



WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	ATTENTION

Machine Id
HITACHI 350LC 1FFDDR70EJF940546
 Component
Hydraulic System
 Fluid
HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)

RECOMMENDATION

Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0205583	JR0179019	JR0155601
Sample Date		Client Info		13 Mar 2024	02 Aug 2023	10 Feb 2023
Machine Age	hrs	Client Info		6907	5975	4983
Oil Age	hrs	Client Info		5915	5975	500
Filter Age	hrs	Client Info		0	0	500
Oil Changed		Client Info		Not Changed	Not Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185m	>20	0	11	10
Chromium	ppm	ASTM D5185m	>10	0	<1	<1
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	<1	2	2
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>75	0	1	<1
Tin	ppm	ASTM D5185m	>10	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

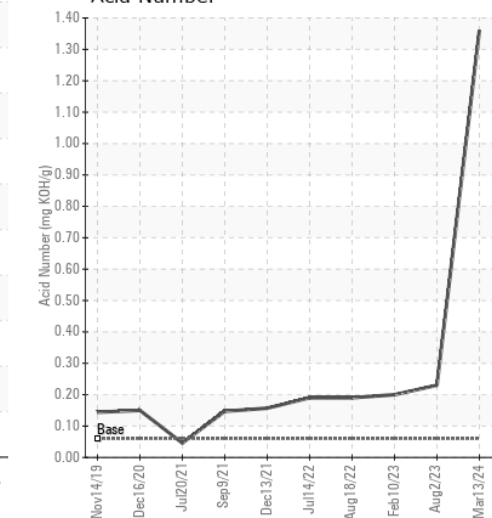
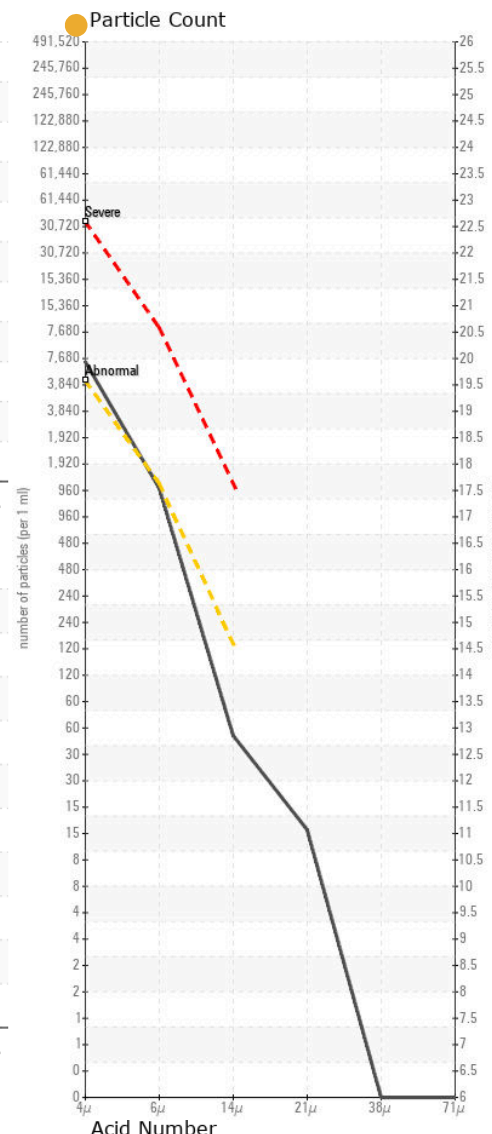
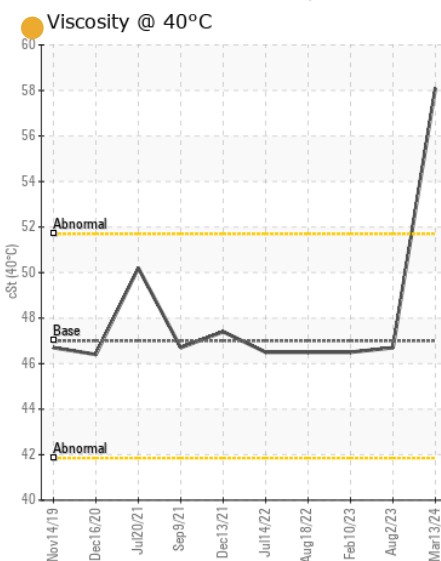
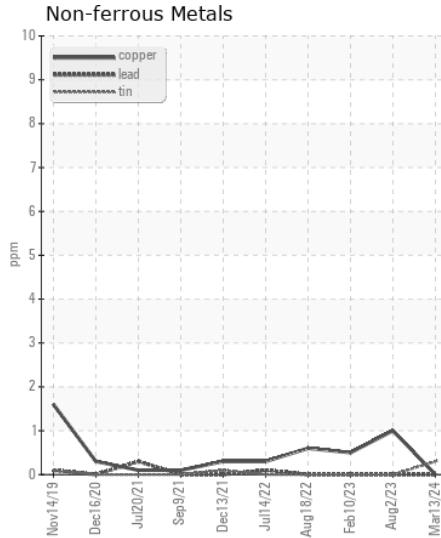
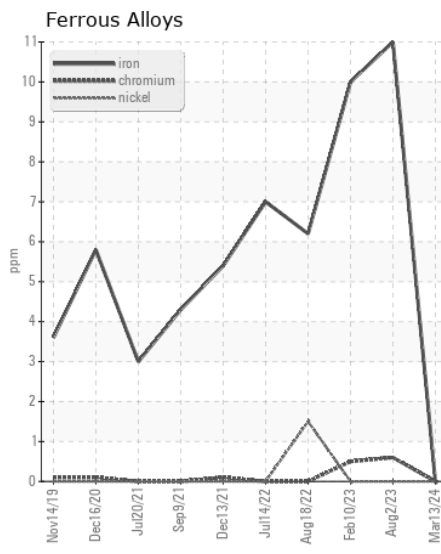
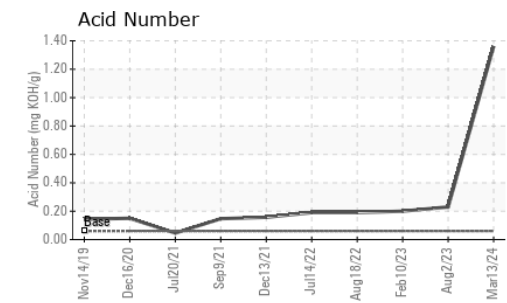
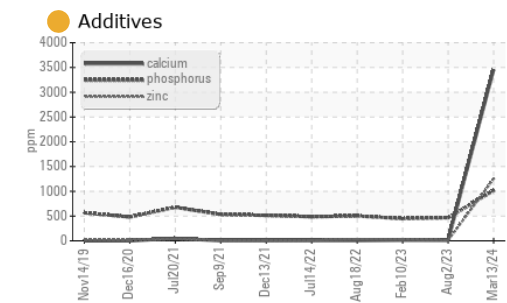
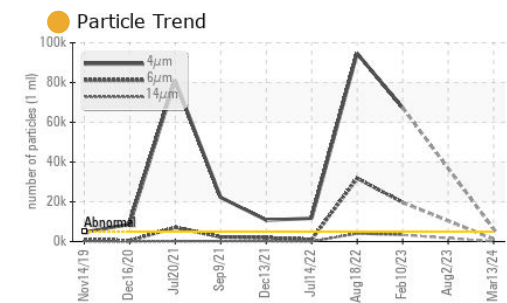
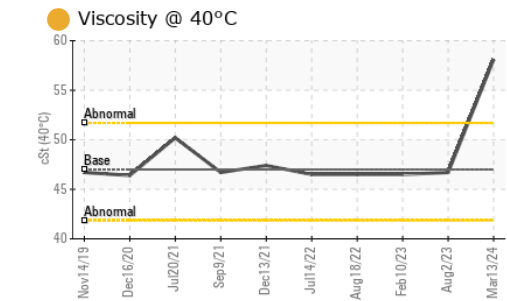
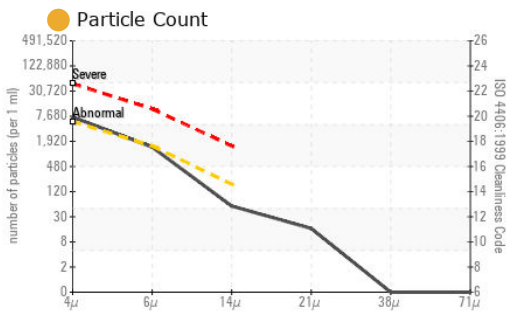
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	5	2	4
Potassium	ppm	ASTM D5185m	>20	0	<1	0
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	6396	---	▲ 67355
Particles >6µm		ASTM D7647	>1300	1225	---	▲ 19704
Particles >14µm		ASTM D7647	>160	48	---	▲ 3364
Particles >21µm		ASTM D7647	>40	14	---	▲ 568
Particles >38µm		ASTM D7647	>10	0	---	▲ 14
Particles >71µm		ASTM D7647	>3	0	---	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	20/17/13	---	▲ 23/21/19
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER	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 oil viscosity is higher than normal. This plus the additive levels indicates the addition of a different brand, or type of oil. Zinc level above manufacturer's recommendations. The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m		0	2	<1
Boron	ppm	ASTM D5185m		<1	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	<1	<1
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		94	1	<1
Calcium	ppm	ASTM D5185m		3455	9	12
Phosphorus	ppm	ASTM D5185m	827	1017	466	447
Zinc	ppm	ASTM D5185m	0	1251	10	20
Sulfur	ppm	ASTM D5185m	13	3918	344	138
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	1.36	0.23	0.20
Visc @ 40°C	cSt	ASTM D445	47	58.1	46.7	46.5



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0205583 **Received** : 19 Mar 2024
Lab Number : 06122239 **Tested** : 20 Mar 2024
Unique Number : 10936390 **Diagnosed** : 21 Mar 2024 - Don Baldrige
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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