



PacLease

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ABNORMAL

Machine Id
PETERBILT 846-4648
Component
Diesel Engine
Fluid
MOBIL DELVAC 1300 SUPER15W40 (22 QTS)

RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RPL0020410	RPL0017633	RPL0015849
Sample Date		Client Info		09 May 2024	30 Jan 2024	24 Oct 2023
Machine Age	mls	Client Info		118175	113182	107323
Oil Age	mls	Client Info		4992	13853	7994
Filter Age	mls	Client Info		4992	13853	7994
Oil Changed		Client Info		Filtered	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

Aluminum ppm levels are abnormal. Piston wear is indicated.

Iron	ppm	ASTM D5185m	>100	13	27	15
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	<1	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	▲ 20	52	35
Lead	ppm	ASTM D5185m	>40	0	<1	0
Copper	ppm	ASTM D5185m	>330	13	3	2
Tin	ppm	ASTM D5185m	>15	<1	<1	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.

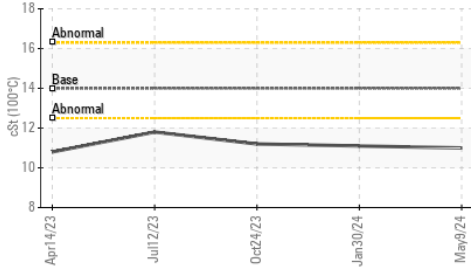
Silicon	ppm	ASTM D5185m	>25	5	4	4
Potassium	ppm	ASTM D5185m	>20	31	119	71
Fuel	%	ASTM D3524	>5	▲ 4.5	▲ 4.9	▲ 6.1
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.4	0.2
Nitration	Abs/cm	*ASTM D7624	>20	7.9	10.3	8.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.5	26.3	23.2
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

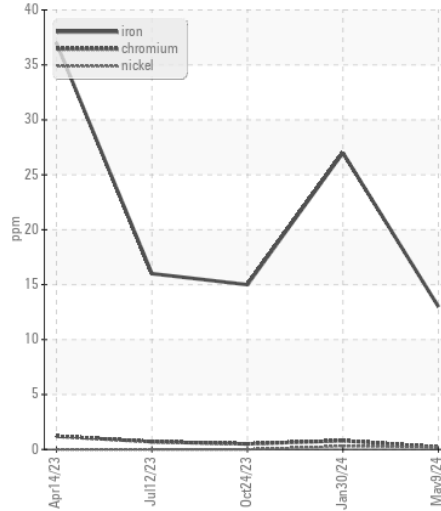
The BN result indicates that there is suitable alkalinity remaining in the oil. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185m		3	0	<1
Boron	ppm	ASTM D5185m	0	4	<1	0
Barium	ppm	ASTM D5185m	0	0	<1	0
Molybdenum	ppm	ASTM D5185m	0	58	53	57
Manganese	ppm	ASTM D5185m		1	<1	0
Magnesium	ppm	ASTM D5185m	0	● 883	817	889
Calcium	ppm	ASTM D5185m		● 966	998	976
Phosphorus	ppm	ASTM D5185m		956	885	956
Zinc	ppm	ASTM D5185m		1174	1074	1186
Sulfur	ppm	ASTM D5185m		3539	3279	3122
Oxidation	Abs/.1mm	*ASTM D7414	>25	22.9	30.5	24.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.4	6.7	3.8	7.1
Visc @ 100°C	cSt	ASTM D445	14	▲ 11.0	▲ 11.1	▲ 11.2

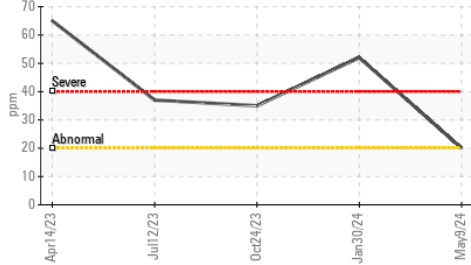
▲ Viscosity @ 100°C



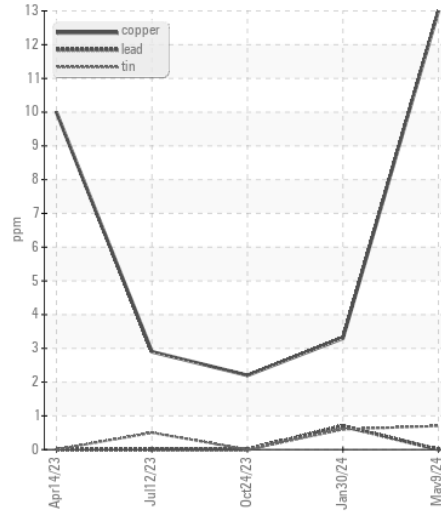
Ferrous Alloys



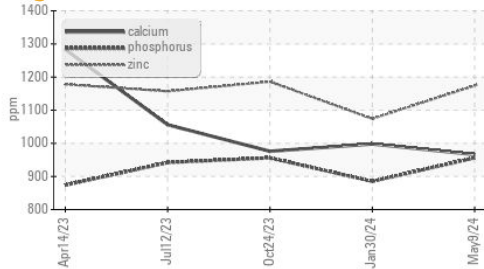
▲ Aluminum (ppm)



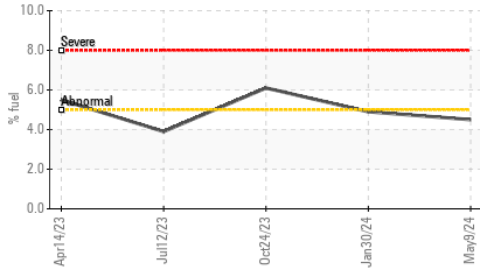
Non-ferrous Metals



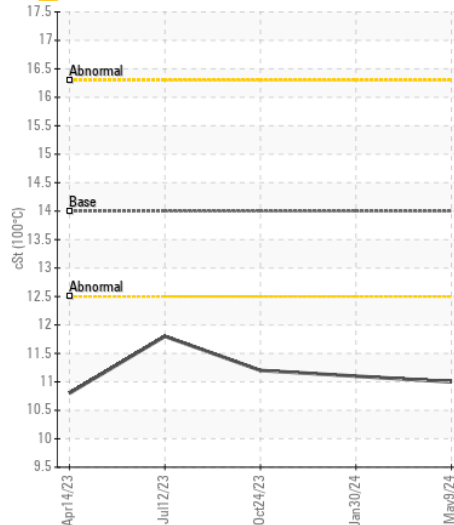
● Additives



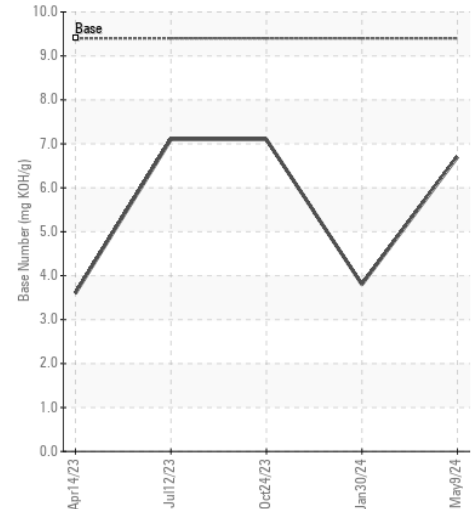
▲ Fuel Dilution



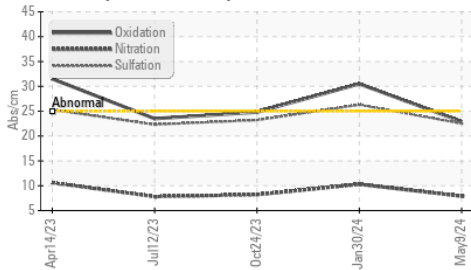
▲ Viscosity @ 100°C



Base Number



FT-IR (Direct Trend)



Certificate L2367

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

Sample No. : RPL0020410

Lab Number : 06185854

Unique Number : 11042606

Test Package : FLEET (Additional Tests: PercentFuel)

Received : 21 May 2024

Tested : 24 May 2024

Diagnosed : 24 May 2024 - Wes Davis

RTL PACLEASE - 7006 - Pico Rivera

7837 Telegraph Rd

Pico Rivera, CA

US 90660

Contact: GERARDO CARROLA

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T:

F:

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)