



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

Machine Id  
**JOHN DEERE 644L 1DW644LHTML709320**  
 Component  
**Rear Axle**  
 Fluid  
**JOHN DEERE HY-GARD HYD/TRANS (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0218527</b>	JR0199057	JR0187424
Sample Date		Client Info		<b>09 Jul 2024</b>	04 Jan 2024	25 Sep 2023
Machine Age	hrs	Client Info		<b>5869</b>	5374	4916
Oil Age	hrs	Client Info		<b>4948</b>	4911	463
Filter Age	hrs	Client Info		<b>4948</b>	0	463
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Filter Changed		Client Info		<b>Not Changed</b>	Changed	Not Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		<b>29</b>	33	29
Iron	ppm	ASTM D5185m	>750	<b>199</b>	139	102
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>10	<b>1</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>21	<b>3</b>	<1	3
Lead	ppm	ASTM D5185m	>49	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m	>101	<b>15</b>	7	6
Tin	ppm	ASTM D5185m	>10	<b>1</b>	1	1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</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.

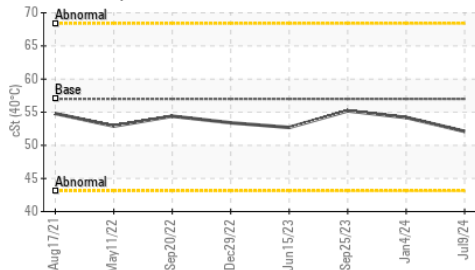
Silicon	ppm	ASTM D5185m	>31	<b>18</b>	15	12
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>LIGHT</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	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

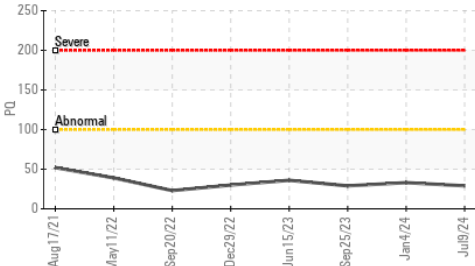
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>51	<b>0</b>	<1	<1
Boron	ppm	ASTM D5185m	6	<b>7</b>	6	5
Barium	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>7</b>	4	6
Manganese	ppm	ASTM D5185m		<b>2</b>	2	1
Magnesium	ppm	ASTM D5185m	145	<b>119</b>	113	115
Calcium	ppm	ASTM D5185m	3570	<b>3468</b>	3204	3242
Phosphorus	ppm	ASTM D5185m	1290	<b>1108</b>	1032	1006
Zinc	ppm	ASTM D5185m	1640	<b>1247</b>	1181	1239
Sulfur	ppm	ASTM D5185m		<b>3713</b>	3561	3603
Visc @ 40°C	cSt	ASTM D445	57.0	<b>52.1</b>	54.2	55.2

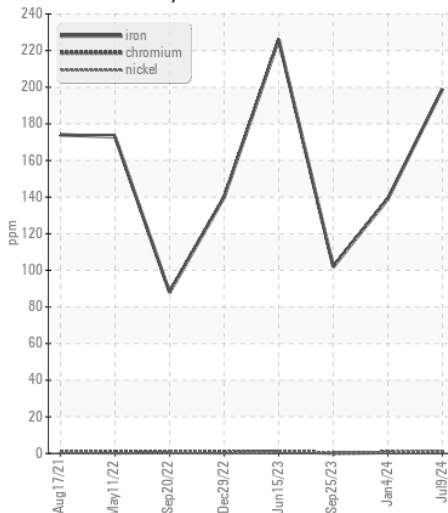
Viscosity @ 40°C



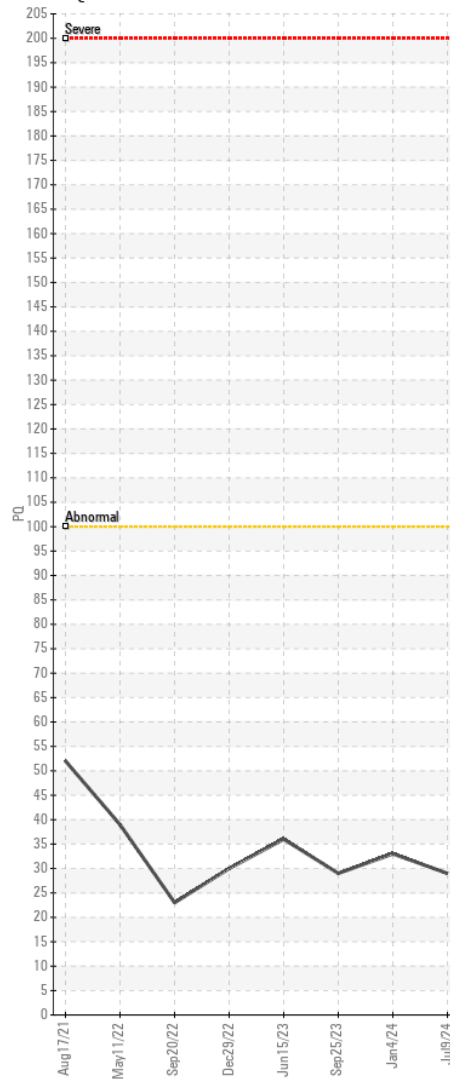
PQ



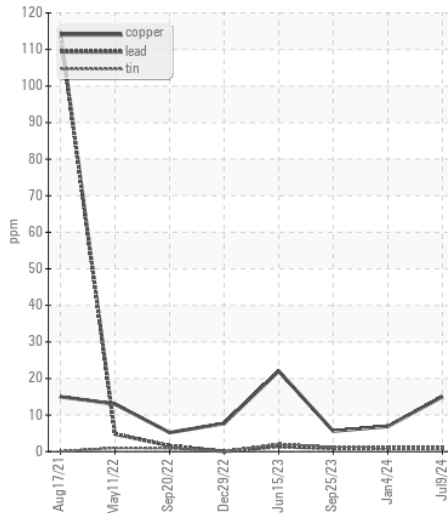
Ferrous Alloys



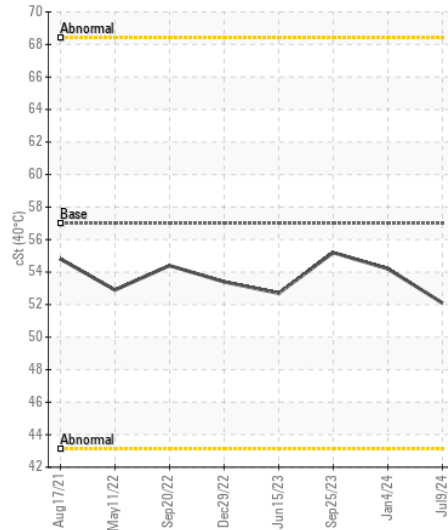
PQ



Non-ferrous Metals



Viscosity @ 40°C



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : JR0218527  
 Lab Number : 06233522  
 Unique Number : 11117015  
 Test Package : CONST ( Additional Tests: PQ )

JRE - MANASSAS PARK  
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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)