



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
HITACHI ZAXIS 245-6N HCMDFD60A00700271

Component
Hydraulic System

Fluid
HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please note that this is a corrected copy for data entry and diagnostic comment updates.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0195879	JR0074462	JR0140218
Sample Date		Client Info		12 Dec 2023	14 Nov 2023	12 Oct 2022
Machine Age	hrs	Client Info		5119	5117	4029
Oil Age	hrs	Client Info		0	0	2000
Filter Age	hrs	Client Info		5119	0	2000
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		N/A	Not Changd	Changed
Sample Status				NORMAL	SEVERE	SEVERE

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		12	15	13
Iron	ppm	ASTM D5185m	>20	17	147	236
Chromium	ppm	ASTM D5185m	>10	0	0	<1
Nickel	ppm	ASTM D5185m	>10	0	<1	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	1	1	3
Lead	ppm	ASTM D5185m	>10	0	<1	0
Copper	ppm	ASTM D5185m	>75	0	3	3
Tin	ppm	ASTM D5185m	>10	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

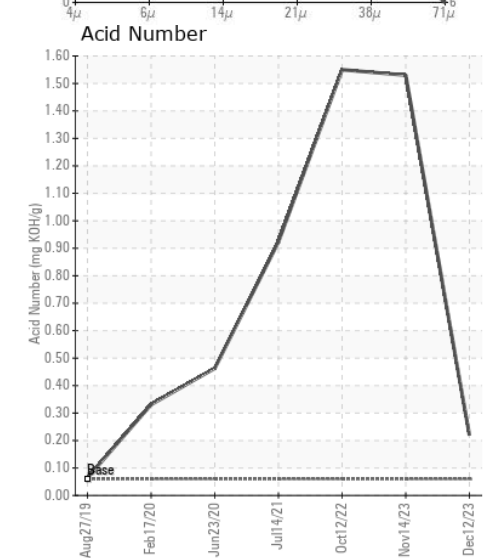
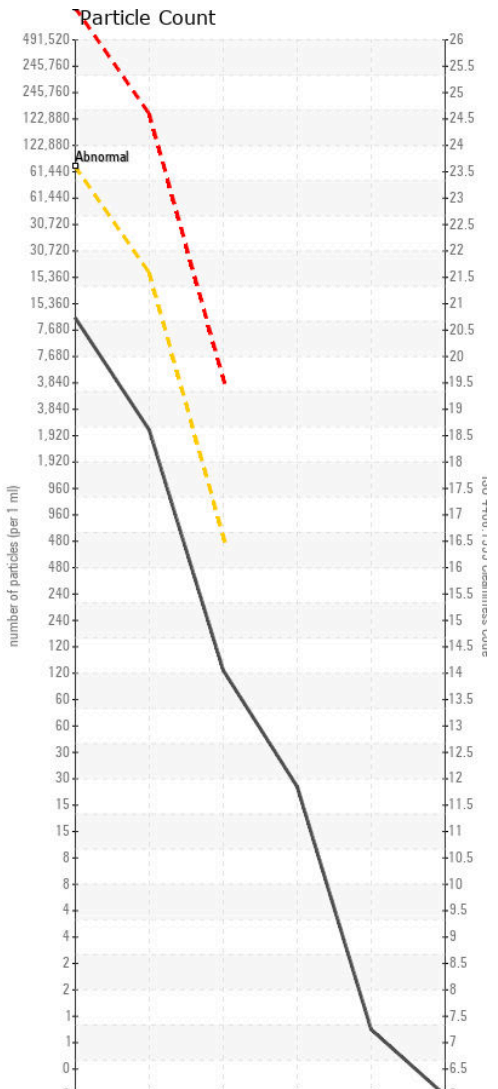
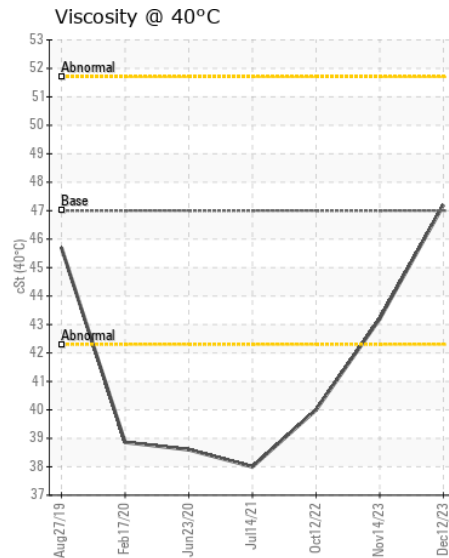
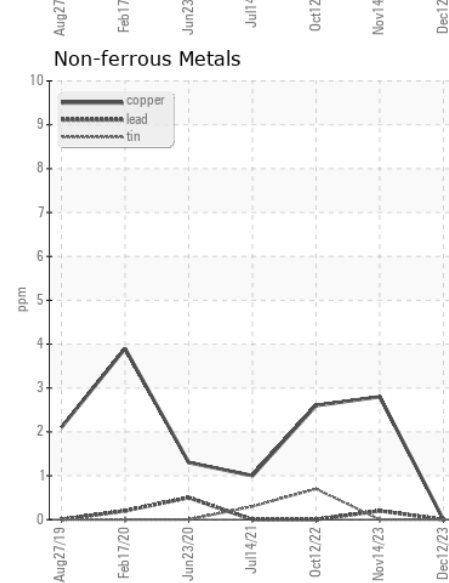
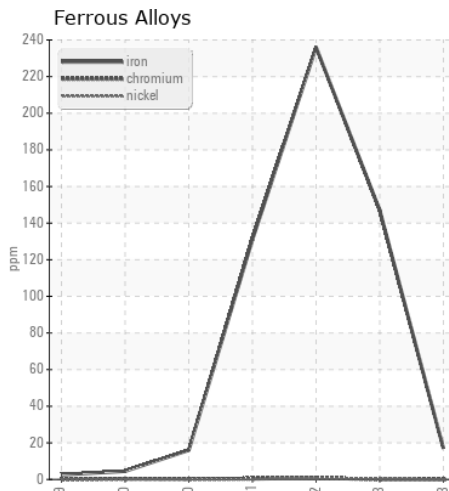
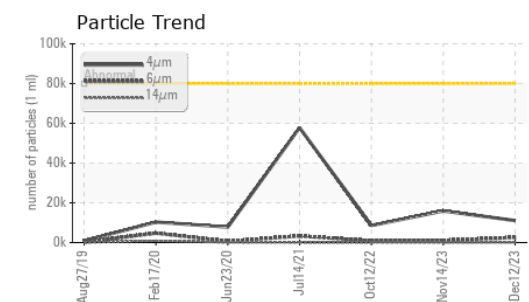
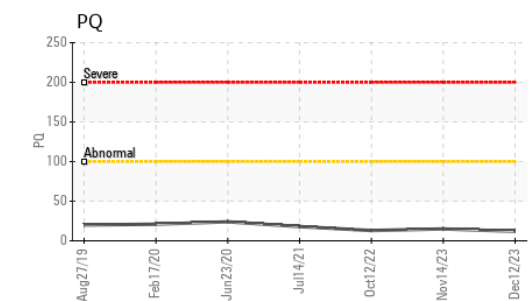
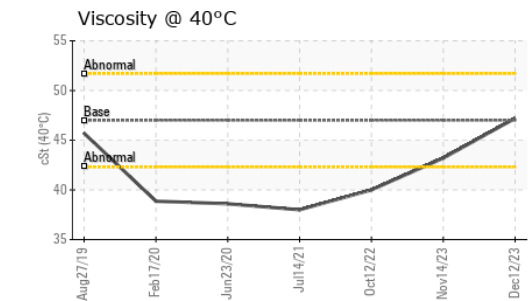
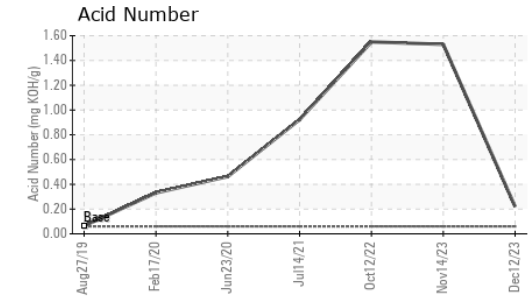
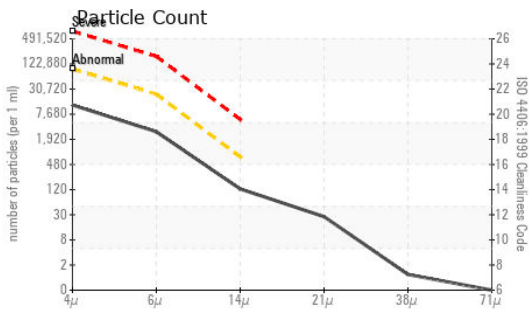
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>20	3	7	10
Potassium	ppm	ASTM D5185m	>20	1	4	4
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	11067	15923	8582
Particles >6µm		ASTM D7647	>20000	2552	1062	890
Particles >14µm		ASTM D7647	>640	110	31	75
Particles >21µm		ASTM D7647	>160	24	12	19
Particles >38µm		ASTM D7647	>40	1	1	1
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	21/19/14	21/17/12	20/17/13
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	6
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	6	0
Molybdenum	ppm	ASTM D5185m		0	<1	<1
Manganese	ppm	ASTM D5185m		0	<1	2
Magnesium	ppm	ASTM D5185m		0	1	2
Calcium	ppm	ASTM D5185m		2	14	0
Phosphorus	ppm	ASTM D5185m	827	607	483	559
Zinc	ppm	ASTM D5185m	0	<1	84	151
Sulfur	ppm	ASTM D5185m	13	235	2380	2195
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.22	1.53	1.55
Visc @ 40°C	cSt	ASTM D445	47	47.2	43.2	40.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0195879 **Received** : 13 Dec 2023
Lab Number : 06034109 **Diagnosed** : 16 Jan 2024
Unique Number : 10789338 **Diagnostician** : Doug Bogart
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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