



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
KENWORTH 19

Component
Diesel Engine

Fluid
TRC PRO-SPEC IV XP SYN BLEND 15W40 (12 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06226464	TR06090431	---
Sample Date		Client Info		12 Jun 2024	25 Jan 2024	---
Machine Age	mls	Client Info		700000	0	---
Oil Age	mls	Client Info		14410	9312	---
Filter Age	mls	Client Info		14000	9312	---
Oil Changed		Client Info		N/A	Not Changd	---
Filter Changed		Client Info		Changed	Not Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	33	26	---
Chromium	ppm	ASTM D5185m	>20	<1	2	---
Nickel	ppm	ASTM D5185m	>2	<1	1	---
Titanium	ppm	ASTM D5185m	>2	<1	1	---
Silver	ppm	ASTM D5185m	>2	0	<1	---
Aluminum	ppm	ASTM D5185m	>25	4	4	---
Lead	ppm	ASTM D5185m	>40	0	2	---
Copper	ppm	ASTM D5185m	>330	7	7	---
Tin	ppm	ASTM D5185m	>15	<1	1	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

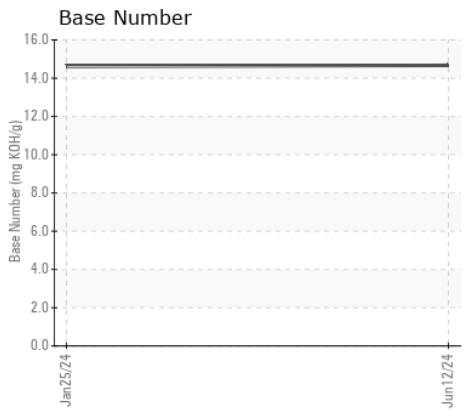
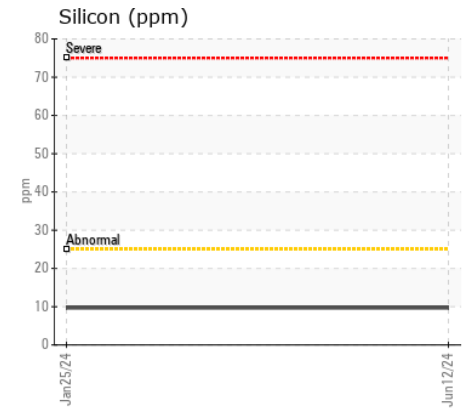
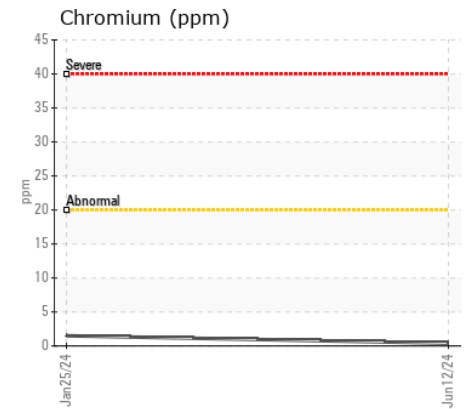
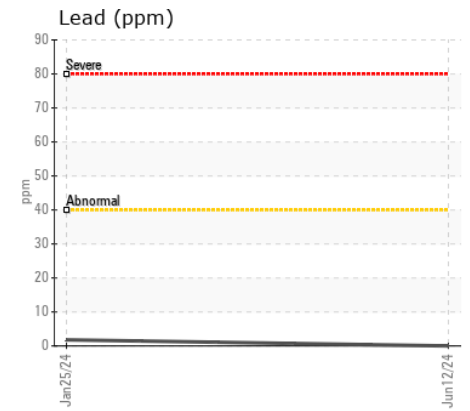
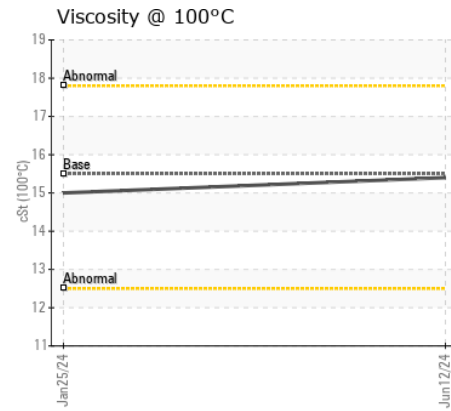
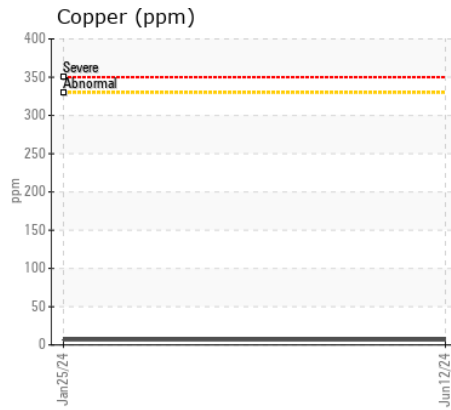
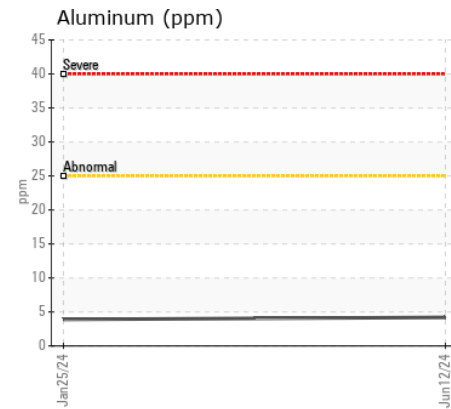
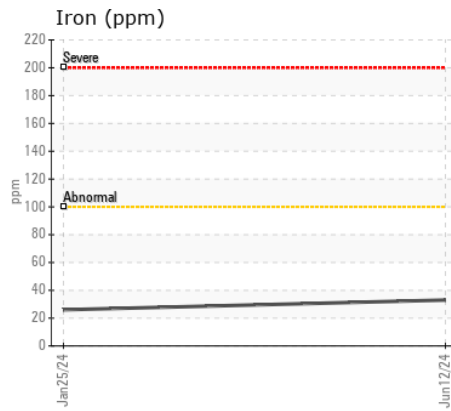
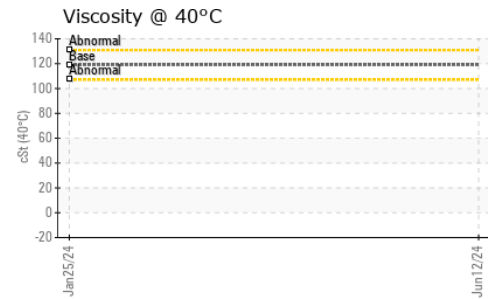
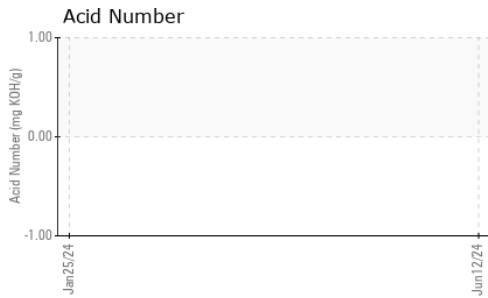
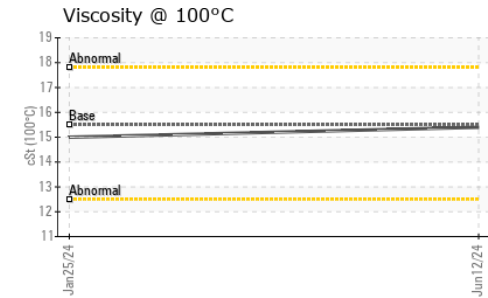
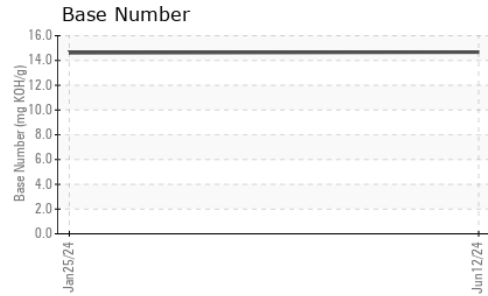
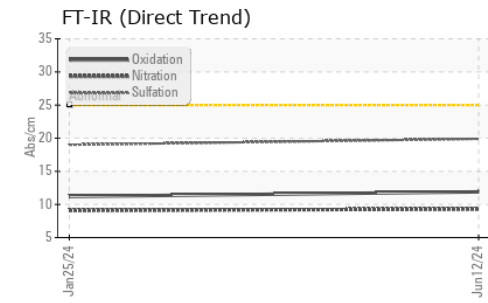
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	10	10	---
Potassium	ppm	ASTM D5185m	>20	4	3	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.4	0.3	---
Nitration	Abs/cm	*ASTM D7624	>20	9.3	9.1	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.9	19.0	---
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	1	---
Boron	ppm	ASTM D5185m		12	13	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		98	96	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m		52	59	---
Calcium	ppm	ASTM D5185m		4118	3725	---
Phosphorus	ppm	ASTM D5185m		881	847	---
Zinc	ppm	ASTM D5185m		1042	1006	---
Sulfur	ppm	ASTM D5185m		4737	4013	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	11.9	11.2	---
Base Number (BN)	mg KOH/g	ASTM D2896		14.67	14.62	---
Visc @ 100°C	cSt	ASTM D445	15.5	15.4	15.0	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : TR06226464 Received : 02 Jul 2024
 Lab Number : 06226464 Tested : 05 Jul 2024
 Unique Number : 11109957 Diagnosed : 05 Jul 2024 - Don Baldrige
 Test Package : MOB 2 (Additional Tests: KV40, TAN Man)

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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