TRAAP
Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
PETERBILT TK22
Component
Diesel Engine
Fluid
TRC MOLY XL PRO-SPEC III SYNTHETIC15W40 (5 GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

Cylinder, crank, or cam shaft wear is indicated.

CONTAMINATION

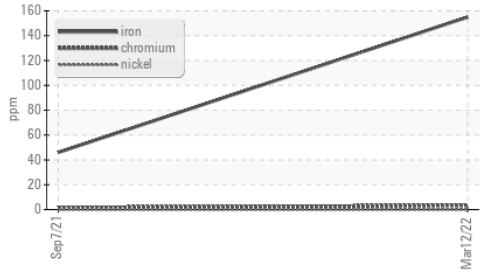
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

FLUID CONDITION

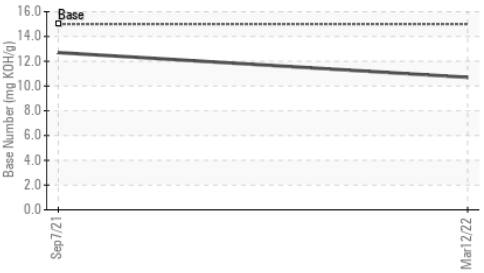
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR05525869	TR05379235	---
Sample Date		Client Info		12 Mar 2022	07 Sep 2021	---
Machine Age	mls	Client Info		0	28712	---
Oil Age	mls	Client Info		32547	18712	---
Filter Age	mls	Client Info		0	18712	---
Oil Changed		Client Info		N/A	Changed	---
Filter Changed		Client Info		N/A	Changed	---
Sample Status				ABNORMAL	MARGINAL	---
Iron	ppm	ASTM D5185m	>90	▲ 155	46	---
Chromium	ppm	ASTM D5185m	>20	3	2	---
Nickel	ppm	ASTM D5185m	>2	0	0	---
Titanium	ppm	ASTM D5185m	>2	<1	<1	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>20	39	101	---
Lead	ppm	ASTM D5185m	>40	0	0	---
Copper	ppm	ASTM D5185m	>330	12	127	---
Tin	ppm	ASTM D5185m	>15	<1	<1	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>25	19	19	---
Potassium	ppm	ASTM D5185m	>20	78	▲ 315	---
Fuel		WC Method	>3.0	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>6	1.3	0.3	---
Nitration	Abs/cm	*ASTM D7624	>20	19.8	11.6	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	33.1	25	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---
Sodium	ppm	ASTM D5185m		2	0	---
Boron	ppm	ASTM D5185m		87	147	---
Barium	ppm	ASTM D5185m		0	1	---
Molybdenum	ppm	ASTM D5185m		180	223	---
Manganese	ppm	ASTM D5185m		2	2	---
Magnesium	ppm	ASTM D5185m		496	439	---
Calcium	ppm	ASTM D5185m	4500	3982	4118	---
Phosphorus	ppm	ASTM D5185m		883	871	---
Zinc	ppm	ASTM D5185m	1400	1074	1056	---
Sulfur	ppm	ASTM D5185m		2932	3029	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	31.2	19.3	---
Base Number (BN)	mg KOH/g	ASTM D2896	15	10.7	12.7	---
Visc @ 100°C	cSt	ASTM D445	15.5	14.3	13.9	---

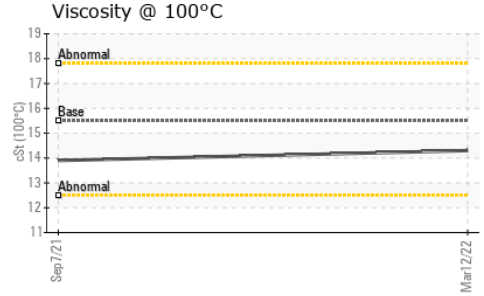
Ferrous Alloys



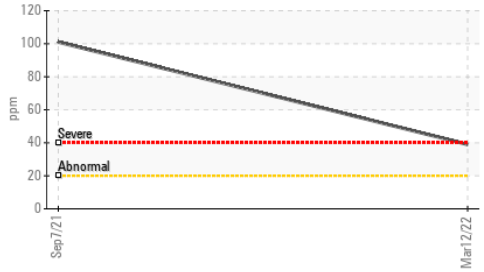
Base Number



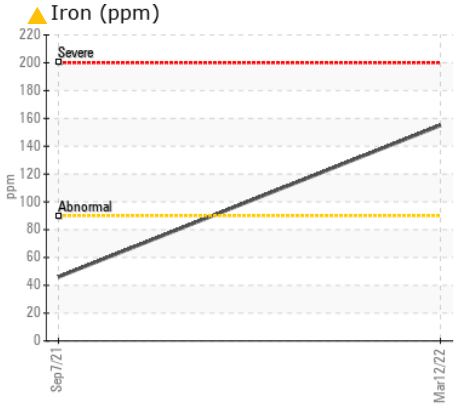
Viscosity @ 100°C



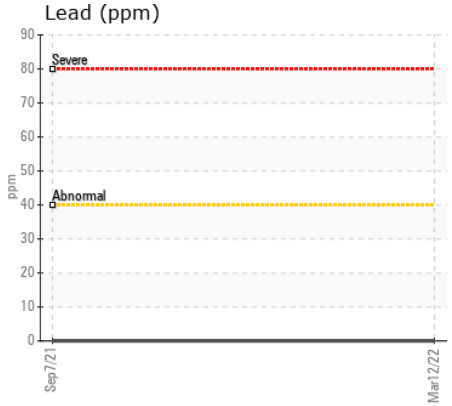
Aluminum (ppm)



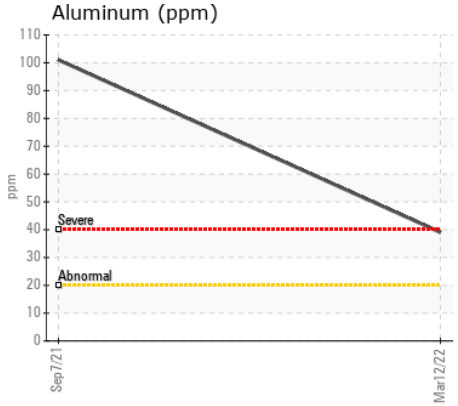
Iron (ppm)



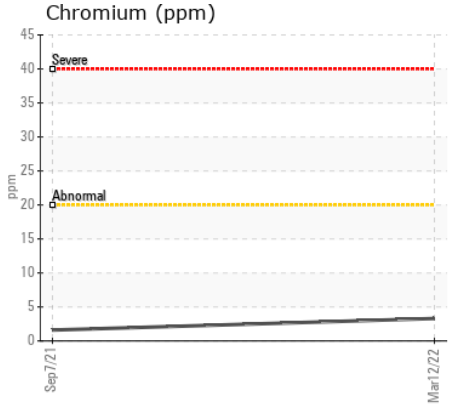
Lead (ppm)



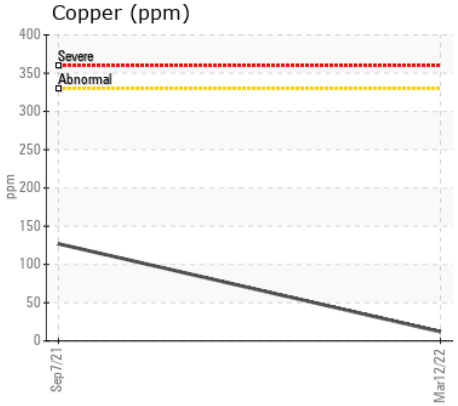
Aluminum (ppm)



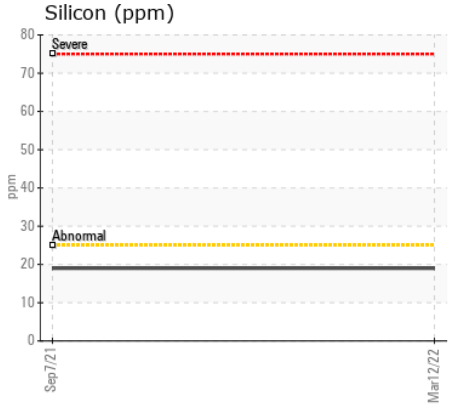
Chromium (ppm)



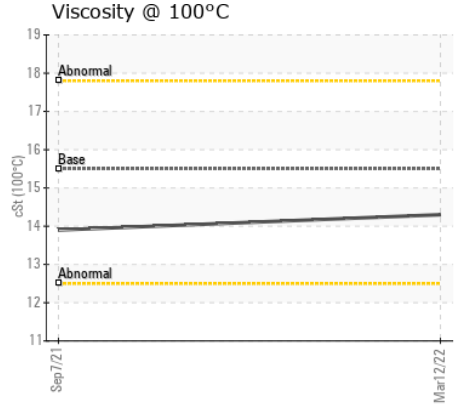
Copper (ppm)



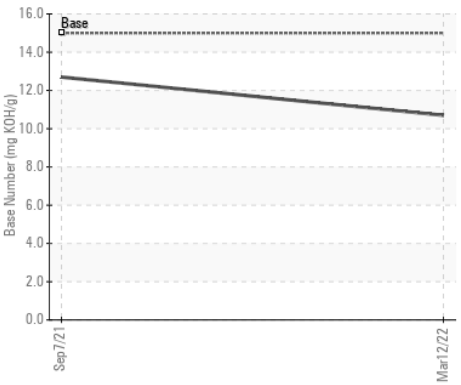
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR05525869
Lab Number : 05525869
Unique Number : 9945149
Test Package : MOB 2

Received : 21 Apr 2022
Tested : 25 Apr 2022
Diagnosed : 25 Apr 2022 - Jonathan Hester

COPPLES WRECKER SERVICE
8775 W ST RD 252
EDINBURGH, IN
US 46124
Contact: MARC DEMOTT

To discuss this sample report, contact Customer Service at 1-800-827-0711.
** - 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)

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F: