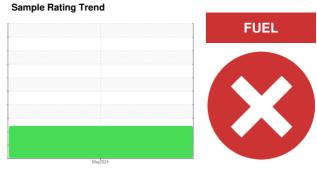


OIL ANALYSIS REPORT

Fayetteville NC KENWORTH TRUCK 113

Diesel Engine

GUARD PLUS 15W40 CK9 (--- GAL)



DIAGNOSIS

Recommendation

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

All component wear rates are normal.

Contamination

There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

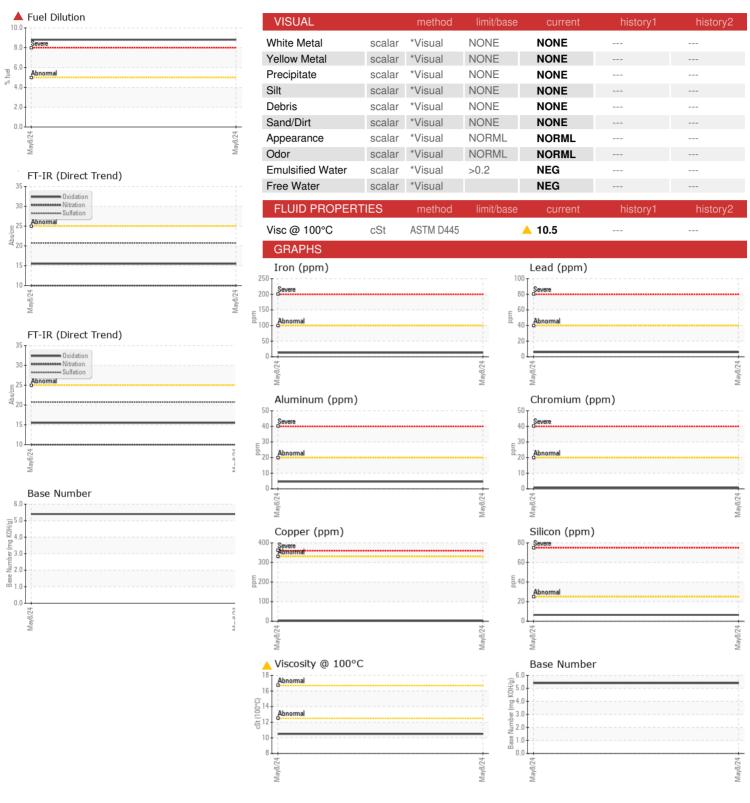
Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

				May2024		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0917084		
Sample Date		Client Info		08 May 2024		
Machine Age	hrs	Client Info		255485		
Oil Age	hrs	Client Info		20000		
Oil Changed		Client Info		Changed		
Sample Status				SEVERE		
CONTAMINATIC	N	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	13		
Chromium	ppm	ASTM D5185m	>20	<1		
Nickel	ppm	ASTM D5185m	>4	<1		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>20	5		
Lead	ppm	ASTM D5185m	>40	6		
Copper	ppm	ASTM D5185m	>330	2		
Tin	ppm	ASTM D5185m	>15	1		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		<1		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 23	history1	history2
	ppm		limit/base		· ·	•
Boron Barium		ASTM D5185m	limit/base	23		
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m	limit/base	23 2		
Boron Barium Molybdenum Manganese	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	23 2 85		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	23 2 85 <1		
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	23 2 85 <1 59		
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	23 2 85 <1 59 1972		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	23 2 85 <1 59 1972 969		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	23 2 85 <1 59 1972 969 1078		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	23 2 85 <1 59 1972 969 1078 3472		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	23 2 85 <1 59 1972 969 1078 3472 current		 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm	ASTM D5185m	limit/base	23 2 85 <1 59 1972 969 1078 3472 current		history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium	ppm	ASTM D5185m	limit/base >25 >20	23 2 85 <1 59 1972 969 1078 3472 current 6 0		history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm	ASTM D5185m	limit/base >25 >20	23 2 85 <1 59 1972 969 1078 3472 current 6 0 7	history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium Fuel	ppm	ASTM D5185m	limit/base >25 >20 >5	23 2 85 <1 59 1972 969 1078 3472 current 6 0 7 ▲ 8.8		history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED	ppm	ASTM D5185m	limit/base >25 >20 >5 limit/base	23 2 85 <1 59 1972 969 1078 3472 current 6 0 7 ▲ 8.8 current		history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm	ASTM D5185m	limit/base >25 >20 >5 limit/base >3 >20	23 2 85 <1 59 1972 969 1078 3472 current 6 0 7 ▲ 8.8 current 0.4	history1 history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm	ASTM D5185m ASTM D7844 *ASTM D7844	limit/base >25 >20 >5 limit/base >3 >20	23 2 85 <1 59 1972 969 1078 3472 current 6 0 7 ▲ 8.8 current 0.4 10.0	history1 history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRAD	ppm	ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844 *ASTM D7844	limit/base >25 >20 >5 limit/base >3 >20 >30 limit/base	23 2 85 <1 59 1972 969 1078 3472 current 6 0 7 ▲ 8.8 current 0.4 10.0 20.7 current	history1 history1 history1	history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7624	limit/base >25 >20 >5 limit/base >3 >20 >30 limit/base	23 2 85 <1 59 1972 969 1078 3472 current 6 0 7 ▲ 8.8 current 0.4 10.0 20.7		history2 history2



OIL ANALYSIS REPORT





Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0917084 Lab Number : 06176549

Unique Number : 11022602

Received : 10 May 2024 **Tested** : 15 May 2024 Diagnosed : 15 May 2024 - Wes Davis

WOLFPACK TRANSPORATION 664 BEN GREEN INDUSTRIAL PARK DRIVE

ELIZABETHTOWN, NC US 28337

Contact: WESLEY SASSER wesley.sasser@wolfpacktransportation.com T: (910)874-4046

Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, TBN) Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369.

 st - 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)