



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

Machine Id  
**JOHN DEERE 644L 1DW644LHTML709320**

Component  
**Brake**  
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>JR0218525</b>	JR0199055	JR0187426
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>495</b>	4911	463
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Changed	Not Changd
Filter Changed		Client Info		<b>None</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	SEVERE	NORMAL

### WEAR

All component wear rates are normal.

PQ		ASTM D8184		<b>42</b>	▲ 99	21
Iron	ppm	ASTM D5185m	>350	<b>189</b>	▲ 669	54
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	2	0
Nickel	ppm	ASTM D5185m	>5	<b>1</b>	● 2	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	3	0
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>8	<b>3</b>	▲ 9	3
Lead	ppm	ASTM D5185m	>10	<b>&lt;1</b>	▲ 26	<1
Copper	ppm	ASTM D5185m	>150	<b>9</b>	4	4
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	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.

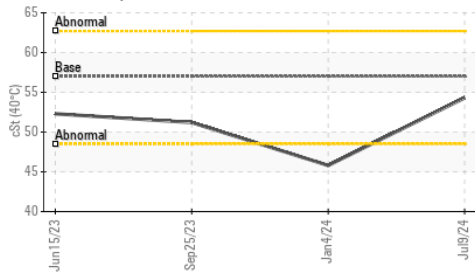
Silicon	ppm	ASTM D5185m	>400	<b>27</b>	▲ 457	11
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	26	0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	▲ 0.2%	NEG

### FLUID CONDITION

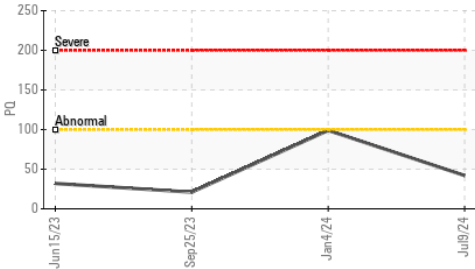
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>0</b>	112	4
Boron	ppm	ASTM D5185m	6	<b>9</b>	48	4
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>10</b>	356	4
Manganese	ppm	ASTM D5185m		<b>2</b>	10	<1
Magnesium	ppm	ASTM D5185m	145	<b>117</b>	200	109
Calcium	ppm	ASTM D5185m	3570	<b>3368</b>	933	3160
Phosphorus	ppm	ASTM D5185m	1290	<b>987</b>	725	1007
Zinc	ppm	ASTM D5185m	1640	<b>1213</b>	333	1213
Sulfur	ppm	ASTM D5185m		<b>3417</b>	3387	3712
Visc @ 40°C	cSt	ASTM D445	57.0	<b>54.3</b>	▲ 45.8	51.2

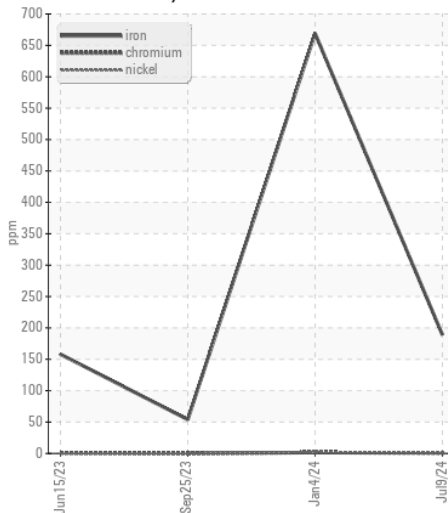
Viscosity @ 40°C



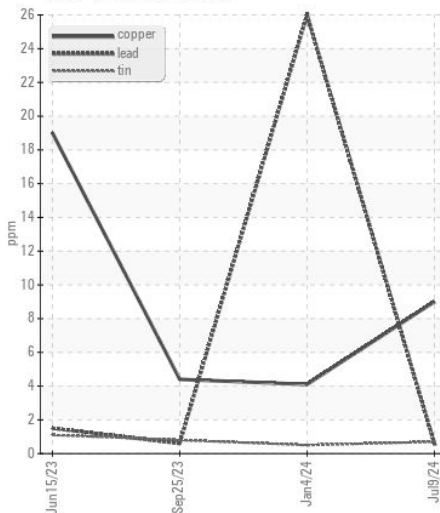
PQ



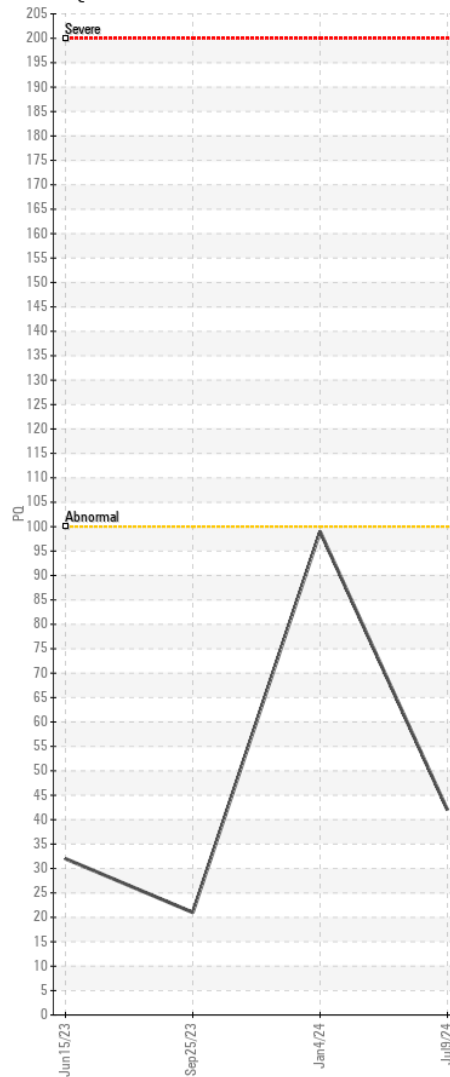
Ferrous Alloys



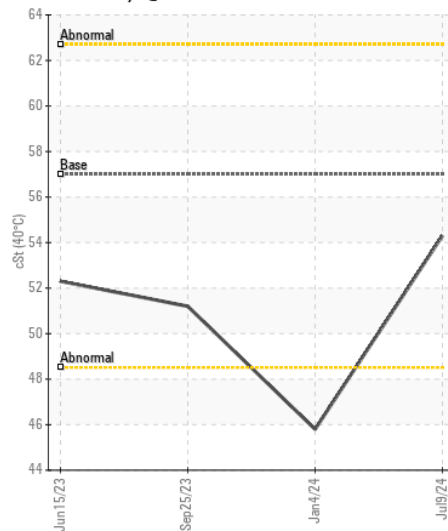
Non-ferrous Metals



PQ



Viscosity @ 40°C



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : JR0218525 Received : 11 Jul 2024  
 Lab Number : 06233516 Tested : 12 Jul 2024  
 Unique Number : 11117009 Diagnosed : 13 Jul 2024 - Don Baldrige  
 Test Package : CONST ( Additional Tests: PQ )

JRE - MANASSAS PARK  
 9107 OWENS DRIVE  
 MANASSAS PARK, VA  
 US 20111

Contact: DON VEST  
 dvest@jamesriverequipment.com  
 T: (703)631-8500  
 F: (703)631-4715

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)