



TRAAP

Texas Refinery Advanced Analysis Program

# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**CATERPILLAR GEN 1 (S/N FSE01968)**

Component  
**Diesel Engine**

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

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06086730	---	---
Sample Date		Client Info		02 Feb 2024	---	---
Machine Age	hrs	Client Info		10136	---	---
Oil Age	hrs	Client Info		300	---	---
Filter Age	hrs	Client Info		300	---	---
Oil Changed		Client Info		Not Chngd	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				NORMAL	---	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	25	---	---
Chromium	ppm	ASTM D5185m	>6	<1	---	---
Nickel	ppm	ASTM D5185m	>4	0	---	---
Titanium	ppm	ASTM D5185m	>2	4	---	---
Silver	ppm	ASTM D5185m	>2	0	---	---
Aluminum	ppm	ASTM D5185m	>30	2	---	---
Lead	ppm	ASTM D5185m	>10	<1	---	---
Copper	ppm	ASTM D5185m	>150	1	---	---
Tin	ppm	ASTM D5185m	>4	2	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

## CONTAMINATION

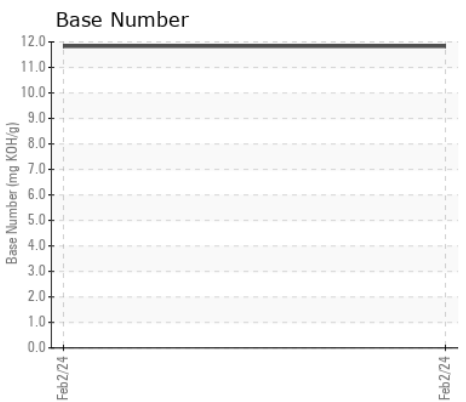
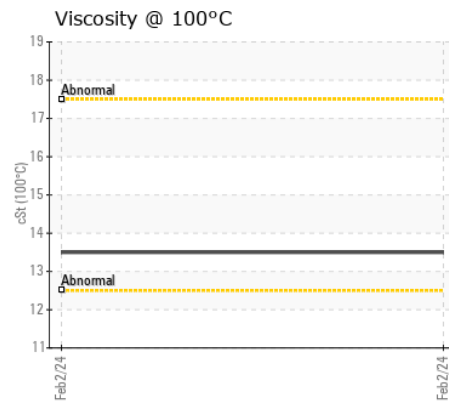
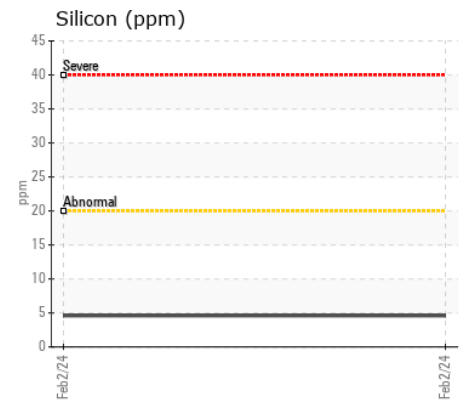
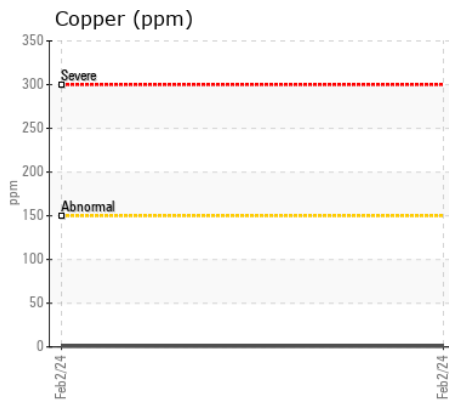
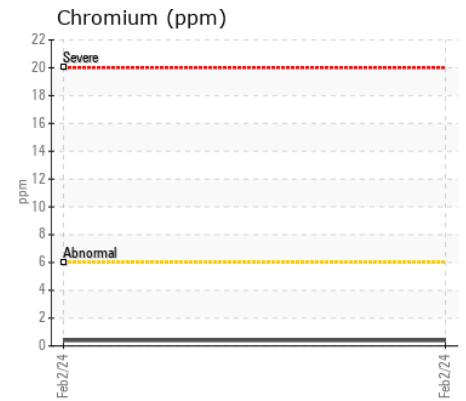
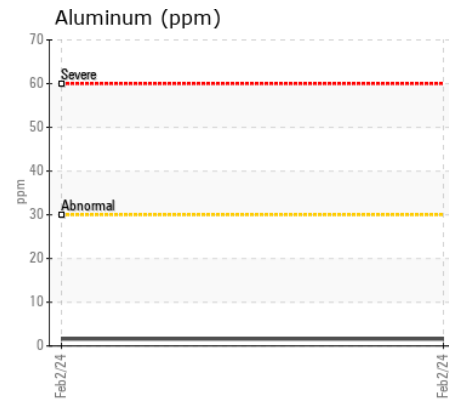
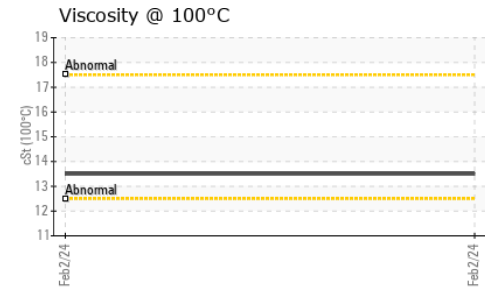
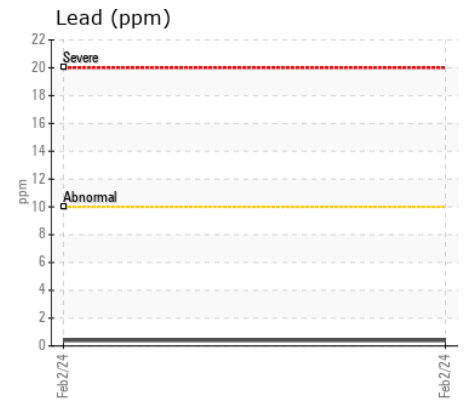
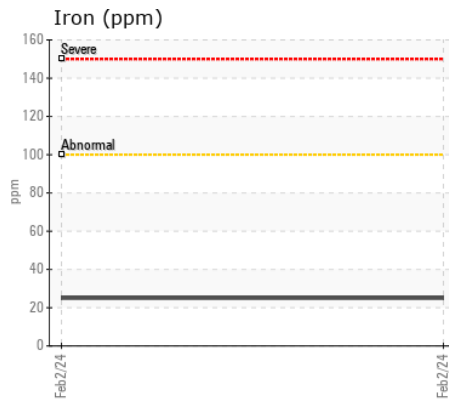
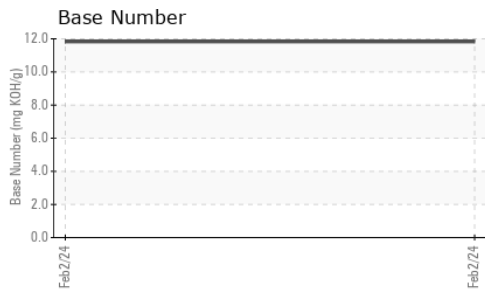
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	5	---	---
Potassium	ppm	ASTM D5185m	>20	0	---	---
Fuel		WC Method	>5	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.7	---	---
Nitration	Abs/cm	*ASTM D7624	>20	8.6	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.7	---	---
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		1	---	---
Boron	ppm	ASTM D5185m		73	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		77	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m		312	---	---
Calcium	ppm	ASTM D5185m		2796	---	---
Phosphorus	ppm	ASTM D5185m		812	---	---
Zinc	ppm	ASTM D5185m		1004	---	---
Sulfur	ppm	ASTM D5185m		3296	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.7	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		11.83	---	---
Visc @ 100°C	cSt	ASTM D445		13.5	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TR06086730 **Received** : 12 Feb 2024  
**Lab Number** : 06086730 **Tested** : 13 Feb 2024  
**Unique Number** : 10874175 **Diagnosed** : 14 Feb 2024 - Don Baldrige  
**Test Package** : MOB 2

**RUNDELL INC**  
 2465 STATE HWY 38  
 DRAIN, OR  
 US 97435  
 Contact: JEFF WARREN

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: