



TRAAP

Texas Refinery Advanced Analysis Program

# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**FREIGHTLINER 208**  
 Component  
**Diesel Engine**  
 Fluid  
**TRC PRO-SPEC V SYN BLEND 15W40 (20 LTR)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR02636322	TR02626602	---
Sample Date		Client Info		10 May 2024	20 Mar 2024	---
Machine Age	hrs	Client Info		14844	14330	---
Oil Age	hrs	Client Info		709	800	---
Filter Age	hrs	Client Info		514	400	---
Oil Changed		Client Info		Not Changed	Not Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	NORMAL	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>75	11	4	---
Chromium	ppm	ASTM D5185(m)	>5	<1	0	---
Nickel	ppm	ASTM D5185(m)	>4	<1	0	---
Titanium	ppm	ASTM D5185(m)	>2	0	0	---
Silver	ppm	ASTM D5185(m)	>2	0	0	---
Aluminum	ppm	ASTM D5185(m)	>15	3	2	---
Lead	ppm	ASTM D5185(m)	>25	0	0	---
Copper	ppm	ASTM D5185(m)	>100	<1	<1	---
Tin	ppm	ASTM D5185(m)	>4	0	0	---
Vanadium	ppm	ASTM D5185(m)		0	0	---

## CONTAMINATION

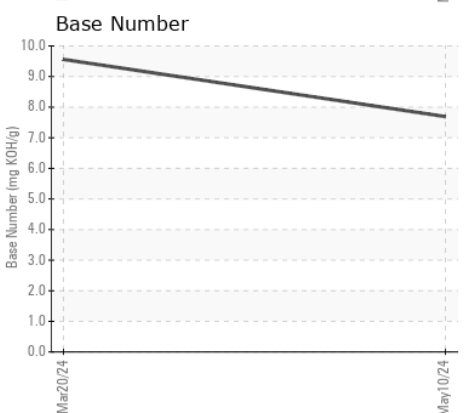
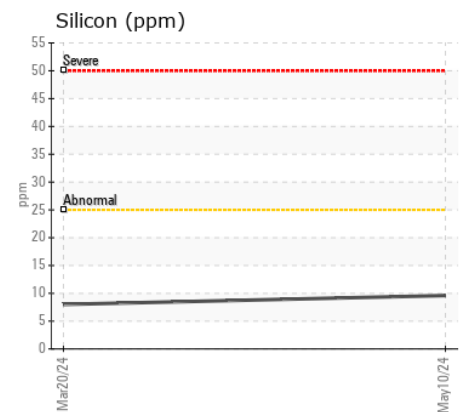
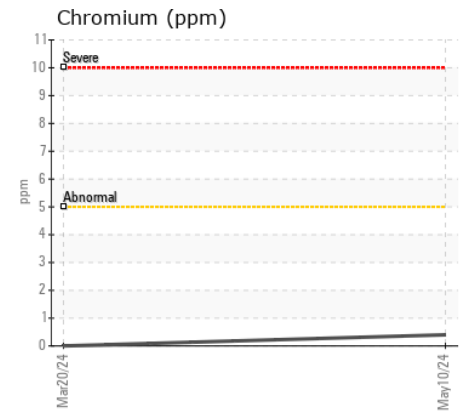
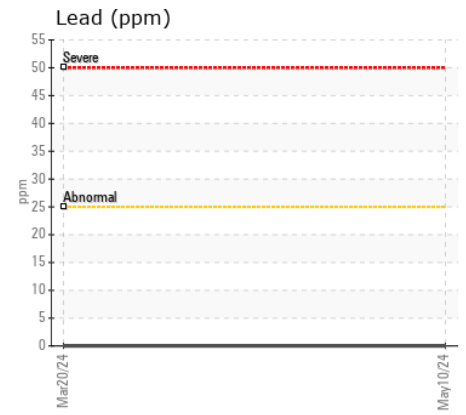
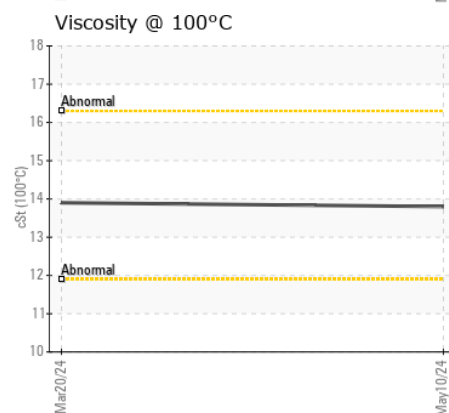
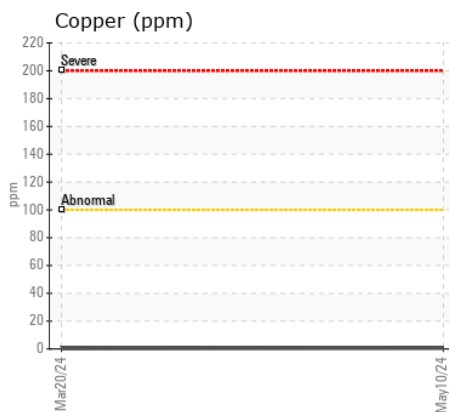
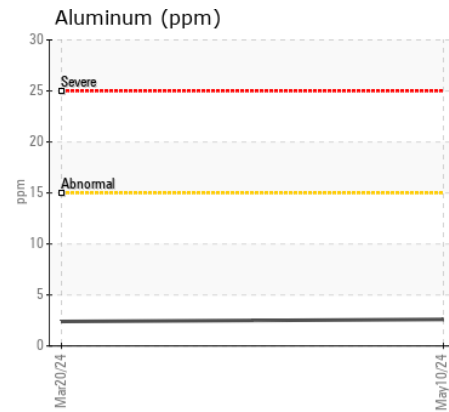
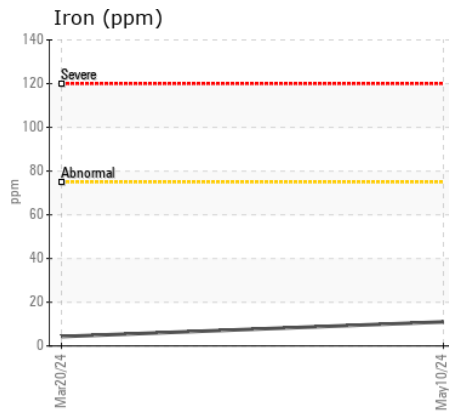
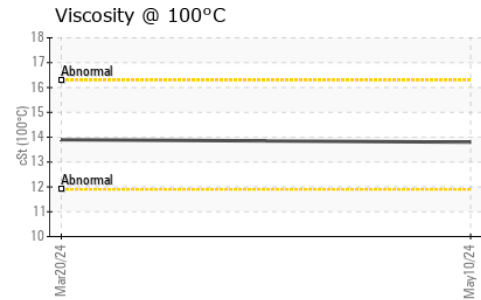
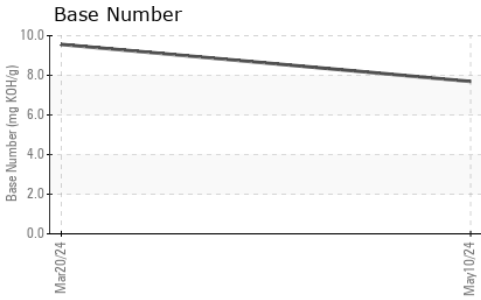
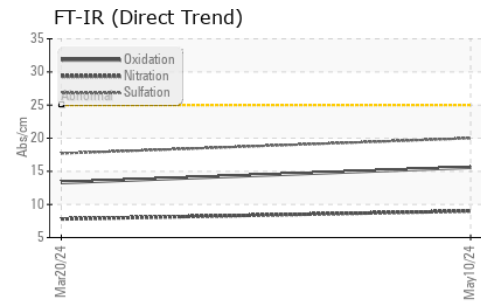
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	10	8	---
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	---
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	0	---
Nitration	Abs/cm	ASTM D7624*	>20	9.0	7.8	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.0	17.7	---
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 D5185(m)		5	3	---
Boron	ppm	ASTM D5185(m)		42	62	---
Barium	ppm	ASTM D5185(m)		0	0	---
Molybdenum	ppm	ASTM D5185(m)		86	82	---
Manganese	ppm	ASTM D5185(m)		0	0	---
Magnesium	ppm	ASTM D5185(m)		31	29	---
Calcium	ppm	ASTM D5185(m)		2273	2144	---
Phosphorus	ppm	ASTM D5185(m)		1008	1013	---
Zinc	ppm	ASTM D5185(m)		1198	1146	---
Sulfur	ppm	ASTM D5185(m)		3073	3171	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.6	13.3	---
Base Number (BN)	mg KOH/g	ASTM D2896*		7.69	9.56	---
Visc @ 100°C	cSt	ASTM D7279(m)		13.8	13.9	---



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : TR02636322 **Received** : 17 May 2024  
**Lab Number** : \*02636322 **Tested** : 21 May 2024  
**Unique Number** : 5785484 **Diagnosed** : 21 May 2024 - Kevin Marson  
**Test Package** : MOB 2

**BOON ENERGY**  
 5214 55ST  
 BONNYVILLE, AB  
 CA T9N 2K7  
 Contact: Service Manager

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: