



# OIL ANALYSIS REPORT

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



Area  
**Store 2 - Beaver [RO#148195]**  
Machine Id  
**JOHN DEERE 310G T0310GX949926**  
Component  
**Hydraulic System**  
Fluid  
**JOHN DEERE HY-GARD HYD/TRANS (--- 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>LEC0048461</b>	LEC0032512	LEC0022536
Sample Date		Client Info		<b>22 Feb 2024</b>	15 Aug 2022	02 Aug 2021
Machine Age	hrs	Client Info		<b>2869</b>	2614	2371
Oil Age	hrs	Client Info		<b>2869</b>	2614	2371
Filter Age	hrs	Client Info		<b>255</b>	243	600
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR

The chromium level is abnormal. All other component wear rates are normal.

PQ		ASTM D8184	>50	<b>23</b>	13	27
Iron	ppm	ASTM D5185m	>71	<b>33</b>	36	32
Chromium	ppm	ASTM D5185m	>11	<b>▲ 18</b>	<b>▲ 17</b>	<b>▲ 15</b>
Nickel	ppm	ASTM D5185m	>6	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>11	<b>4</b>	6	4
Lead	ppm	ASTM D5185m	>13	<b>&lt;1</b>	1	<1
Copper	ppm	ASTM D5185m	>21	<b>18</b>	21	21
Tin	ppm	ASTM D5185m	>5	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

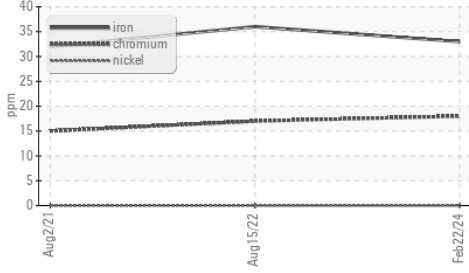
Silicon	ppm	ASTM D5185m	>24	<b>16</b>	16	16
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	<1	3
Water		WC Method	>0.075	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>80000	<b>10460</b>	8546	5372
Particles >6µm		ASTM D7647	>5000	<b>44</b>	901	151
Particles >14µm		ASTM D7647	>640	<b>3</b>	75	11
Particles >21µm		ASTM D7647	>160	<b>1</b>	12	3
Particles >38µm		ASTM D7647	>40	<b>0</b>	1	0
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>23/19/16	<b>21/13/9</b>	20/17/13	20/14/11
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	>0.075	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

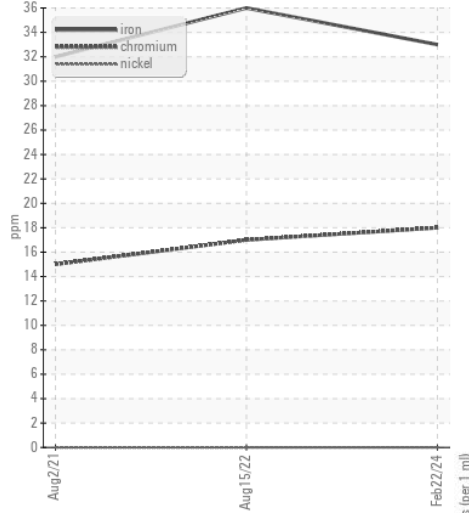
The AN level is acceptable for this fluid. The condition of the oils additive package is suitable for further service.

Sodium	ppm	ASTM D5185m	>21	<b>4</b>	2	4
Boron	ppm	ASTM D5185m	6	<b>37</b>	65	63
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>6</b>	10	11
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	145	<b>88</b>	89	83
Calcium	ppm	ASTM D5185m	3570	<b>2242</b>	2118	2124
Phosphorus	ppm	ASTM D5185m	1290	<b>741</b>	691	687
Zinc	ppm	ASTM D5185m	1640	<b>908</b>	871	828
Sulfur	ppm	ASTM D5185m		<b>2700</b>	2627	2258
Acid Number (AN)	mg KOH/g	ASTM D8045	1.8	<b>1.02</b>	0.86	0.953
Visc @ 40°C	cSt	ASTM D445	57.0	<b>47.8</b>	47.4	47.0

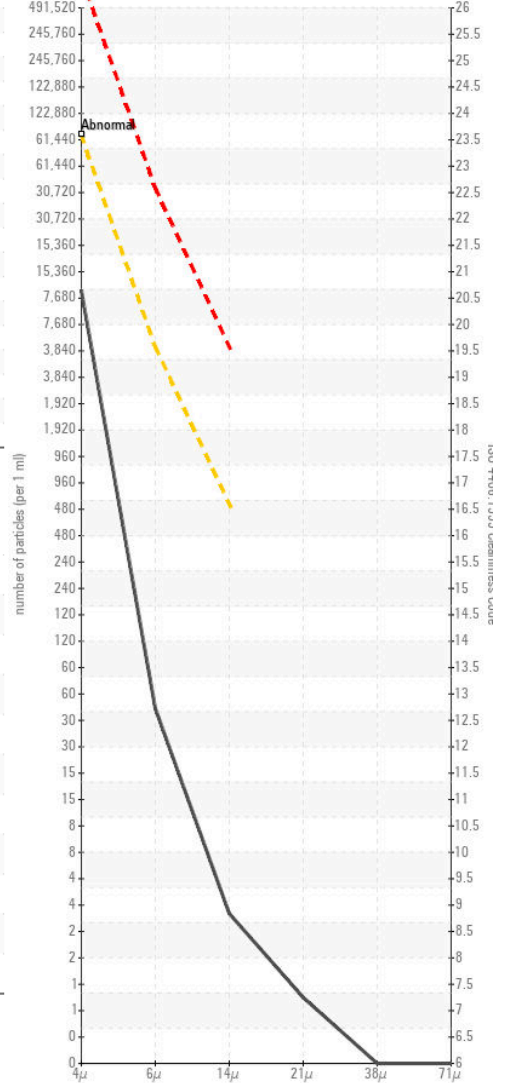
**▲ Ferrous Alloys**



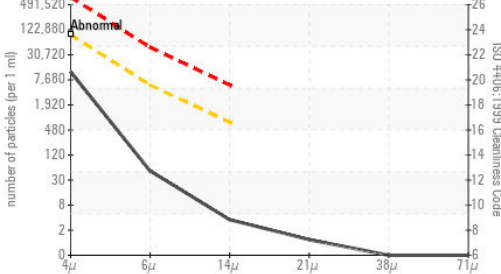
**▲ Ferrous Alloys**



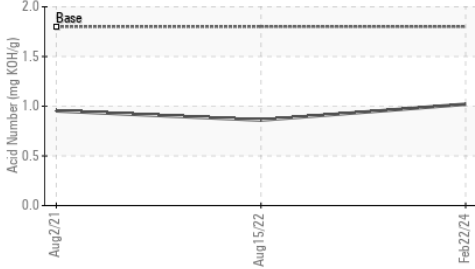
**Particle Count**



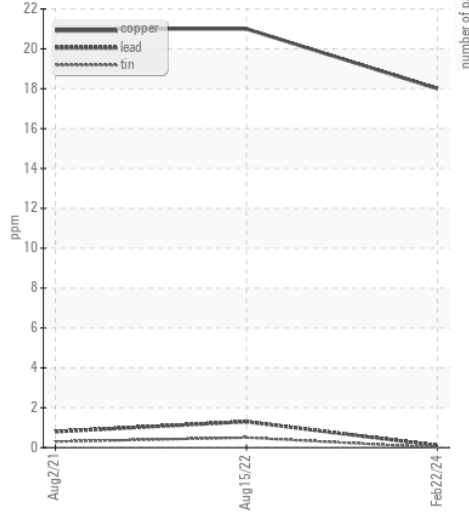
**Particle Count**



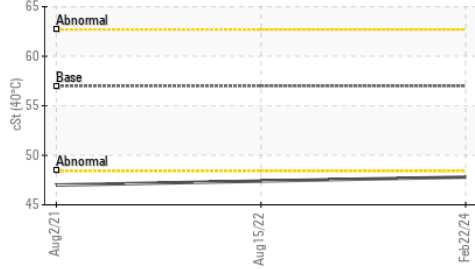
**Acid Number**



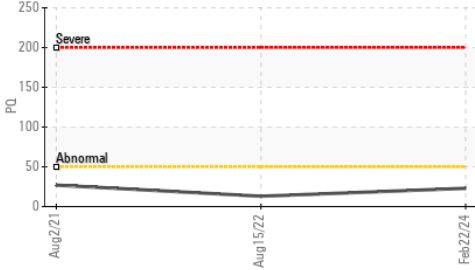
**Non-ferrous Metals**



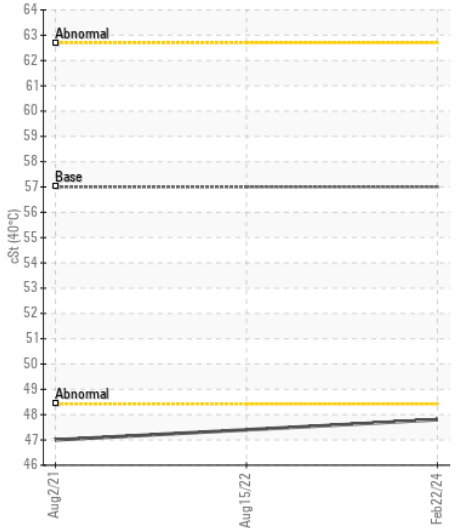
**Viscosity @ 40°C**



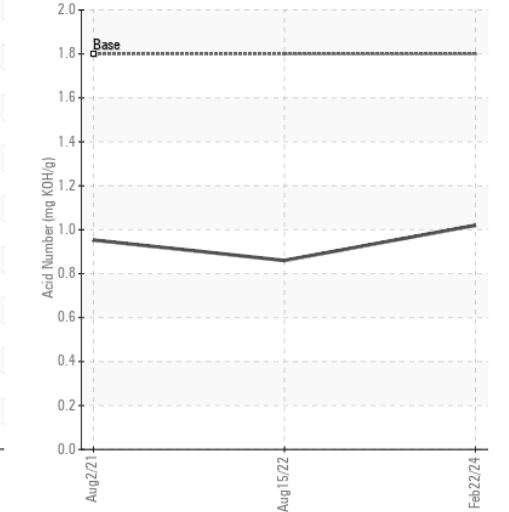
**PQ**



**Viscosity @ 40°C**



**Acid Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LEC0048461 **Received** : 28 Feb 2024  
**Lab Number** : 06102857 **Tested** : 29 Feb 2024  
**Unique Number** : 10901087 **Diagnosed** : 29 Feb 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

**LESLIE EQUIPMENT COMPANY**  
 105 TENNIS CENTER DR.  
 MARIETTA, OH  
 US 45750-9765  
 Contact: LEANNE KENDALL  
 KendalLeanne@lec1.com

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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