



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

Machine Id  
**JOHN DEERE 643L-II 1DW643LBTNF714104**

Component  
**Hydraulic System**

Fluid  
**JOHN DEERE HYDRAU (--- GAL)**

### RECOMMENDATION

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0224985</b>	JR0199660	JR0125669
Sample Date		Client Info		<b>28 Jun 2024</b>	14 Mar 2024	16 Sep 2022
Machine Age	hrs	Client Info		<b>1973</b>	1462	463
Oil Age	hrs	Client Info		<b>0</b>	0	463
Filter Age	hrs	Client Info		<b>0</b>	0	463
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Filter Changed		Client Info		<b>Changed</b>	Not Changed	Not Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		<b>16</b>	14	7
Iron	ppm	ASTM D5185m	>20	<b>0</b>	0	3
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	<1	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>0</b>	0	<1
Lead	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>75	<b>1</b>	4	5
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	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

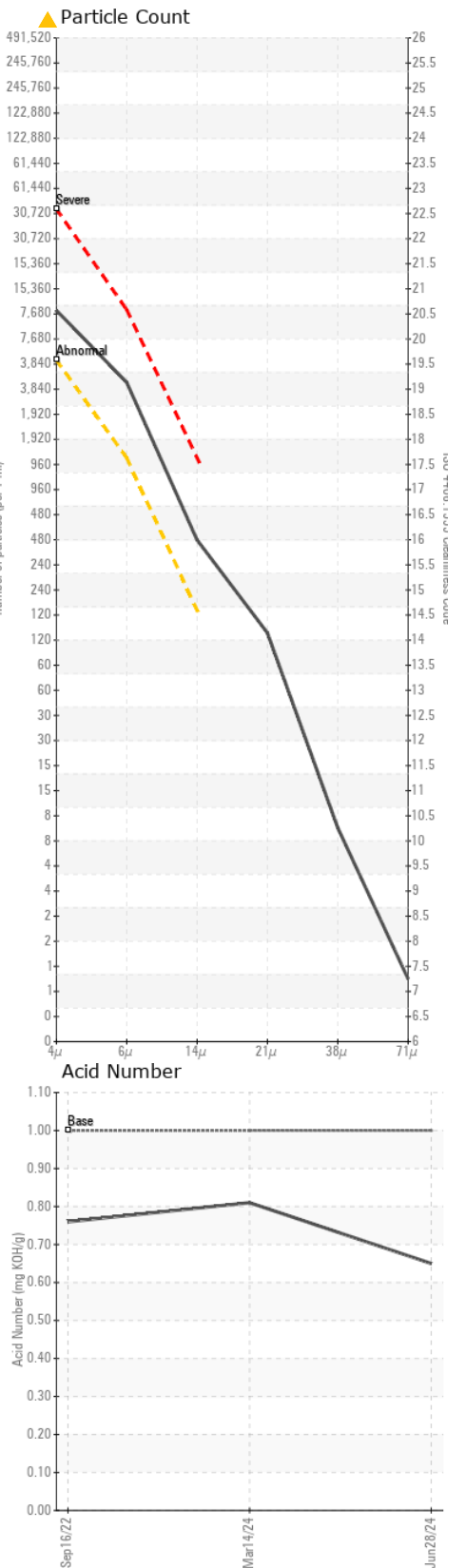
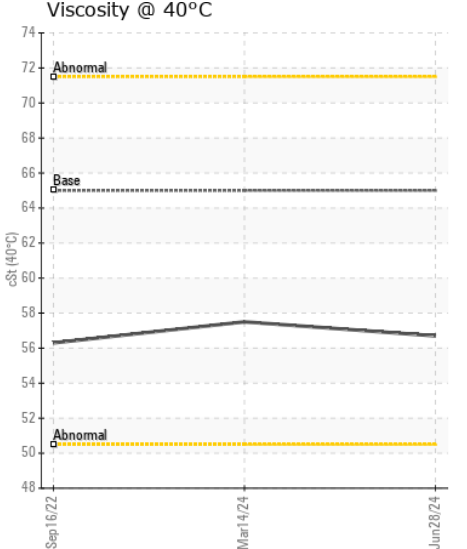
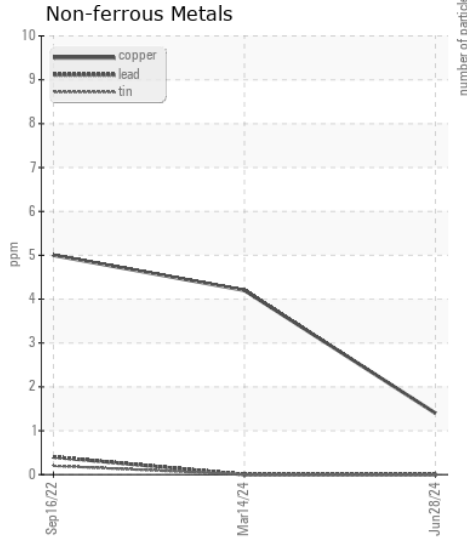
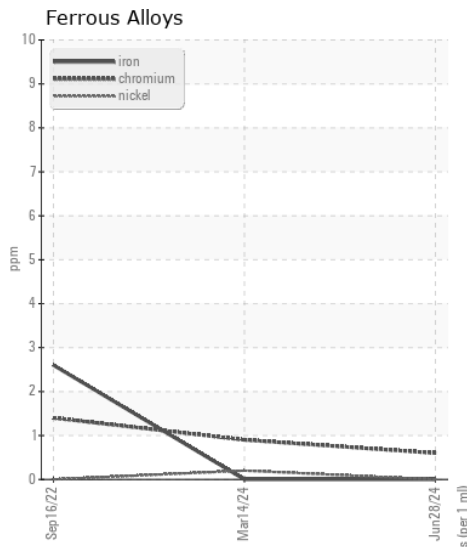
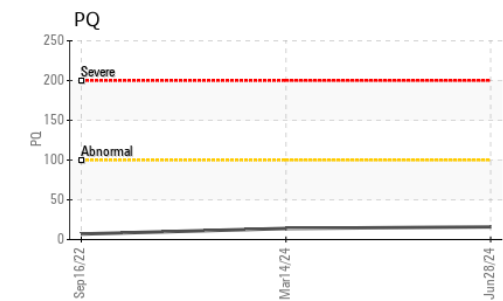
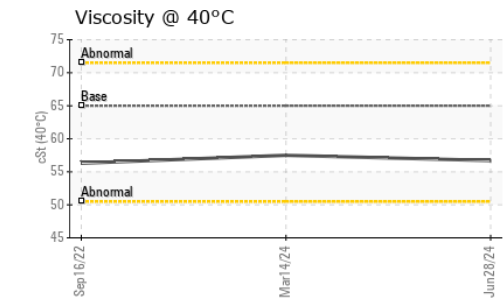
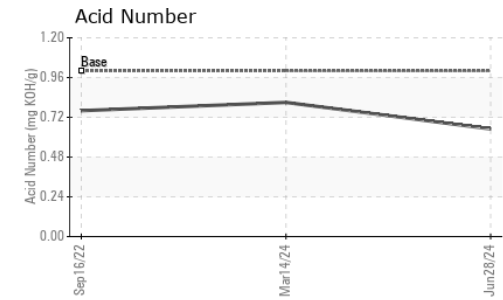
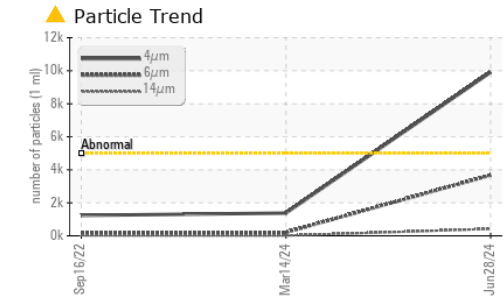
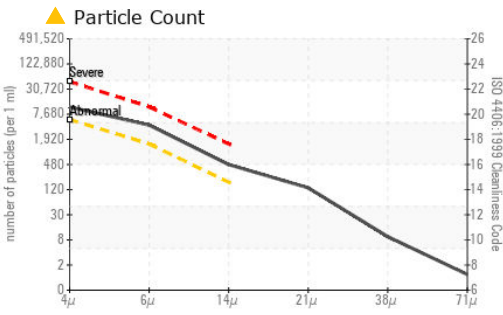
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>1</b>	2	3
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	2
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>5000	<b>▲ 9906</b>	1378	1238
Particles >6µm		ASTM D7647	>1300	<b>▲ 3677</b>	209	209
Particles >14µm		ASTM D7647	>160	<b>▲ 420</b>	15	21
Particles >21µm		ASTM D7647	>40	<b>▲ 117</b>	5	5
Particles >38µm		ASTM D7647	>10	<b>8</b>	0	1
Particles >71µm		ASTM D7647	>3	<b>1</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>▲ 20/19/16</b>	18/15/11	17/15/12
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 oils additive package is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	1	<1
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	<1
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	1
Calcium	ppm	ASTM D5185m	87	<b>78</b>	83	92
Phosphorus	ppm	ASTM D5185m	727	<b>695</b>	711	624
Zinc	ppm	ASTM D5185m	900	<b>874</b>	929	813
Sulfur	ppm	ASTM D5185m	1500	<b>1922</b>	2092	1963
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	<b>0.65</b>	0.81	0.76
Visc @ 40°C	cSt	ASTM D445	65	<b>56.7</b>	57.5	56.3



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0224985 **Received** : 05 Jul 2024  
**Lab Number** : 06228432 **Tested** : 08 Jul 2024  
**Unique Number** : 11111925 **Diagnosed** : 08 Jul 2024 - Jonathan Hester  
**Test Package** : CONST ( Additional Tests: PQ )

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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)