



PROBLEM SUMMARY

Area
[181963-N2STV4W]
 Machine Id
HYDRO TURBINE UNIT 2
 Component
Turbine Bearing
 Fluid
SHELL TURBO T ISO 68 (30 GAL)

Sample Rating Trend

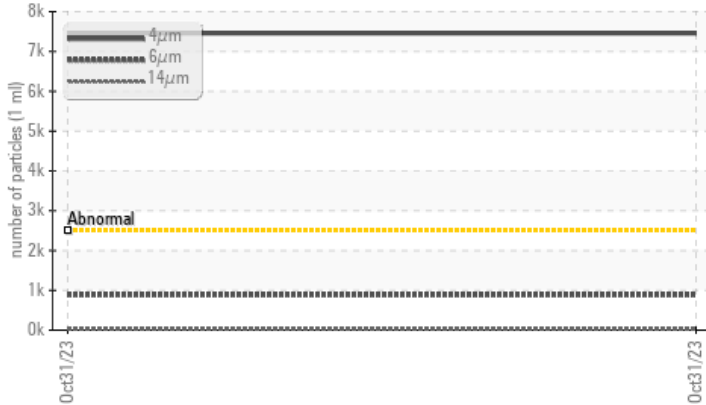


ISO



COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	---	---
Particles >4µm	ASTM D7647	>2500	▲ 7457	---	---
Particles >6µm	ASTM D7647	>320	▲ 885	---	---
Oil Cleanliness	ISO 4406 (c)	>18/15/13	▲ 20/17/12	---	---
PrtFilter				no image	no image

Customer Id: USACLI
 Sample No.: PH05999804
 Lab Number: 05999804
 Test Package: PLANT



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component if applicable.

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
[181963-N2STV4W]
 Machine Id
HYDRO TURBINE UNIT 2
 Component
Turbine Bearing
 Fluid
SHELL TURBO T ISO 68 (30 GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			PH05999804	---	---
Sample Date	Client Info			31 Oct 2023	---	---
Machine Age	hrs	Client Info		0	---	---
Oil Age	hrs	Client Info		0	---	---
Oil Changed	Client Info			N/A	---	---
Sample Status				ABNORMAL	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	<1	---	---
Chromium	ppm	ASTM D5185m	>20	0	---	---
Nickel	ppm	ASTM D5185m	>20	0	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>20	0	---	---
Lead	ppm	ASTM D5185m	>20	<1	---	---
Copper	ppm	ASTM D5185m	>20	0	---	---
Tin	ppm	ASTM D5185m	>20	<1	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
Cadmium	ppm	ASTM D5185m		0	---	---

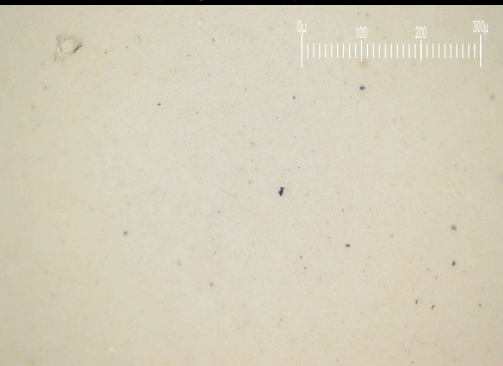
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		0	---	---
Manganese	ppm	ASTM D5185m		0	---	---
Magnesium	ppm	ASTM D5185m		<1	---	---
Calcium	ppm	ASTM D5185m		6	---	---
Phosphorus	ppm	ASTM D5185m		14	---	---
Zinc	ppm	ASTM D5185m		9	---	---
Sulfur	ppm	ASTM D5185m		230	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	2	---	---
Sodium	ppm	ASTM D5185m		6	---	---
Potassium	ppm	ASTM D5185m	>20	0	---	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>2500	▲ 7457	---	---
Particles >6µm		ASTM D7647	>320	▲ 885	---	---
Particles >14µm		ASTM D7647	>80	23	---	---
Particles >21µm		ASTM D7647	>20	4	---	---
Particles >38µm		ASTM D7647	>4	0	---	---
Particles >71µm		ASTM D7647	>3	0	---	---
Oil Cleanliness		ISO 4406 (c)	>18/15/13	▲ 20/17/12	---	---

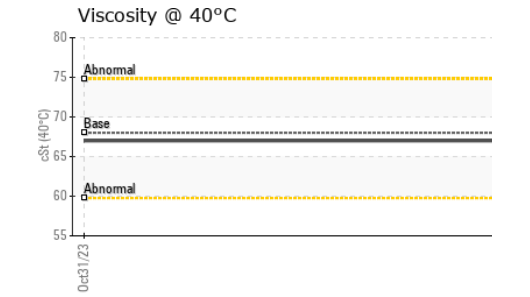
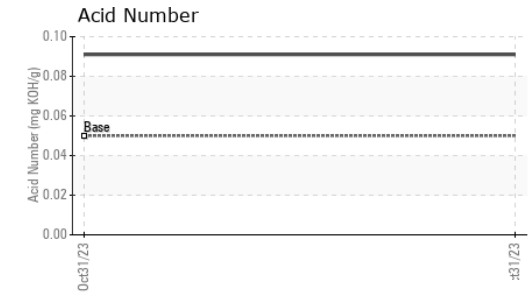
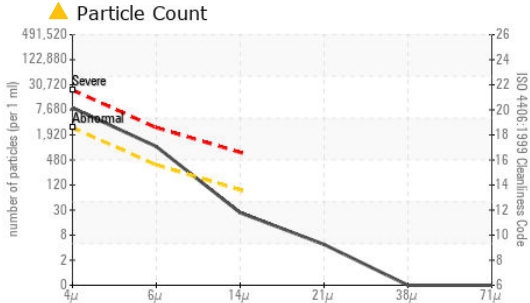
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	.05	0.091	---	---

Particle Filter (Magn: 200 x)





OIL ANALYSIS REPORT





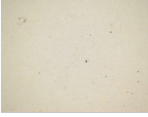
Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PH05999804 **Received** : 06 Nov 2023
Lab Number : 05999804 **Diagnosed** : 08 Nov 2023
Unique Number : 10728164 **Diagnostician** : Jonathan Hester
Test Package : PLANT (Additional Tests: PrtFilter)

USACE WHITNEY POWER PLANT
 285 CR 3602
 CLIFTON, TX
 US 76634
 Contact: CHAD BRUNO
 chad.j.bruno@usace.army.mil
 T: (254)622-3268
 F:

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)

VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Precipitate	scalar	*Visual	NONE	NONE	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>2	NEG	---	---
Free Water	scalar	*Visual		NEG	---	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 68	67.0	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				no image	no image
Bottom				no image	no image
PrtFilter				no image	no image

GRAPHS

