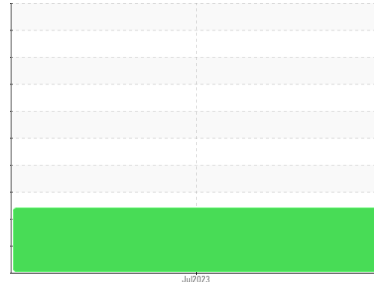


# OIL ANALYSIS REPORT

Sample Rating Trend



**DIRT**



Machine Id  
**E19**  
 Component  
**Diesel Engine**  
 Fluid  
**NOT GIVEN (--- GAL)**

## DIAGNOSIS

### Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

### 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>PCA0090491</b>	---	---
Sample Date	Client Info	<b>19 Jul 2023</b>	---	---
Machine Age	hrs Client Info	<b>9580</b>	---	---
Oil Age	hrs Client Info	<b>9580</b>	---	---
Oil Changed	Client Info	<b>N/A</b>	---	---
Sample Status		<b>ABNORMAL</b>	---	---

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<b>&lt;1.0</b>	---	---
Glycol	WC Method	<b>NEG</b>	---	---

## WEAR METALS

method	limit/base	current	history1	history2
Iron ppm	ASTM D5185m >100	<b>42</b>	---	---
Chromium ppm	ASTM D5185m >20	<b>1</b>	---	---
Nickel ppm	ASTM D5185m >4	<b>&lt;1</b>	---	---
Titanium ppm	ASTM D5185m	<b>&lt;1</b>	---	---
Silver ppm	ASTM D5185m >3	<b>0</b>	---	---
Aluminum ppm	ASTM D5185m >20	<b>▲ 11</b>	---	---
Lead ppm	ASTM D5185m >40	<b>&lt;1</b>	---	---
Copper ppm	ASTM D5185m >330	<b>4</b>	---	---
Tin ppm	ASTM D5185m >15	<b>&lt;1</b>	---	---
Vanadium ppm	ASTM D5185m	<b>0</b>	---	---
Cadmium ppm	ASTM D5185m	<b>0</b>	---	---

## ADDITIVES

method	limit/base	current	history1	history2
Boron ppm	ASTM D5185m	<b>2</b>	---	---
Barium ppm	ASTM D5185m	<b>2</b>	---	---
Molybdenum ppm	ASTM D5185m	<b>68</b>	---	---
Manganese ppm	ASTM D5185m	<b>&lt;1</b>	---	---
Magnesium ppm	ASTM D5185m	<b>1009</b>	---	---
Calcium ppm	ASTM D5185m	<b>1168</b>	---	---
Phosphorus ppm	ASTM D5185m	<b>1049</b>	---	---
Zinc ppm	ASTM D5185m	<b>1326</b>	---	---
Sulfur ppm	ASTM D5185m	<b>2929</b>	---	---

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm	ASTM D5185m >25	<b>▲ 38</b>	---	---
Sodium ppm	ASTM D5185m	<b>7</b>	---	---
Potassium ppm	ASTM D5185m >20	<b>6</b>	---	---

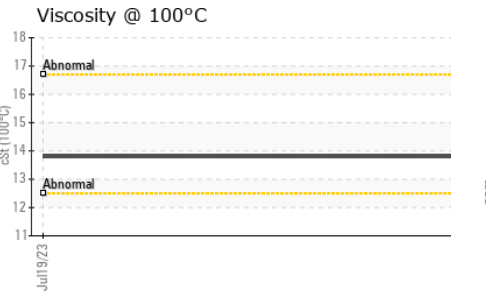
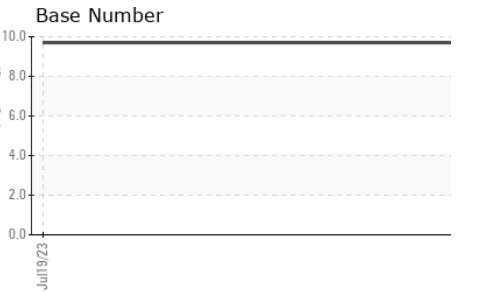
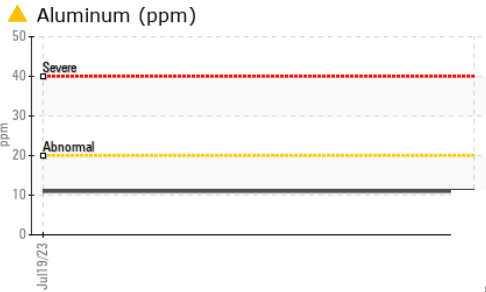
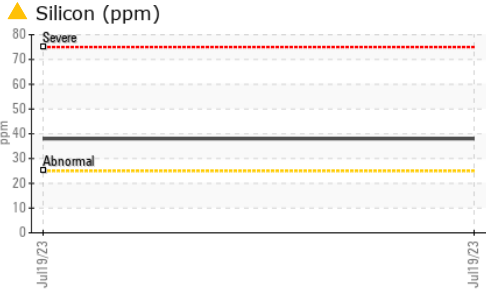
## INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.7</b>	---	---
Nitration	Abs/cm *ASTM D7624 >20	<b>8.7</b>	---	---
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>21.5</b>	---	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>17.7</b>	---	---
Base Number (BN)	mg KOH/g ASTM D2896	<b>9.70</b>	---	---

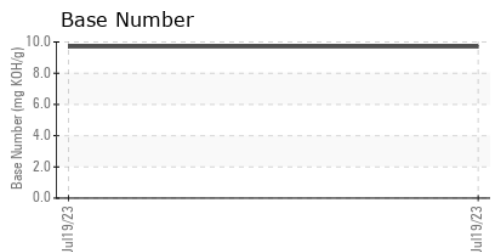
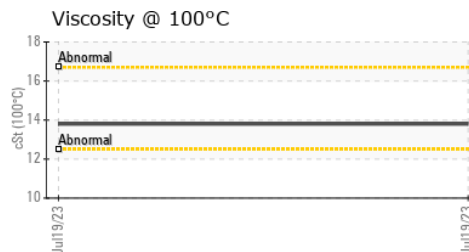
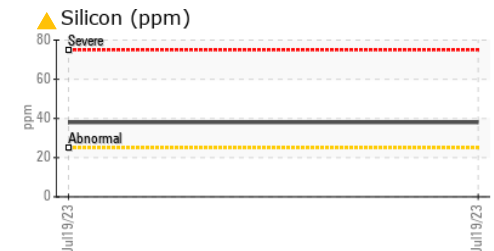
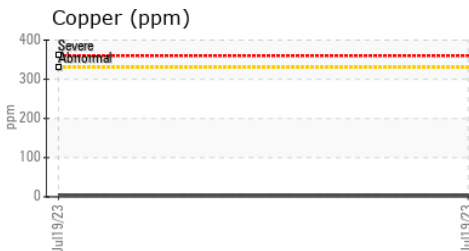
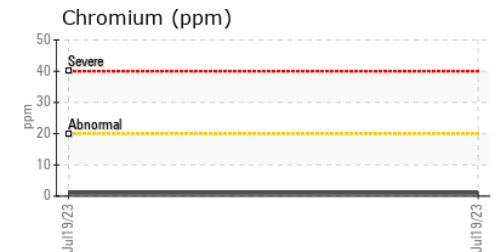
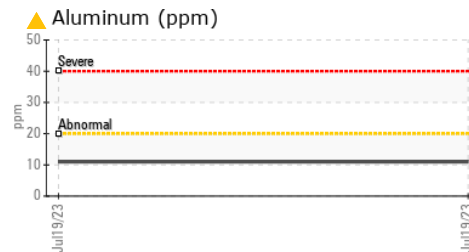
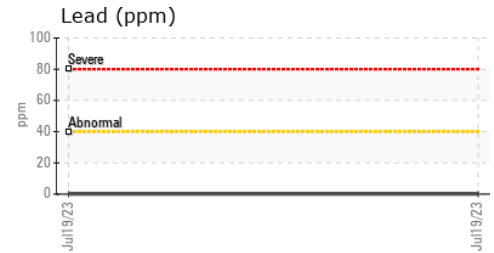
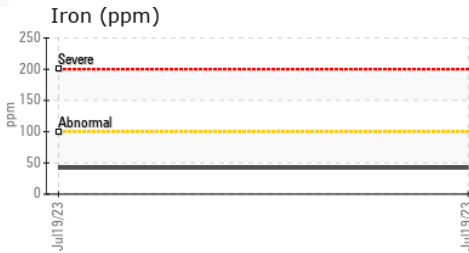
# OIL ANALYSIS REPORT



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	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	13.8	---	---

### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0090491 **Received** : 21 Jul 2023  
**Lab Number** : 05904520 **Diagnosed** : 26 Jul 2023  
**Unique Number** : 10565876 **Diagnostician** : Don Baldrige  
**Test Package** : MOB 2

**WIN Waste Innovations - Shop # - Taunton**  
 565 WINTHROP ST  
 TAUNTON, MA  
 US 02780  
 Contact: Dave Wilson  
 dwilson@win-waste.com

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)

T:  
F: