



TRAAP

Texas Refinery Advanced Analysis Program

WEAR

NORMAL

CONTAMINATION

NORMAL

FLUID CONDITION

NORMAL

OIL ANALYSIS REPORT

Area

DIEMAR

Machine Id

WHITE 1

Component

Diesel Engine

Fluid

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

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR05782600	TR05547733	---
Sample Date		Client Info		23 Feb 2023	03 May 2022	---
Machine Age	mls	Client Info		33039	23154	---
Oil Age	mls	Client Info		21389	11504	---
Filter Age	mls	Client Info		9885	11504	---
Oil Changed		Client Info		Not Changd	Not Changd	---
Filter Changed		Client Info		Not Changd	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	43	39	---
Chromium	ppm	ASTM D5185m	>20	<1	<1	---
Nickel	ppm	ASTM D5185m	>4	0	0	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>3	0	<1	---
Aluminum	ppm	ASTM D5185m	>20	9	11	---
Lead	ppm	ASTM D5185m	>40	2	<1	---
Copper	ppm	ASTM D5185m	>330	5	5	---
Tin	ppm	ASTM D5185m	>15	1	<1	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

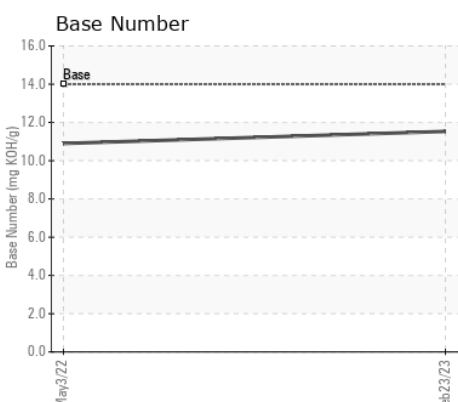
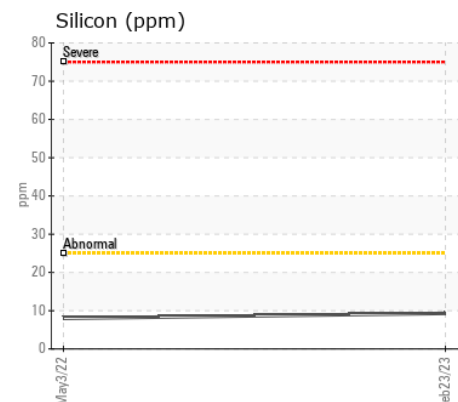
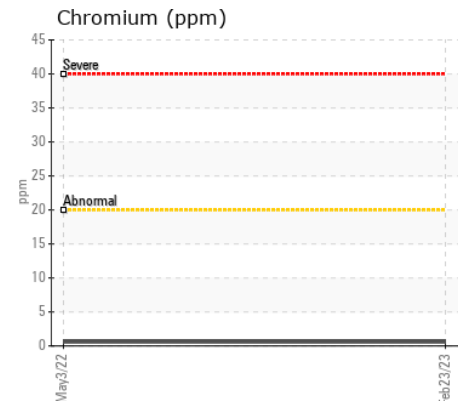
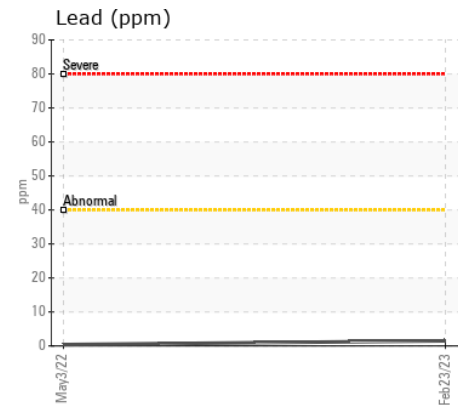
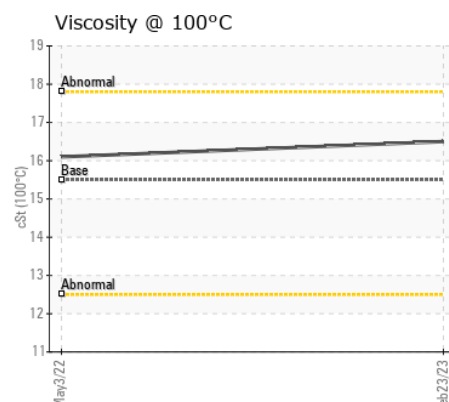
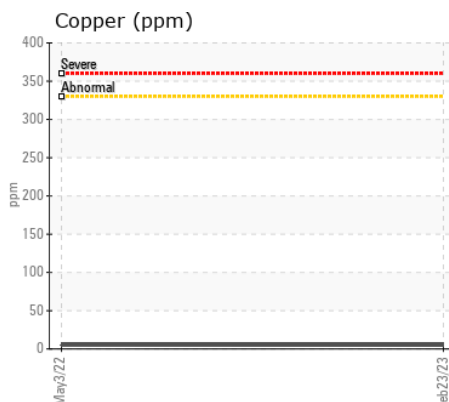
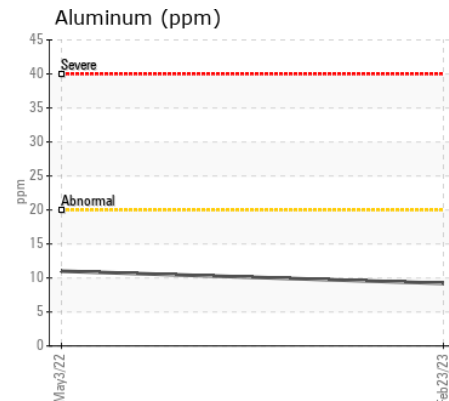
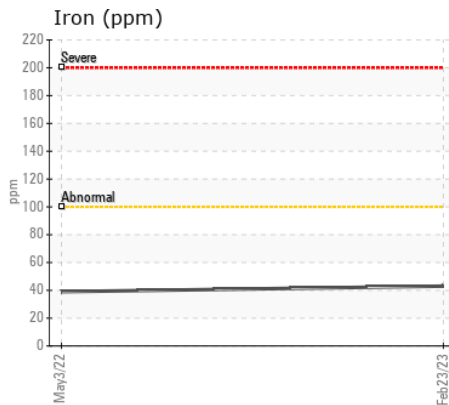
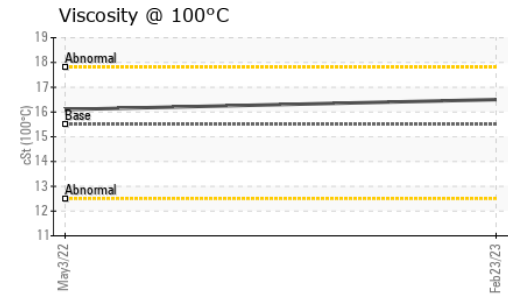
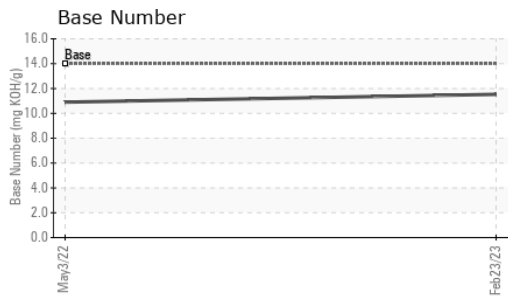
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	9	8	---
Potassium	ppm	ASTM D5185m	>20	33	36	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.8	0.6	---
Nitration	Abs/cm	*ASTM D7624	>20	13.5	11.8	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	26.8	24.9	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
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 D5185m		3	2	---
Boron	ppm	ASTM D5185m		1	4	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		104	98	---
Manganese	ppm	ASTM D5185m		1	<1	---
Magnesium	ppm	ASTM D5185m		96	102	---
Calcium	ppm	ASTM D5185m	1300	4450	4274	---
Phosphorus	ppm	ASTM D5185m		869	934	---
Zinc	ppm	ASTM D5185m	1300	1066	1166	---
Sulfur	ppm	ASTM D5185m		4447	3191	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.9	15.5	---
Base Number (BN)	mg KOH/g	ASTM D2896	14	11.53	10.9	---
Visc @ 100°C	cSt	ASTM D445	15.5	16.5	16.1	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR05782600 **Received** : 03 Mar 2023
Lab Number : 05782600 **Diagnosed** : 06 Mar 2023
Unique Number : 10362270 **Diagnostician** : Wes Davis
Test Package : MOB 2

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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