



WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL

Area
[W67130]

Machine Id
HITACHI 470LC HCMJAG60C00060577

Component
Hydraulic System

Fluid
HITACHI HYDRAULIC SUPER EX 46HN (80 GAL)

RECOMMENDATION

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: W67130)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0215756	JR0189070	JR0178039
Sample Date		Client Info		20 May 2024	05 Jan 2024	29 Aug 2023
Machine Age	hrs	Client Info		8038	8575	8296
Oil Age	hrs	Client Info		8296	8575	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Changed
Sample Status				ATTENTION	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		12	16	18
Iron	ppm	ASTM D5185m	>20	5	6	5
Chromium	ppm	ASTM D5185m	>10	0	<1	0
Nickel	ppm	ASTM D5185m	>10	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	<1	2	<1
Lead	ppm	ASTM D5185m	>10	0	<1	<1
Copper	ppm	ASTM D5185m	>75	3	3	4
Tin	ppm	ASTM D5185m	>10	0	<1	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

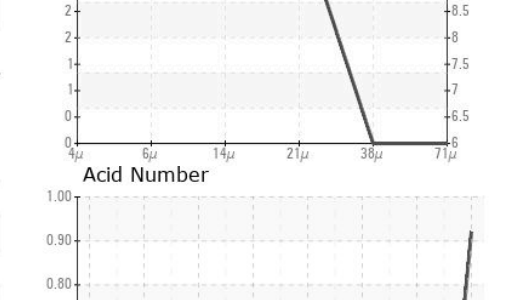
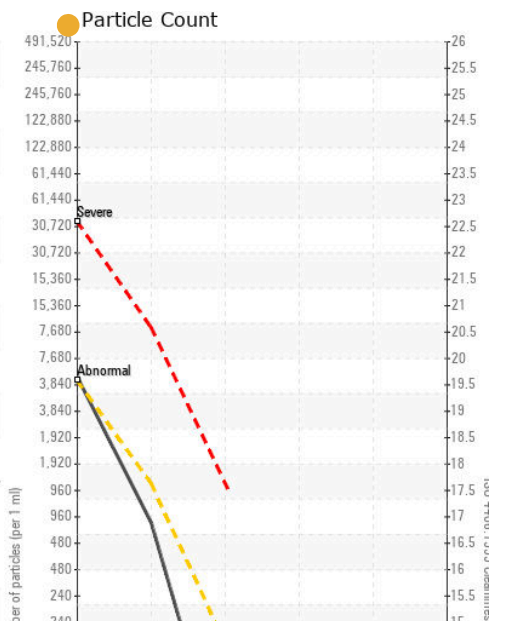
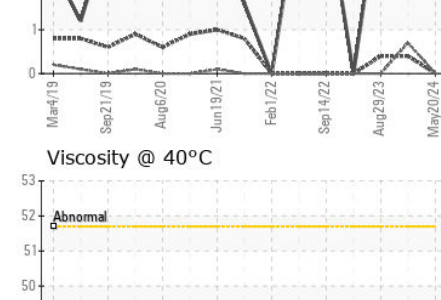
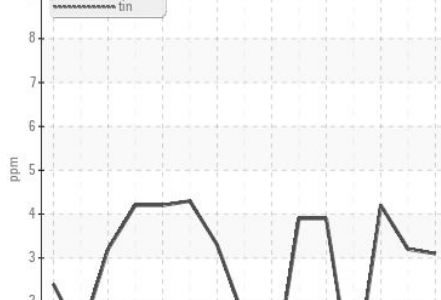
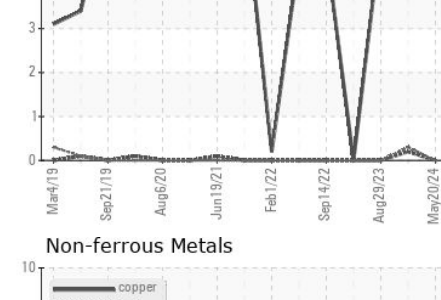
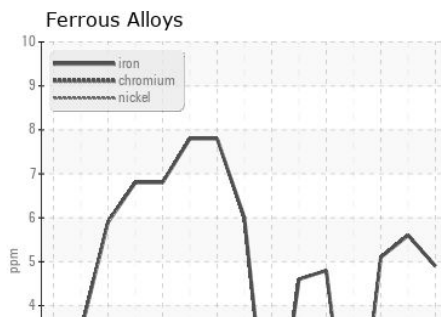
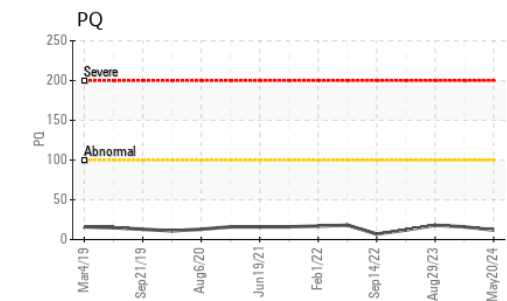
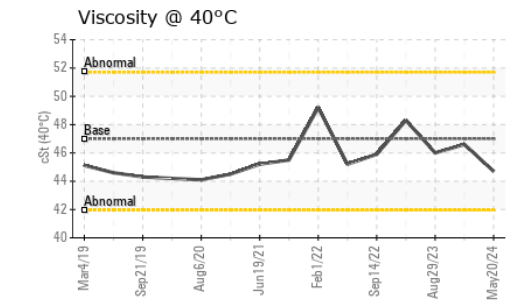
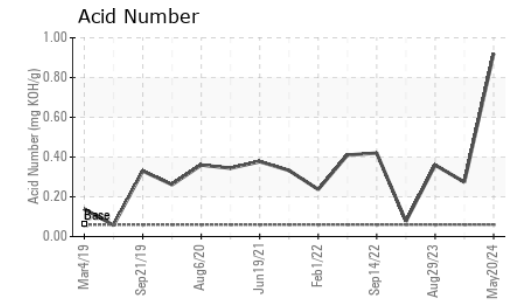
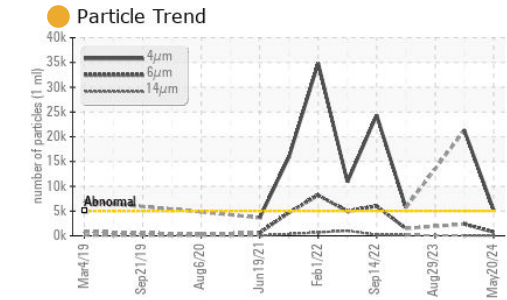
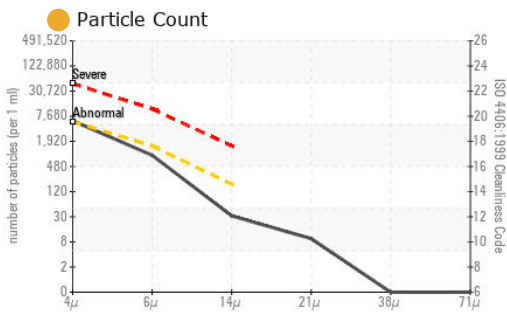
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	4	2	2
Potassium	ppm	ASTM D5185m	>20	<1	<1	1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	5235	▲ 21290	---
Particles >6µm		ASTM D7647	>1300	779	● 2371	---
Particles >14µm		ASTM D7647	>160	28	76	---
Particles >21µm		ASTM D7647	>40	8	13	---
Particles >38µm		ASTM D7647	>10	0	1	---
Particles >71µm		ASTM D7647	>3	0	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	20/17/12	▲ 22/18/13	---
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	▲ MODER
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

Confirm oil type. 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	0	0
Boron	ppm	ASTM D5185m		3	0	0
Barium	ppm	ASTM D5185m		0	8	2
Molybdenum	ppm	ASTM D5185m		3	<1	2
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m		19	<1	10
Calcium	ppm	ASTM D5185m		729	1	423
Phosphorus	ppm	ASTM D5185m	827	670	558	555
Zinc	ppm	ASTM D5185m	0	344	3	207
Sulfur	ppm	ASTM D5185m	13	1772	29	1455
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.92	0.274	0.36
Visc @ 40°C	cSt	ASTM D445	47	44.7	46.6	46.0



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0215756 **Received** : 24 May 2024
Lab Number : 06190948 **Tested** : 30 May 2024
Unique Number : 11047700 **Diagnosed** : 30 May 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)