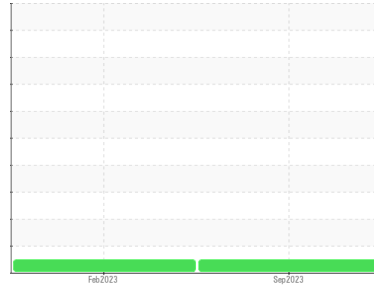




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**[182298-N2STV4W]**  
 Machine Id  
**2018 GD EB D431 CENTRAL HPU**  
 Component  
**Hydraulic System**  
 Fluid  
**2190 TEP (600 GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil. 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 suitable for further service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>PH05964586</b>	PH05830196	---
Sample Date	Client Info		<b>19 Sep 2023</b>	09 Feb 2023	---
Machine Age	hrs	Client Info	<b>0</b>	0	---
Oil Age	hrs	Client Info	<b>10500</b>	9300	---
Oil Changed	Client Info		<b>N/A</b>	N/A	---
Sample Status			<b>NORMAL</b>	NORMAL	---

## WEAR METALS

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

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>0</b>	0	---
Barium	ppm	ASTM D5185m	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	<b>0</b>	0	---
Manganese	ppm	ASTM D5185m	<b>0</b>	<1	---
Magnesium	ppm	ASTM D5185m	<b>3</b>	0	---
Calcium	ppm	ASTM D5185m	<b>3</b>	0	---
Phosphorus	ppm	ASTM D5185m	<b>56</b>	57	---
Zinc	ppm	ASTM D5185m	<b>8</b>	0	---
Sulfur	ppm	ASTM D5185m	<b>39</b>	0	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>0</b>	0	---
Sodium	ppm	ASTM D5185m	<b>0</b>	0	---
Potassium	ppm	ASTM D5185m >20	<b>0</b>	0	---

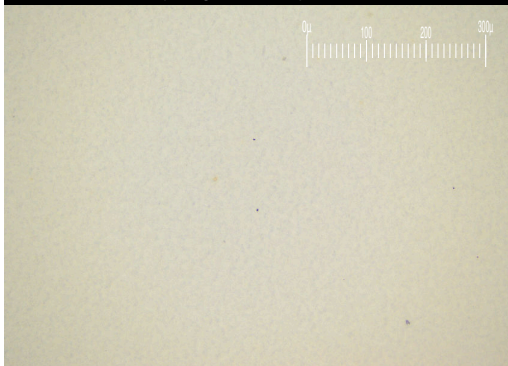
## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	<b>191</b>	203	---
Particles >6µm	ASTM D7647	>2500	<b>68</b>	50	---
Particles >14µm	ASTM D7647	>320	<b>14</b>	4	---
Particles >21µm	ASTM D7647	>80	<b>4</b>	1	---
Particles >38µm	ASTM D7647	>20	<b>0</b>	0	---
Particles >71µm	ASTM D7647	>4	<b>0</b>	0	---
Oil Cleanliness	ISO 4406 (c)	>20/18/15	<b>15/13/11</b>	15/13/9	---

## FLUID DEGRADATION

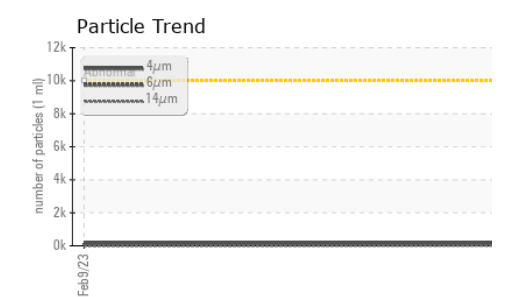
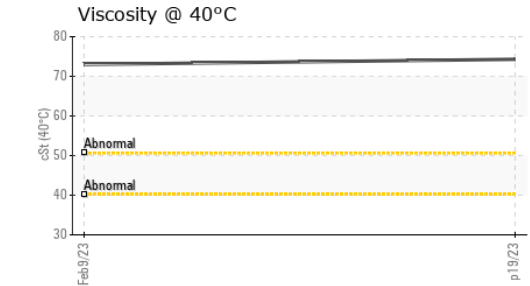
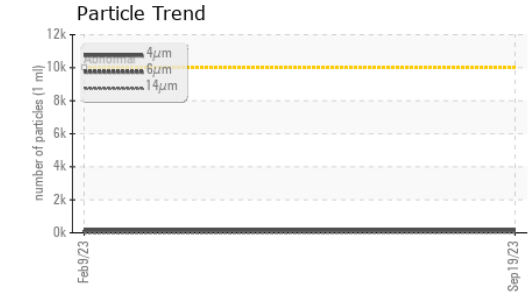
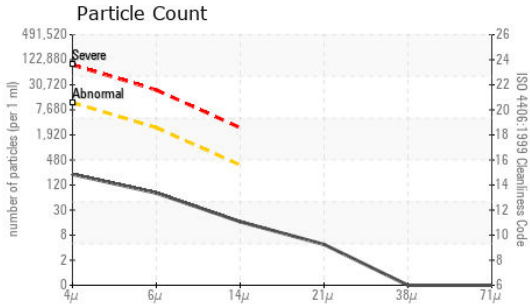
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.24</b>	0.26	---

Particle Filter (Magn: 200 x)





# OIL ANALYSIS REPORT



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PH05964586 **Received** : 29 Sep 2023  
**Lab Number** : **05964586** **Diagnosed** : 05 Oct 2023  
**Unique Number** : 10671137 **Diagnostician** : Jonathan Hester  
**Test Package** : PLANT ( Additional Tests: PrtFilter )

**GENERAL DYNAMICS - ELECTRIC BOAT**  
 75 EASTERN POINT RD  
 GROTON, CT  
 US 06340  
 Contact: GENE CHAPMAN  
 gchapman@gdeb.com  
 T: (860)433-4573  
 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)

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	<b>74.3</b>	73.0	---

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

## GRAPHS

