



WEAR	<b>ABNORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Area  
**HUBLEY [DUANE]**  
Machine Id  
**ZF 20035039 - INBOARD**  
Component  
**Starboard Gearbox**  
Fluid  
**SAE 30W (4 QTS)**

### RECOMMENDATION

No corrective action is recommended at this time. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VPA061911	---	---
Sample Date		Client Info		18 Jun 2024	---	---
Machine Age	hrs	Client Info		965	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Not Changd	---	---
Filter Changed		Client Info		Not Changd	---	---
Sample Status				ABNORMAL	---	---

### WEAR

Gear wear is indicated.

PQ		ASTM D8184		67	---	---
Iron	ppm	ASTM D5185m	>200	▲ 260	---	---
Chromium	ppm	ASTM D5185m	>10	3	---	---
Nickel	ppm	ASTM D5185m	>10	2	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>25	▲ 80	---	---
Lead	ppm	ASTM D5185m	>50	17	---	---
Copper	ppm	ASTM D5185m	>200	70	---	---
Tin	ppm	ASTM D5185m	>10	2	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

### CONTAMINATION

There is no indication of any contamination in the oil.

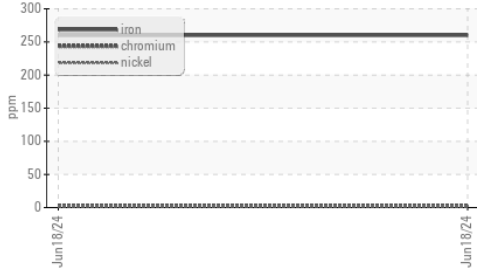
Silicon	ppm	ASTM D5185m	>50	8	---	---
Potassium	ppm	ASTM D5185m	>20	4	---	---
Water		WC Method	>0.2	NEG	---	---
Silt	scalar	*Visual	NONE	LIGHT	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---

### FLUID CONDITION

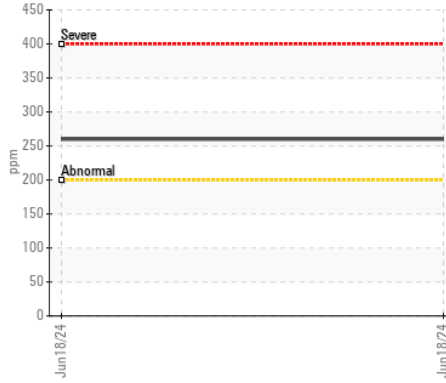
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		4	---	---
Boron	ppm	ASTM D5185m		109	---	---
Barium	ppm	ASTM D5185m		<1	---	---
Molybdenum	ppm	ASTM D5185m		56	---	---
Manganese	ppm	ASTM D5185m		3	---	---
Magnesium	ppm	ASTM D5185m		134	---	---
Calcium	ppm	ASTM D5185m		2711	---	---
Phosphorus	ppm	ASTM D5185m		1186	---	---
Zinc	ppm	ASTM D5185m		1329	---	---
Sulfur	ppm	ASTM D5185m		9047	---	---
Visc @ 40°C	cSt	ASTM D445	95.0	94.8	---	---

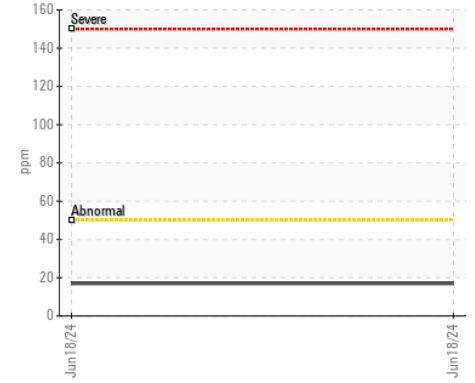
▲ Ferrous Alloys



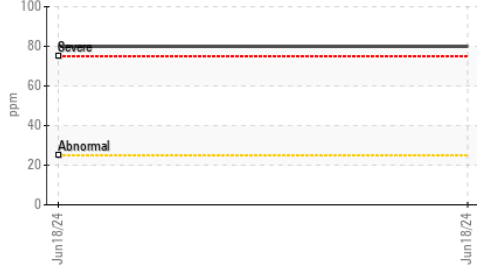
▲ Iron (ppm)



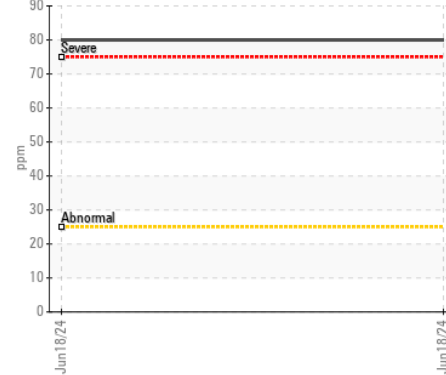
▲ Lead (ppm)



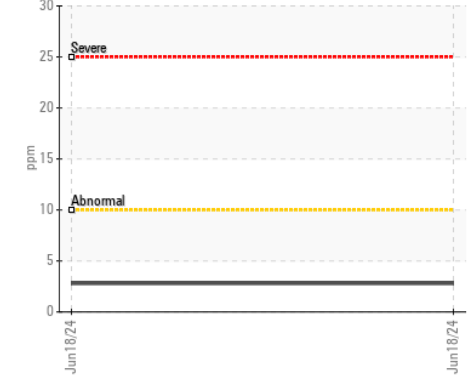
▲ Aluminum (ppm)



▲ Aluminum (ppm)



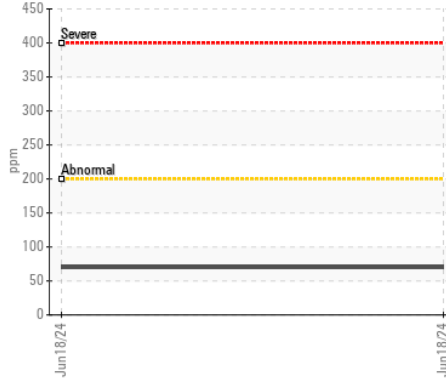
▲ Chromium (ppm)



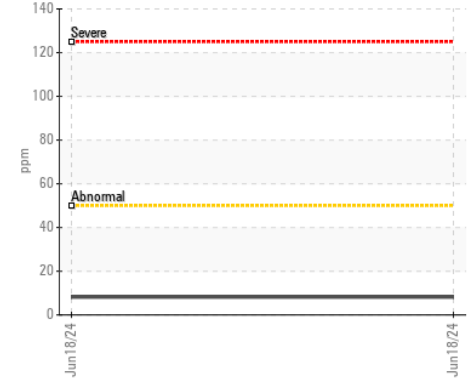
▲ Viscosity @ 40°C



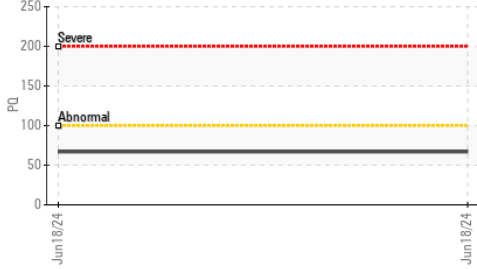
▲ Copper (ppm)



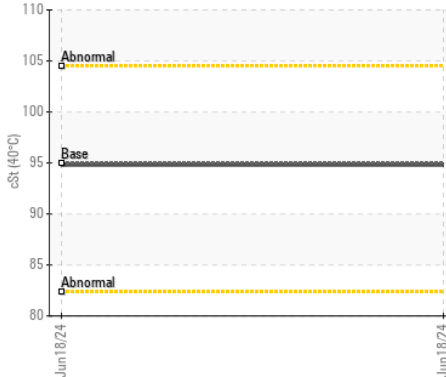
▲ Silicon (ppm)



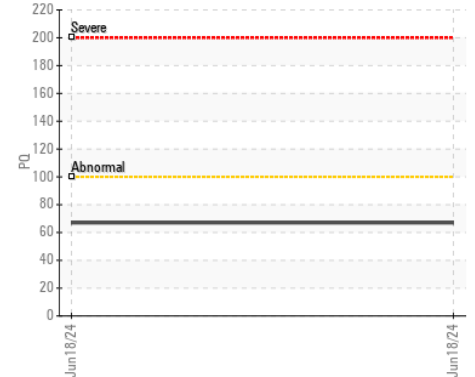
▲ PQ



▲ Viscosity @ 40°C



▲ PQ



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VPA061911 **Received** : 21 Jun 2024  
**Lab Number** : 06217114 **Tested** : 24 Jun 2024  
**Unique Number** : 11089978 **Diagnosed** : 24 Jun 2024 - Doug Bogart  
**Test Package** : MOB 1 ( Additional Tests: PQ )

**Mobile Marine Services Inc**  
 01032 Advance Rd South  
 EAST JORDAN, MI  
 US 49727  
 Contact: Duane Kujat  
 mobilemarine@twin-valley.net  
 T: Phone  
 F:

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)