



WEAR CHECK

OIL ANALYSIS REPORT

WEAR	MARGINAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
2H28
Machine Id
PETERBILT PB348 RTK9744 (S/N 2NP3LJ0X4HM417295)
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ARI0006397	ARI0006370	ARI0005278
Sample Date		Client Info		08 Jan 2024	09 Mar 2023	01 Feb 2022
Machine Age	mls	Client Info		122182	122500	95714
Oil Age	mls	Client Info		6480	30000	9305
Filter Age	mls	Client Info		6480	30000	9305
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				MARGINAL	NORMAL	NORMAL

WEAR

Ring and cylinder wear is indicated.

Iron	ppm	ASTM D5185m	>100	▲ 93	25	27
Chromium	ppm	ASTM D5185m	>20	▲ 16	1	1
Nickel	ppm	ASTM D5185m	>4	1	0	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	7	4	5
Lead	ppm	ASTM D5185m	>40	3	<1	2
Copper	ppm	ASTM D5185m	>330	3	2	3
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	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.

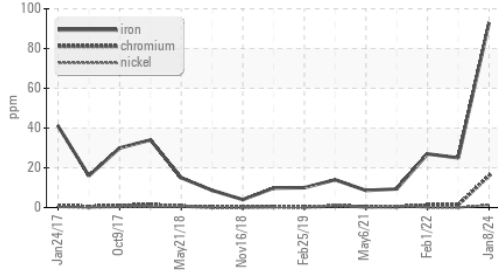
Silicon	ppm	ASTM D5185m	>25	8	6	5
Potassium	ppm	ASTM D5185m	>20	4	5	6
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.9	0.6	0.7
Nitration	Abs/cm	*ASTM D7624	>20	16.0	15.0	16.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	30.5	25.6	30.2
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

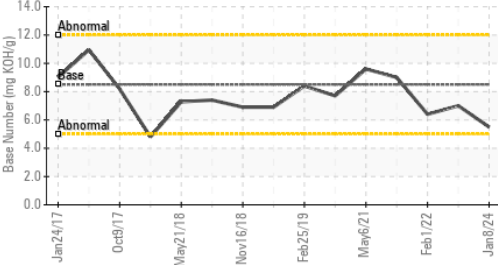
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>158	3	3	0
Boron	ppm	ASTM D5185m	250	38	29	6
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	69	62	67
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m	450	895	643	1059
Calcium	ppm	ASTM D5185m	3000	1304	1676	1306
Phosphorus	ppm	ASTM D5185m	1150	1062	935	1077
Zinc	ppm	ASTM D5185m	1350	1367	1300	1351
Sulfur	ppm	ASTM D5185m	4250	3105	3349	2588
Oxidation	Abs/.1mm	*ASTM D7414	>25	31.2	26.4	30.6
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.5	7.0	6.4
Visc @ 100°C	cSt	ASTM D445	14.4	15.0	14.6	13.3

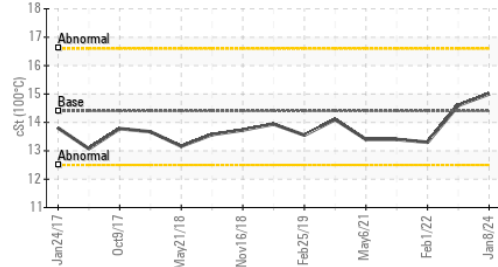
▲ Ferrous Alloys



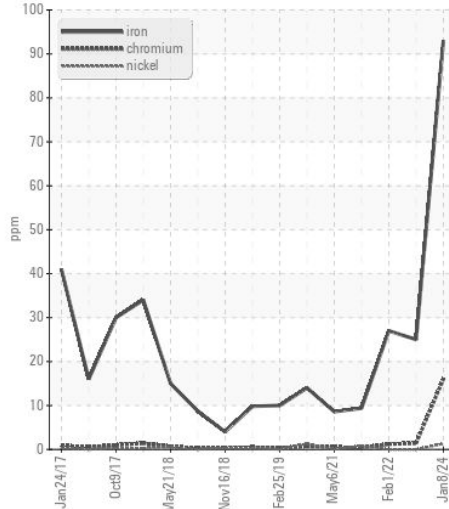
Base Number



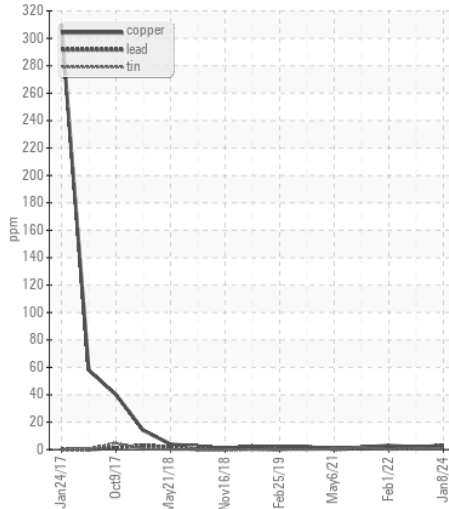
Viscosity @ 100°C



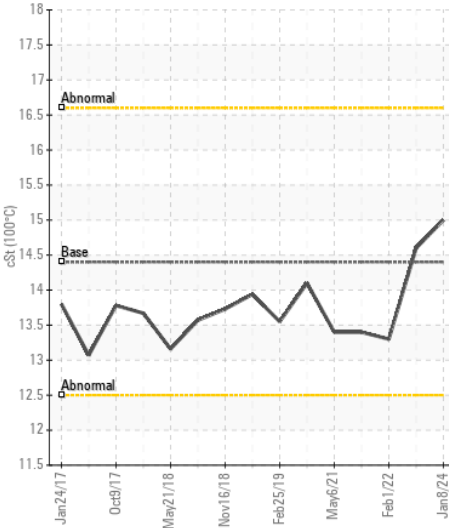
▲ Ferrous Alloys



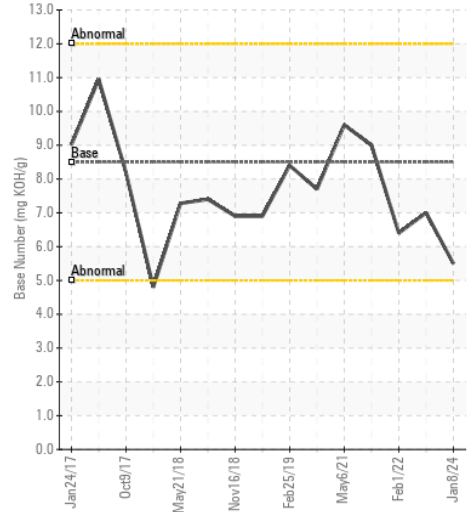
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ARI0006397 **Received** : 30 Jan 2024
Lab Number : 06074448 **Diagnosed** : 01 Feb 2024
Unique Number : 10856539 **Diagnostician** : Jonathan Hester
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)