



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
GMC TOP KICK 3126 CAT

Component
Diesel Engine

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

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06121750	---	---
Sample Date		Client Info		12 Mar 2024	---	---
Machine Age	mls	Client Info		258000	---	---
Oil Age	mls	Client Info		500	---	---
Filter Age	mls	Client Info		500	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				NORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	9	---	---
Chromium	ppm	ASTM D5185m	>20	<1	---	---
Nickel	ppm	ASTM D5185m	>4	0	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>20	3	---	---
Lead	ppm	ASTM D5185m	>40	0	---	---
Copper	ppm	ASTM D5185m	>330	1	---	---
Tin	ppm	ASTM D5185m	>15	0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

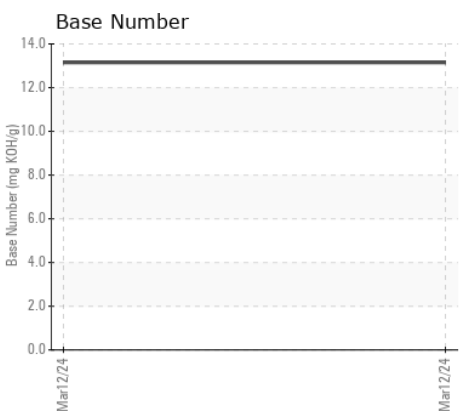
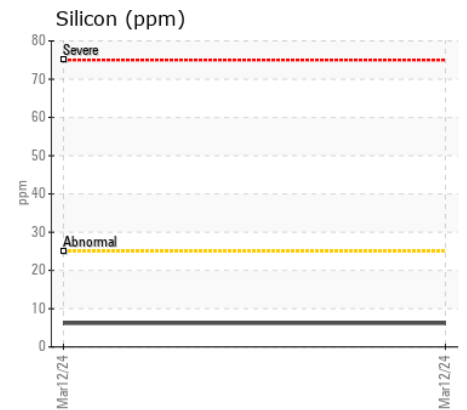
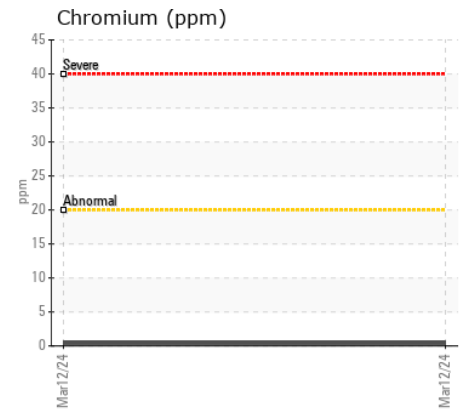
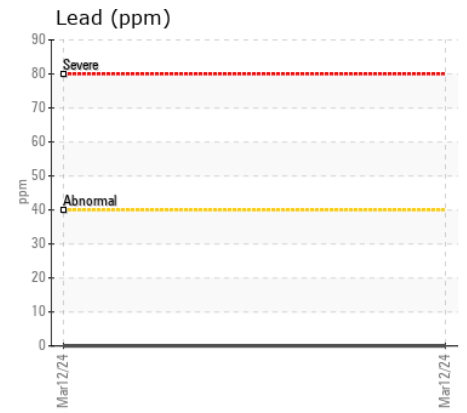
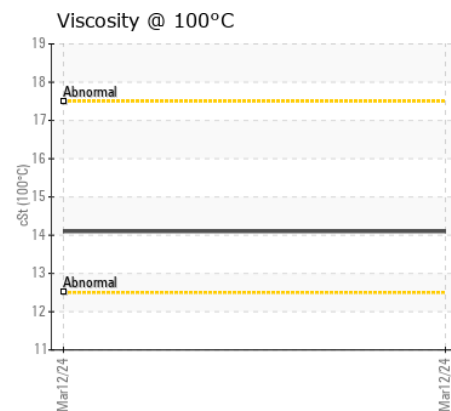
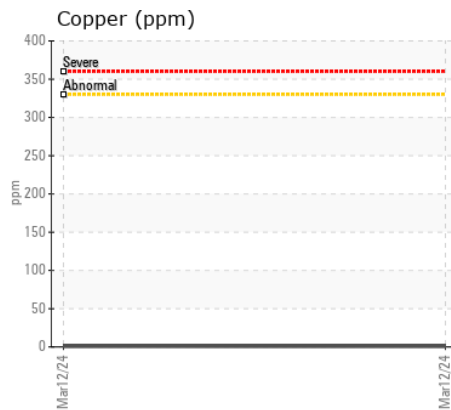
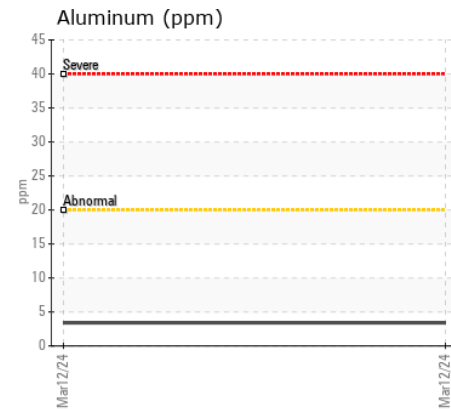
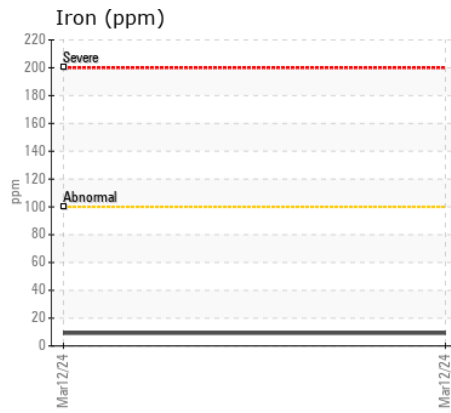
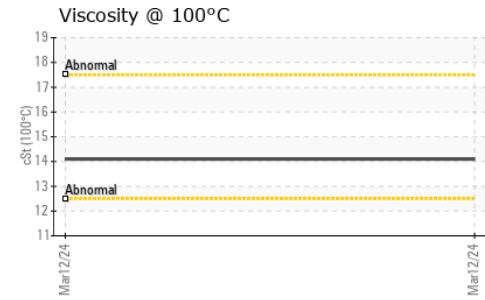
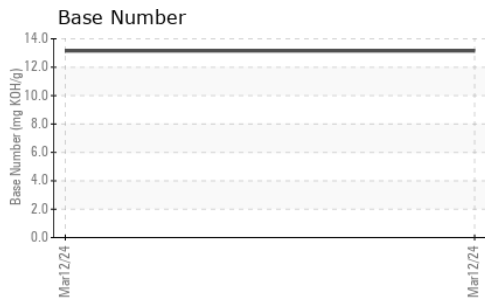
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	---	---
Potassium	ppm	ASTM D5185m	>20	3	---	---
Fuel		WC Method	>5	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.2	---	---
Nitration	Abs/cm	*ASTM D7624	>20	9.0	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.3	---	---
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		4	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		153	---	---
Manganese	ppm	ASTM D5185m		0	---	---
Magnesium	ppm	ASTM D5185m		36	---	---
Calcium	ppm	ASTM D5185m		4046	---	---
Phosphorus	ppm	ASTM D5185m		780	---	---
Zinc	ppm	ASTM D5185m		840	---	---
Sulfur	ppm	ASTM D5185m		3690	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	9.5	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		13.15	---	---
Visc @ 100°C	cSt	ASTM D445		14.1	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : TR06121750

Lab Number : 06121750

Unique Number : 10930583

Test Package : MOB 2

Received : 18 Mar 2024

Tested : 19 Mar 2024

Diagnosed : 19 Mar 2024 - Wes Davis

MAC FARMS JV

S 35708 WELLS RD

CHENEY, WA

US 99004

Contact: RONALD GROGAN

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: