



WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
5C07
Machine Id
PETERBILT 220 TTK6210 (S/N 3BPPHM6X4KF592493)
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (19 QTS)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ARI0007877	ARI0007343	ARI0006777
Sample Date		Client Info		14 May 2024	09 Jan 2024	28 Sep 2023
Machine Age	mls	Client Info		86430	81258	77479
Oil Age	mls	Client Info		5172	3779	5652
Filter Age	mls	Client Info		5172	3779	5652
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		Not Changed	Not Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	16	13	15
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	2	2	2
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	<1	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

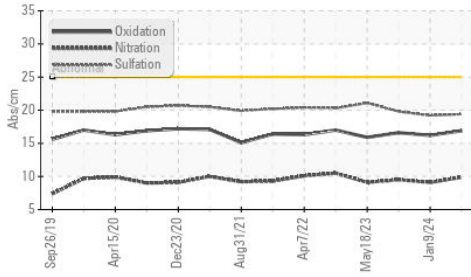
Silicon	ppm	ASTM D5185m	>25	4	5	4
Potassium	ppm	ASTM D5185m	>20	<1	5	3
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.5	0.5	0.5
Nitration	Abs/cm	*ASTM D7624	>20	9.9	9.1	9.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.4	19.2	19.8
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

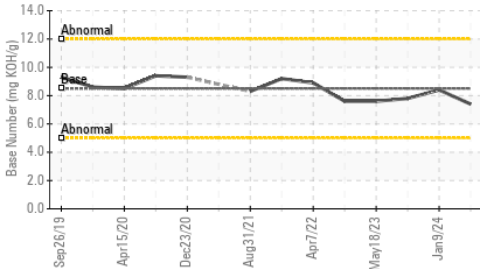
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>158	1	3	2
Boron	ppm	ASTM D5185m	250	3	3	19
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	61	63	60
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	998	1027	997
Calcium	ppm	ASTM D5185m	3000	1123	1107	1178
Phosphorus	ppm	ASTM D5185m	1150	1121	1118	1147
Zinc	ppm	ASTM D5185m	1350	1317	1324	1364
Sulfur	ppm	ASTM D5185m	4250	3606	3320	3321
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.9	16.2	16.6
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.4	8.4	7.8
Visc @ 100°C	cSt	ASTM D445	14.4	14.8	14.6	13.9

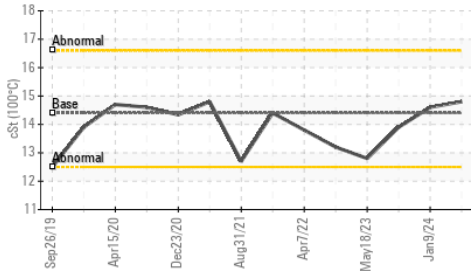
FT-IR (Direct Trend)



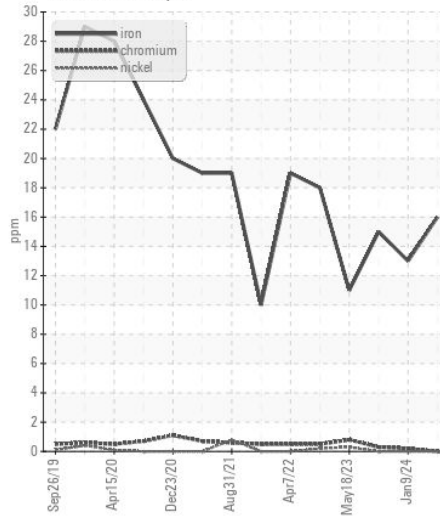
Base Number



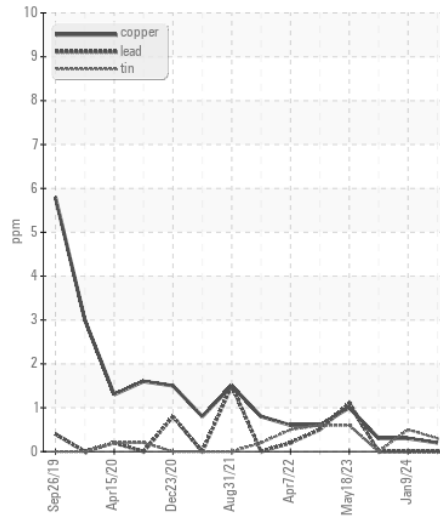
Viscosity @ 100°C



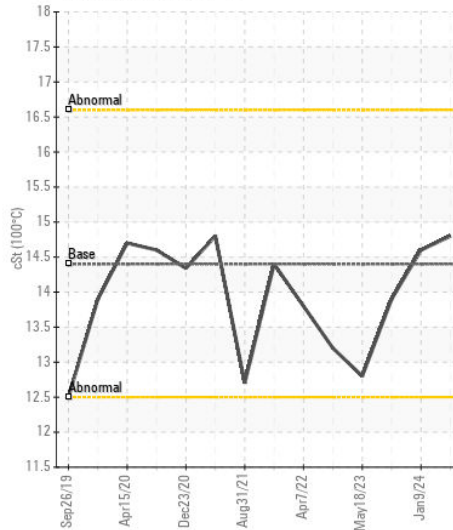
Ferrous Alloys



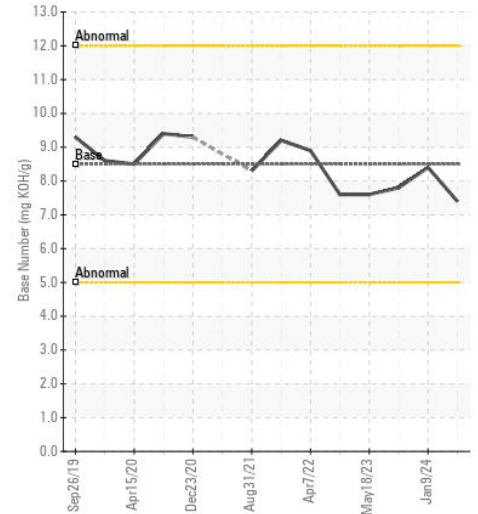
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ARI0007877 **Received** : 31 May 2024
Lab Number : 06196238 **Tested** : 02 Jun 2024
Unique Number : 11058361 **Diagnosed** : 02 Jun 2024 - Wes Davis
Test Package : CONST (Additional Tests: TBN)

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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)