



WEAR

NORMAL

CONTAMINATION

ABNORMAL

FLUID CONDITION

ABNORMAL

Area

[16W16595]

Machine Id

HITACHI FF00ASP920190

Component

Hydraulic System

Fluid

HITACHI HYDRAULIC SUPER EX 46HN (55 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. (Customer Sample Comment: 16W16595)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0217332	JR0197383	JR0098879
Sample Date		Client Info		08 Jul 2024	28 Dec 2023	11 Aug 2021
Machine Age	hrs	Client Info		13107	11748	11748
Oil Age	hrs	Client Info		3107	11748	1000
Filter Age	hrs	Client Info		269	0	1000
Oil Changed		Client Info		Not Changed	Changed	Not Changed
Filter Changed		Client Info		Not Changed	Changed	Not Changed
Sample Status				ABNORMAL	ABNORMAL	ATTENTION

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185m	>20	7	2	4
Chromium	ppm	ASTM D5185m	>10	<1	0	2
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	<1	0	0
Lead	ppm	ASTM D5185m	>10	0	0	<1
Copper	ppm	ASTM D5185m	>75	2	<1	2
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

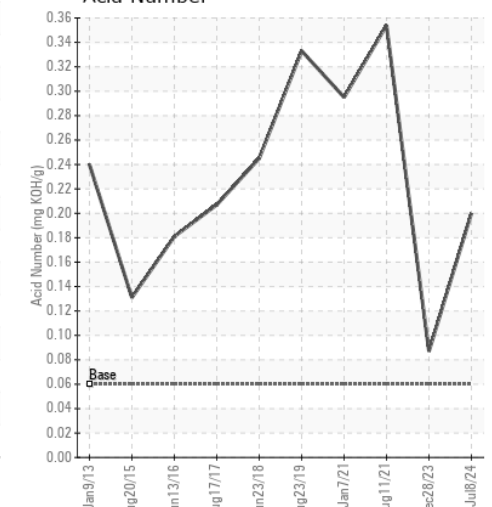
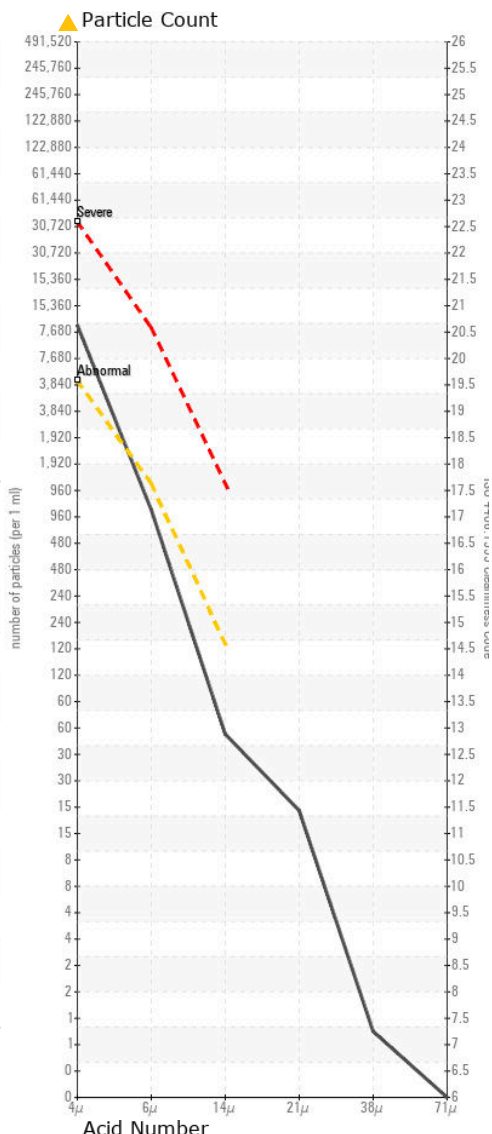
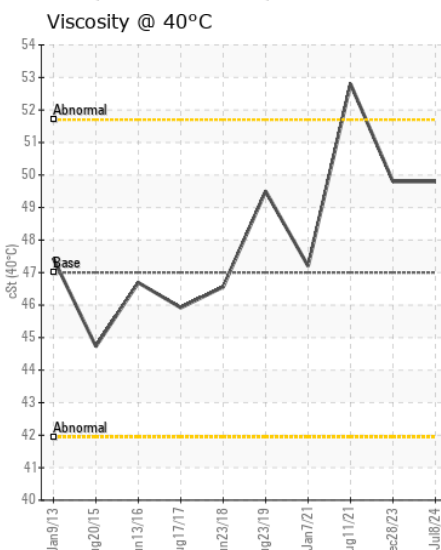
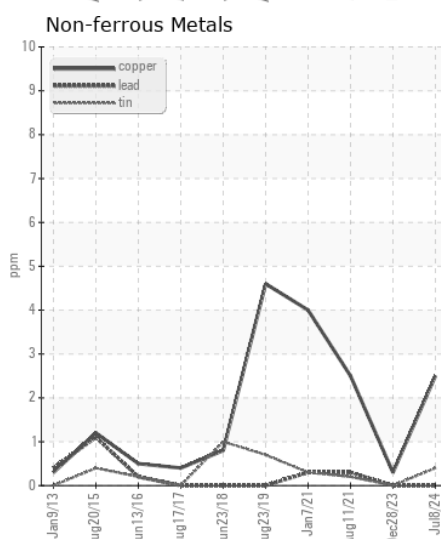
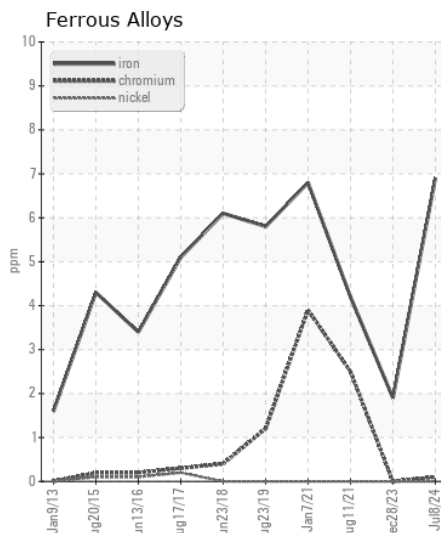
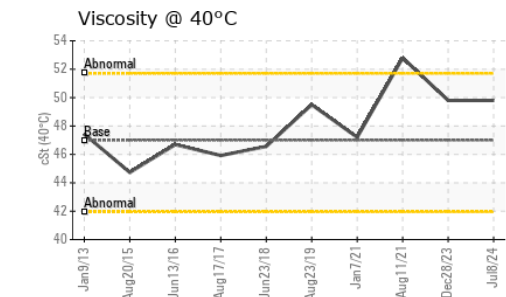
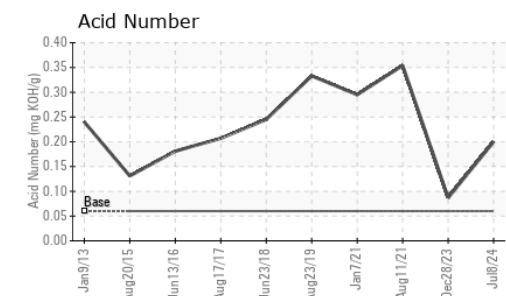
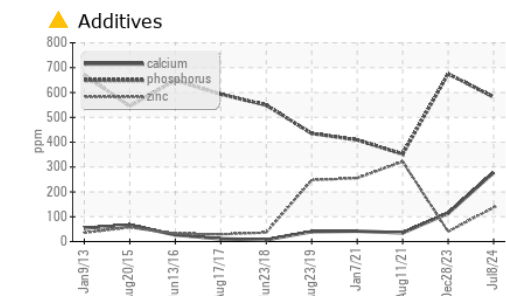
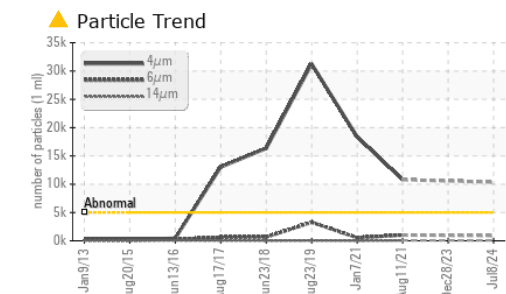
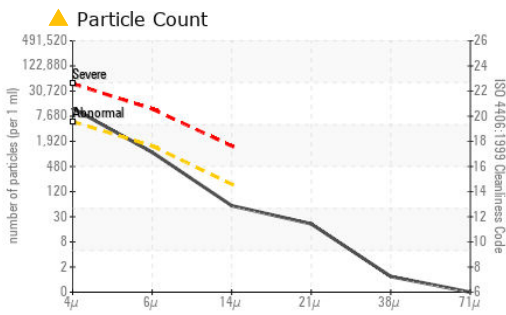
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	1	3	1
Potassium	ppm	ASTM D5185m	>20	1	0	<1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	▲ 10359	---	● 10792
Particles >6µm		ASTM D7647	>1300	923	---	1026
Particles >14µm		ASTM D7647	>160	49	---	61
Particles >21µm		ASTM D7647	>40	18	---	19
Particles >38µm		ASTM D7647	>10	1	---	1
Particles >71µm		ASTM D7647	>3	0	---	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 21/17/13	---	● 21/17/13
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER	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

Zinc level above manufacturer's recommendations. The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m		3	<1	0
Boron	ppm	ASTM D5185m		17	3	1
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		<1	0	<1
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m		11	0	3
Calcium	ppm	ASTM D5185m		278	114	35
Phosphorus	ppm	ASTM D5185m	827	582	675	352
Zinc	ppm	ASTM D5185m	0	▲ 137	40	322
Sulfur	ppm	ASTM D5185m	13	701	206	647
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.20	0.087	0.354
Visc @ 40°C	cSt	ASTM D445	47	49.8	49.8	52.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0217332 **Received** : 10 Jul 2024
Lab Number : 06232214 **Tested** : 11 Jul 2024
Unique Number : 11115707 **Diagnosed** : 11 Jul 2024 - Don Baldridge
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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