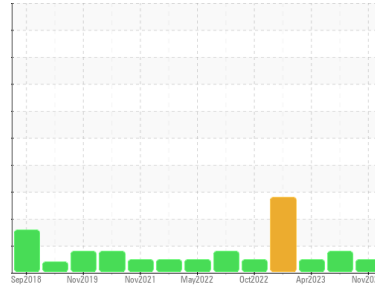




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**UTILITIES**  
 Machine Id  
**SS1-GEN (S/N 3000394153)**  
 Component  
**Auxiliary Power Unit Natural Gas Engine**  
 Fluid  
**SAE 10W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

### Wear

Metal levels are typical for a new component breaking in.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0840387</b>	WC0840393	WC0736985
Sample Date	Client Info		<b>13 Nov 2023</b>	24 Jul 2023	28 Apr 2023
Machine Age	hrs	Client Info	<b>312</b>	306	269
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>NORMAL</b>	ABNORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	<b>1</b>	<1	2
Chromium	ppm	ASTM D5185m >4	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m >9	<b>1</b>	<1	<1
Lead	ppm	ASTM D5185m >30	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m >35	<b>47</b>	▲ 124	41
Tin	ppm	ASTM D5185m >4	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>12</b>	55	58
Barium	ppm	ASTM D5185m	<b>6</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>60</b>	46	42
Manganese	ppm	ASTM D5185m	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	<b>882</b>	704	698
Calcium	ppm	ASTM D5185m	<b>1101</b>	1330	1246
Phosphorus	ppm	ASTM D5185m	<b>1092</b>	757	762
Zinc	ppm	ASTM D5185m	<b>1172</b>	916	928
Sulfur	ppm	ASTM D5185m	<b>3234</b>	2850	3046

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	<b>2</b>	2	2
Sodium	ppm	ASTM D5185m >401	<b>0</b>	2	2
Potassium	ppm	ASTM D5185m >20	<b>1</b>	<1	2

## INFRA-RED

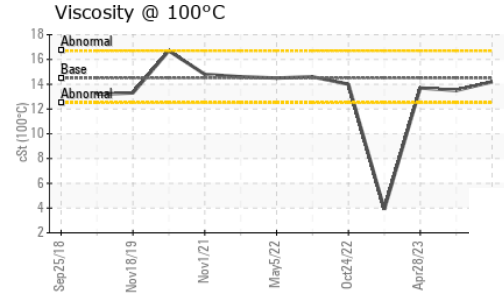
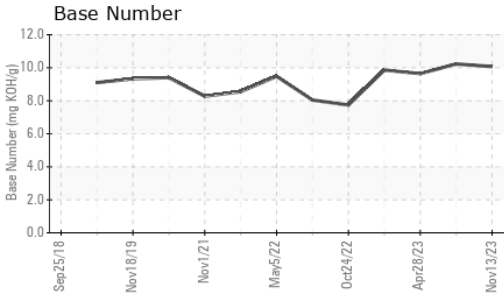
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	<b>0</b>	0	0
Nitration	Abs/cm	*ASTM D7624 >20	<b>4.9</b>	7.8	6.4
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>17.9</b>	20.7	18.2

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>13.5</b>	17.9	15.9
Base Number (BN)	mg KOH/g	ASTM D2896	<b>10.07</b>	10.23	9.64



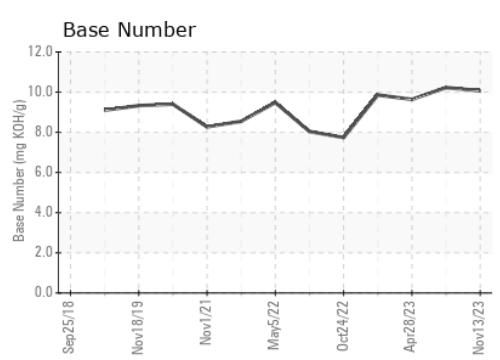
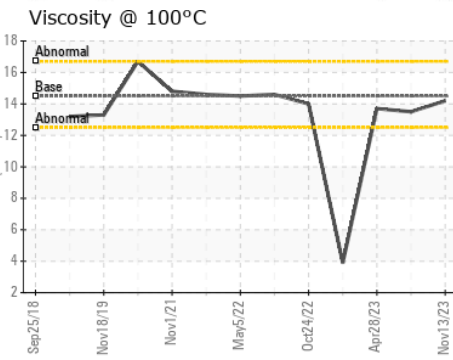
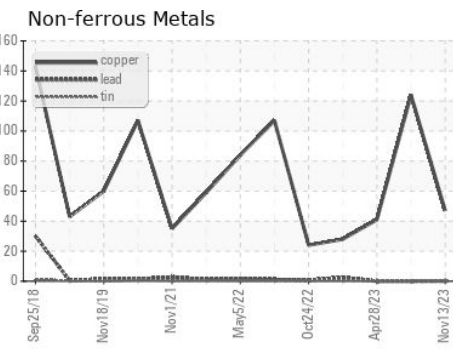
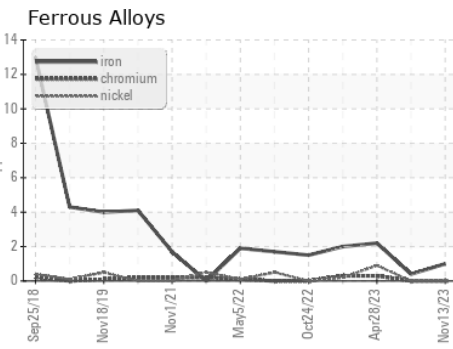
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	14.5	<b>14.2</b>	13.5	13.7

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0840387 **Received** : 15 Nov 2023  
**Lab Number** : **06009156** **Diagnosed** : 17 Nov 2023  
**Unique Number** : 10742918 **Diagnostician** : Wes Davis  
**Test Package** : IND 2

**TORAY CARBON FIBERS AMERICA INC**  
 2202 MOORE DUNCAN HWY  
 MOORE, SC  
 US 29369  
 Contact: JAMES HARRIS  
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 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)