



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

Machine Id  
**HH 225 HCM1U400H00221269**

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>JR0200476</b>	JR0124149	JR0076764
Sample Date		Client Info		<b>29 Feb 2024</b>	09 Jun 2022	02 Jun 2021
Machine Age	hrs	Client Info		<b>5951</b>	5451	5198
Oil Age	hrs	Client Info		<b>0</b>	1500	0
Filter Age	hrs	Client Info		<b>0</b>	350	0
Oil Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Filter Changed		Client Info		<b>Changed</b>	Not Chngd	Changed
Sample Status				<b>NORMAL</b>	NORMAL	ABNORMAL

### WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		<b>14</b>	18	19
Iron	ppm	ASTM D5185m	>20	<b>4</b>	6	6
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>10	<b>0</b>	1	<1
Lead	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>75	<b>0</b>	<1	<1
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	0
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

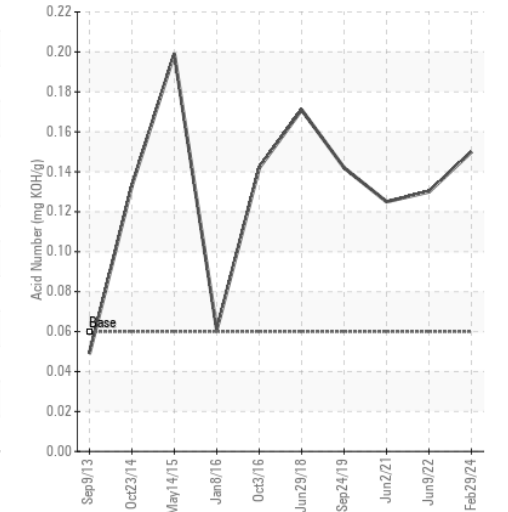
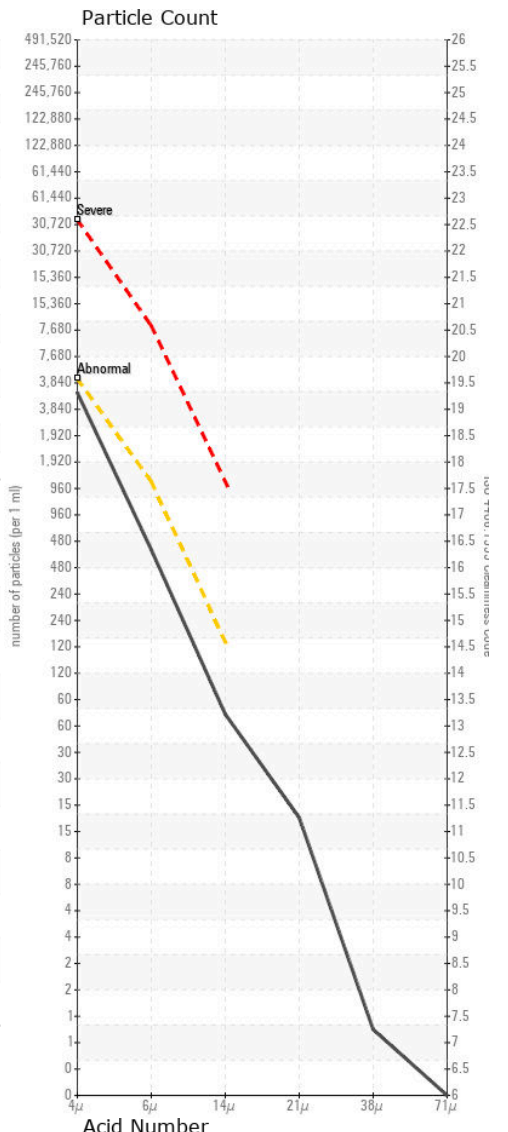
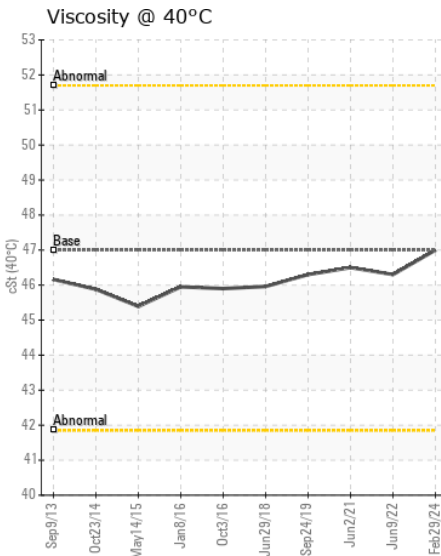
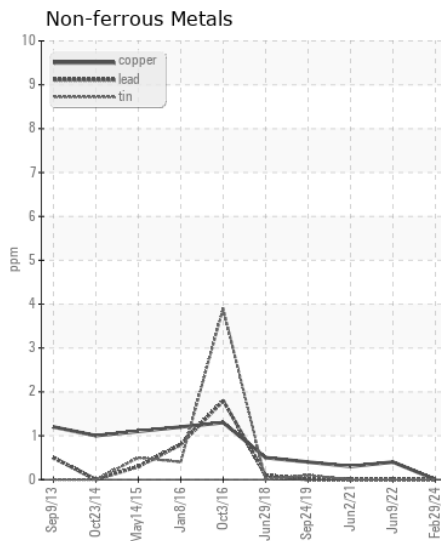
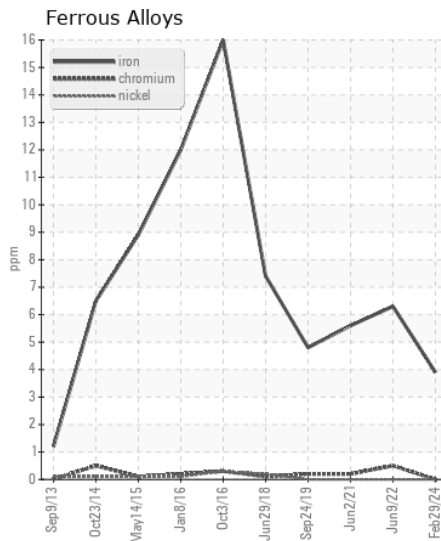
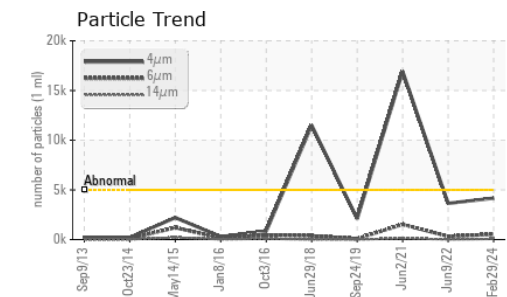
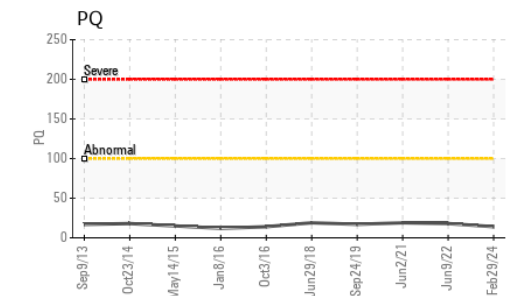
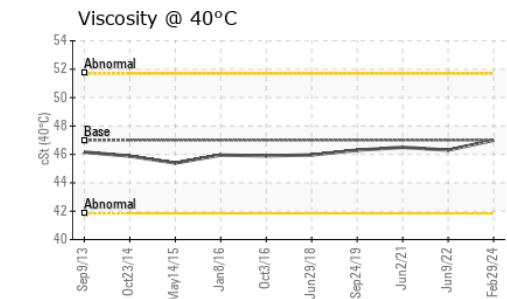
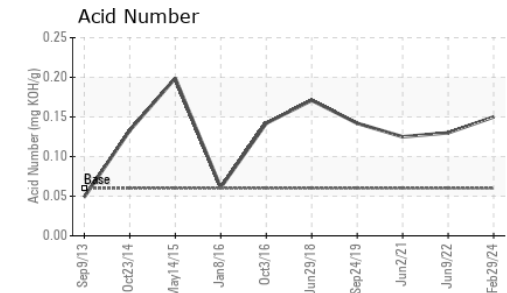
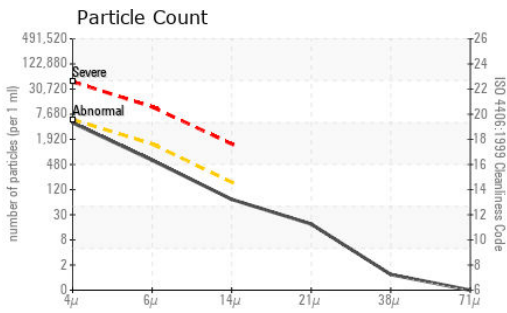
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	<1
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	1	0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>5000	<b>4168</b>	3642	▲ 16923
Particles >6µm		ASTM D7647	>1300	<b>533</b>	326	● 1528
Particles >14µm		ASTM D7647	>160	<b>62</b>	21	109
Particles >21µm		ASTM D7647	>40	<b>16</b>	6	29
Particles >38µm		ASTM D7647	>10	<b>1</b>	0	2
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>19/16/13</b>	19/16/12	▲ 21/18/14
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 oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>0</b>	0	<1
Boron	ppm	ASTM D5185m		<b>0</b>	<1	<1
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	<1	0
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	0
Magnesium	ppm	ASTM D5185m		<b>0</b>	2	<1
Calcium	ppm	ASTM D5185m		<b>3</b>	2	<1
Phosphorus	ppm	ASTM D5185m	827	<b>504</b>	476	475
Zinc	ppm	ASTM D5185m	0	<b>3</b>	10	5
Sulfur	ppm	ASTM D5185m	13	<b>79</b>	86	44
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.15</b>	0.13	0.125
Visc @ 40°C	cSt	ASTM D445	47	<b>47.0</b>	46.3	46.5



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0200476 **Received** : 01 Mar 2024  
**Lab Number** : 06105993 **Tested** : 05 Mar 2024  
**Unique Number** : 10909490 **Diagnosed** : 05 Mar 2024 - Don Baldrige  
**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)