



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

Machine Id  
**H210-0870**  
 Component  
**Hydraulic System**  
 Fluid  
**HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0215635</b>	JR0188040	---
Sample Date		Client Info		<b>28 May 2024</b>	18 Oct 2023	---
Machine Age	hrs	Client Info		<b>2131</b>	2131	---
Oil Age	hrs	Client Info		<b>2131</b>	2131	---
Filter Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>N/A</b>	Changed	---
Filter Changed		Client Info		<b>N/A</b>	Changed	---
Sample Status				<b>ABNORMAL</b>	ABNORMAL	---

### WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185m	>20	<b>25</b>	1	---
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	<1	---
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m		<b>0</b>	0	---
Silver	ppm	ASTM D5185m		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>10	<b>4</b>	<1	---
Lead	ppm	ASTM D5185m	>10	<b>2</b>	0	---
Copper	ppm	ASTM D5185m	>75	<b>12</b>	0	---
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

### CONTAMINATION

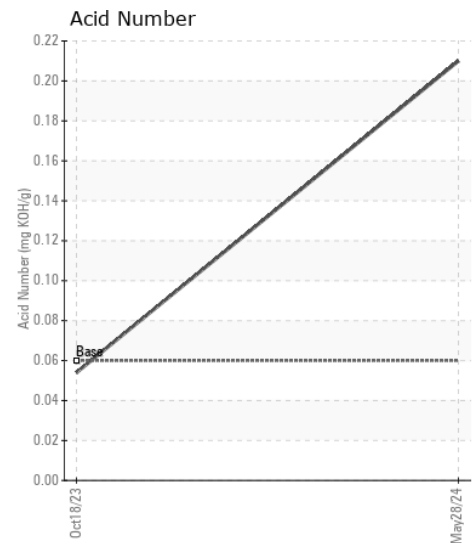
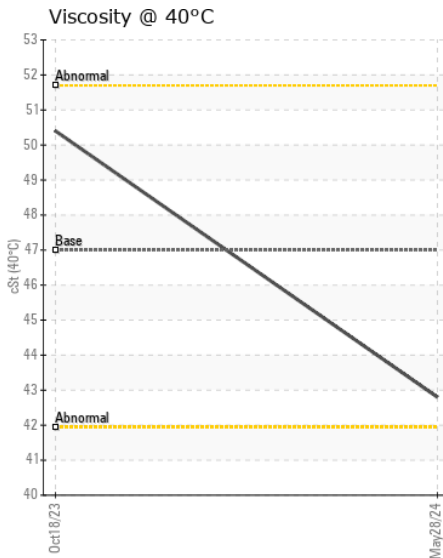
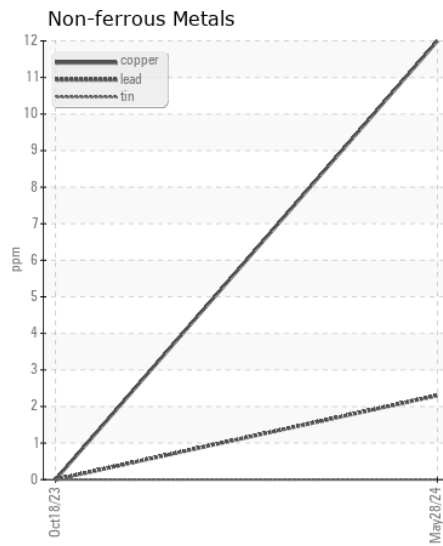
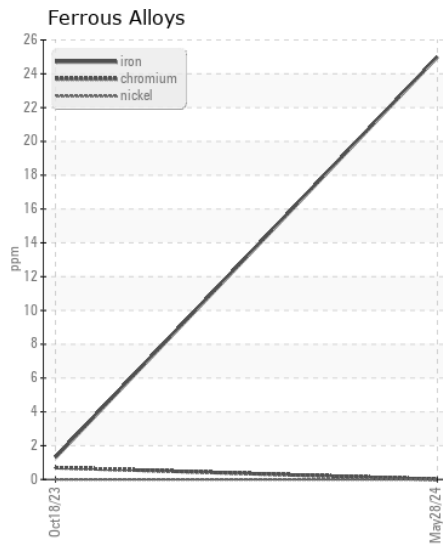
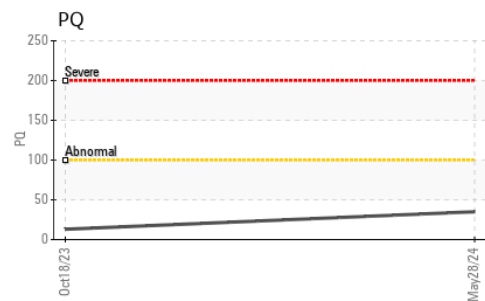
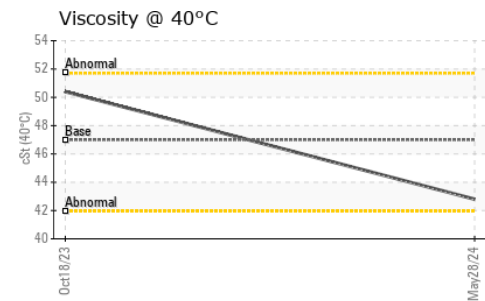
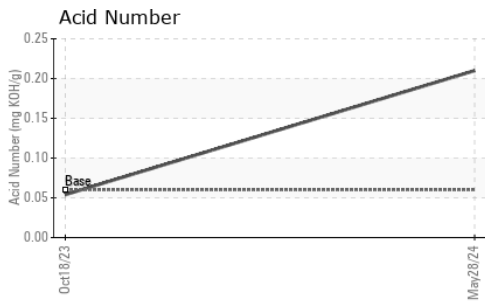
Moderate concentration of visible dirt/debris present in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>7</b>	2	---
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	<1	---
Water		WC Method	>0.1	<b>NEG</b>	NEG	---
Particles >4µm		ASTM D7647	>5000	<b>---</b>	▲ 12429	---
Particles >6µm		ASTM D7647	>1300	<b>---</b>	● 1611	---
Particles >14µm		ASTM D7647	>160	<b>---</b>	56	---
Particles >21µm		ASTM D7647	>40	<b>---</b>	13	---
Particles >38µm		ASTM D7647	>10	<b>---</b>	1	---
Particles >71µm		ASTM D7647	>3	<b>---</b>	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>---</b>	▲ 21/18/13	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	▲ <b>MODER</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	---

### FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>1</b>	0	---
Boron	ppm	ASTM D5185m		<b>0</b>	3	---
Barium	ppm	ASTM D5185m		<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m		<b>0</b>	4	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Magnesium	ppm	ASTM D5185m		<b>10</b>	9	---
Calcium	ppm	ASTM D5185m		<b>53</b>	26	---
Phosphorus	ppm	ASTM D5185m	827	<b>275</b>	612	---
Zinc	ppm	ASTM D5185m	0	<b>283</b>	38	---
Sulfur	ppm	ASTM D5185m	13	<b>5385</b>	70	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.21</b>	0.054	---
Visc @ 40°C	cSt	ASTM D445	47	<b>42.8</b>	50.4	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0215635 **Received** : 29 May 2024  
**Lab Number** : 06193880 **Tested** : 31 May 2024  
**Unique Number** : 11056003 **Diagnosed** : 31 May 2024 - Angela Borella  
**Test Package** : CONST ( Additional Tests: PQ )

**JRE - GREENSBORO**  
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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)