



OIL ANALYSIS REPORT

Sample Rating Trend

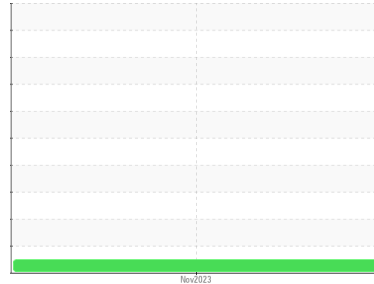
NORMAL



Machine Id
CR3309

Component
Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 5W40 (--- GAL)



DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

Light fuel dilution occurring. No other contaminants were detected in the oil.

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.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	WC0867417	---	---
Sample Date	Client Info	15 Nov 2023	---	---
Machine Age	hrs Client Info	13514	---	---
Oil Age	hrs Client Info	0	---	---
Oil Changed	Client Info	Changed	---	---
Sample Status		NORMAL	---	---

CONTAMINATION

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	<1	---	---
Chromium ppm	ASTM D5185m >20	0	---	---
Nickel ppm	ASTM D5185m >4	0	---	---
Titanium ppm	ASTM D5185m	0	---	---
Silver ppm	ASTM D5185m >3	0	---	---
Aluminum ppm	ASTM D5185m >20	3	---	---
Lead ppm	ASTM D5185m >40	0	---	---
Copper ppm	ASTM D5185m >330	1	---	---
Tin ppm	ASTM D5185m >15	0	---	---
Vanadium ppm	ASTM D5185m	0	---	---
Cadmium ppm	ASTM D5185m	0	---	---

ADDITIVES

method	limit/base	current	history1	history2
Boron ppm	ASTM D5185m 250	104	---	---
Barium ppm	ASTM D5185m 10	0	---	---
Molybdenum ppm	ASTM D5185m 100	3	---	---
Manganese ppm	ASTM D5185m	<1	---	---
Magnesium ppm	ASTM D5185m 450	652	---	---
Calcium ppm	ASTM D5185m 3000	1414	---	---
Phosphorus ppm	ASTM D5185m 1150	817	---	---
Zinc ppm	ASTM D5185m 1350	967	---	---
Sulfur ppm	ASTM D5185m 4250	2619	---	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm	ASTM D5185m >25	6	---	---
Sodium ppm	ASTM D5185m >44	1	---	---
Potassium ppm	ASTM D5185m >20	1	---	---
Fuel %	ASTM D3524 >5	1.0	---	---

INFRA-RED

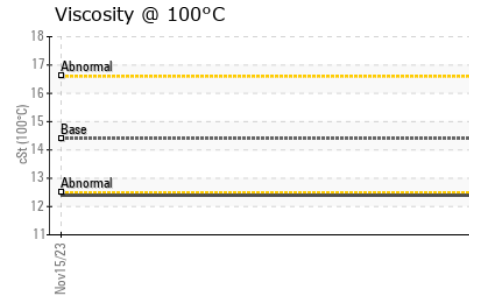
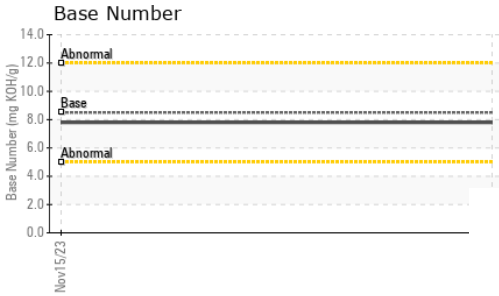
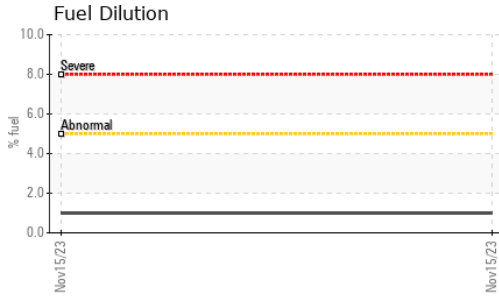
method	limit/base	current	history1	history2
Soot %	*ASTM D7844 >3	0	---	---
Nitration Abs/cm	*ASTM D7624 >20	7.0	---	---
Sulfation Abs/.1mm	*ASTM D7415 >30	21.2	---	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation Abs/.1mm	*ASTM D7414 >25	18.1	---	---
Base Number (BN) mg KOH/g	ASTM D2896 8.5	7.8	---	---



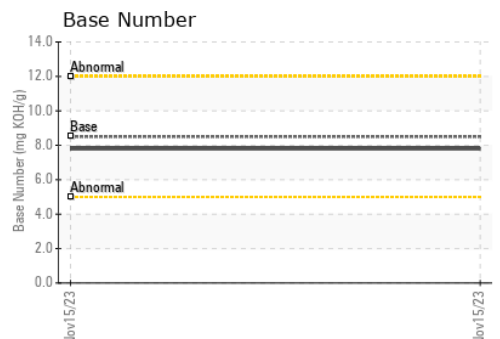
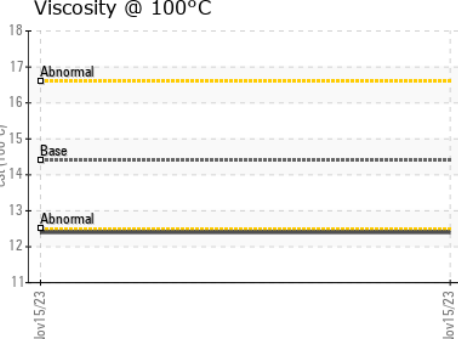
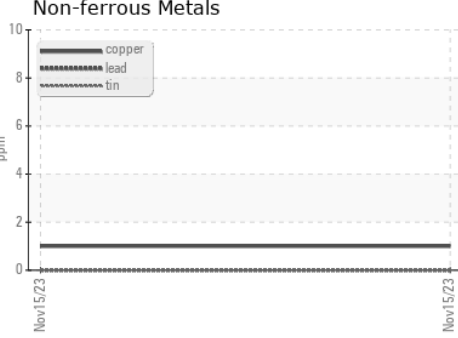
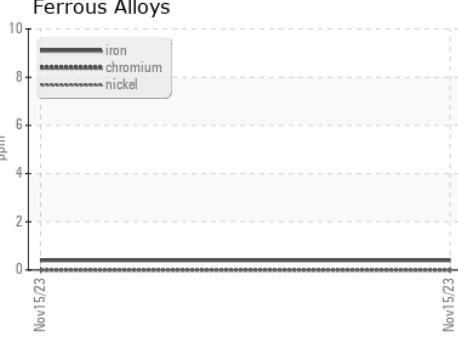
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Precipitate	scalar	*Visual	NONE	NONE	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	LIGHT	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---
Free Water	scalar	*Visual		NEG	---	---

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	14.4	12.4	---	---

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0867417 **Received** : 22 Nov 2023
Lab Number : 06015642 **Diagnosed** : 27 Nov 2023
Unique Number : 10754786 **Diagnostician** : Wes Davis
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

BUCKNER - WILLIS
 18123 HWY 75 NORTH
 WILLIS, TX
 US 77378
 Contact: JOHN HAWKINS
 johnh@bucknercompanies.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - 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)