



TRAAP

Texas Refinery Advanced Analysis Program

# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**THOMAS SCHOOL BUS 2**

Component  
**Right Diesel Engine**

Fluid  
**TRC MOLY XL PRO-SPEC IV XP 15W40 (18 QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06102558	TR05956581	---
Sample Date		Client Info		27 Dec 2023	19 Sep 2023	---
Machine Age	hrs	Client Info		835	672	---
Oil Age	hrs	Client Info		711	548	---
Filter Age	hrs	Client Info		167	196	---
Oil Changed		Client Info		Not Changd	Not Changd	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	ABNORMAL	---

## WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>130	87	77	---
Chromium	ppm	ASTM D5185m	>10	1	1	---
Nickel	ppm	ASTM D5185m	>4	<1	<1	---
Titanium	ppm	ASTM D5185m	>2	0	<1	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>20	28	23	---
Lead	ppm	ASTM D5185m	>20	5	4	---
Copper	ppm	ASTM D5185m	>125	330	▲ 412	---
Tin	ppm	ASTM D5185m	>4	1	1	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

## CONTAMINATION

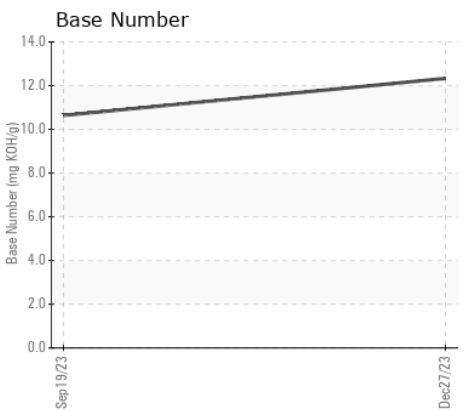
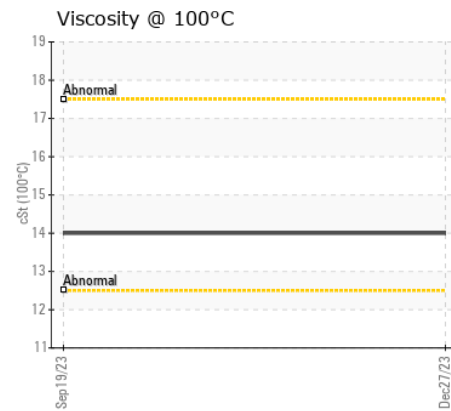
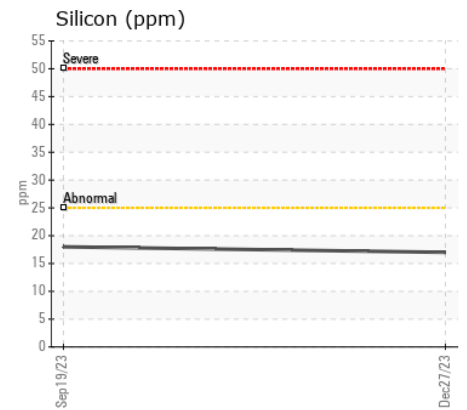
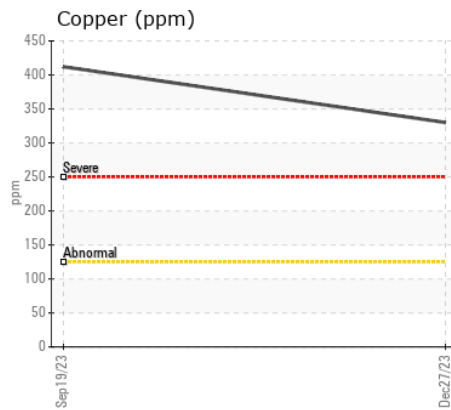
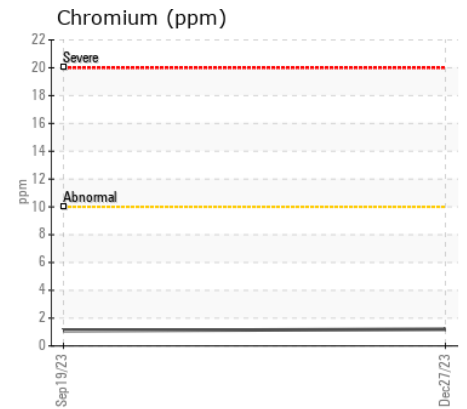
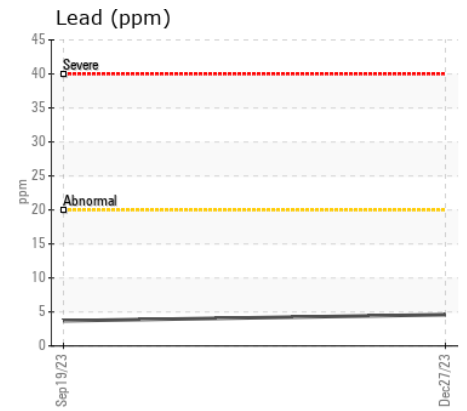
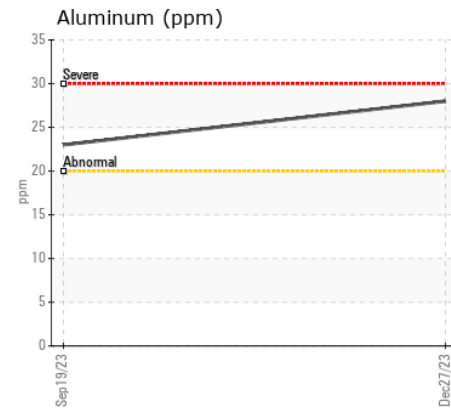
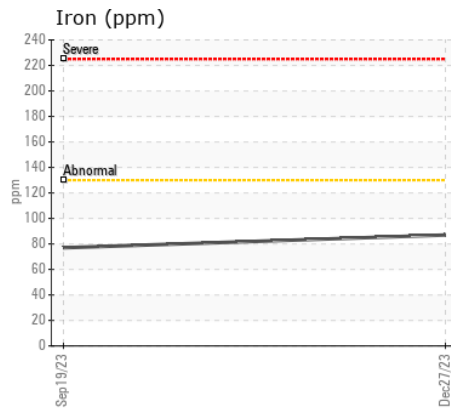
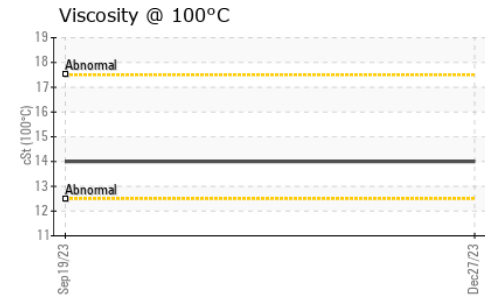
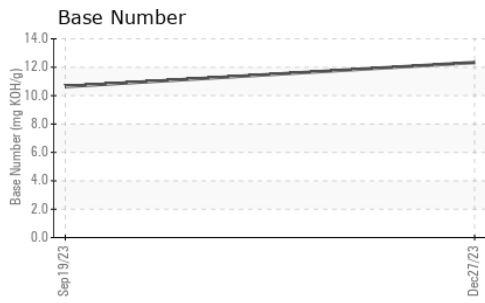
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	17	18	---
Potassium	ppm	ASTM D5185m	>20	76	74	---
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	0.5	0	---
Nitration	Abs/cm	*ASTM D7624	>20	11.9	11.8	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.0	25.3	---
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	---

## 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		4	4	---
Boron	ppm	ASTM D5185m		3	2	---
Barium	ppm	ASTM D5185m		<1	0	---
Molybdenum	ppm	ASTM D5185m		108	114	---
Manganese	ppm	ASTM D5185m		2	2	---
Magnesium	ppm	ASTM D5185m		52	53	---
Calcium	ppm	ASTM D5185m		4575	4462	---
Phosphorus	ppm	ASTM D5185m		925	894	---
Zinc	ppm	ASTM D5185m		1193	1098	---
Sulfur	ppm	ASTM D5185m		4361	4641	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.5	15.5	---
Base Number (BN)	mg KOH/g	ASTM D2896		12.33	10.64	---
Visc @ 100°C	cSt	ASTM D445		14.0	14.0	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : TR06102558  
 Lab Number : 06102558  
 Unique Number : 10900788  
 Test Package : MOB 2

Received : 27 Feb 2024  
 Tested : 29 Feb 2024  
 Diagnosed : 29 Feb 2024 - Wes Davis

**BOW SCHOOL DIST BUS GARAGE**  
 12 RODINSON RD  
 BOW, NH  
 US 03304  
 Contact: DON PERCY

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)

T:  
F: