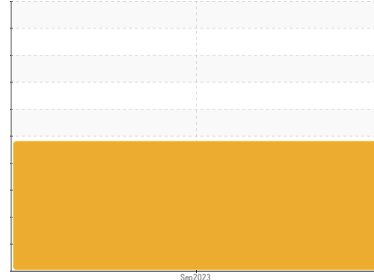


# PROBLEM SUMMARY

Sample Rating Trend

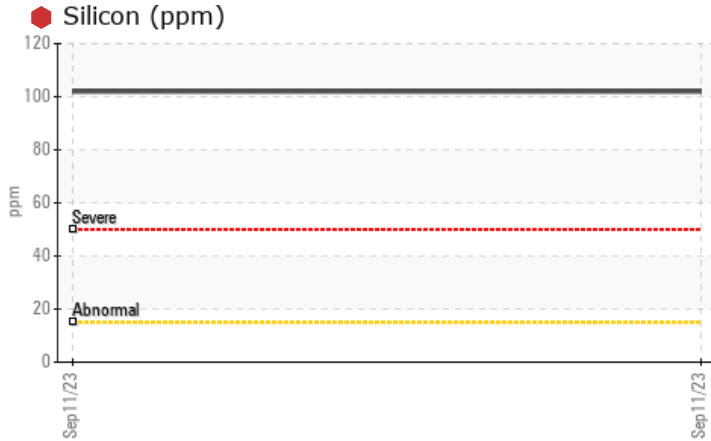


**DIRT**



Machine Id  
**HAIDA TANK 2**  
Component  
**Hydraulic System**  
Fluid  
**SHELL TELLUS 32 (50 GAL)**

## COMPONENT CONDITION SUMMARY



## RECOMMENDATION

We advise that you check all areas where dirt can enter the system. Due to an abnormal test result it is recommended to contact Stauff Corp at (201)-444-7800 for help resolving the issue.

## PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	---	---
Silicon	ppm	ASTM D5185m	>15	<b>102</b>	---	---

**Customer Id:** STEFORFL  
**Sample No.:** ST38057  
**Lab Number:** 05961745  
**Test Package:** IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

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

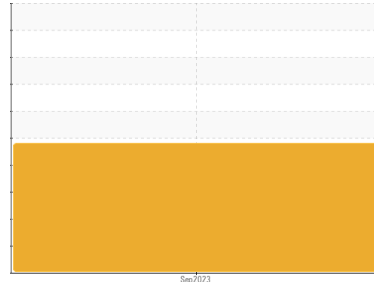
## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Contact Required	---	---	?	Due to an abnormal test result it is recommended to contact Stauff Corp at (201)-444-7800 for help resolving the issue.
Check Dirt Access	---	---	?	We advise that you check all areas where dirt can enter the system.

## HISTORICAL DIAGNOSIS



Machine Id  
**HAIDA TANK 2**  
 Component  
**Hydraulic System**  
 Fluid  
**SHELL TELLUS 32 (50 GAL)**



## DIAGNOSIS

### Recommendation

We advise that you check all areas where dirt can enter the system. Due to an abnormal test result it is recommended to contact Stauff Corp at (201)-444-7800 for help resolving the issue.

### Wear

All component wear rates are normal.

### Contamination

Elemental level of silicon (Si) above normal indicating ingress of dirt/seal material. The amount and size of particulates present in the system are acceptable.

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>ST38057</b>	---	---
Sample Date	Client Info		<b>11 Sep 2023</b>	---	---
Machine Age	hrs	Client Info	<b>0</b>	---	---
Oil Age	hrs	Client Info	<b>0</b>	---	---
Oil Changed		Client Info	<b>N/A</b>	---	---
Sample Status			<b>SEVERE</b>	---	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	<b>&lt;1</b>	---	---
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	---	---
Nickel	ppm	ASTM D5185m >20	<b>0</b>	---	---
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	---	---
Silver	ppm	ASTM D5185m	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m >20	<b>3</b>	---	---
Lead	ppm	ASTM D5185m >20	<b>&lt;1</b>	---	---
Copper	ppm	ASTM D5185m >20	<b>6</b>	---	---
Tin	ppm	ASTM D5185m >20	<b>&lt;1</b>	---	---
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	---	---
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	---	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>0</b>	---	---
Barium	ppm	ASTM D5185m	<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m	<b>0</b>	---	---
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185m 11	<b>&lt;1</b>	---	---
Calcium	ppm	ASTM D5185m 35	<b>38</b>	---	---
Phosphorus	ppm	ASTM D5185m 259	<b>287</b>	---	---
Zinc	ppm	ASTM D5185m 277	<b>348</b>	---	---
Sulfur	ppm	ASTM D5185m 1865	<b>807</b>	---	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>102</b>	---	---
Sodium	ppm	ASTM D5185m	<b>2</b>	---	---
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	---	---
Water	%	ASTM D6304 >0.05	<b>0.003</b>	---	---
ppm Water	ppm	ASTM D6304 >500	<b>30.3</b>	---	---

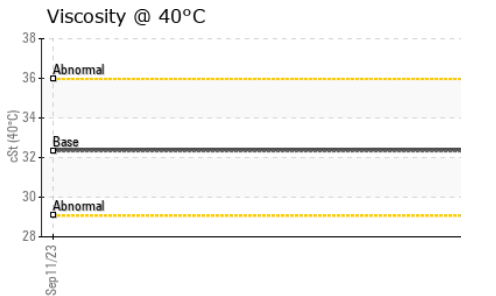
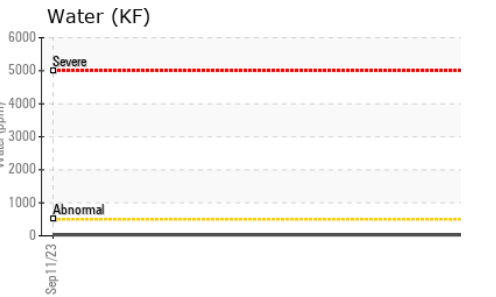
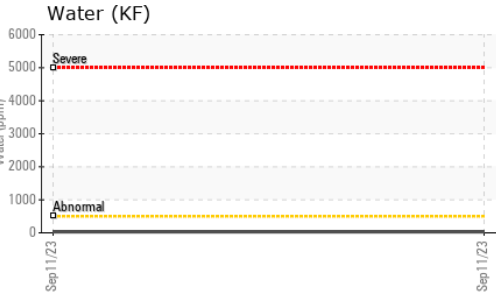
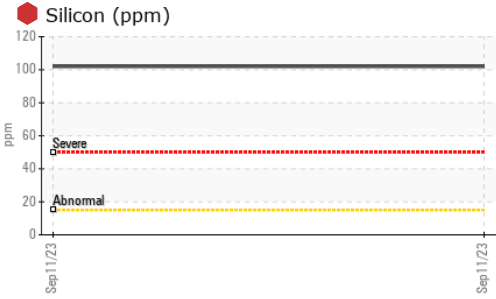
## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>1099</b>	---	---
Particles >6µm	ASTM D7647	>1300	<b>245</b>	---	---
Particles >14µm	ASTM D7647	>160	<b>26</b>	---	---
Particles >21µm	ASTM D7647	>40	<b>7</b>	---	---
Particles >38µm	ASTM D7647	>10	<b>1</b>	---	---
Particles >71µm	ASTM D7647	>3	<b>1</b>	---	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>17/15/12</b>	---	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.32	<b>0.46</b>	---	---

# OIL ANALYSIS REPORT



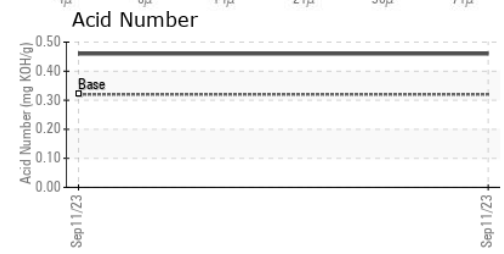
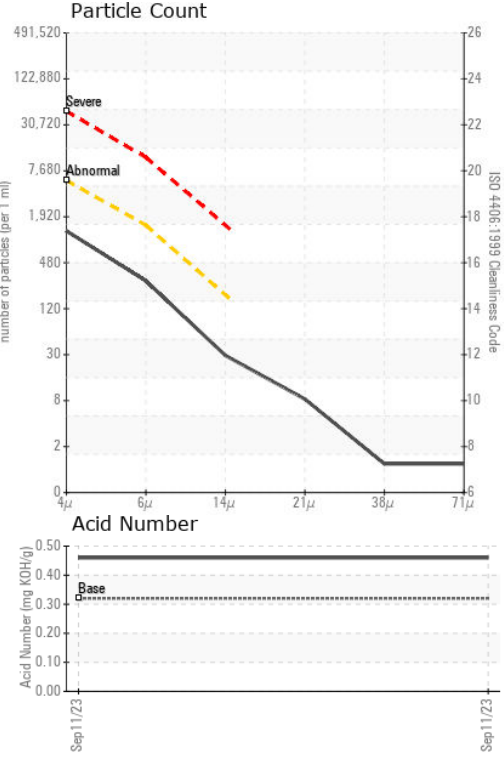
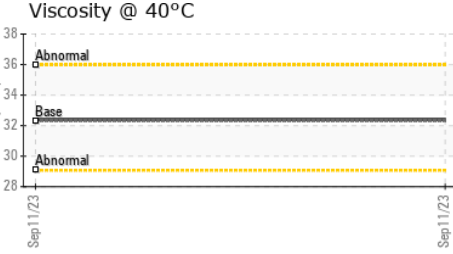
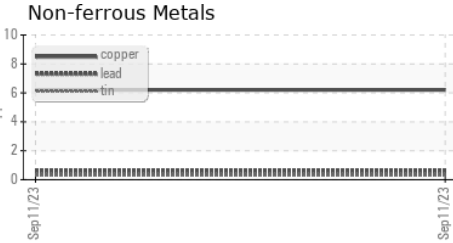
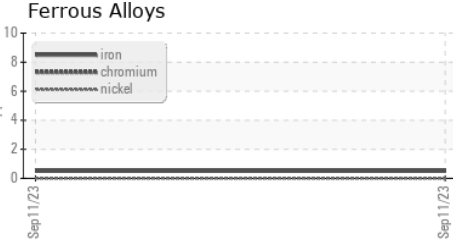
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.05	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	32.32	32.4	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------

Color		no image	no image
Bottom		no image	no image

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ST38057 **Received** : 26 Sep 2023  
**Lab Number** : 05961745 **Diagnosed** : 28 Sep 2023  
**Unique Number** : 10668296 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF )

**STERLING MARINE SYSTEMS**  
 4081 SW 47TH AVE, SUITE 10  
 FORT LAUDERDALE, FL  
 US 33314  
 Contact: DALE WORSNOP  
 operations@sterlingmarine.com  
 T:  
 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)