



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	NORMAL

Machine Id
PETERBILT TK22

Component
Diesel Engine

Fluid
TRC MOLY XL PRO-SPEC III SYNTHETIC15W40 (5 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		TR05379235	---	---
Sample Date		Client Info		07 Sep 2021	---	---
Machine Age	mls	Client Info		28712	---	---
Oil Age	mls	Client Info		18712	---	---
Filter Age	mls	Client Info		18712	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				MARGINAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	46	---	---
Chromium	ppm	ASTM D5185m	>20	2	---	---
Nickel	ppm	ASTM D5185m	>2	0	---	---
Titanium	ppm	ASTM D5185m	>2	<1	---	---
Silver	ppm	ASTM D5185m	>2	0	---	---
Aluminum	ppm	ASTM D5185m	>20	101	---	---
Lead	ppm	ASTM D5185m	>40	0	---	---
Copper	ppm	ASTM D5185m	>330	127	---	---
Tin	ppm	ASTM D5185m	>15	<1	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

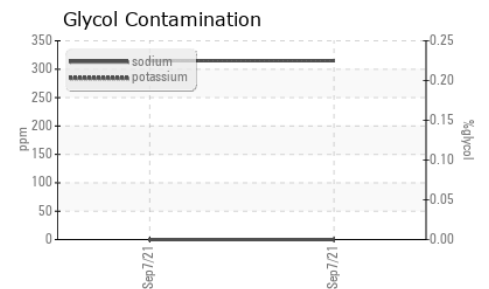
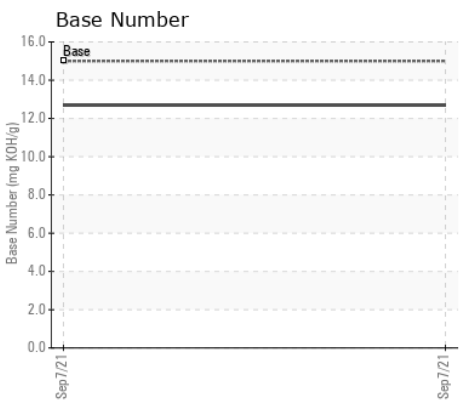
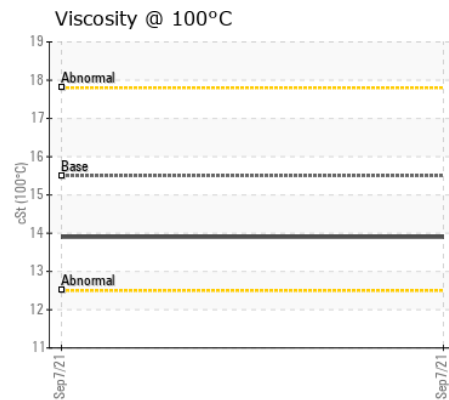
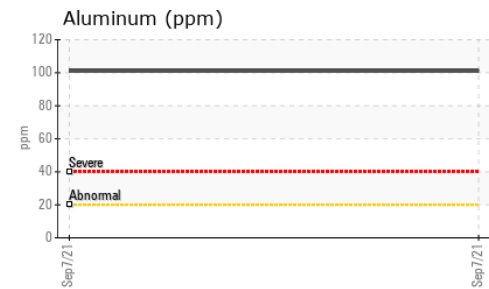
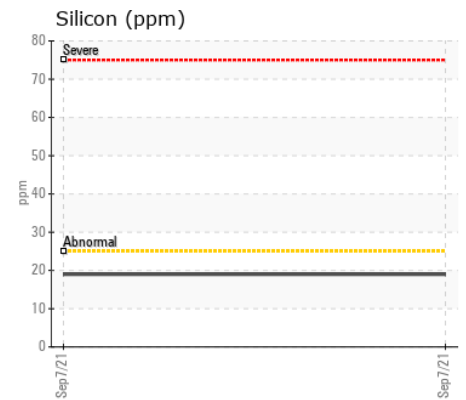
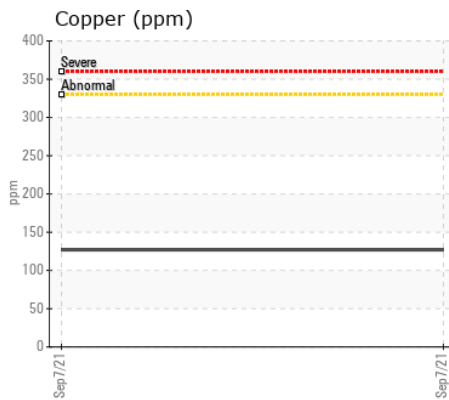
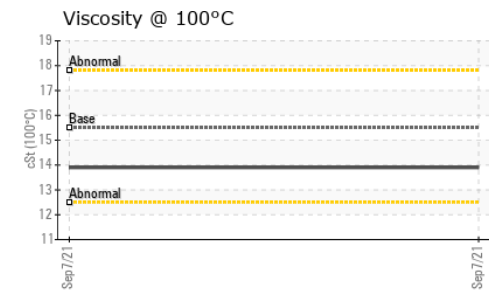
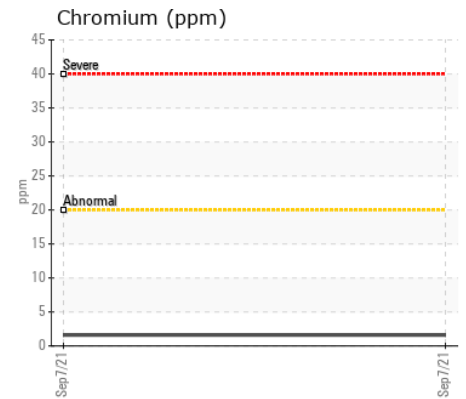
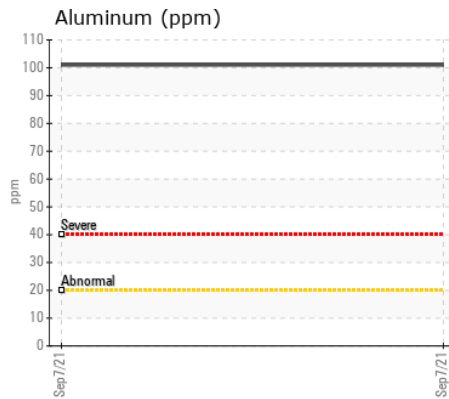
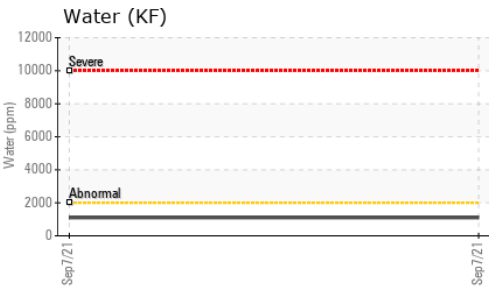
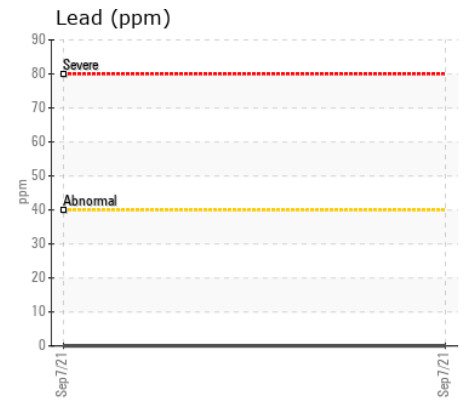
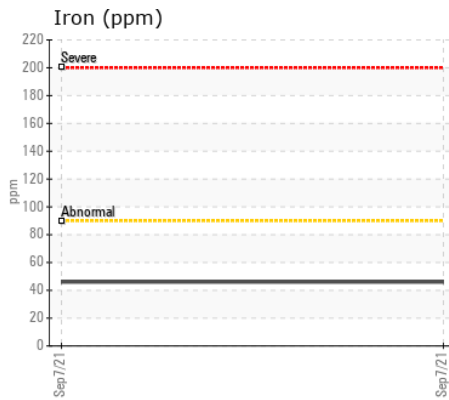
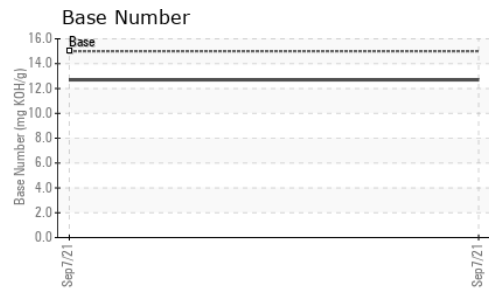
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components.

Silicon	ppm	ASTM D5185m	>25	19	---	---
Potassium	ppm	ASTM D5185m	>20	▲ 315	---	---
Fuel		WC Method	>3.0	<1.0	---	---
Water	%	ASTM D6304	>0.2	0.11	---	---
ppm Water	ppm	ASTM D6304	>2000	1100	---	---
Glycol	%	*ASTM D2982		NEG	---	---
Soot %	%	*ASTM D7844	>6	0.3	---	---
Nitration	Abs/cm	*ASTM D7624	>20	11.6	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	25	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	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		0	---	---
Boron	ppm	ASTM D5185m		147	---	---
Barium	ppm	ASTM D5185m		1	---	---
Molybdenum	ppm	ASTM D5185m		223	---	---
Manganese	ppm	ASTM D5185m		2	---	---
Magnesium	ppm	ASTM D5185m		439	---	---
Calcium	ppm	ASTM D5185m	4500	4118	---	---
Phosphorus	ppm	ASTM D5185m		871	---	---
Zinc	ppm	ASTM D5185m	1400	1056	---	---
Sulfur	ppm	ASTM D5185m		3029	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.3	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	15	12.7	---	---
Visc @ 100°C	cSt	ASTM D445	15.5	13.9	---	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR05379235 **Received** : 21 Oct 2021
Lab Number : 05379235 **Tested** : 21 Oct 2021
Unique Number : 9708363 **Diagnosed** : 21 Oct 2021 - Doug Bogart
Test Package : MOB 2 (Additional Tests: Glycol, KF)

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: