



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

Machine Id  
**JOHN DEERE 85G E196**  
 Component  
**Hydraulic System**  
 Fluid  
**HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0203819</b>	JR0144670	JR0108559
Sample Date		Client Info		<b>11 Mar 2024</b>	30 May 2023	08 Oct 2021
Machine Age	hrs	Client Info		<b>7114</b>	6686	6958
Oil Age	hrs	Client Info		<b>3964</b>	493	1546
Filter Age	hrs	Client Info		<b>619</b>	0	0
Oil Changed		Client Info		<b>Not Chngd</b>	Not Chngd	N/A
Filter Changed		Client Info		<b>Changed</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	ABNORMAL	ABNORMAL

### WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		<b>15</b>	14	20
Iron	ppm	ASTM D5185m	>20	<b>0</b>	6	14
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	3
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>&lt;1</b>	2	3
Lead	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>75	<b>2</b>	3	10
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

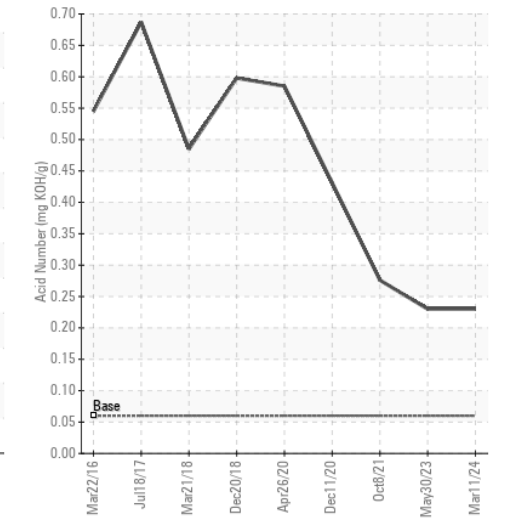
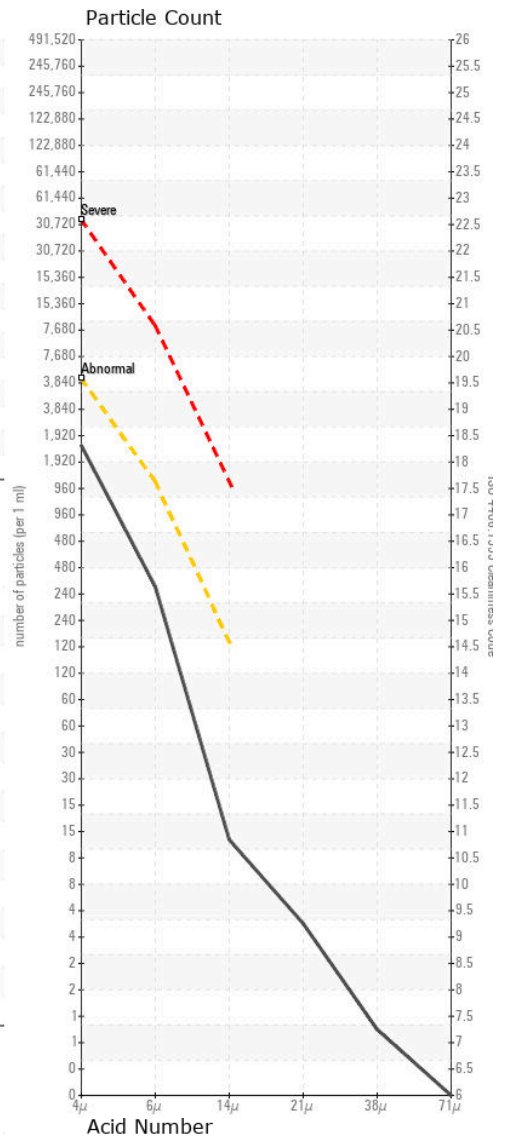
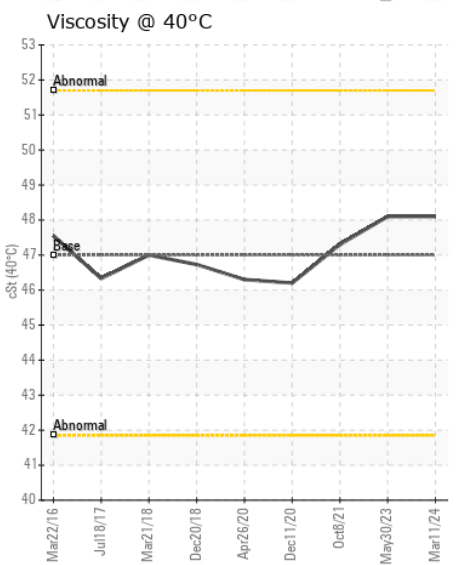
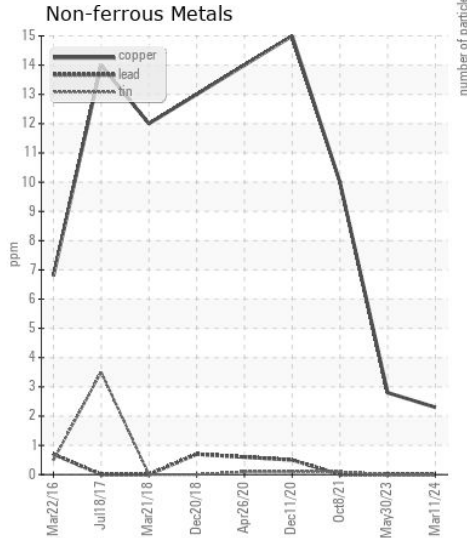
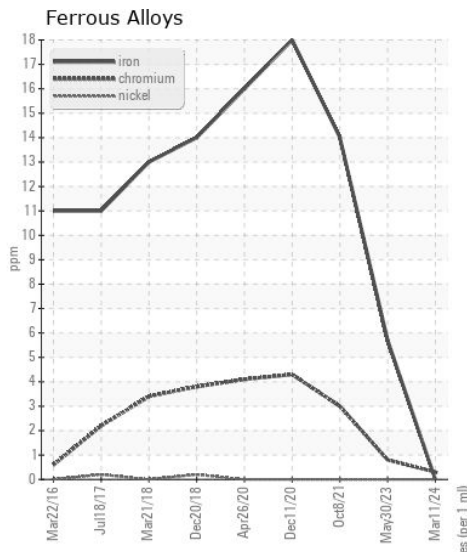
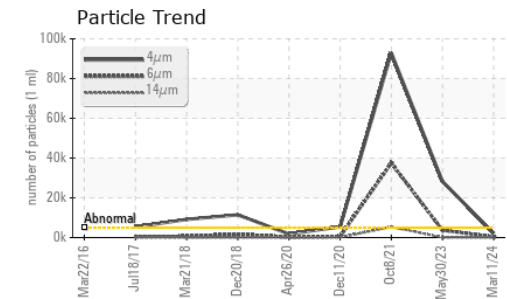
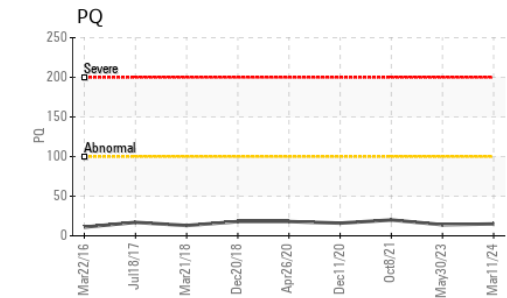
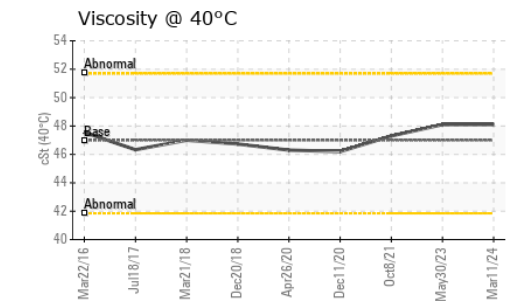
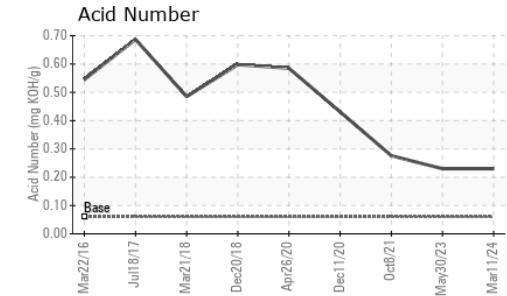
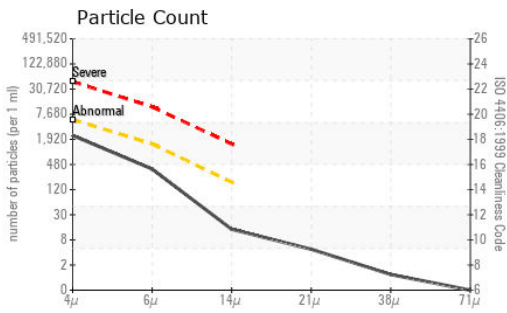
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>2</b>	3	4
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>5000	<b>2083</b>	▲ 28268	▲ 92938
Particles >6µm		ASTM D7647	>1300	<b>329</b>	▲ 3704	▲ 37469
Particles >14µm		ASTM D7647	>160	<b>12</b>	91	▲ 5346
Particles >21µm		ASTM D7647	>40	<b>4</b>	20	▲ 1534
Particles >38µm		ASTM D7647	>10	<b>1</b>	1	▲ 121
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	2
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>18/16/11</b>	▲ 22/19/14	▲ 24/22/20
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	LIGHT
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 oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>0</b>	0	2
Boron	ppm	ASTM D5185m		<b>0</b>	3	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	6	<1
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>0</b>	22	17
Calcium	ppm	ASTM D5185m		<b>135</b>	127	552
Phosphorus	ppm	ASTM D5185m	827	<b>587</b>	597	579
Zinc	ppm	ASTM D5185m	0	<b>67</b>	65	239
Sulfur	ppm	ASTM D5185m	13	<b>158</b>	262	578
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.23</b>	0.23	0.276
Visc @ 40°C	cSt	ASTM D445	47	<b>48.1</b>	48.1	47.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0203819 **Received** : 19 Mar 2024  
**Lab Number** : 06122271 **Tested** : 20 Mar 2024  
**Unique Number** : 10936422 **Diagnosed** : 21 Mar 2024 - Don Baldrige  
**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)

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