



# OIL ANALYSIS REPORT

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

Machine Id  
**PETERBILT 21403**  
Component  
**Diesel Engine**  
Fluid  
**SHELL ROTELLA T5 10W30 (CJ4) (56 QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0909692</b>	WC0831974	WC0766697
Sample Date		Client Info		<b>22 May 2024</b>	08 Sep 2023	10 Apr 2023
Machine Age	mls	Client Info		<b>260505</b>	11530	11030
Oil Age	mls	Client Info		<b>8000</b>	548	581
Filter Age	mls	Client Info		<b>0</b>	548	581
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>165	<b>10</b>	7	8
Chromium	ppm	ASTM D5185m	>5	<b>1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	0	0
Lead	ppm	ASTM D5185m	>150	<b>2</b>	3	1
Copper	ppm	ASTM D5185m	>90	<b>1</b>	<1	<1
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

There is no indication of any contamination in the oil.

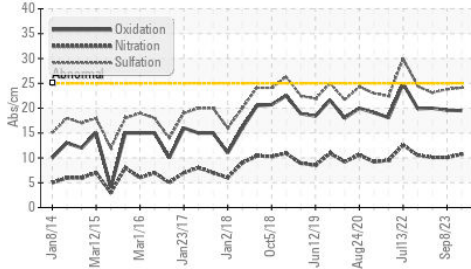
Silicon	ppm	ASTM D5185m	>35	<b>6</b>	4	4
Potassium	ppm	ASTM D5185m	>20	<b>10</b>	9	9
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>7.5	<b>0.2</b>	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.7</b>	10.1	10.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.1</b>	23.8	23.1
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

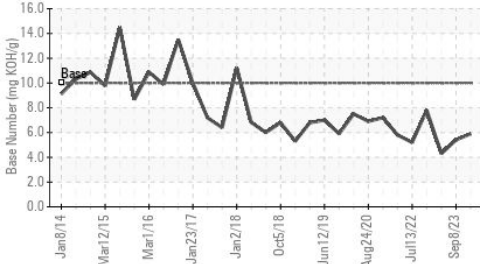
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>3</b>	3	1
Boron	ppm	ASTM D5185m		<b>128</b>	103	107
Barium	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>11</b>	6	4
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>63</b>	47	33
Calcium	ppm	ASTM D5185m		<b>2204</b>	2426	2119
Phosphorus	ppm	ASTM D5185m		<b>1016</b>	1109	925
Zinc	ppm	ASTM D5185m		<b>1199</b>	1345	1109
Sulfur	ppm	ASTM D5185m		<b>3548</b>	4571	3045
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.5</b>	19.6	20.0
Base Number (BN)	mg KOH/g	ASTM D2896	10.0	<b>5.9</b>	5.4	4.3
Visc @ 100°C	cSt	ASTM D445	12.0	<b>12.0</b>	12.1	12.0

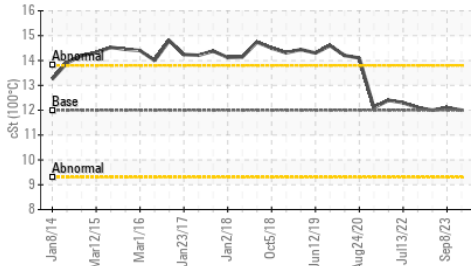
**FT-IR (Direct Trend)**



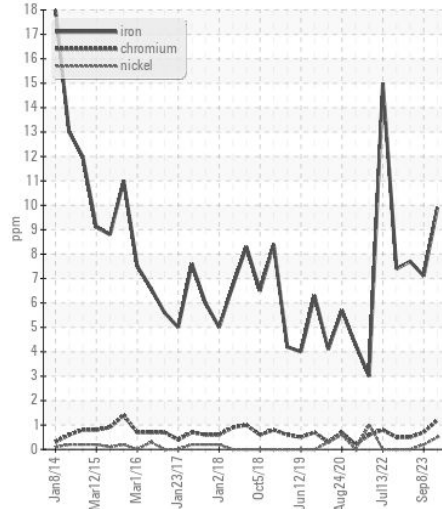
**Base Number**



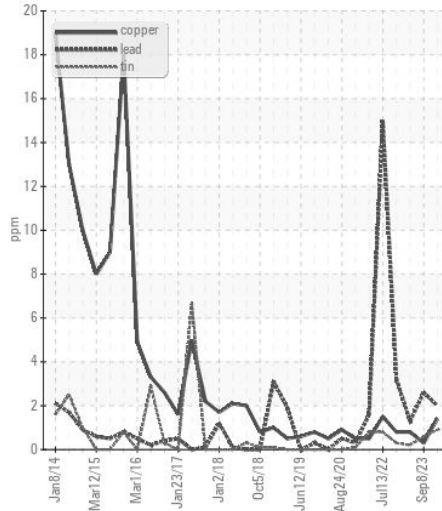
**Viscosity @ 100°C**



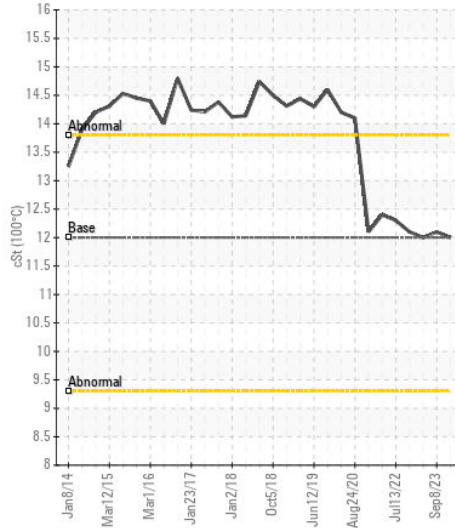
**Ferrous Alloys**



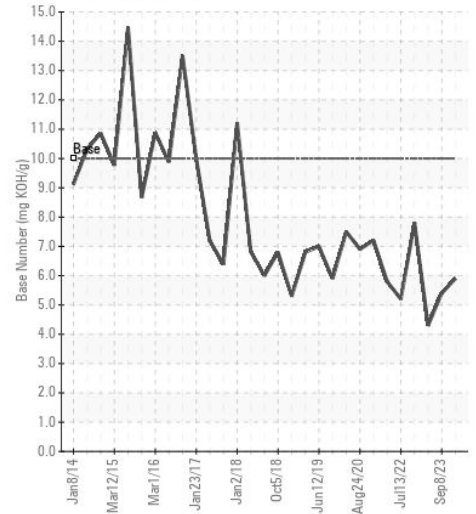
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0909692  
**Lab Number** : 06192017  
**Unique Number** : 11048769  
**Test Package** : FLEET

**Received** : 28 May 2024  
**Tested** : 29 May 2024  
**Diagnosed** : 29 May 2024 - Wes Davis

**GUY M TURNER & TURNER TRANSFER**  
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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)