



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>ABNORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**JOHN DEERE 30211**  
 Component  
**Hydraulic System**  
 Fluid  
**JD HVI 46 (20 GAL)**

## RECOMMENDATION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0671909</b>	WC0671621	WC0551149
Sample Date		Client Info		<b>31 Oct 2022</b>	28 Apr 2022	09 Jul 2021
Machine Age	hrs	Client Info		<b>2849</b>	2562	1942
Oil Age	hrs	Client Info		<b>787</b>	2562	1942
Filter Age	hrs	Client Info		<b>787</b>	562	1000
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	<b>10</b>	11	9
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m		<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>1</b>	<1	<1
Lead	ppm	ASTM D5185m	>10	<b>&lt;1</b>	1	1
Copper	ppm	ASTM D5185m	>75	<b>6</b>	6	6
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	VLITE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

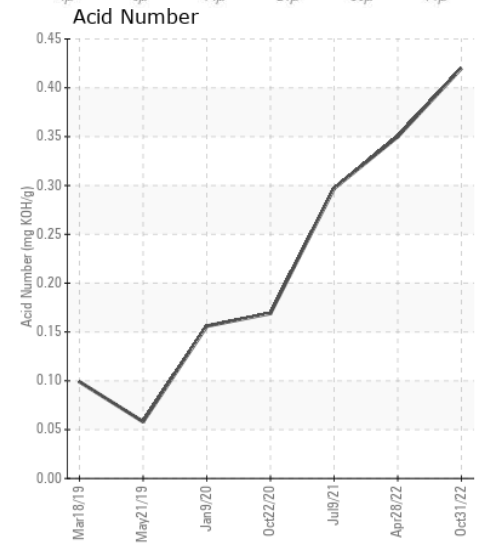
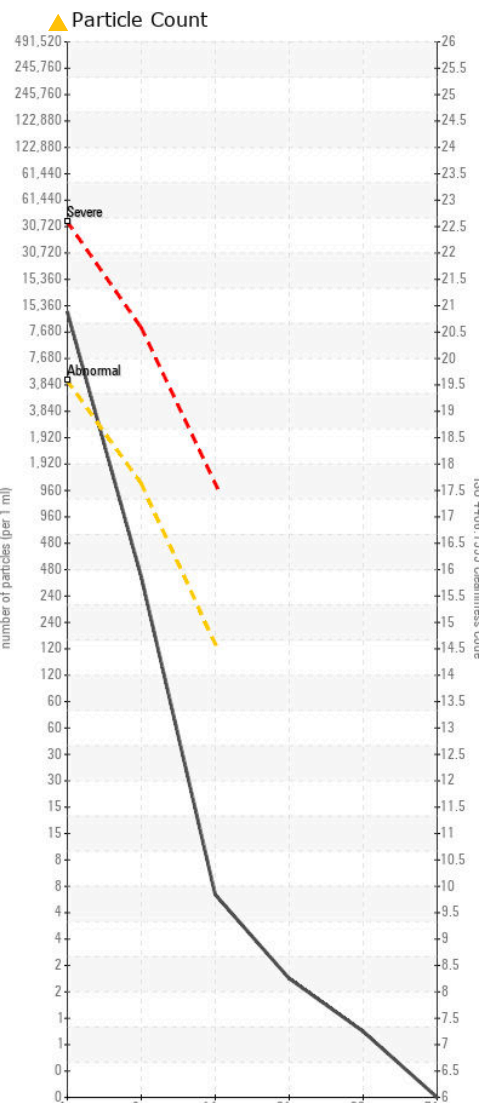
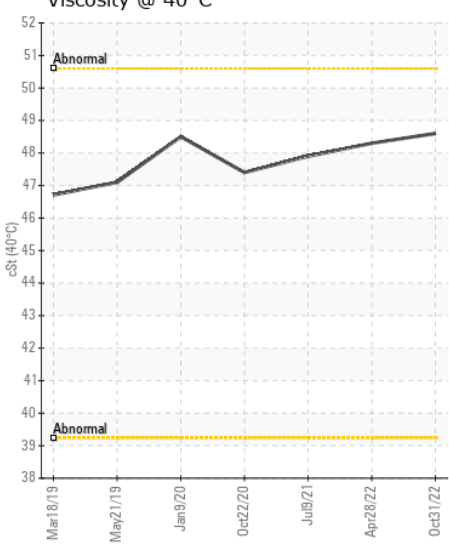
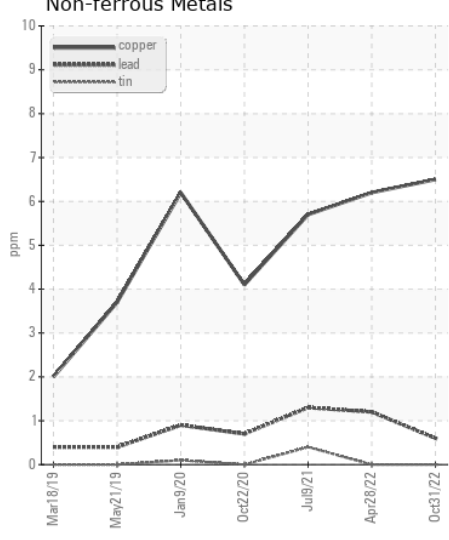
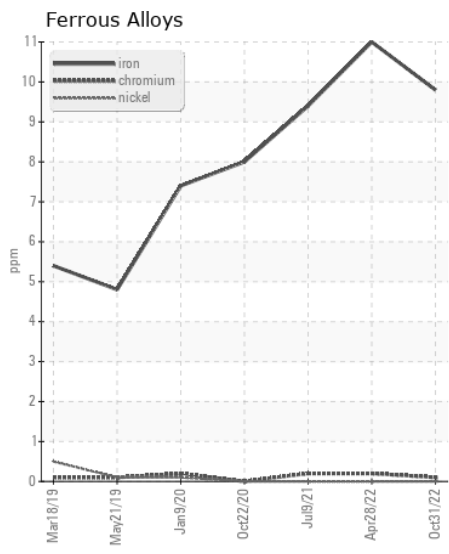
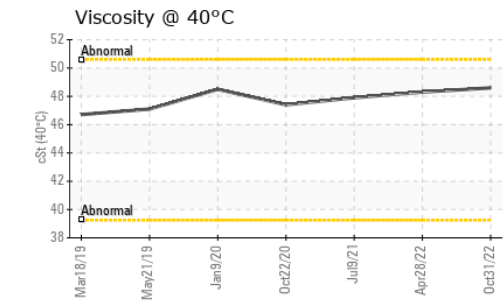
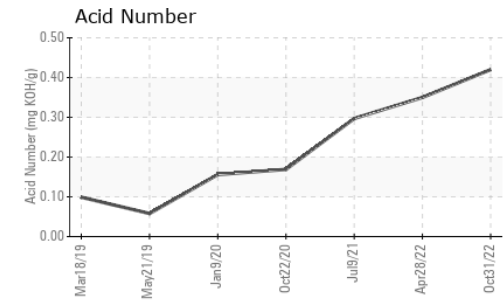
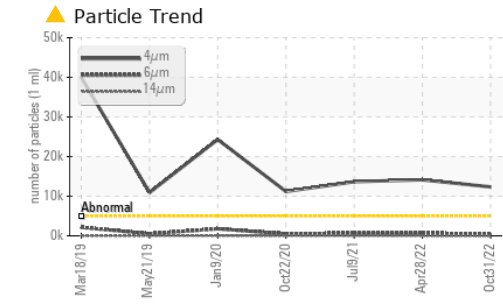
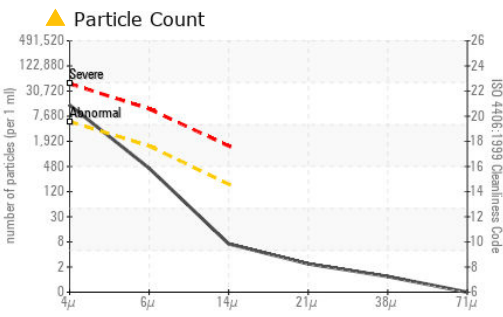
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>2</b>	2	2
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	1	<1
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>5000	<b>▲ 12343</b>	▲ 14131	▲ 13658
Particles >6µm		ASTM D7647	>1300	<b>384</b>	702	661
Particles >14µm		ASTM D7647	>160	<b>6</b>	20	22
Particles >21µm		ASTM D7647	>40	<b>2</b>	4	5
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>▲ 21/16/10</b>	▲ 21/17/11	▲ 21/17/12
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	>0.1	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<b>0</b>	0	<1
Boron	ppm	ASTM D5185m		<b>0</b>	4	4
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>2</b>	1	<1
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>8</b>	7	6
Calcium	ppm	ASTM D5185m		<b>136</b>	134	142
Phosphorus	ppm	ASTM D5185m		<b>446</b>	426	462
Zinc	ppm	ASTM D5185m		<b>176</b>	177	171
Sulfur	ppm	ASTM D5185m		<b>940</b>	752	706
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.42</b>	0.35	0.297
Visc @ 40°C	cSt	ASTM D445		<b>48.6</b>	48.3	47.9



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0671909 **Received** : 08 Nov 2022  
**Lab Number** : 05687841 **Tested** : 09 Nov 2022  
**Unique Number** : 10207413 **Diagnosed** : 10 Nov 2022 - Don Baldrige  
**Test Package** : CONST

**SULLIVAN EASTERN INC**  
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Certificate L2367  
 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)