



TRAAP

Texas Refinery Advanced Analysis Program

# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**11 - 1 EXTRUDER**

Component  
**Gearbox**

Fluid  
**TRC 890 VARI-PURPOSE 85W140 (100 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06215903	TR06122585	TR06029537
Sample Date		Client Info		10 Jun 2024	13 Mar 2024	21 Nov 2023
Machine Age	yrs	Client Info		0	0	0
Oil Age	yrs	Client Info		0	0	0
Filter Age	yrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>200	60	55	50
Chromium	ppm	ASTM D5185m	>10	1	0	1
Nickel	ppm	ASTM D5185m	>10	0	0	<1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	3	2	3
Lead	ppm	ASTM D5185m	>50	0	0	3
Copper	ppm	ASTM D5185m	>200	4	6	8
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

## CONTAMINATION

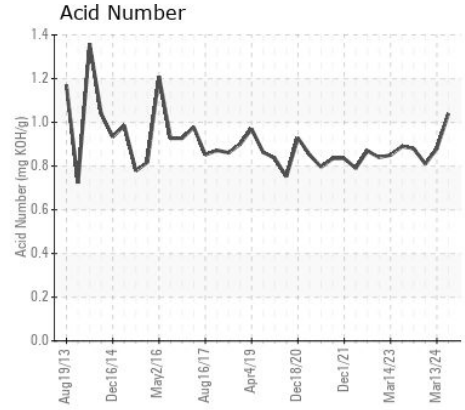
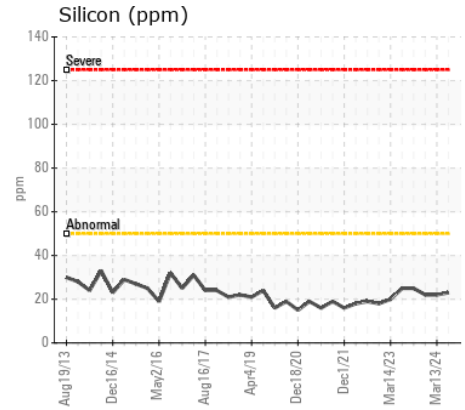
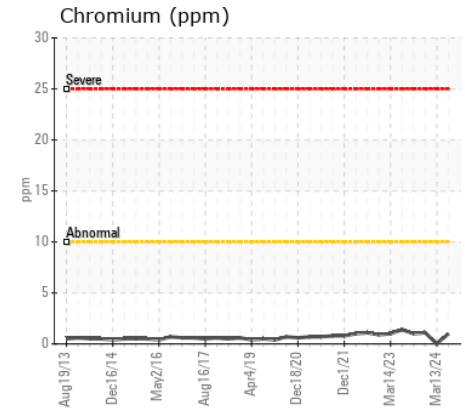
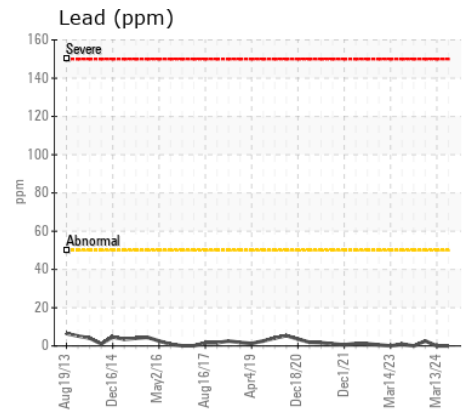
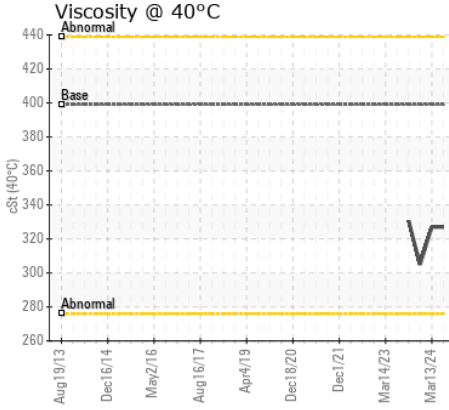
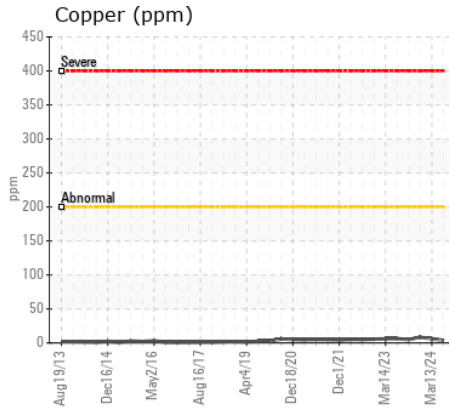
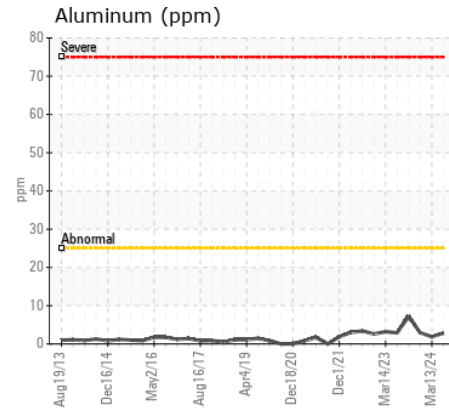
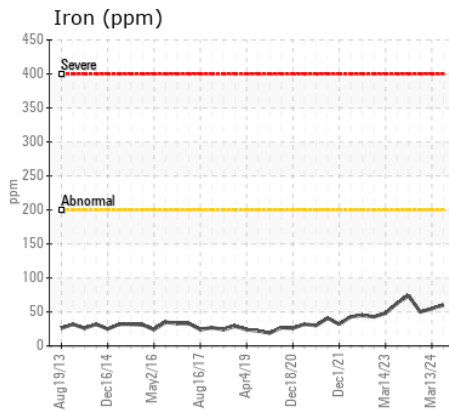
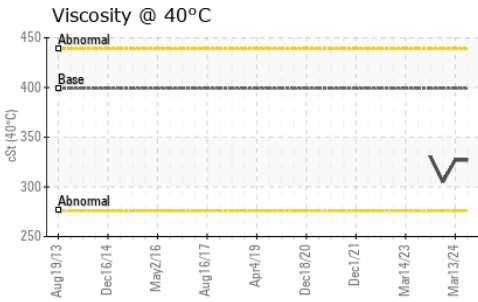
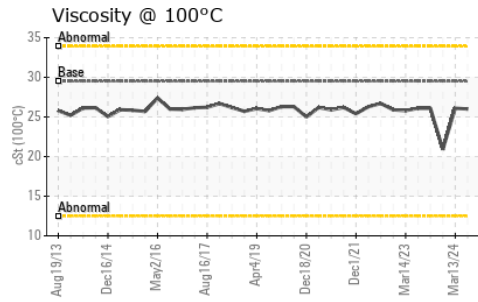
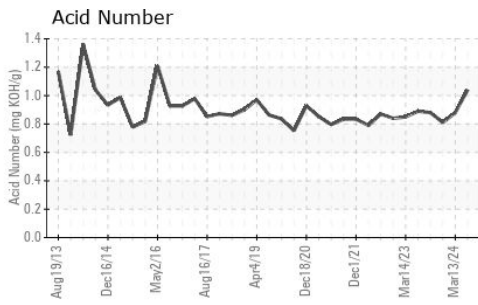
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>50	23	22	22
Potassium	ppm	ASTM D5185m	>20	<1	0	2
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

## FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<1	0	<1
Boron	ppm	ASTM D5185m		5	3	3
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		<1	0	1
Magnesium	ppm	ASTM D5185m		<1	0	0
Calcium	ppm	ASTM D5185m		14	13	71
Phosphorus	ppm	ASTM D5185m		698	653	734
Zinc	ppm	ASTM D5185m		4	6	27
Sulfur	ppm	ASTM D5185m		19636	19156	17326
Acid Number (AN)	mg KOH/g	ASTM D8045		1.04	0.88	0.81
Visc @ 40°C	cSt	ASTM D445	399	327	327	305
Visc @ 100°C	cSt	ASTM D445	29.5	26.0	26.1	20.9
Viscosity Index (VI)	Scale	ASTM D2270		104	104	79



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TR06215903  
**Lab Number** : 06215903  
**Unique Number** : 11088767  
**Test Package** : MOB 2 ( Additional Tests: KV100, VI)

**Received** : 20 Jun 2024  
**Tested** : 22 Jun 2024  
**Diagnosed** : 22 Jun 2024 - Wes Davis

**CARLSTAR GROUP - FORMERLY CARLISLE TIRE**  
 520 JD YARNELL IND. PKWY  
 CLINTON, TN  
 US 37716  
 Contact: JOHN GAINES

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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