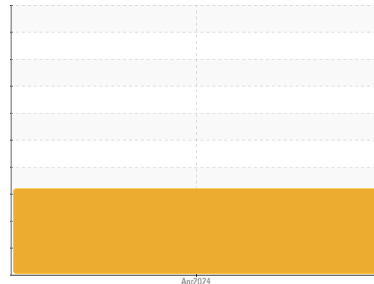




# OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id  
**95073**  
 Component  
**Liquid Petroleum Gas**  
 Fluid  
**{not provided} (--- GAL)**

## DIAGNOSIS

### ▲ Recommendation

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.

### ▲ Wear

Cylinder, crank, or cam shaft wear is indicated.

### ▲ Contamination

Sodium and/or potassium levels are high.

### ▲ Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>SBP0001939</b>	---	---
Sample Date	Client Info		<b>27 Apr 2024</b>	---	---
Machine Age	mls	Client Info	<b>109986</b>	---	---
Oil Age	mls	Client Info	<b>10000</b>	---	---
Oil Changed	Client Info		<b>Changed</b>	---	---
Sample Status			<b>ABNORMAL</b>	---	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	<b>NEG</b>	---	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>120	<b>▲ 120</b>	---
Chromium	ppm	ASTM D5185m	>10	<b>3</b>	---
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	---
Titanium	ppm	ASTM D5185m		<b>0</b>	---
Silver	ppm	ASTM D5185m	>5	<b>&lt;1</b>	---
Aluminum	ppm	ASTM D5185m	>20	<b>19</b>	---
Lead	ppm	ASTM D5185m	>40	<b>3</b>	---
Copper	ppm	ASTM D5185m	>300	<b>4</b>	---
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	---
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>35</b>	---
Barium	ppm	ASTM D5185m		<b>0</b>	---
Molybdenum	ppm	ASTM D5185m		<b>115</b>	---
Manganese	ppm	ASTM D5185m		<b>1</b>	---
Magnesium	ppm	ASTM D5185m		<b>798</b>	---
Calcium	ppm	ASTM D5185m		<b>1454</b>	---
Phosphorus	ppm	ASTM D5185m		<b>882</b>	---
Zinc	ppm	ASTM D5185m		<b>1133</b>	---
Sulfur	ppm	ASTM D5185m		<b>3468</b>	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>12</b>	---
Sodium	ppm	ASTM D5185m		<b>▲ 117</b>	---
Potassium	ppm	ASTM D5185m	>20	<b>▲ 167</b>	---
Fuel	%	ASTM D3524	>4.0	<b>0.2</b>	---

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		<b>0.1</b>	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.7</b>	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.3</b>	---

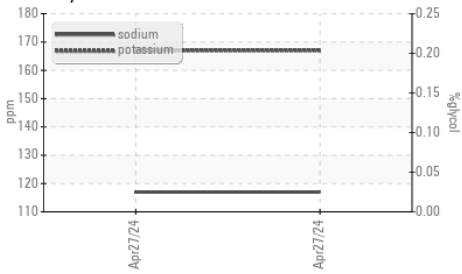
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>9.3</b>	---
Base Number (BN)	mg KOH/g	ASTM D2896		<b>5.6</b>	---



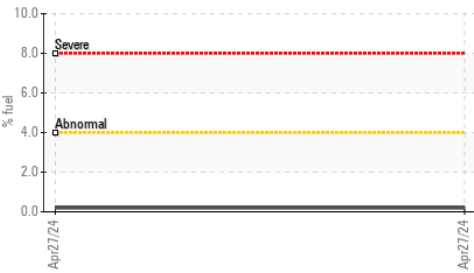
# OIL ANALYSIS REPORT

### ▲ Glycol Contamination



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

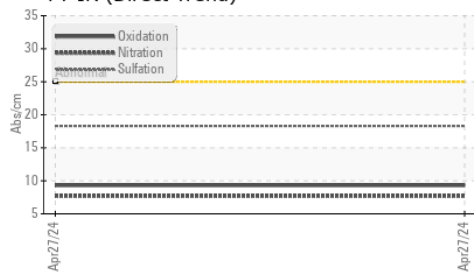
### ● Fuel Dilution



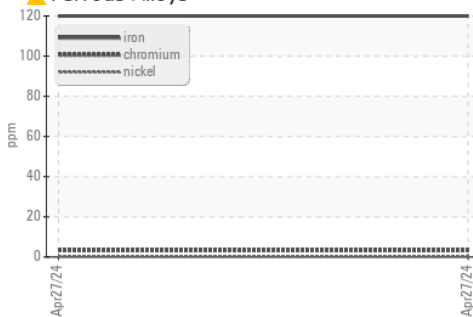
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	<b>9.9</b>	---	---

### GRAPHS

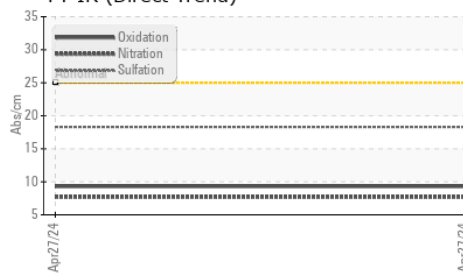
### FT-IR (Direct Trend)



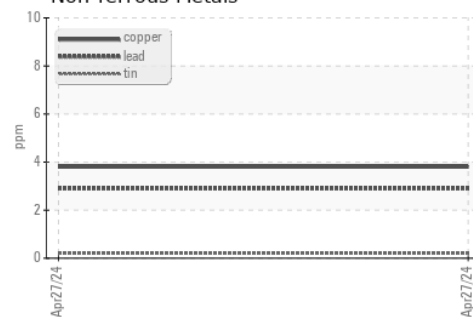
### ▲ Ferrous Alloys



### FT-IR (Direct Trend)



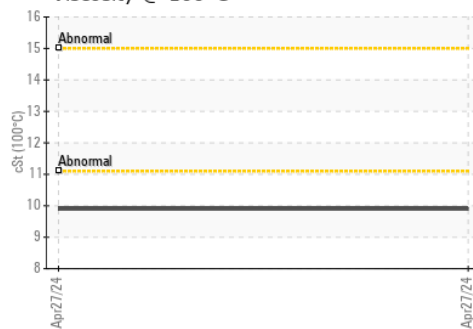
### Non-ferrous Metals



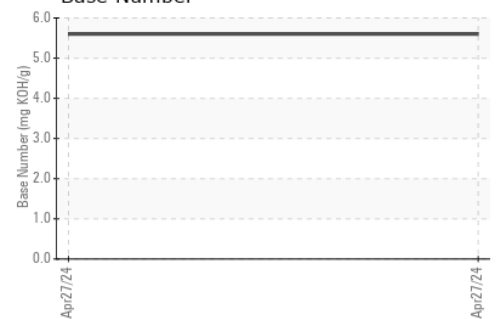
### Base Number



### Viscosity @ 100°C



### Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : SBP0001939

**Lab Number** : 06193272

**Unique Number** : 11050024

**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

**Received** : 28 May 2024

**Tested** : 31 May 2024

**Diagnosed** : 31 May 2024 - Jonathan Hester

**Sapp Bros. Fleet - Lincoln Location**

US

Contact: Service Manager

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: