



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Machine Id
KENWORTH 116 (S/N 1xkzd40x86j982921)
 Component
1 Diesel Engine
 Fluid
TRC MOLY XL PRO-SPEC IV XP 15W40 (11 GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR0000955	---	---
Sample Date		Client Info		02 Jul 2024	---	---
Machine Age	mls	Client Info		594768	---	---
Oil Age	mls	Client Info		1000	---	---
Filter Age	mls	Client Info		1000	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				SEVERE	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	15	---	---
Chromium	ppm	ASTM D5185m	>20	<1	---	---
Nickel	ppm	ASTM D5185m	>2	<1	---	---
Titanium	ppm	ASTM D5185m	>2	<1	---	---
Silver	ppm	ASTM D5185m	>2	<1	---	---
Aluminum	ppm	ASTM D5185m	>20	5	---	---
Lead	ppm	ASTM D5185m	>40	18	---	---
Copper	ppm	ASTM D5185m	>330	48	---	---
Tin	ppm	ASTM D5185m	>15	2	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

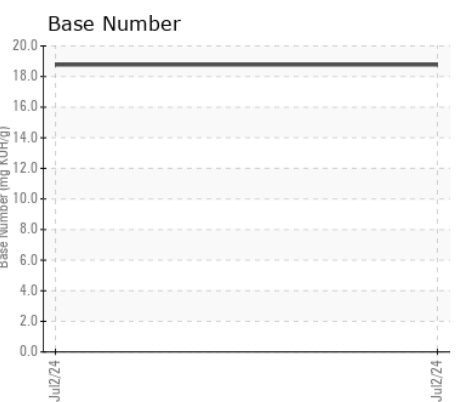
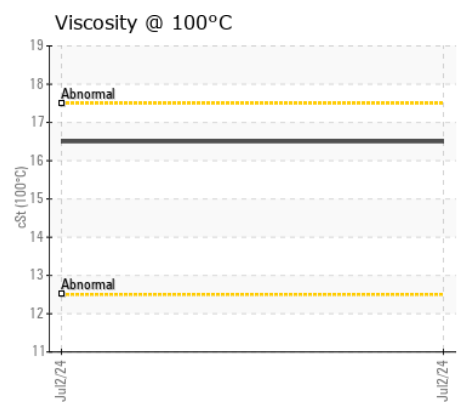
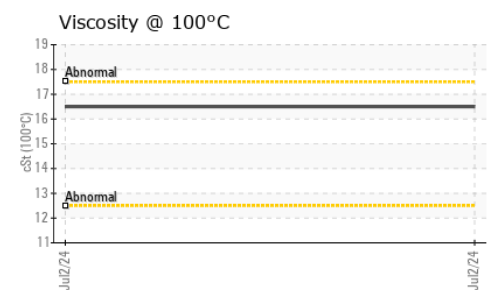
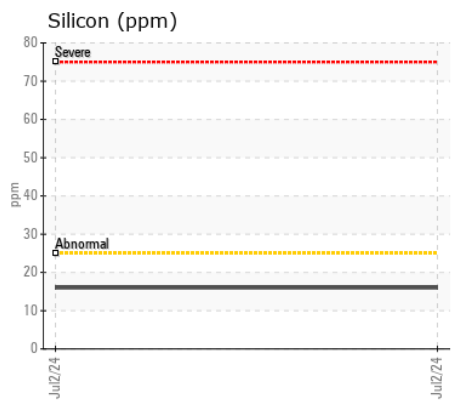
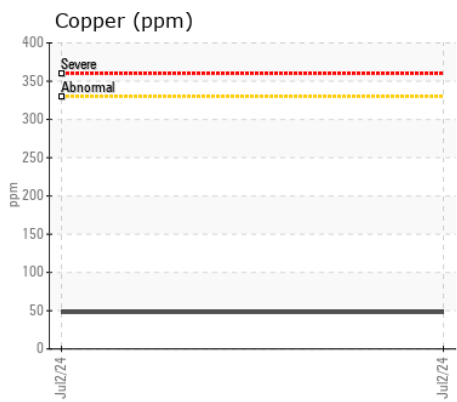
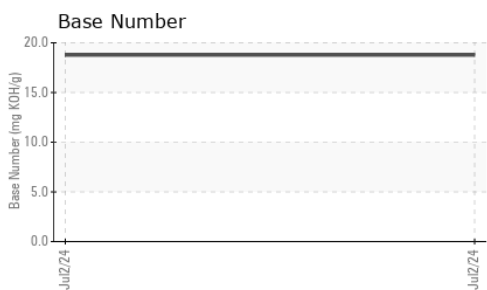
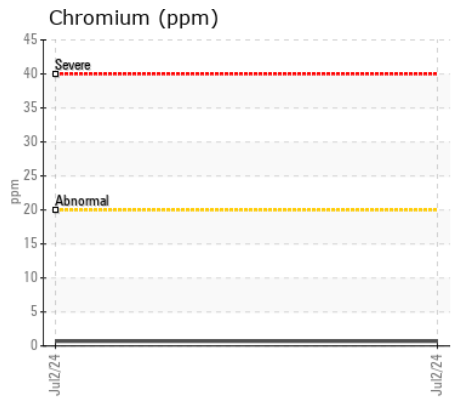
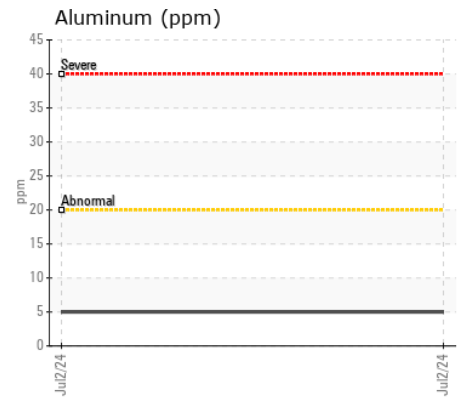
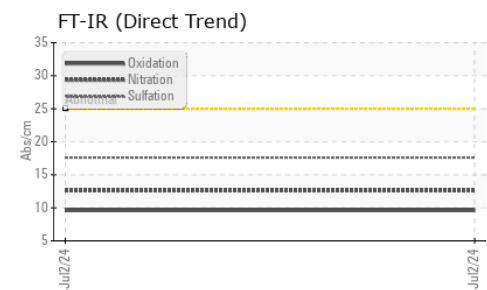
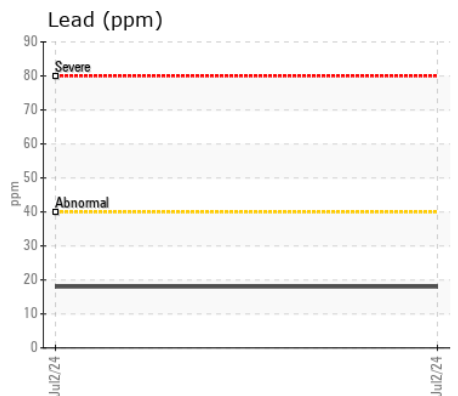
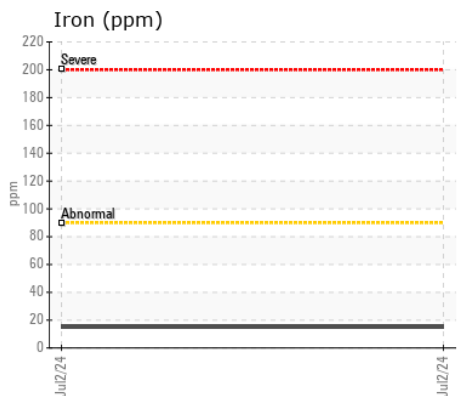
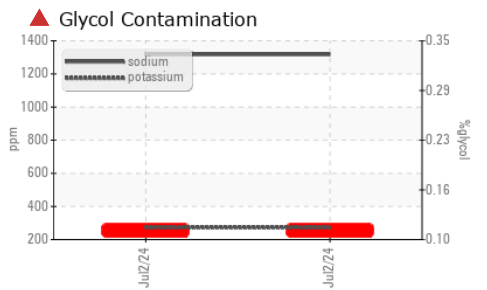
Sodium and/or potassium levels are high. Test for glycol is positive.

Silicon	ppm	ASTM D5185m	>25	16	---	---
Potassium	ppm	ASTM D5185m	>20	▲ 272	---	---
Fuel		WC Method	>3.0	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol	%	*ASTM D2982		▲ 0.12	---	---
Soot %	%	*ASTM D7844	>6	0.2	---	---
Nitration	Abs/cm	*ASTM D7624	>20	12.6	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.6	---	---
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 oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		▲ 1317	---	---
Boron	ppm	ASTM D5185m		21	---	---
Barium	ppm	ASTM D5185m		<1	---	---
Molybdenum	ppm	ASTM D5185m		284	---	---
Manganese	ppm	ASTM D5185m		1	---	---
Magnesium	ppm	ASTM D5185m		43	---	---
Calcium	ppm	ASTM D5185m		3301	---	---
Phosphorus	ppm	ASTM D5185m		779	---	---
Zinc	ppm	ASTM D5185m		1004	---	---
Sulfur	ppm	ASTM D5185m		3614	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	9.6	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		18.77	---	---
Visc @ 100°C	cSt	ASTM D445		16.5	---	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR0000955 **Received** : 08 Jul 2024
Lab Number : 06230402 **Tested** : 10 Jul 2024
Unique Number : 11113895 **Diagnosed** : 10 Jul 2024 - Jonathan Hester
Test Package : MOB 2 (Additional Tests: Glycol)

DIETERMAN FARM SERVICES
 11038 S BURKETT RD
 MARION, MI
 US 49665
 Contact: DALE DIETERMAN
 dietermanfarmservices@hotmail.com

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)