

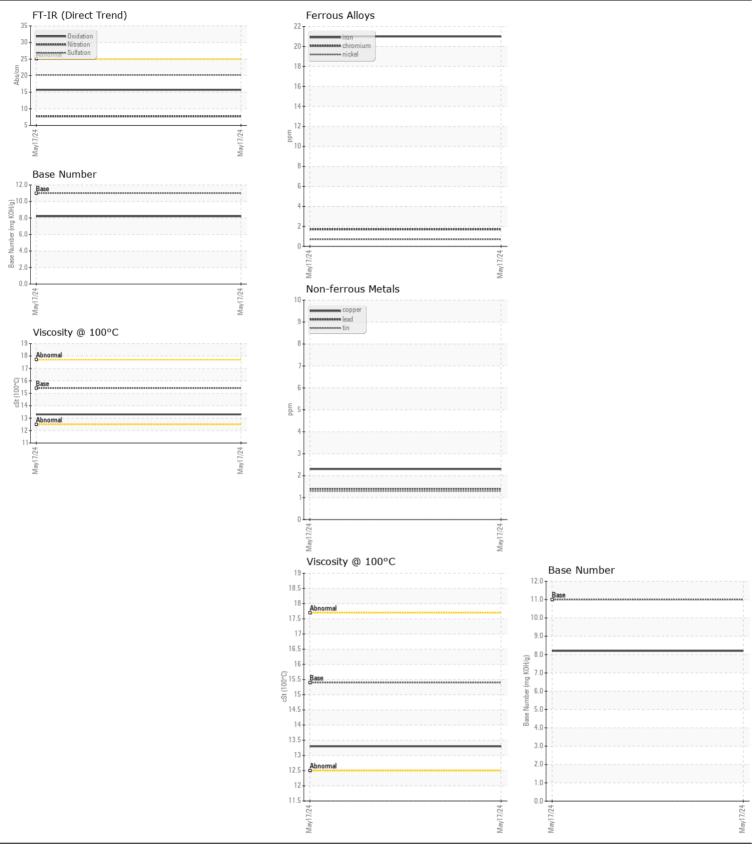
Machine Id 495191 Componen **Diesel Engine** CITGO CITGUARD 600 15W40 (--- GAL)

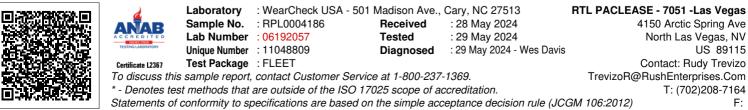
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
TLOOWINE NDATION	Sample Number	UCIVI	Client Info	LIIIIUADII	RPL0004186		
Resample at the next service interval to monitor. Please specify the component make and model with your next sample.	Sample Date		Client Info		17 May 2024		
	Machine Age	mls	Client Info		55214		
	Oil Age	mls	Client Info		8374		
	Filter Age	mls	Client Info		8374		
	Oil Changed		Client Info		Not Changd		
	Filter Changed		Client Info		Not Changd		
	Sample Status				NORMAL		
WEAR	Iron	ppm	ASTM D5185m	>100	21		
Metal levels are typical for a new component breaking in.	Chromium	ppm	ASTM D5185m	>20	2		
	Nickel	ppm	ASTM D5185m	>4	<1		
	Titanium	ppm	ASTM D5185m		1		
	Silver	ppm	ASTM D5185m	>3	1		
	Aluminum	ppm	ASTM D5185m	>20	9		
	Lead	ppm	ASTM D5185m	>40	1		
	Copper	ppm	ASTM D5185m	>330	2		
	Tin	ppm	ASTM D5185m	>15	1		
	Vanadium	ppm	ASTM D5185m		<1		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
	Silicon			. 05	7		
CONTAMINATION	Potassium	ppm	ASTM D5185m ASTM D5185m		7 26		
There is no indication of any contamination in the oil.	Fuel	ppm	WC Method		20 <1.0		
	Water		WC Method		NEG		
	Glycol		WC Method	>0.2	NEG		
	Soot %	%	*ASTM D7844	~ 2	0.3		
	Nitration	Abs/cm		>20	7.7		
	Sulfation	Abs/.1mm	*ASTM D7024		20.2		
	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		
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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		<1		
	Boron	ppm	ASTM D5185m	13	<1		
	Barium	ppm	ASTM D5185m	0	1		
	Molybdenum	ppm	ASTM D5185m	57	65		
	Manganese	ppm	ASTM D5185m		<1		
	Magnesium	ppm	ASTM D5185m	825	433		
	Calcium	ppm	ASTM D5185m	1100	1822		
	Phosphorus	ppm	ASTM D5185m	933	1082		
	Zinc	ppm	ASTM D5185m	1089	1291		
	Sulfur	ppm	ASTM D5185m	2769	3395		
	Oxidation	Abs/.1mm	*ASTM D7414	>25	15.7		
	Base Number (BN)	mg KOH/g	ASTM D2896	11.0	8.2		
		<u> </u>	LOTH D / / F				

Visc @ 100°C cSt

ASTM D445 15.4

13.3





Submitted By: TECHNICIAN ACCOUNT Page 2 of 2