



# OIL ANALYSIS REPORT

WEAR	<b>ABNORMAL</b>
CONTAMINATION	<b>SEVERE</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**PETERBILT PETERBILT 379**  
 Component  
**Diesel Engine**  
 Fluid  
**SHELL ROTELLA T4 15W40 (11 GAL)**

## RECOMMENDATION

We advise that you check for faulty combustion, plugged air filters, or aftercoolers. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please note that the oil was too thick to perform some of the normal laboratory tests.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>DCM2013548</b>	---	---
Sample Date		Client Info		<b>11 Feb 2024</b>	---	---
Machine Age	mls	Client Info		<b>1000000</b>	---	---
Oil Age	mls	Client Info		<b>8000</b>	---	---
Filter Age	mls	Client Info		<b>8000</b>	---	---
Oil Changed		Client Info		<b>Changed</b>	---	---
Filter Changed		Client Info		<b>Changed</b>	---	---
Sample Status				<b>SEVERE</b>	---	---

## WEAR

The copper level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>200	<b>133</b>	---	---
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	---	---
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	---	---
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	---	---
Silver	ppm	ASTM D5185m	>2	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>30	<b>1</b>	---	---
Lead	ppm	ASTM D5185m	>30	<b>7</b>	---	---
Copper	ppm	ASTM D5185m	>30	<b>▲ 36</b>	---	---
Tin	ppm	ASTM D5185m	>15	<b>2</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

## CONTAMINATION

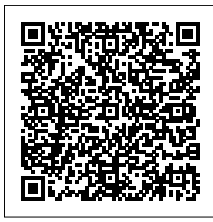
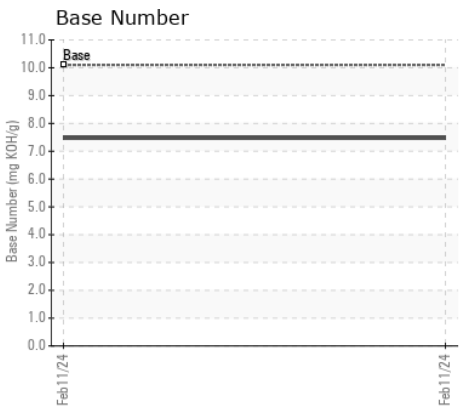
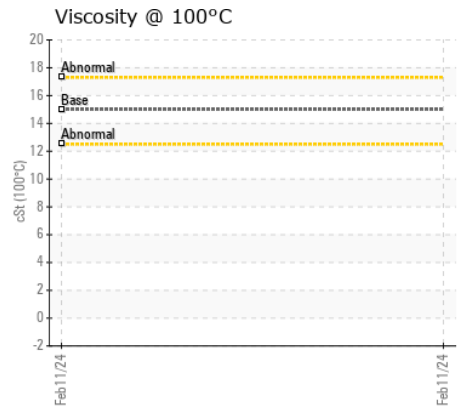
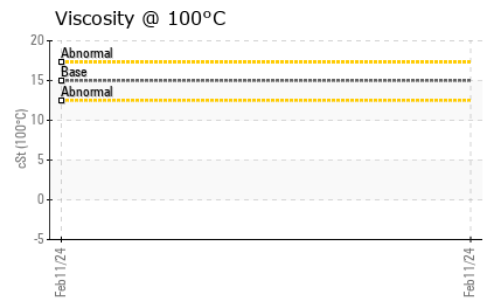
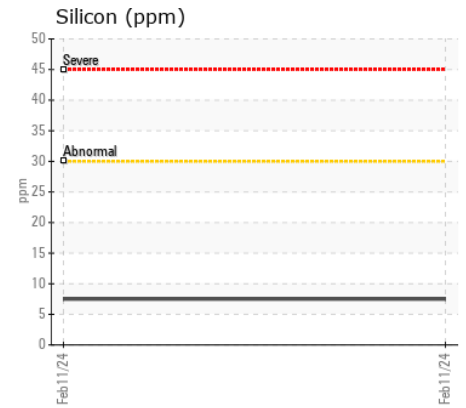
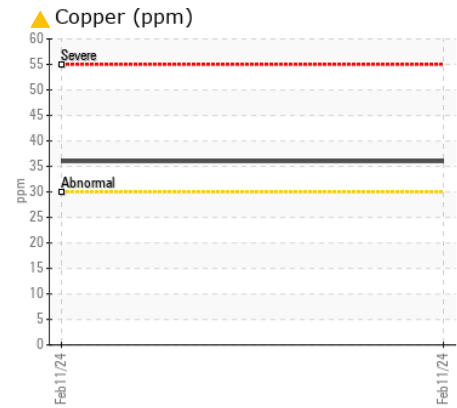
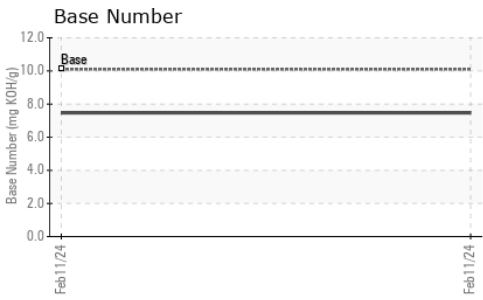
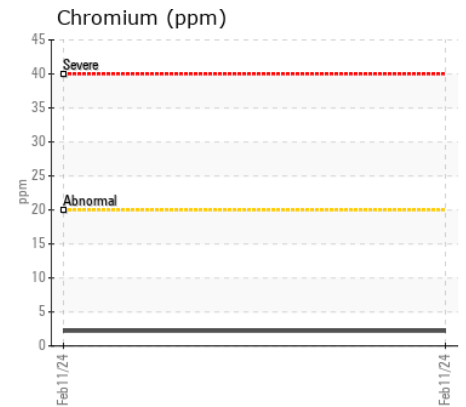
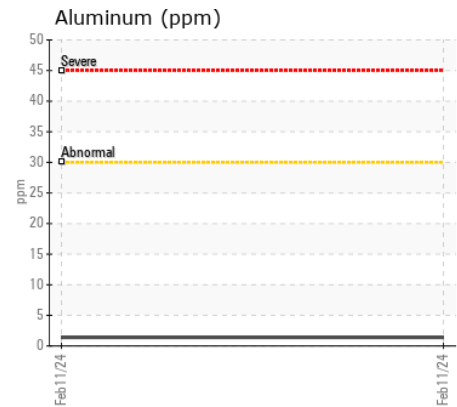
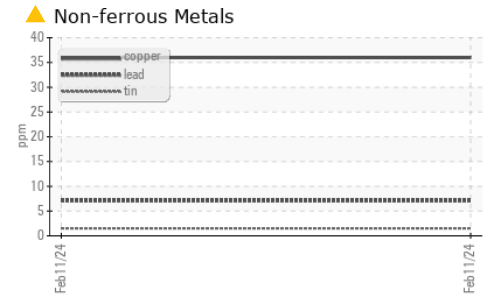
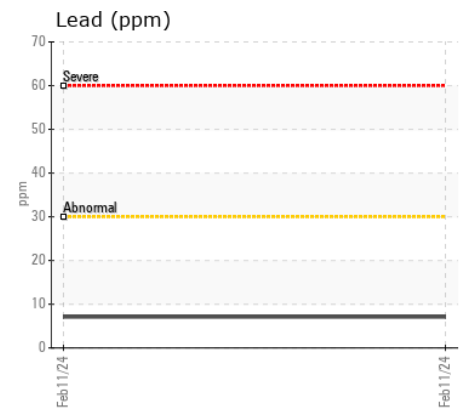
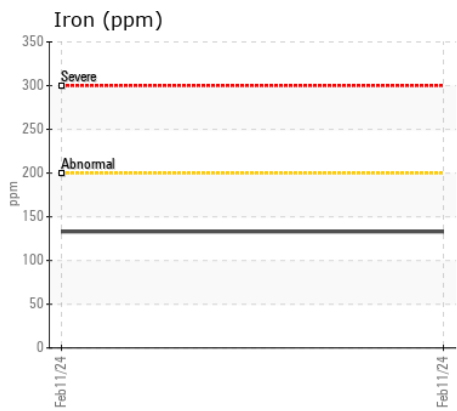
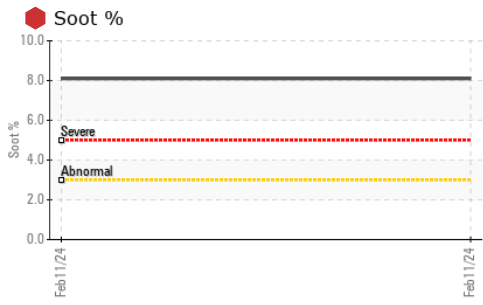
There is an abnormal amount of solids and carbon present in the oil.

Silicon	ppm	ASTM D5185m	>30	<b>8</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	---	---
Fuel	%	ASTM D3524	>3.0	<b>&lt;1.0</b>	---	---
Water		WC Method	>0.2	<b>NEG</b>	---	---
Glycol		WC Method		<b>NEG</b>	---	---
Soot %	%	*ASTM D7844	>3	<b>◆ 8.1</b>	---	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>3.4</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>10.8</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual	NONE	<b>NONE</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	>0.2	<b>NEG</b>	---	---

## FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<b>6</b>	---	---
Boron	ppm	ASTM D5185m		<b>18</b>	---	---
Barium	ppm	ASTM D5185m		<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m		<b>69</b>	---	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185m		<b>50</b>	---	---
Calcium	ppm	ASTM D5185m		<b>1420</b>	---	---
Phosphorus	ppm	ASTM D5185m		<b>615</b>	---	---
Zinc	ppm	ASTM D5185m		<b>831</b>	---	---
Sulfur	ppm	ASTM D5185m		<b>2151</b>	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>5.0</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	<b>7.47</b>	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DCM2013548 **Received** : 13 Feb 2024  
**Lab Number** : 06087607 **Tested** : 16 Feb 2024  
**Unique Number** : 10875052 **Diagnosed** : 16 Feb 2024 - Jonathan Hester  
**Test Package** : MOB 2 ( Additional Tests: FuelDilution )

**FINDLEY'S REPAIR**  
 1931 CASTLETON ROAD  
 DARLINGTON, MD  
 US 21034  
 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: