



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

Machine Id  
**JOHN DEERE 644L 1DW644LZJLL706347**  
 Component  
**Rear Differential**  
 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>JR0208949</b>	JR0200665	JR0186588
Sample Date		Client Info		<b>19 Apr 2024</b>	09 Feb 2024	06 Nov 2023
Machine Age	hrs	Client Info		<b>7471</b>	6993	6521
Oil Age	hrs	Client Info		<b>6054</b>	6526	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Filter Changed		Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

### WEAR

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

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		<b>12</b>	11	7
Iron	ppm	ASTM D5185m	>500	<b>30</b>	18	10
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m	>10	<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	>25	<b>1</b>	<1	<1
Lead	ppm	ASTM D5185m	>25	<b>▲ 28</b>	22	15
Copper	ppm	ASTM D5185m	>100	<b>15</b>	8	4
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
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.

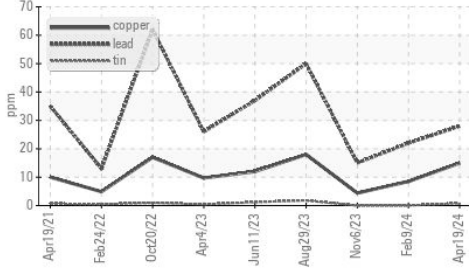
Silicon	ppm	ASTM D5185m	>75	<b>5</b>	4	4
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Water		WC Method	>.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

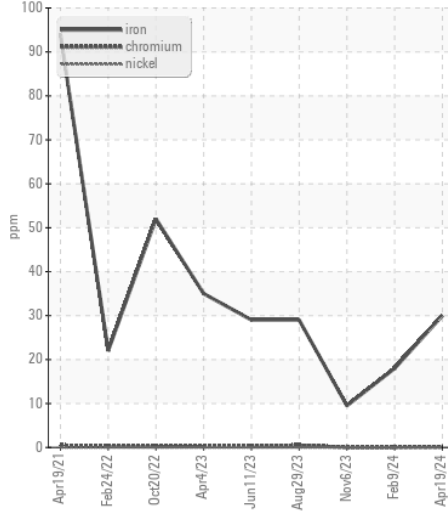
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>3</b>	2	<1
Boron	ppm	ASTM D5185m	6	<b>32</b>	28	29
Barium	ppm	ASTM D5185m	0	<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>23</b>	23	23
Manganese	ppm	ASTM D5185m		<b>2</b>	0	0
Magnesium	ppm	ASTM D5185m	145	<b>162</b>	160	155
Calcium	ppm	ASTM D5185m	3570	<b>3341</b>	3300	3059
Phosphorus	ppm	ASTM D5185m	1290	<b>1058</b>	980	910
Zinc	ppm	ASTM D5185m	1640	<b>1209</b>	1285	1147
Sulfur	ppm	ASTM D5185m		<b>4295</b>	3424	3270
Visc @ 40°C	cSt	ASTM D445	57.0	<b>54.8</b>	55.1	57.1

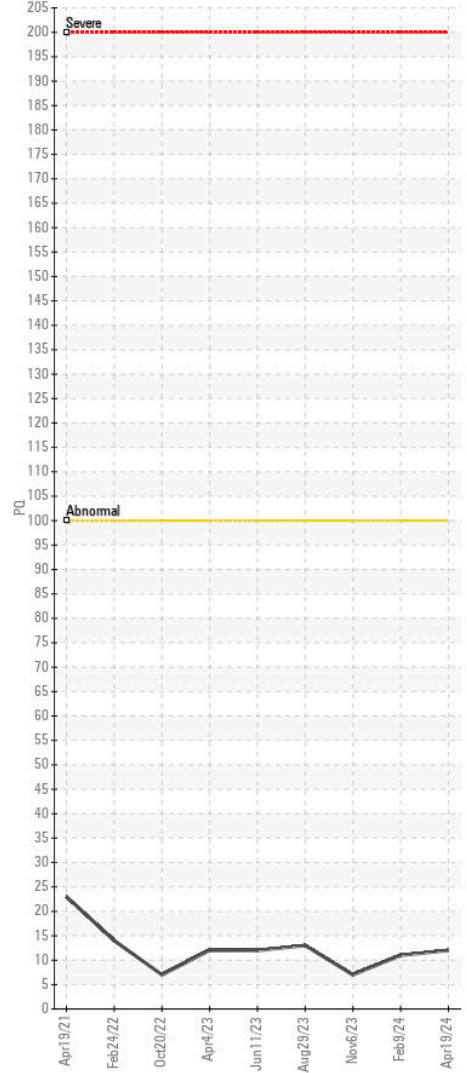
**▲ Non-ferrous Metals**



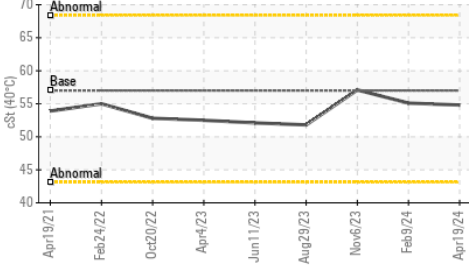
**Ferrous Alloys**



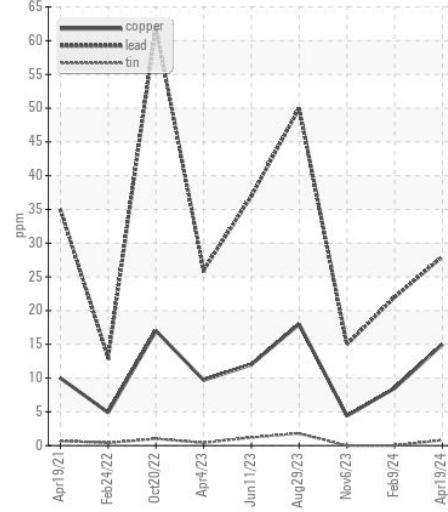
**PQ**



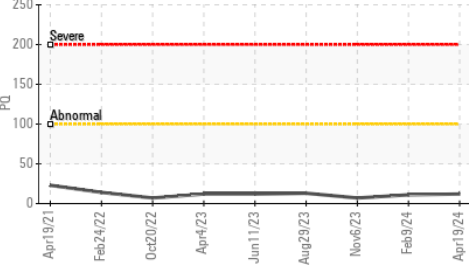
**Viscosity @ 40°C**



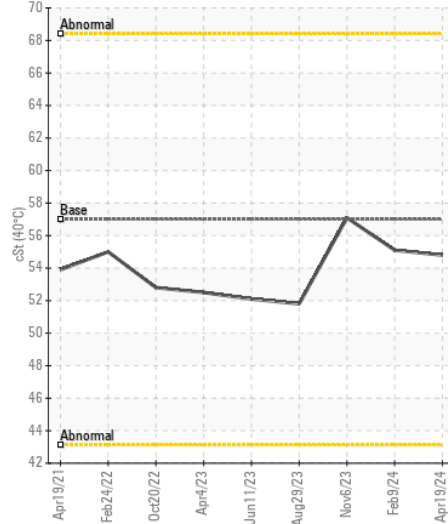
**▲ Non-ferrous Metals**



**PQ**



**Viscosity @ 40°C**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0208949 **Received** : 22 Apr 2024  
**Lab Number** : 06156266 **Tested** : 23 Apr 2024  
**Unique Number** : 10991689 **Diagnosed** : 24 Apr 2024 - Sean Felton  
**Test Package** : CONST ( Additional Tests: PQ )

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)

**JRE - GREENVILLE**  
 3604 HIGHWAY 264 E  
 GREENVILLE, NC  
 US 27834-5800

Contact: GREENVILLE SHOP  
 christopher.martin@jamesriverequipment.com

T:  
 F: