



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
HITACHI 870 HCMJBL60C00060052
 Component
Hydraulic System
 Fluid
HITACHI HYDRAULIC SUPER EX 46HN (--- QTS)

RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WE0006763	WE0006511	WE0006521
Sample Date		Client Info		10 May 2024	05 Mar 2024	12 Dec 2023
Machine Age	hrs	Client Info		12506	12002	11500
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Chngd	Not Chngd	Not Chngd
Filter Changed		Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185m	>20	0	3	18
Chromium	ppm	ASTM D5185m	>10	<1	<1	0
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	0	2	0
Lead	ppm	ASTM D5185m	>10	0	<1	0
Copper	ppm	ASTM D5185m	>75	0	2	2
Tin	ppm	ASTM D5185m	>10	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

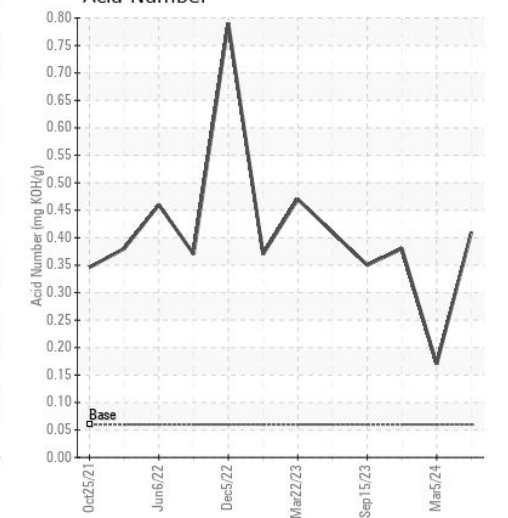
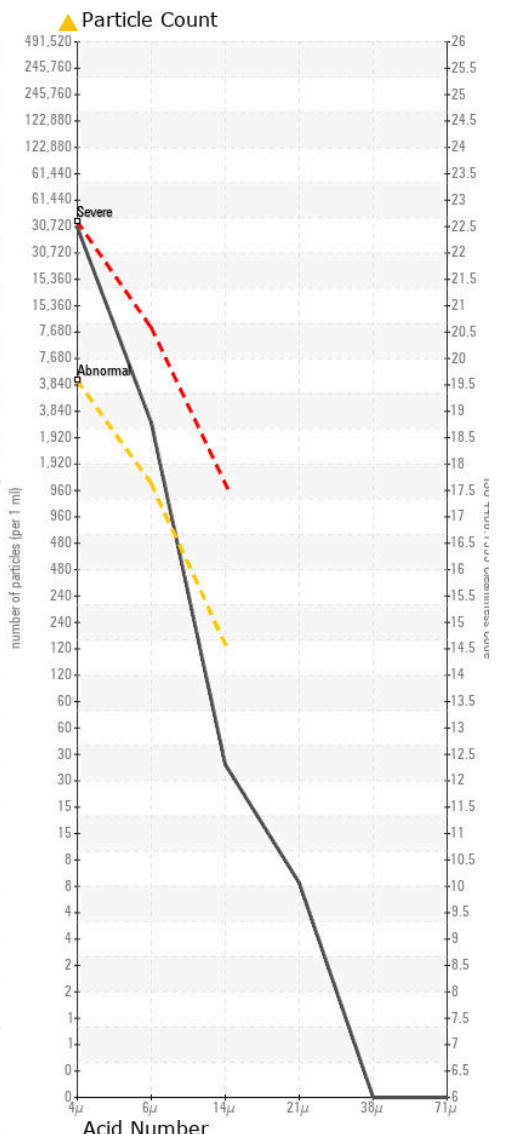
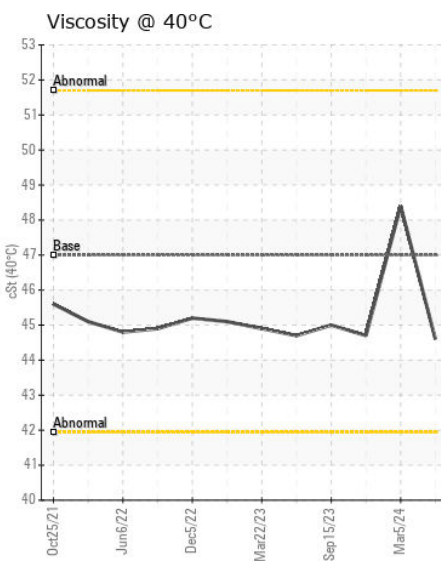
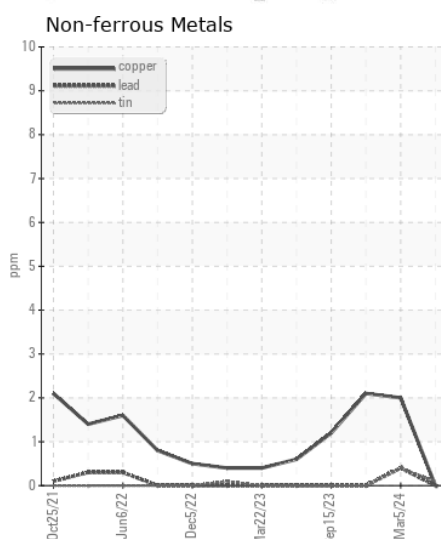
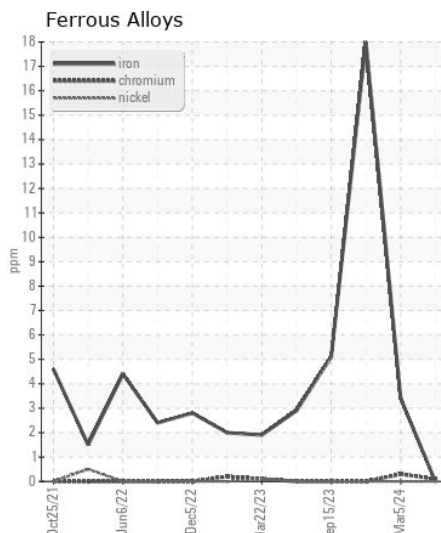
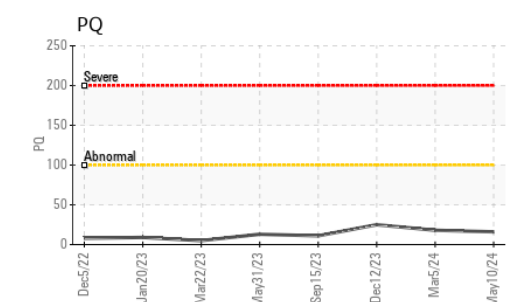
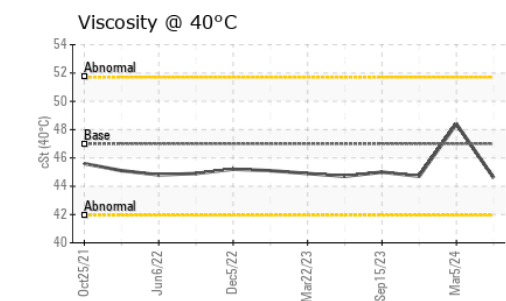
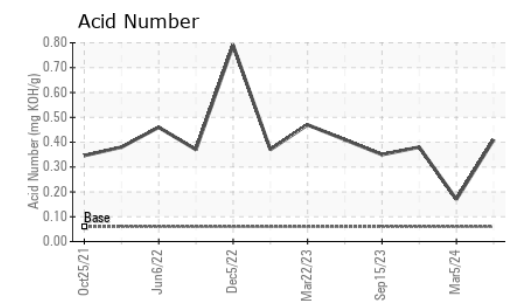
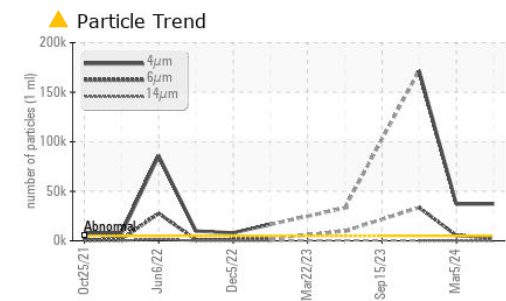
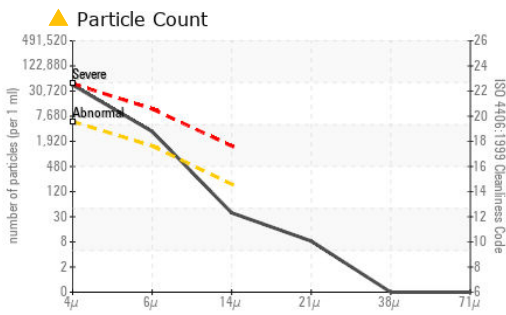
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	0	<1	<1
Potassium	ppm	ASTM D5185m	>20	0	<1	2
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	▲ 37222	▲ 37042	▲ 171819
Particles >6µm		ASTM D7647	>1300	▲ 2887	▲ 5423	▲ 33533
Particles >14µm		ASTM D7647	>160	33	149	137
Particles >21µm		ASTM D7647	>40	7	31	22
Particles >38µm		ASTM D7647	>10	0	1	1
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 22/19/12	▲ 22/20/14	▲ 25/22/14
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	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		0	0	<1
Boron	ppm	ASTM D5185m		<1	0	0
Barium	ppm	ASTM D5185m		1	0	0
Molybdenum	ppm	ASTM D5185m		0	<1	0
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		4	<1	3
Calcium	ppm	ASTM D5185m		96	<1	99
Phosphorus	ppm	ASTM D5185m	827	357	510	355
Zinc	ppm	ASTM D5185m	0	443	41	468
Sulfur	ppm	ASTM D5185m	13	928	514	935
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.41	0.17	0.38
Visc @ 40°C	cSt	ASTM D445	47	44.6	48.4	44.7



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WE0006763
Lab Number : 06178587
Unique Number : 11029913
Test Package : CONST (Additional Tests: PQ)
Received : 14 May 2024
Tested : 15 May 2024
Diagnosed : 16 May 2024 - Don Baldrige
 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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