



WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL

Area
[05W45580]
 Machine Id
HITACHI 1FFDC270CMF440314
 Component
Hydraulic System
 Fluid
HITACHI HYDRAULIC SUPER EX 46HN (35 GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0208163	JR0156378	JR0130204
Sample Date		Client Info		18 Mar 2024	03 Feb 2023	02 Aug 2022
Machine Age	hrs	Client Info		1451	1047	559
Oil Age	hrs	Client Info		1451	1047	559
Filter Age	hrs	Client Info		500	0	0
Oil Changed		Client Info		Not Chngd	Not Chngd	Not Chngd
Filter Changed		Client Info		Not Chngd	Changed	Not Chngd
Sample Status				ATTENTION	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		13	12	18
Iron	ppm	ASTM D5185m	>20	9	5	3
Chromium	ppm	ASTM D5185m	>10	<1	0	0
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	0	<1	1
Lead	ppm	ASTM D5185m	>10	0	0	<1
Copper	ppm	ASTM D5185m	>75	2	2	0
Tin	ppm	ASTM D5185m	>10	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

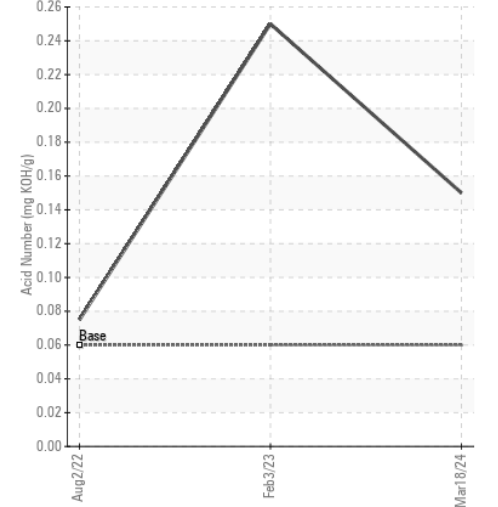
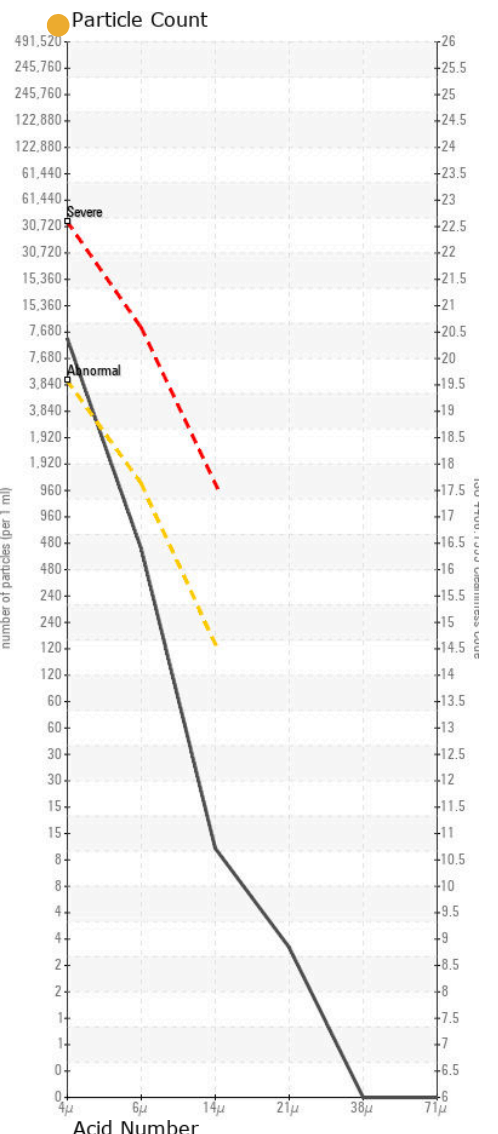
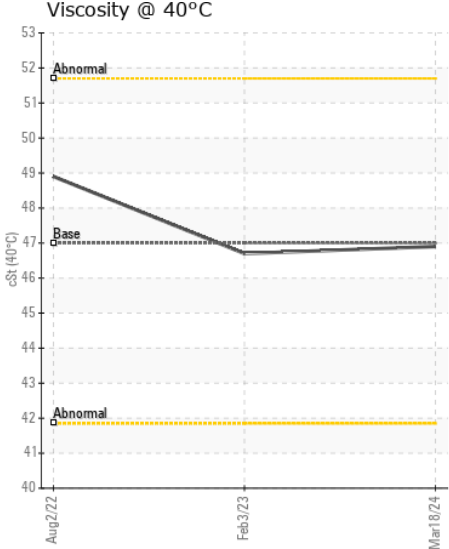
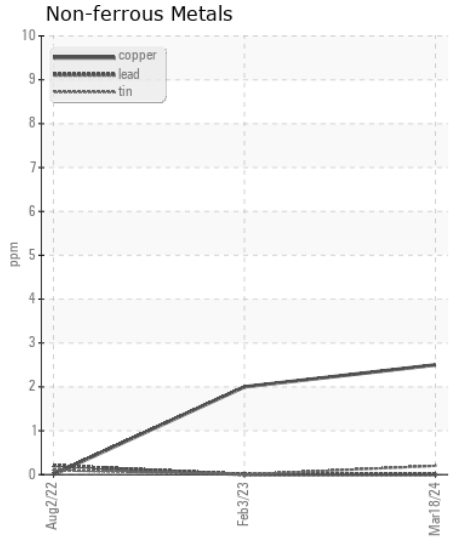
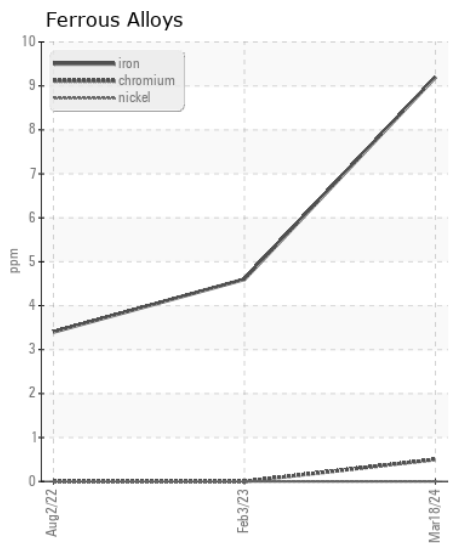
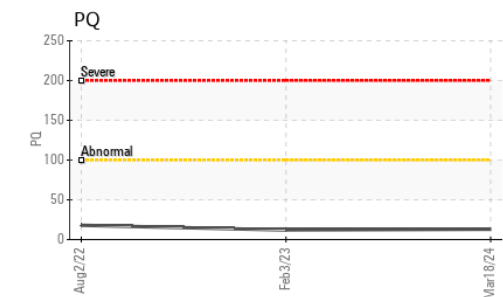
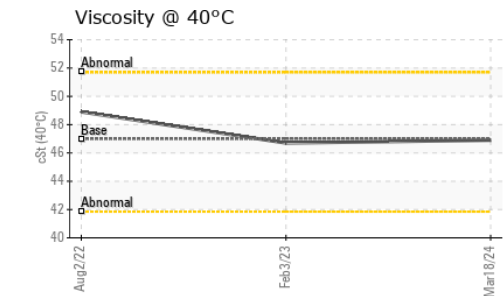
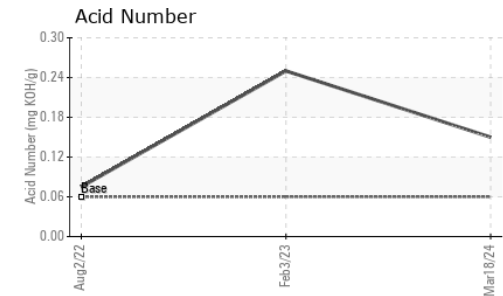
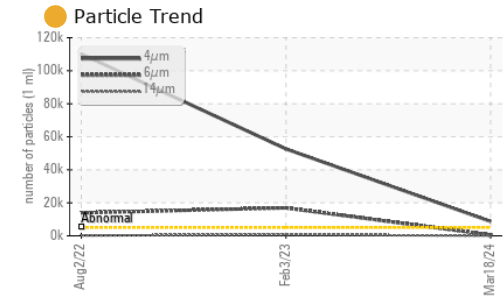
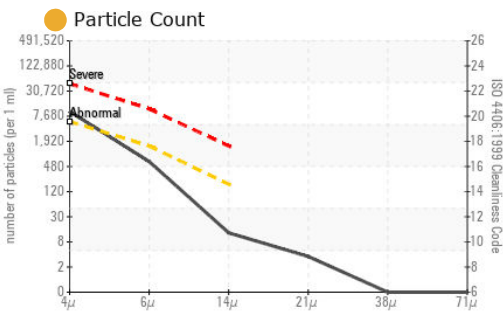
There is a moderate amount of silt (particulates < 6 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	<1	<1	3
Potassium	ppm	ASTM D5185m	>20	0	0	<1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	8689	▲ 52627	▲ 110141
Particles >6µm		ASTM D7647	>1300	554	▲ 16909	▲ 13892
Particles >14µm		ASTM D7647	>160	11	▲ 710	159
Particles >21µm		ASTM D7647	>40	3	▲ 66	27
Particles >38µm		ASTM D7647	>10	0	3	3
Particles >71µm		ASTM D7647	>3	0	0	1
Oil Cleanliness		ISO 4406 (c)	>19/17/14	20/16/11	▲ 23/21/17	▲ 24/21/14
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	VLITE	LIGHT
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 oils additive package is suitable for further service.

Sodium	ppm	ASTM D5185m		<1	<1	0
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		<1	0	<1
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m		0	0	<1
Calcium	ppm	ASTM D5185m		4	3	11
Phosphorus	ppm	ASTM D5185m	827	510	460	638
Zinc	ppm	ASTM D5185m	0	29	9	10
Sulfur	ppm	ASTM D5185m	13	74	0	50
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.15	0.25	0.075
Visc @ 40°C	cSt	ASTM D445	47	46.9	46.7	48.9



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0208163 **Received** : 21 Mar 2024
Lab Number : 06125583 **Tested** : 26 Mar 2024
Unique Number : 10939734 **Diagnosed** : 26 Mar 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: PQ)

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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)