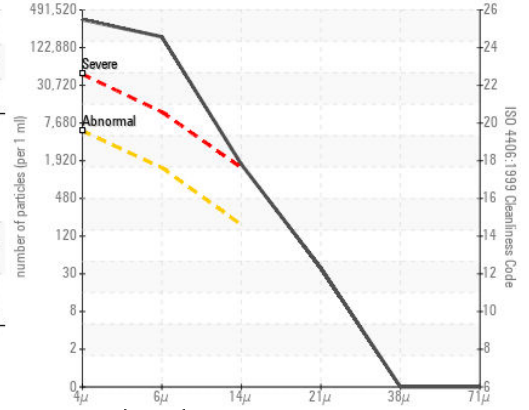
Non-ferrous Metals



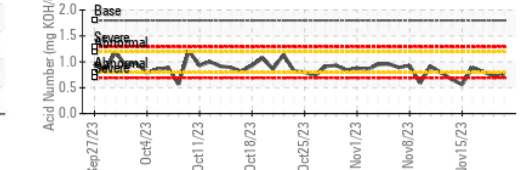
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0877806 **Received** : 21 Nov 2023
Lab Number : 06014029 **Diagnosed** : 30 Nov 2023
Unique Number : 10753173 **Diagnostician** : 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)

T: (919)379-4102
 F: (919)379-4050