



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
9 - FABRIC CALENDAR MAIN DRIVE

Component
Gearbox

Fluid
TRC 890 VARI-PURPOSE 85W140 (60 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06029530	TR05939828	TR05854480
Sample Date		Client Info		21 Nov 2023	30 Aug 2023	18 May 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	53	80	83
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>10	<1	0	<1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	<1	3	0
Lead	ppm	ASTM D5185m	>50	57	74	71
Copper	ppm	ASTM D5185m	>200	<1	0	<1
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

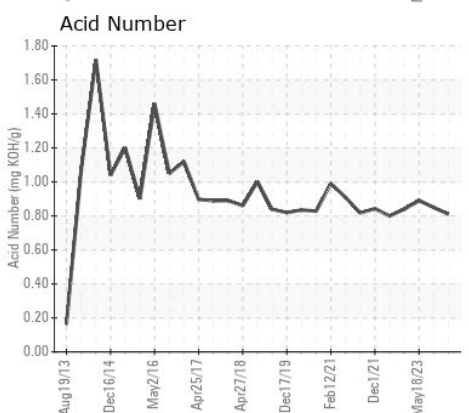
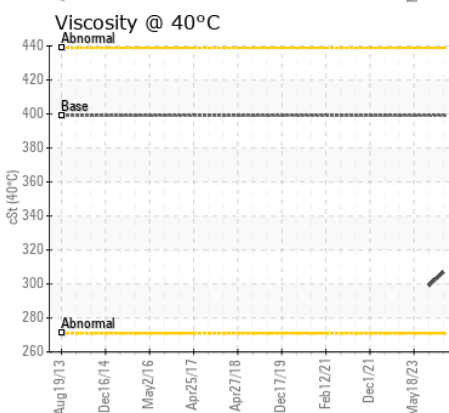
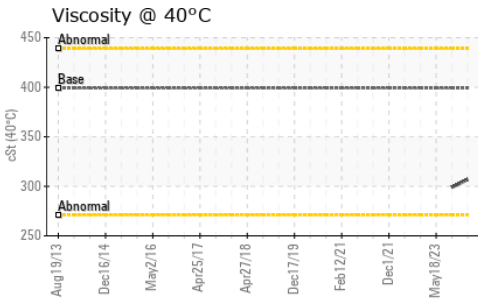
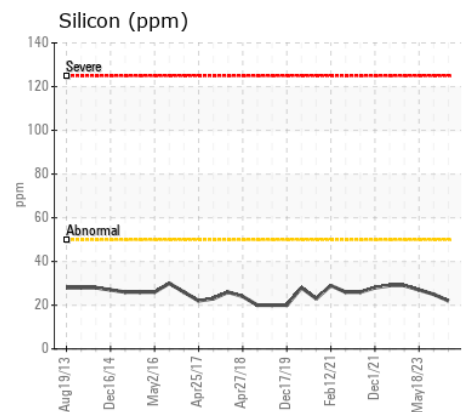
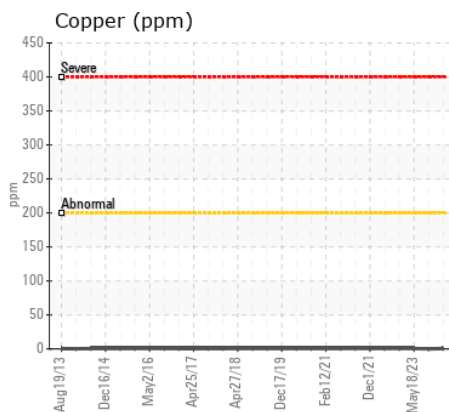
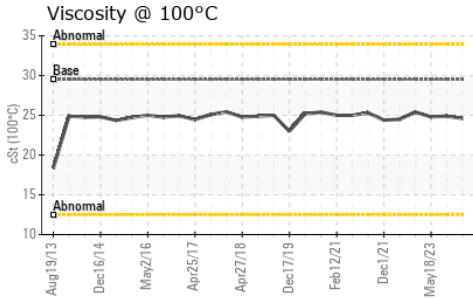
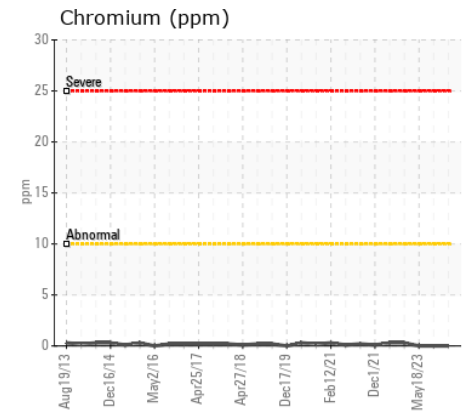
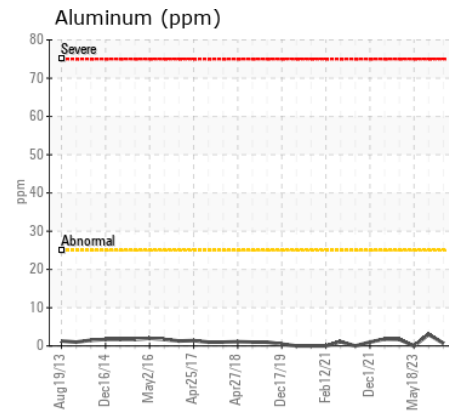
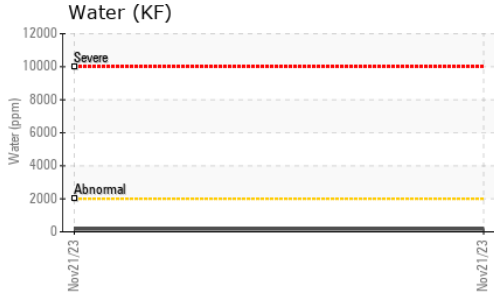
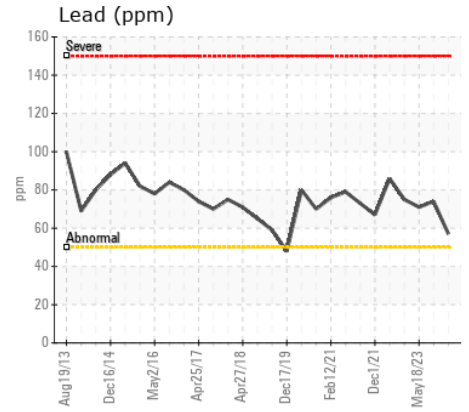
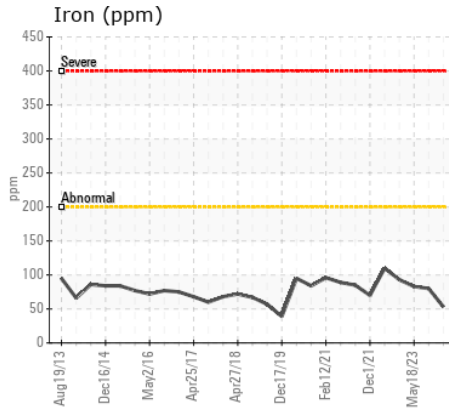
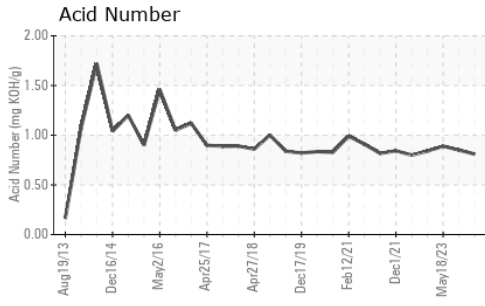
There is no indication of any contamination in the component.

Silicon	ppm	ASTM D5185m	>50	22	25	27
Potassium	ppm	ASTM D5185m	>20	1	1	<1
Water	%	ASTM D6304	>0.2	0.017	---	---
ppm Water	ppm	ASTM D6304	>2000	170	---	---
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	0.2%	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	1	<1
Boron	ppm	ASTM D5185m		6	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		4	6	7
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		0	2	2
Calcium	ppm	ASTM D5185m		0	0	4
Phosphorus	ppm	ASTM D5185m		594	611	564
Zinc	ppm	ASTM D5185m		0	0	3
Sulfur	ppm	ASTM D5185m		18836	23850	17475
Acid Number (AN)	mg KOH/g	ASTM D8045		0.81	0.85	0.89
Visc @ 40°C	cSt	ASTM D445	399	307	299	---
Visc @ 100°C	cSt	ASTM D445	29.5	24.6	24.9	24.8
Viscosity Index (VI)	Scale	ASTM D2270		102	106	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06029530 **Received** : 08 Dec 2023
Lab Number : 06029530 **Tested** : 12 Dec 2023
Unique Number : 10779321 **Diagnosed** : 12 Dec 2023 - Don Baldrige
Test Package : MOB 2 (Additional Tests: KF, KV100, VI)

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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