



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

Area  
**[05W46192]**

Machine Id  
**HITACHI 350 1FFDDR70AJF940509**

Component  
**Hydraulic System**

Fluid  
**HITACHI HYDRAULIC SUPER EX 46HN (220 QTS)**

### RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0211214</b>	JR0182120	JR0153171
Sample Date		Client Info		<b>18 Apr 2024</b>	10 Aug 2023	20 Jan 2023
Machine Age	hrs	Client Info		<b>5448</b>	4957	4451
Oil Age	hrs	Client Info		<b>491</b>	4957	4451
Filter Age	hrs	Client Info		<b>491</b>	3574	3574
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

### WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		<b>15</b>	15	10
Iron	ppm	ASTM D5185m	>20	<b>9</b>	16	13
Chromium	ppm	ASTM D5185m	>10	<b>1</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>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>2</b>	5	2
Lead	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>75	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</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

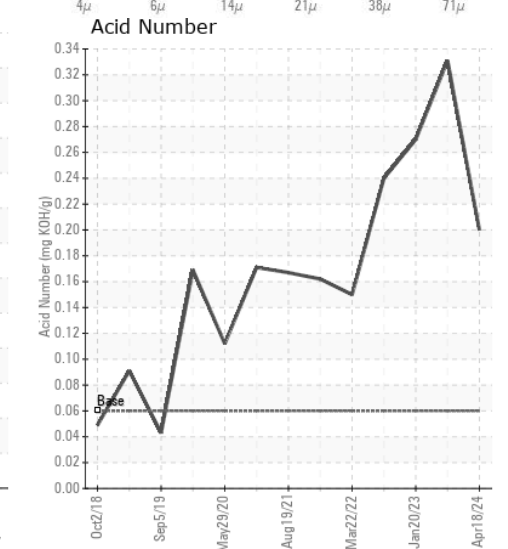
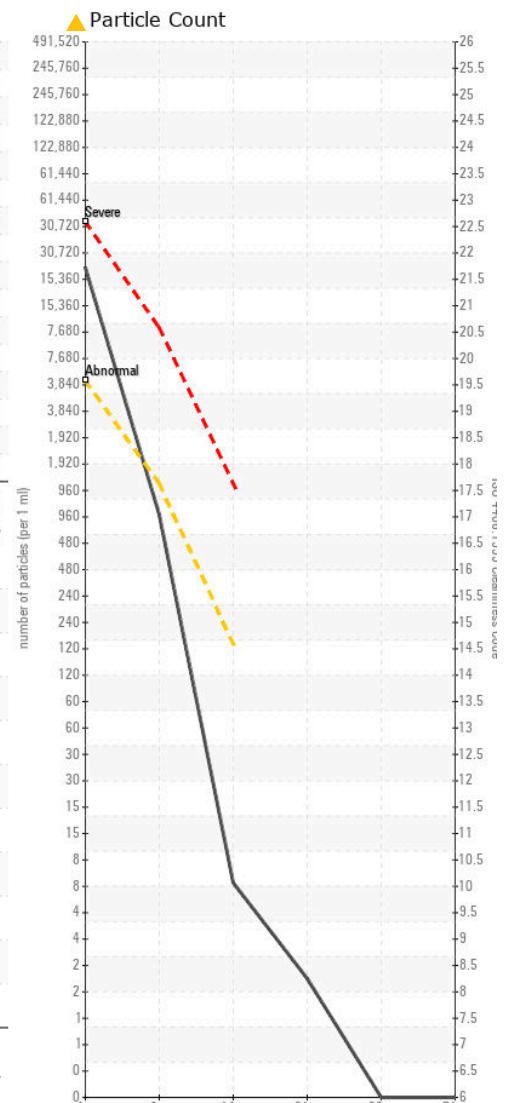
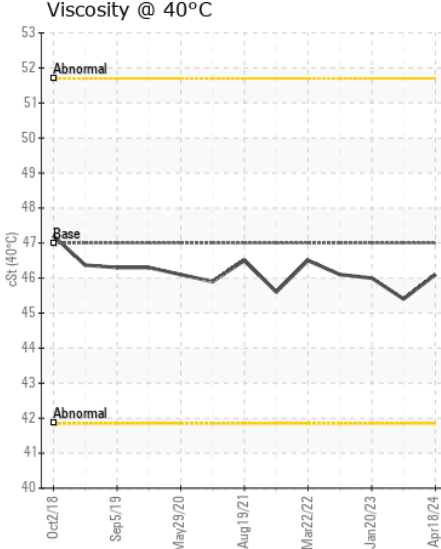
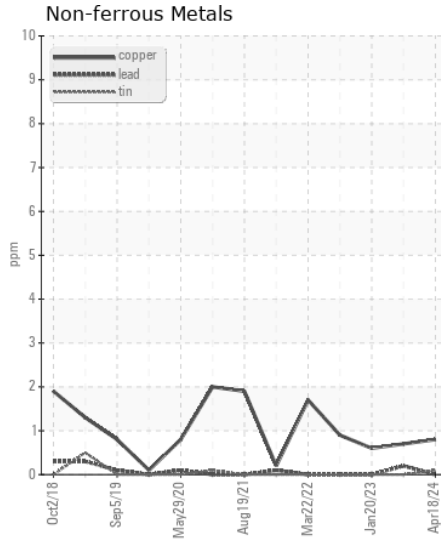
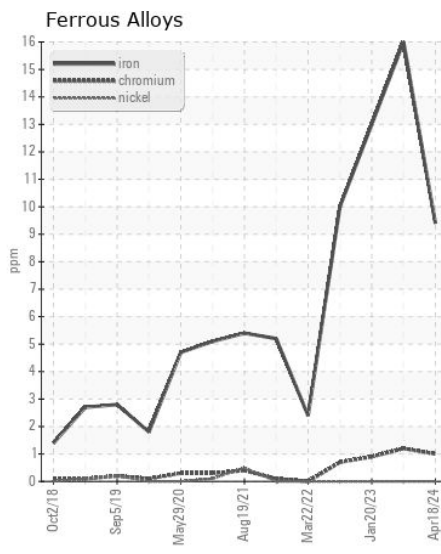
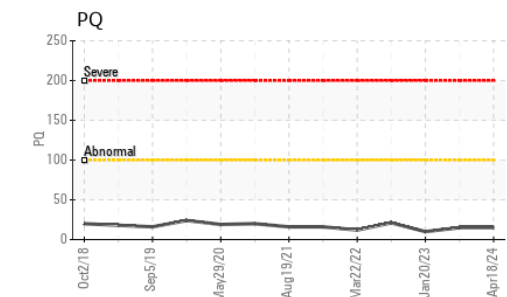
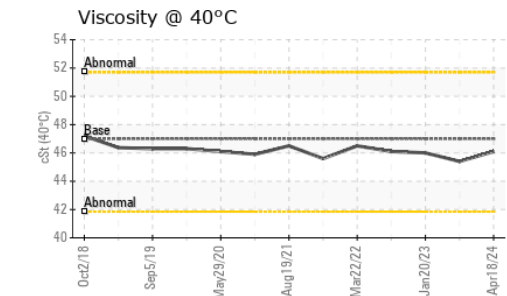
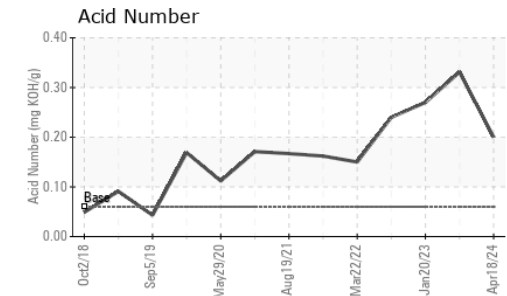
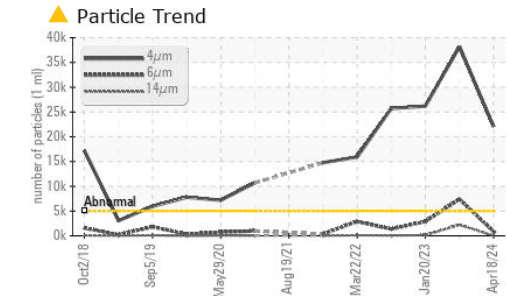
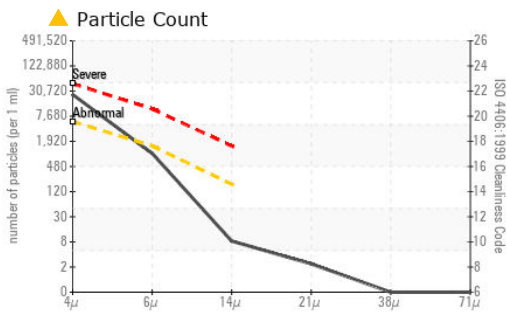
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>2</b>	4	3
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	1
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>5000	<b>▲ 22026</b>	▲ 38200	▲ 26183
Particles >6µm		ASTM D7647	>1300	<b>866</b>	▲ 7402	▲ 2882
Particles >14µm		ASTM D7647	>160	<b>7</b>	▲ 2218	126
Particles >21µm		ASTM D7647	>40	<b>2</b>	▲ 1230	21
Particles >38µm		ASTM D7647	>10	<b>0</b>	▲ 55	2
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>▲ 22/17/10</b>	▲ 22/20/18	▲ 22/19/14
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 oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Sodium	ppm	ASTM D5185m		<b>2</b>	0	0
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	2	2
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>&lt;1</b>	1	1
Calcium	ppm	ASTM D5185m		<b>8</b>	12	16
Phosphorus	ppm	ASTM D5185m	827	<b>566</b>	481	496
Zinc	ppm	ASTM D5185m	0	<b>7</b>	30	36
Sulfur	ppm	ASTM D5185m	13	<b>402</b>	633	541
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.20</b>	0.331	0.27
Visc @ 40°C	cSt	ASTM D445	47	<b>46.1</b>	45.4	46.0



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0211214 **Received** : 19 Apr 2024  
**Lab Number** : 06154207 **Tested** : 22 Apr 2024  
**Unique Number** : 10989630 **Diagnosed** : 22 Apr 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: PQ )

**JRE - MANASSAS PARK**  
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Certificate L2367  
 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)