



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
[16W16225]

Machine Id
HITACHI 1009993 (S/N 1FFDC571EJF340534)

Component
Hydraulic System

Fluid
HITACHI HYDRAULIC SUPER EX 46HN (36 GAL)

RECOMMENDATION

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: 16W16225)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0207165	JR0173630	JR0130592
Sample Date		Client Info		10 May 2024	14 Jun 2023	11 May 2022
Machine Age	hrs	Client Info		6452	5310	4014
Oil Age	hrs	Client Info		6452	5310	4014
Filter Age	hrs	Client Info		1142	1296	1000
Oil Changed		Client Info		Not Changed	Not Changed	Not Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185m	>20	7	6	5
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	<1
Aluminum	ppm	ASTM D5185m	>10	<1	0	<1
Lead	ppm	ASTM D5185m	>10	0	<1	0
Copper	ppm	ASTM D5185m	>75	0	4	<1
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

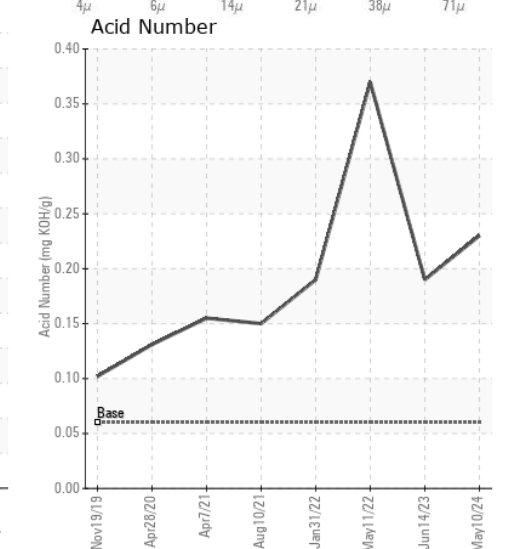
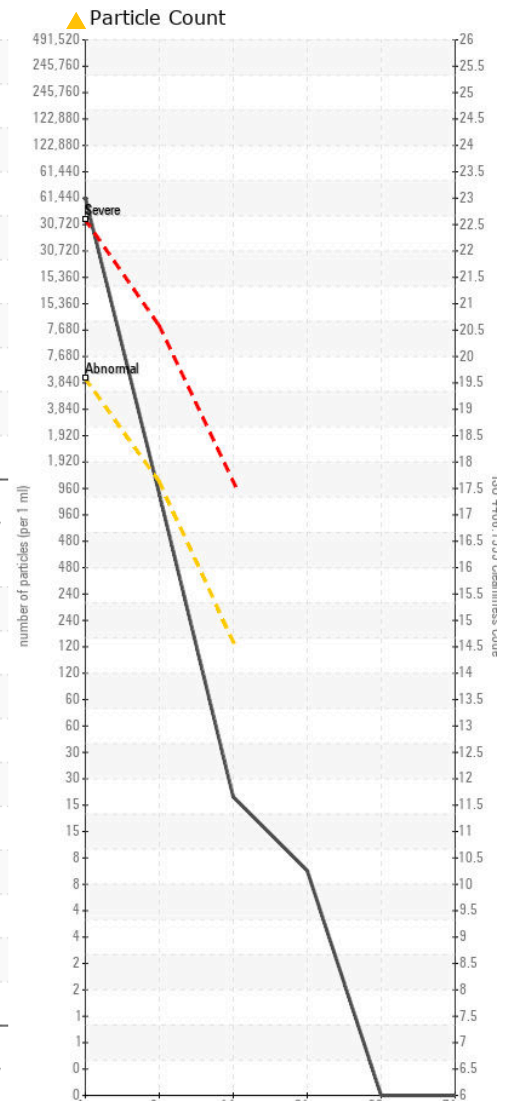
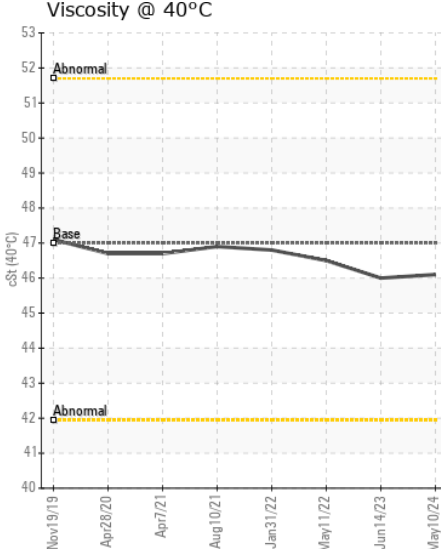
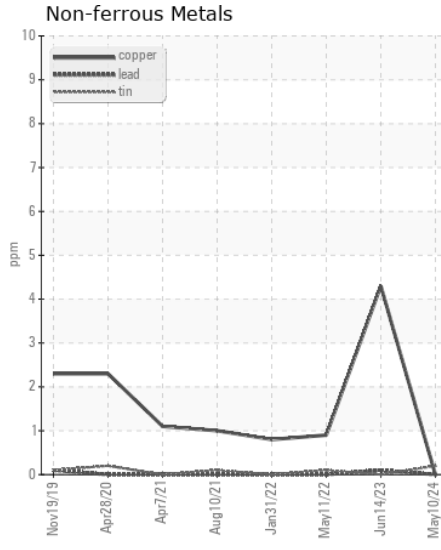
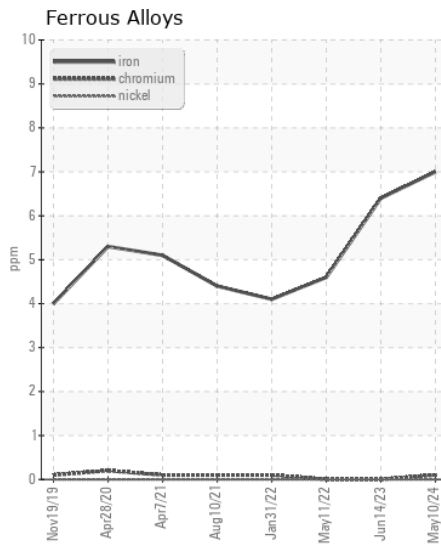
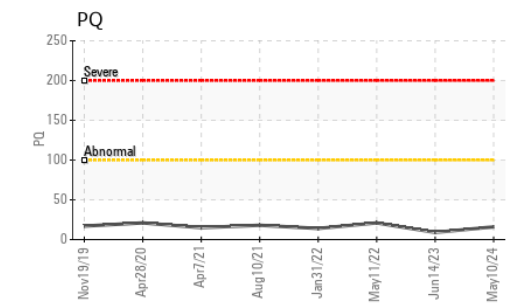
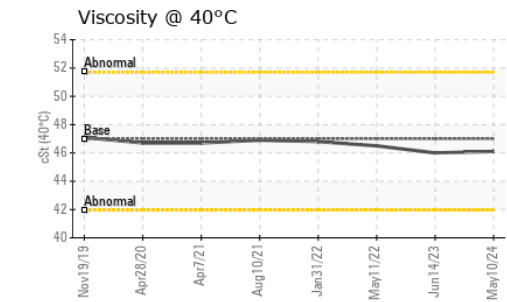
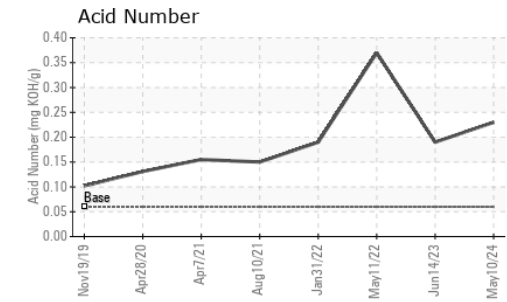
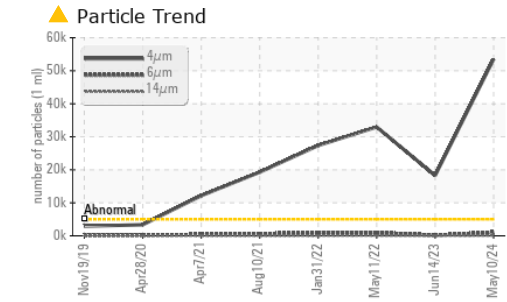
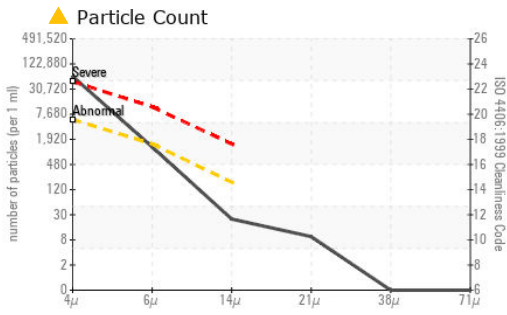
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	<1	<1	<1
Potassium	ppm	ASTM D5185m	>20	0	1	0
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	▲ 53472	▲ 18270	▲ 32957
Particles >6µm		ASTM D7647	>1300	1108	162	971
Particles >14µm		ASTM D7647	>160	21	13	54
Particles >21µm		ASTM D7647	>40	8	5	15
Particles >38µm		ASTM D7647	>10	0	0	1
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 23/17/12	▲ 21/15/11	▲ 22/17/13
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		<1	0	<1
Boron	ppm	ASTM D5185m		0	0	1
Barium	ppm	ASTM D5185m		2	2	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m		<1	<1	0
Calcium	ppm	ASTM D5185m		5	1	2
Phosphorus	ppm	ASTM D5185m	827	469	444	528
Zinc	ppm	ASTM D5185m	0	12	10	0
Sulfur	ppm	ASTM D5185m	13	254	339	72
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.23	0.19	0.37
Visc @ 40°C	cSt	ASTM D445	47	46.1	46.0	46.5



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0207165 **Received** : 14 May 2024
Lab Number : 06178611 **Tested** : 15 May 2024
Unique Number : 11029937 **Diagnosed** : 16 May 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PQ)

JRE - CASTLE HAYNE
 113 CROWATAN ROAD
 CASTLE HAYNE, NC
 US 28429-5819

Certificate L2367 **Contact: WILMINGTON SHOP**
 To discuss this sample report, contact Customer Service at 1-800-237-1369. **todd.simmons@jamesriverequipment.com; canastasio@wearcheck.com; canastasio@we**
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. **T: (910)675-9211**
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) **F:**