



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
KENWORTH 112

Component
Diesel Engine

Fluid
TRC PRO-SPEC III SYNTHETIC BLEND 15W40 (11 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06055543	TR05829125	---
Sample Date		Client Info		15 Dec 2023	12 Mar 2023	---
Machine Age	mls	Client Info		165000	67500	---
Oil Age	mls	Client Info		50000	48000	---
Filter Age	mls	Client Info		50000	48000	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	22	33	---
Chromium	ppm	ASTM D5185m	>20	2	2	---
Nickel	ppm	ASTM D5185m	>2	<1	<1	---
Titanium	ppm	ASTM D5185m	>2	<1	0	---
Silver	ppm	ASTM D5185m	>2	<1	0	---
Aluminum	ppm	ASTM D5185m	>20	7	25	---
Lead	ppm	ASTM D5185m	>40	2	0	---
Copper	ppm	ASTM D5185m	>330	2	10	---
Tin	ppm	ASTM D5185m	>15	1	1	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

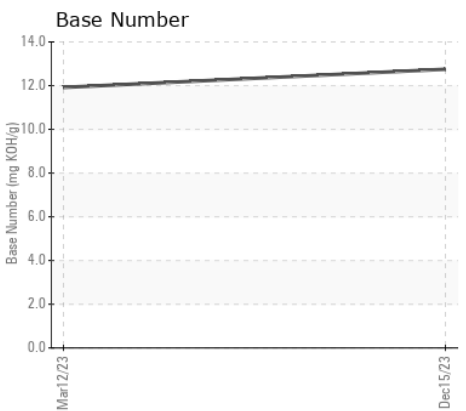
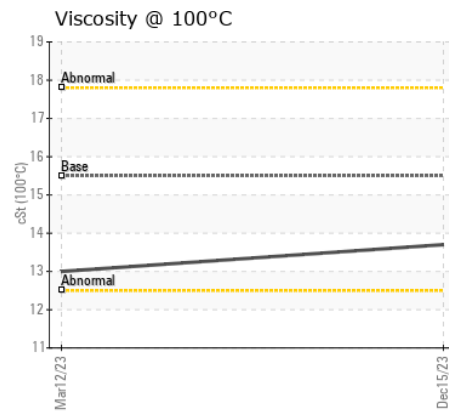
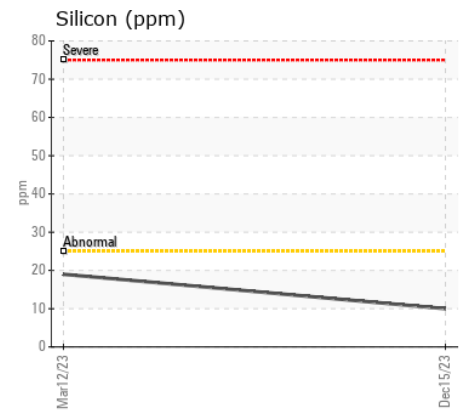
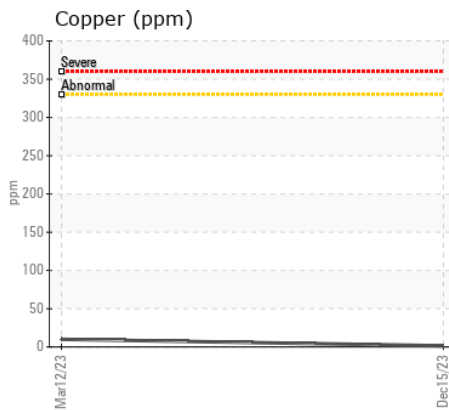
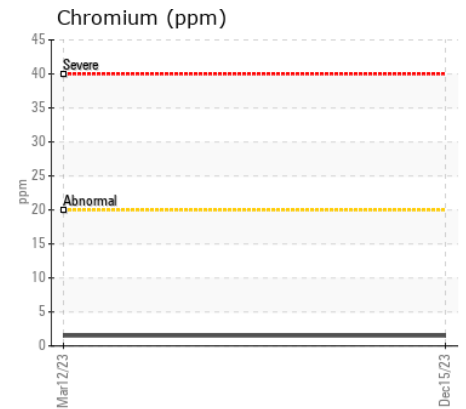
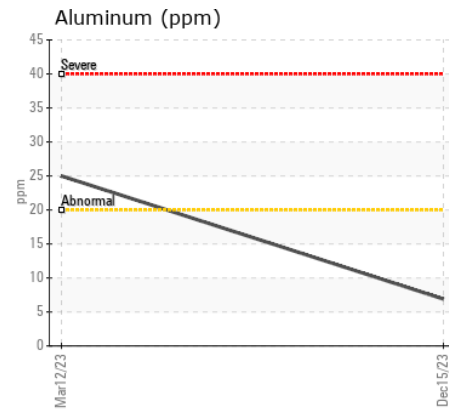
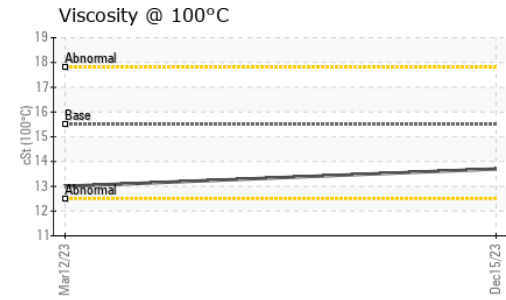
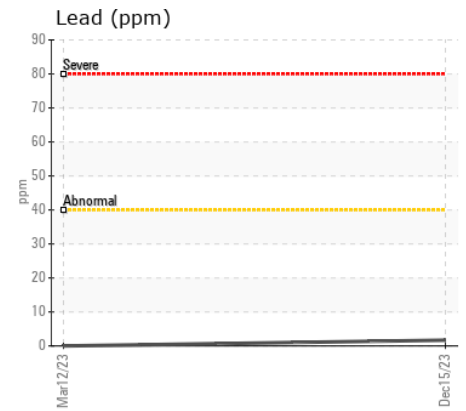
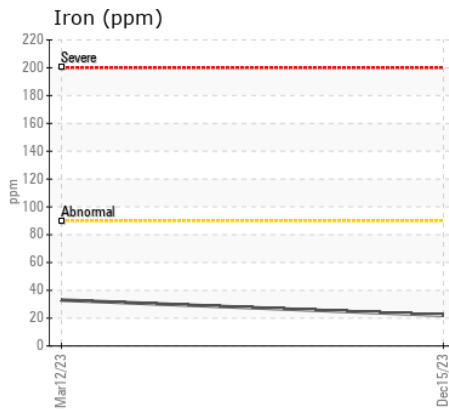
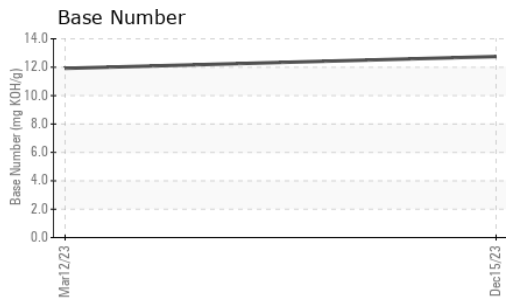
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	10	19	---
Potassium	ppm	ASTM D5185m	>20	15	70	---
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	0.5	0.4	---
Nitration	Abs/cm	*ASTM D7624	>20	9.1	8.8	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.2	22.6	---
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		7	4	---
Boron	ppm	ASTM D5185m		0	5	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		0	5	---
Manganese	ppm	ASTM D5185m		<1	2	---
Magnesium	ppm	ASTM D5185m		24	142	---
Calcium	ppm	ASTM D5185m		4879	4357	---
Phosphorus	ppm	ASTM D5185m		963	884	---
Zinc	ppm	ASTM D5185m		1158	1124	---
Sulfur	ppm	ASTM D5185m		3979	4137	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.5	13.7	---
Base Number (BN)	mg KOH/g	ASTM D2896		12.75	11.92	---
Visc @ 100°C	cSt	ASTM D445	15.5	13.7	13.0	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06055543 **Recieved** : 09 Jan 2024
Lab Number : 06055543 **Diagnosed** : 10 Jan 2024
Unique Number : 10821492 **Diagnostician** : Wes Davis
Test Package : MOB 2

DANNY RILEY
 1204 CREEKMERE
 CANYON, TX
 US 79015
 Contact: MIKE LEWIS

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:
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