



# OIL ANALYSIS REPORT

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

Area  
**Store 5 - Cross Lanes**  
Machine Id  
**PETERBILT 567 1XPCP4EX0PD810462**  
Component  
**Front Differential**  
Fluid  
**GEAR OIL SAE 75W90 (5 GAL)**

## RECOMMENDATION

No corrective action is recommended at this time. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LEC0041948</b>	LEC0035751	LEC0036333
Sample Date		Client Info		<b>10 Jul 2023</b>	19 May 2023	28 Nov 2022
Machine Age	mls	Client Info		<b>81535</b>	67297	43754
Oil Age	mls	Client Info		<b>81535</b>	67297	43754
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>SEVERE</b>	ABNORMAL	NORMAL

## WEAR

Bearing and/or bushing wear is indicated. All other metal levels are typical for a new component breaking in.

PQ		ASTM D8184		<b>27</b>	23	20
Iron	ppm	ASTM D5185m	>500	<b>191</b>	172	67
Chromium	ppm	ASTM D5185m	>10	<b>1</b>	1	<1
Nickel	ppm	ASTM D5185m	>10	<b>1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>1</b>	0	1
Lead	ppm	ASTM D5185m	>25	<b>&lt;1</b>	5	0
Copper	ppm	ASTM D5185m	>100	<b>▲ 1123</b>	▲ 760	<1
Tin	ppm	ASTM D5185m	>10	<b>▲ 16</b>	▲ 12	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

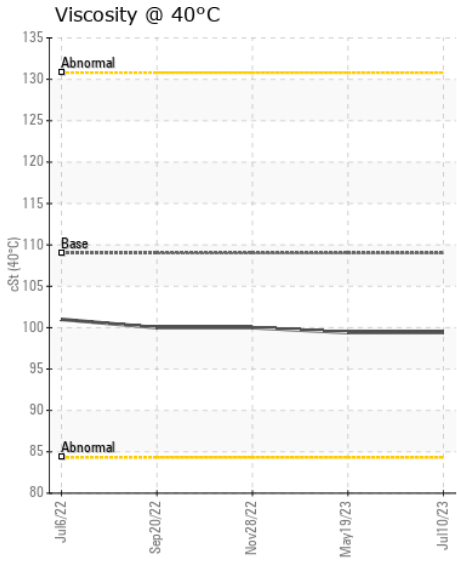
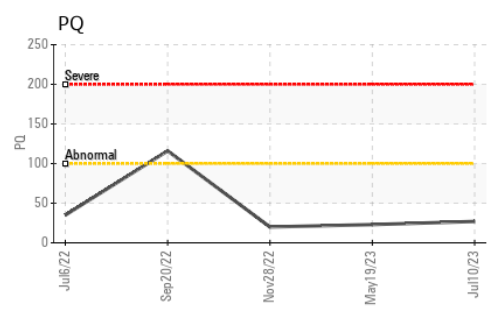
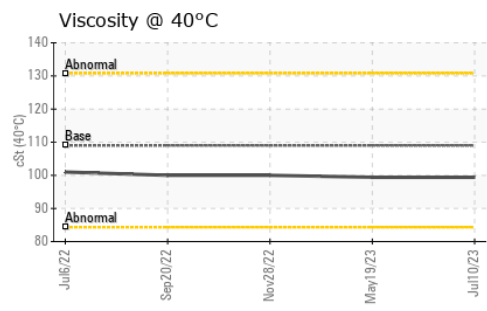
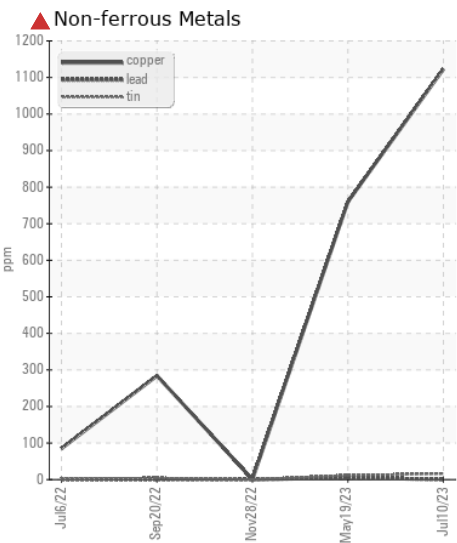
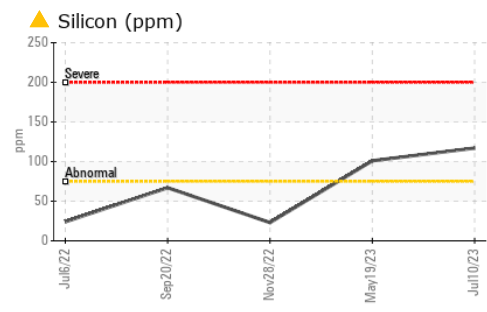
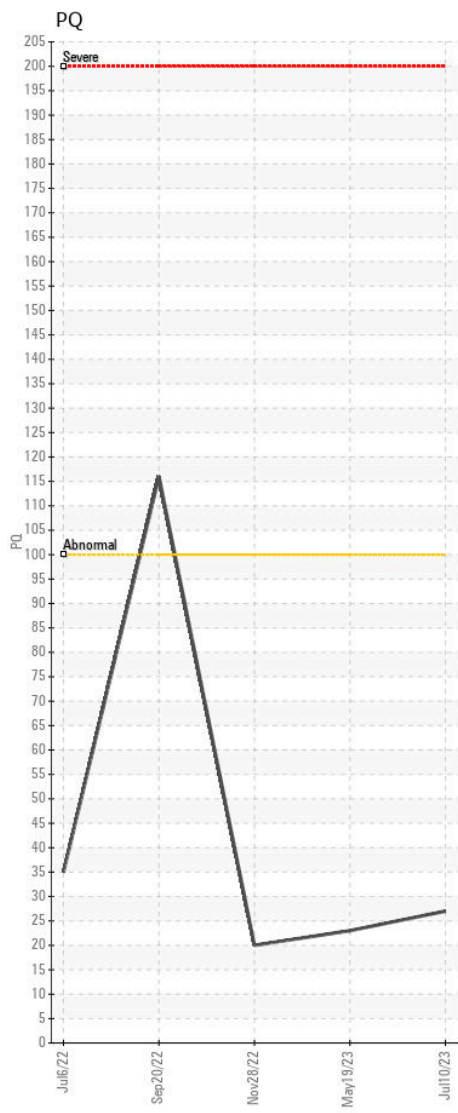
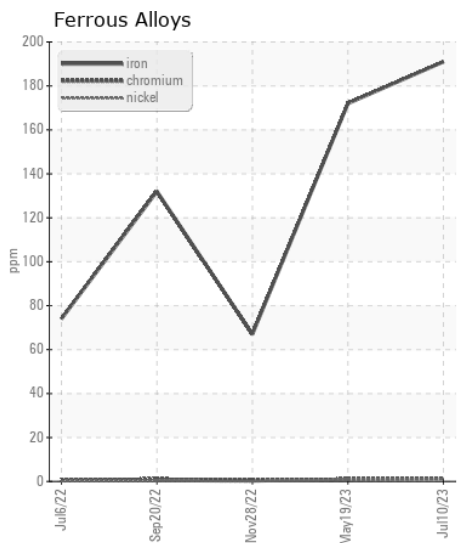
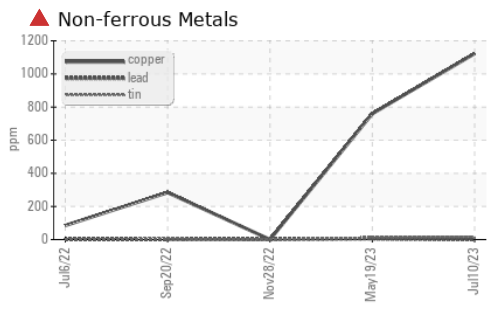
Elemental level of silicon (Si) above normal indicating ingress of seal material.

Silicon	ppm	ASTM D5185m	>75	<b>▲ 117</b>	▲ 101	23
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	3	0
Water		WC Method	>.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>LIGHT</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	>.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>0</b>	4	0
Boron	ppm	ASTM D5185m	400	<b>145</b>	152	317
Barium	ppm	ASTM D5185m	200	<b>2</b>	0	3
Molybdenum	ppm	ASTM D5185m	12	<b>&lt;1</b>	0	0
Manganese	ppm	ASTM D5185m		<b>16</b>	15	5
Magnesium	ppm	ASTM D5185m	12	<b>&lt;1</b>	0	0
Calcium	ppm	ASTM D5185m	150	<b>13</b>	10	3
Phosphorus	ppm	ASTM D5185m	1650	<b>1381</b>	1424	1423
Zinc	ppm	ASTM D5185m	125	<b>16</b>	0	8
Sulfur	ppm	ASTM D5185m	22500	<b>25300</b>	25056	27788
Visc @ 40°C	cSt	ASTM D445	109	<b>99.4</b>	99.4	100



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LEC0041948 **Received** : 12 Jul 2023  
**Lab Number** : 05896431 **Tested** : 13 Jul 2023  
**Unique Number** : 10552241 **Diagnosed** : 13 Jul 2023 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

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Certificate L2367  
 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)