



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
HITACHI 190W-6 HCMLBH60V00005009
 Component
Hydraulic System
 Fluid
HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0209227	JR0156696	JR0094529
Sample Date		Client Info		10 Apr 2024	28 Dec 2022	20 Aug 2021
Machine Age	hrs	Client Info		5019	2553	489
Oil Age	hrs	Client Info		5019	2553	489
Filter Age	hrs	Client Info		0	0	489
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		13	7	16
Iron	ppm	ASTM D5185m	>20	<1	0	1
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		2	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	2	0	0
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>75	<1	2	2
Tin	ppm	ASTM D5185m	>10	0	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

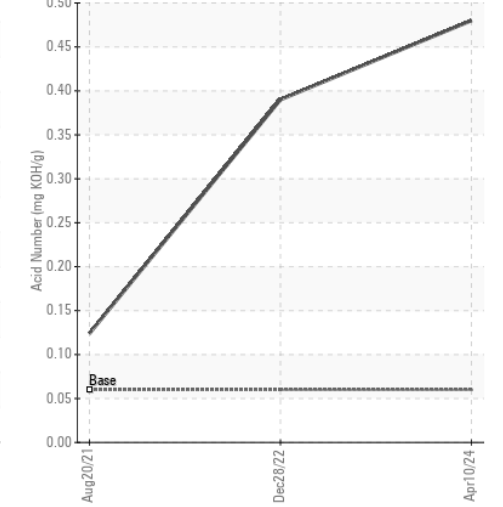
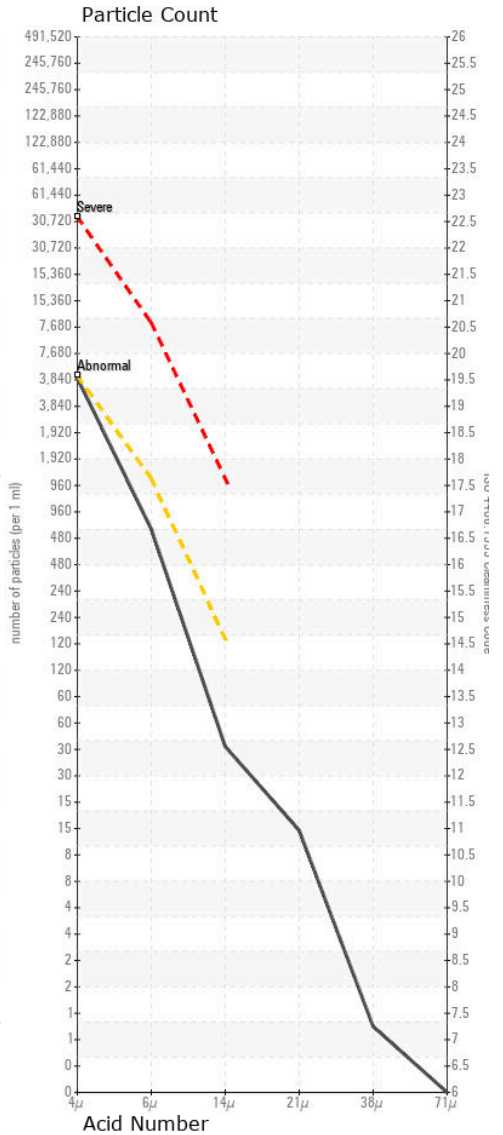
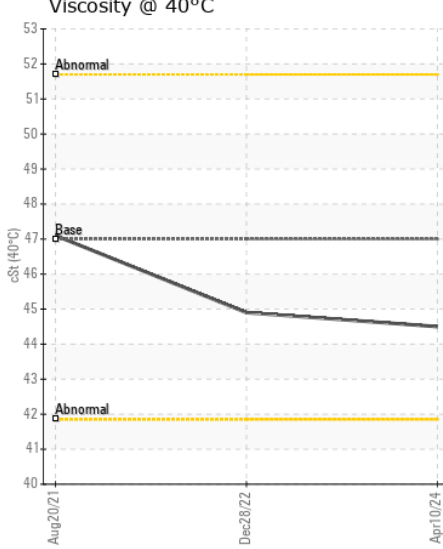
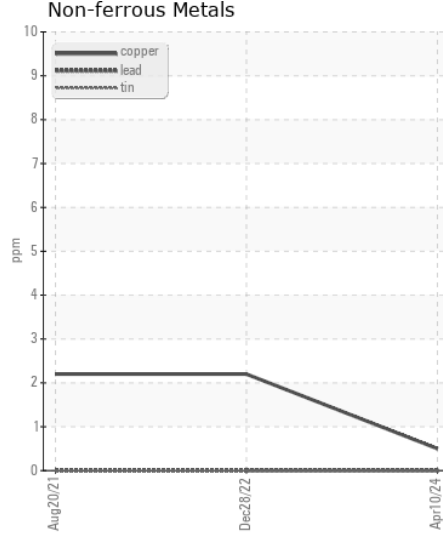
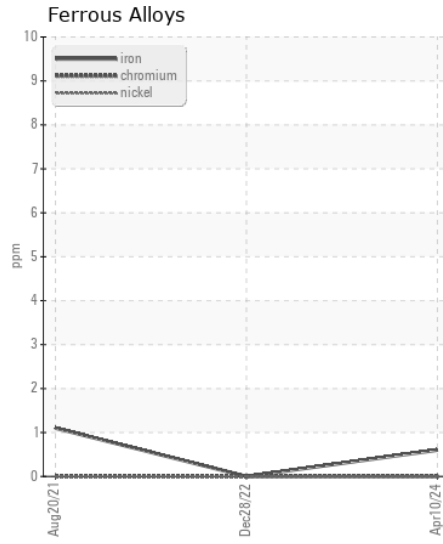
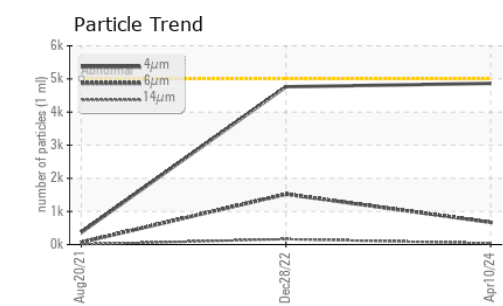
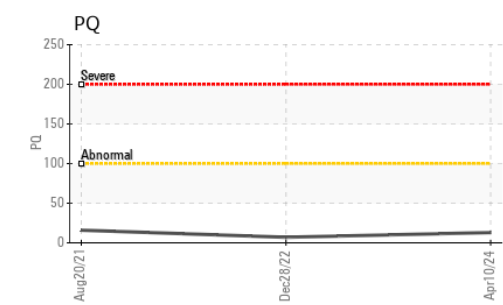
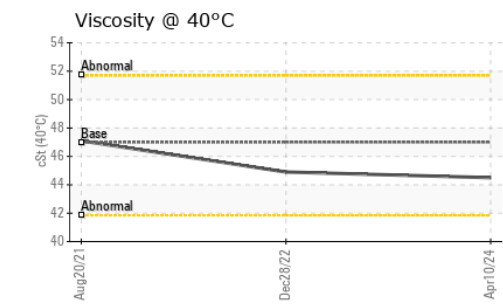
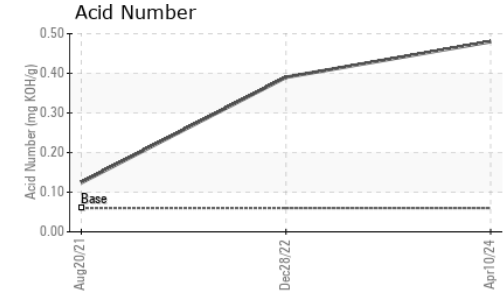
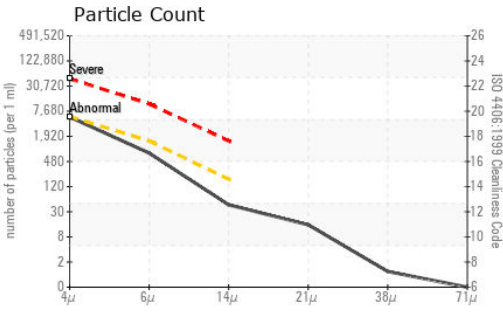
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	0	0	<1
Potassium	ppm	ASTM D5185m	>20	1	0	0
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	4867	4763	367
Particles >6µm		ASTM D7647	>1300	671	1522	69
Particles >14µm		ASTM D7647	>160	39	163	7
Particles >21µm		ASTM D7647	>40	13	42	1
Particles >38µm		ASTM D7647	>10	1	3	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	19/17/12	19/18/15	16/13/10
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		2	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		<1	2	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m		10	5	0
Calcium	ppm	ASTM D5185m		78	69	5
Phosphorus	ppm	ASTM D5185m	827	322	426	493
Zinc	ppm	ASTM D5185m	0	365	317	59
Sulfur	ppm	ASTM D5185m	13	1309	774	133
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.48	0.39	0.124
Visc @ 40°C	cSt	ASTM D445	47	44.5	44.9	47.1



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0209227 **Received** : 10 Apr 2024
Lab Number : 06145242 **Tested** : 13 Apr 2024
Unique Number : 10970050 **Diagnosed** : 13 Apr 2024 - Don Baldrige
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)