



WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
5C07
Machine Id
PETERBILT 220 TTK6209 (S/N 3BPPHM6X6KF592494)
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time. 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		ARI0006836	ARI0006892	ARI0006904
Sample Date		Client Info		22 Jan 2024	24 Jul 2023	19 May 2023
Machine Age	mls	Client Info		53363	49081	46836
Oil Age	mls	Client Info		4282	5325	3080
Filter Age	mls	Client Info		4282	5325	3080
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>110	29	11	14
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	5	7	2
Lead	ppm	ASTM D5185m	>45	0	0	0
Copper	ppm	ASTM D5185m	>85	<1	1	<1
Tin	ppm	ASTM D5185m	>4	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

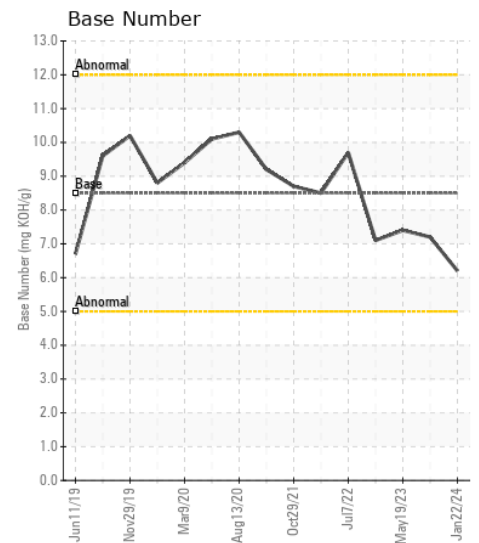
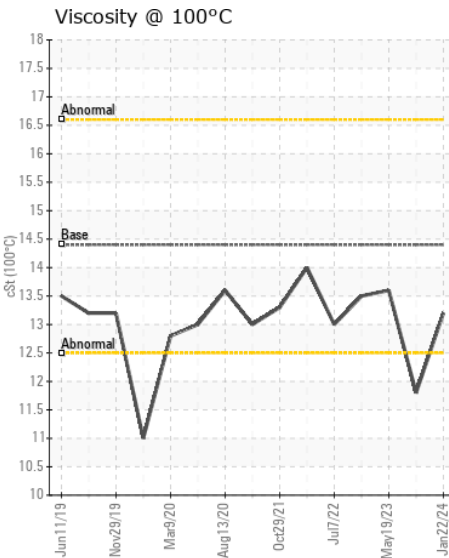
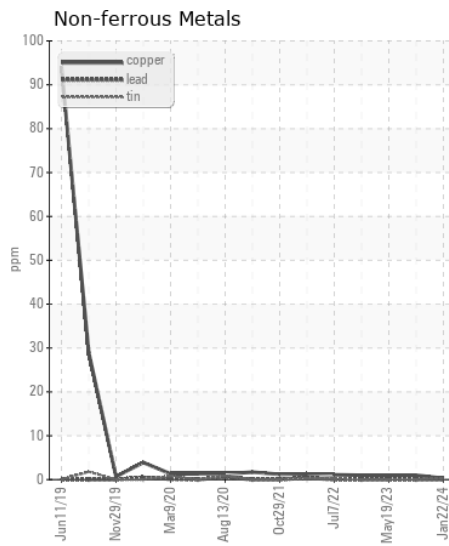
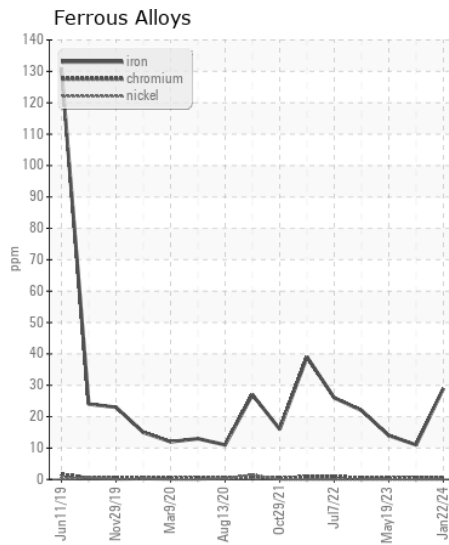
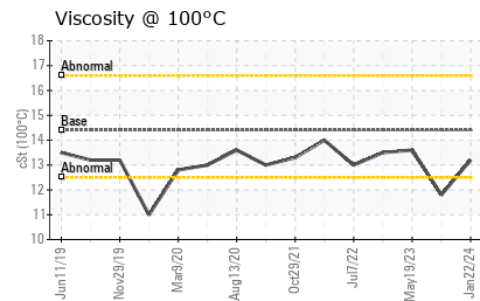
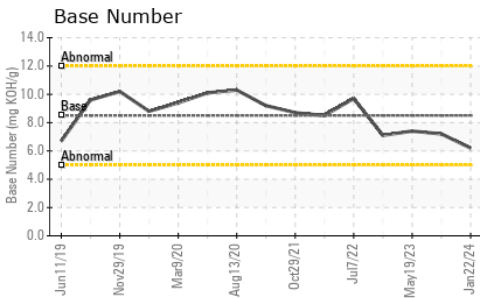
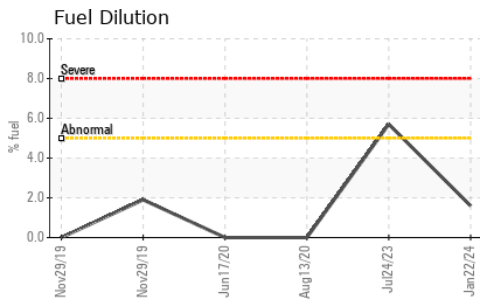
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>30	6	4	4
Potassium	ppm	ASTM D5185m	>20	4	4	3
Fuel	%	ASTM D3524	>5	1.6	▲ 5.7	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.8	0.6	0.5
Nitration	Abs/cm	*ASTM D7624	>20	9.0	7.4	7.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.7	19.6	22.7
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	<1	0
Boron	ppm	ASTM D5185m	250	336	146	405
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	81	38	89
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	371	273	367
Calcium	ppm	ASTM D5185m	3000	1204	1806	1485
Phosphorus	ppm	ASTM D5185m	1150	990	926	1059
Zinc	ppm	ASTM D5185m	1350	1188	1154	1240
Sulfur	ppm	ASTM D5185m	4250	2947	3877	3555
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.4	12.5	16.7
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.2	7.2	7.4
Visc @ 100°C	cSt	ASTM D445	14.4	13.2	▲ 11.8	13.6



Certificate L2367

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

Sample No. : ARI0006836

Lab Number : 06083018

Unique Number : 10870463

Test Package : CONST (Additional Tests: PercentFuel, TBN)

Received : 07 Feb 2024

Tested : 08 Feb 2024

Diagnosed : 08 Feb 2024 - Wes Davis

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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)