



# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area

**KANSAS/44/EG - TRUCK-ON-HWY-HEAVY DUTY**

Machine Id

**04.164 [KANSAS^44^EG - TRUCK-ON-HWY-HEAVY DUTY]**

Component

**Diesel Engine**

Fluid

**DIESEL ENGINE OIL SAE 15W40 (--- 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.

### 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>WC0918039</b>	---	---
Sample Date	Client Info		<b>23 May 2024</b>	---	---
Machine Age	mls	Client Info	<b>106540</b>	---	---
Oil Age	mls	Client Info	<b>106540</b>	---	---
Oil Changed	Client Info		<b>Changed</b>	---	---
Sample Status			<b>NORMAL</b>	---	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<b>&lt;1.0</b>	---	---
Water	WC Method	>0.2	<b>NEG</b>	---	---

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>90	<b>15</b>	---	---
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	---	---
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	---	---
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	---	---
Silver	ppm	ASTM D5185m	>2	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	---	---
Lead	ppm	ASTM D5185m	>40	<b>0</b>	---	---
Copper	ppm	ASTM D5185m	>330	<b>0</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	250	<b>163</b>	---	---
Barium	ppm	ASTM D5185m	10	<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m	100	<b>6</b>	---	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185m	450	<b>139</b>	---	---
Calcium	ppm	ASTM D5185m	3000	<b>1936</b>	---	---
Phosphorus	ppm	ASTM D5185m	1150	<b>966</b>	---	---
Zinc	ppm	ASTM D5185m	1350	<b>1125</b>	---	---
Sulfur	ppm	ASTM D5185m	4250	<b>3826</b>	---	---

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	<b>8</b>	---	---
Sodium	ppm	ASTM D5185m	>158	<b>15</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>11</b>	---	---
Glycol	%	*ASTM D2982		<b>NEG</b>	---	---

## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>6	<b>0.3</b>	---	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.9</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.0</b>	---	---

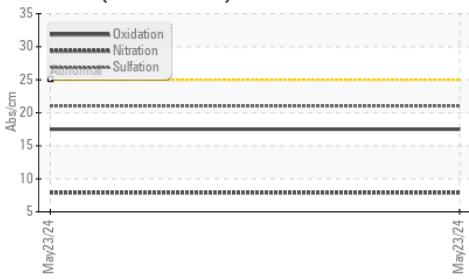
## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.5</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>8.0</b>	---	---

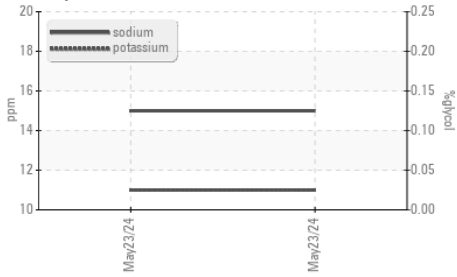


# OIL ANALYSIS REPORT

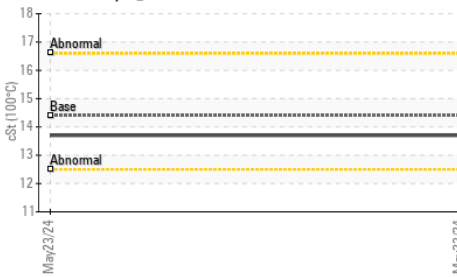
FT-IR (Direct Trend)



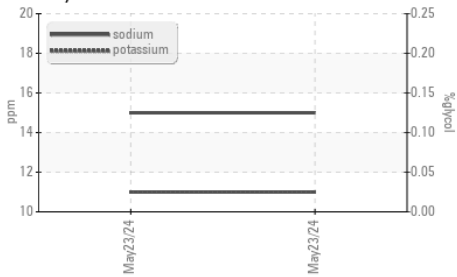
Glycol Contamination



Viscosity @ 100°C



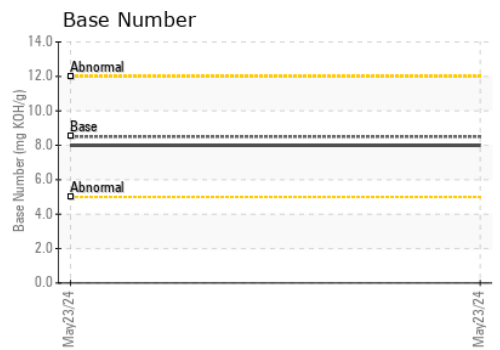
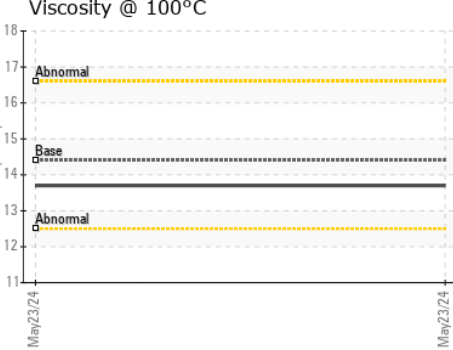
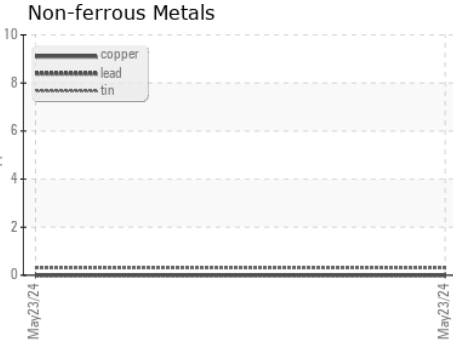
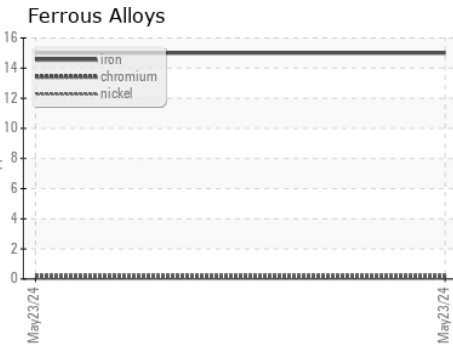
Glycol Contamination



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	14.4	13.7	---

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0918039 **Received** : 04 Jun 2024  
**Lab Number** : 06198685 **Tested** : 05 Jun 2024  
**Unique Number** : 11060808 **Diagnosed** : 05 Jun 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: Glycol, TBN )

**SHERWOOD CONSTRUCTION CO INC**  
 3219 WEST MAY ST  
 WICHITA, KS  
 US 67213  
 Contact: RANDY ROBERTS  
 randy.roberts@sherwood.net

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: x: