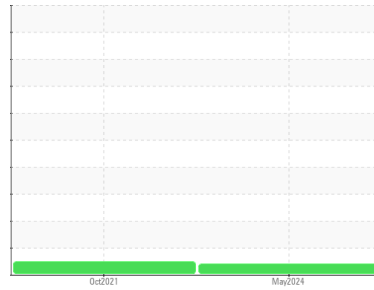




OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Area
[20512]

Machine Id
30-97

Component
Diesel Engine

Fluid
CONOCO PHILLIPS GUARDOL ECT 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: Dealer charged oil last time or two)

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0923364	WC0601588	---
Sample Date	Client Info			09 May 2024	26 Oct 2021	---
Machine Age	hrs	Client Info		1202	236	---
Oil Age	hrs	Client Info		250	236	---
Oil Changed	Client Info			Changed	Not Changd	---
Sample Status				ATTENTION	NORMAL	---

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.2	NEG	NEG	---
Glycol	WC Method			NEG	NEG	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	22	21	---
Chromium	ppm	ASTM D5185m	>20	<1	3	---
Nickel	ppm	ASTM D5185m	>4	<1	0	---
Titanium	ppm	ASTM D5185m		<1	4	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>20	2	4	---
Lead	ppm	ASTM D5185m	>40	2	3	---
Copper	ppm	ASTM D5185m	>330	68	30	---
Tin	ppm	ASTM D5185m	>15	<1	1	---
Antimony	ppm	ASTM D5185m		---	<1	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
Cadmium	ppm	ASTM D5185m		<1	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	85	35	50	---
Barium	ppm	ASTM D5185m		0	7	---
Molybdenum	ppm	ASTM D5185m		19	99	---
Manganese	ppm	ASTM D5185m		<1	5	---
Magnesium	ppm	ASTM D5185m	350	204	173	---
Calcium	ppm	ASTM D5185m	1800	1134	2173	---
Phosphorus	ppm	ASTM D5185m	1000	592	815	---
Zinc	ppm	ASTM D5185m	1100	749	1035	---
Sulfur	ppm	ASTM D5185m	3500	3395	2452	---

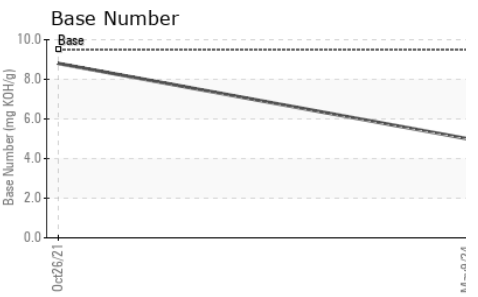
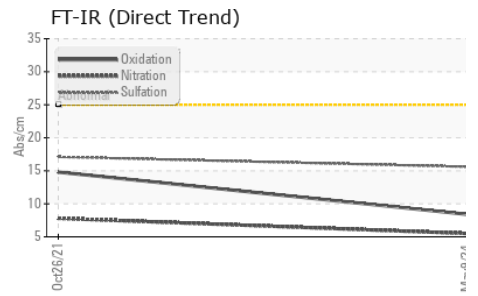
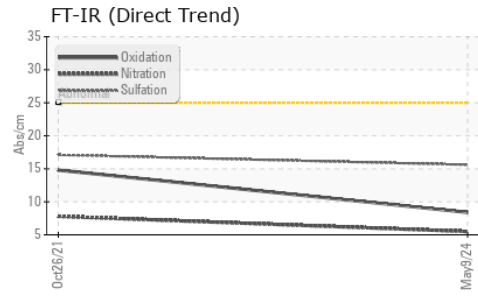
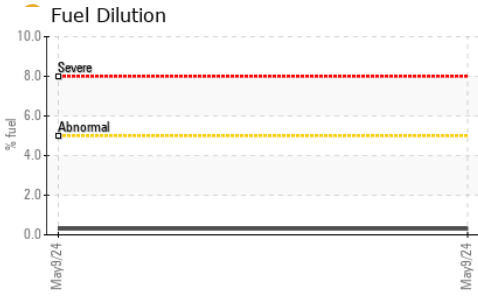
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	6	16	---
Sodium	ppm	ASTM D5185m		2	11	---
Potassium	ppm	ASTM D5185m	>20	3	14	---
Fuel	%	ASTM D3524	>5	0.3	<1.0	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.1	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	5.5	7.8	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	15.6	17.1	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	8.4	14.8	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.5	5.0	8.8	---



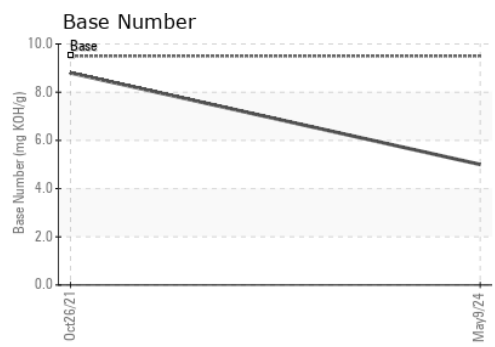
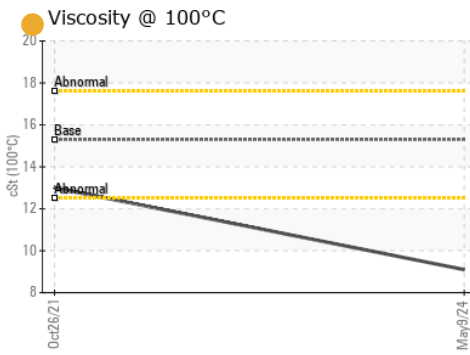
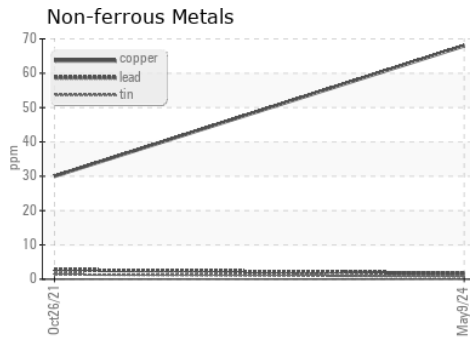
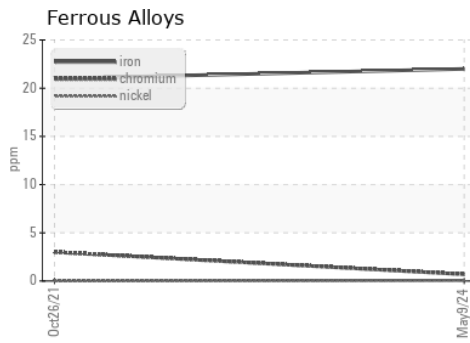
OIL ANALYSIS REPORT



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	15.3	● 9.1	13.0	---

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0923364 **Received** : 11 Jun 2024
Lab Number : 06207300 **Tested** : 18 Jun 2024
Unique Number : 11074761 **Diagnosed** : 18 Jun 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

MANHATTAN ROAD AND BRIDGE
 5601 S 122ND E AVE
 TULSA, OK
 US 74146
 Contact: BEN CALDWELL
 kevin.marson@wearcheck.com
 T: (918)728-5749
 F:

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)