

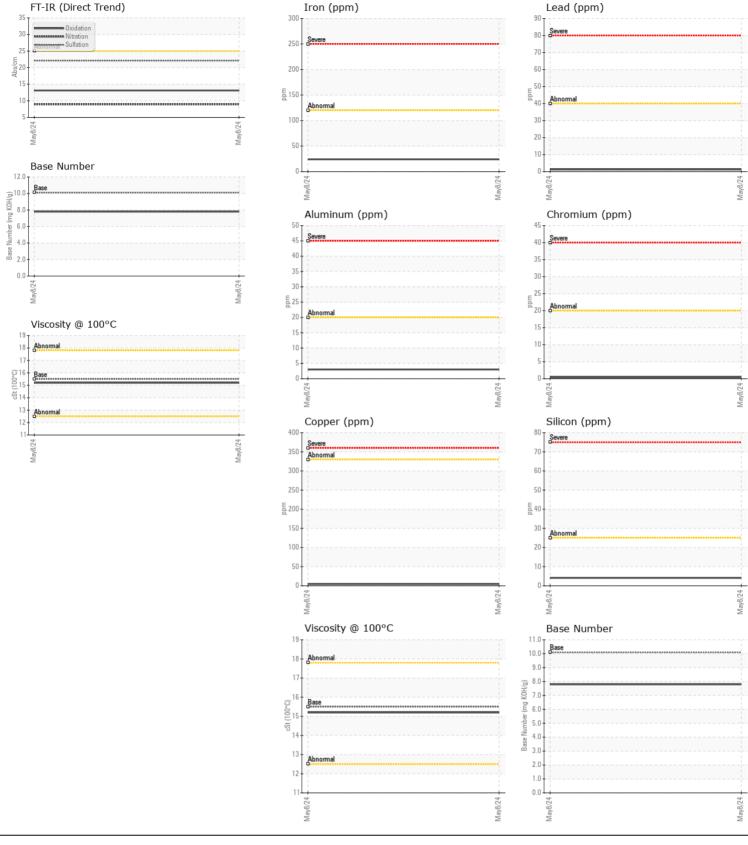
Machine Id **MACK RL-16** onen **Diesel Engine** GIBRALTAR 15W/40 SUPER S-3 LX (--- GAL)

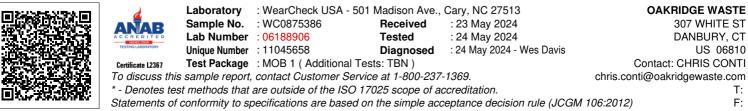
GIBRALTAN 15W/40 SUPEN 3							
RECOMMENDATION	Test	UOM	Method	Limit/Abn		History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		WC0875386		
	Sample Date		Client Info		08 May 2024		
	Machine Age	mls	Client Info		280771		
	Oil Age	mls	Client Info		600		
	Filter Age	mls	Client Info		600		
	Oil Changed		Client Info		N/A		
	Filter Changed		Client Info		N/A		
	Sample Status				NORMAL		
WEAR	Iron	ppm	ASTM D5185m	>120	24		
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>20	<1		
	Nickel	ppm	ASTM D5185m	>5	0		
	Titanium	ppm	ASTM D5185m	>2	0		
	Silver	ppm	ASTM D5185m	>2	0		
	Aluminum	ppm	ASTM D5185m	>20	3		
	Lead	ppm	ASTM D5185m	>40	1		
	Copper	ppm	ASTM D5185m	>330	4		
	Tin	ppm	ASTM D5185m	>15	<1		
	Vanadium	ppm	ASTM D5185m		0		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	4		
	Potassium	ppm	ASTM D5185m		2		
There is no indication of any contamination in the oil.	Fuel	ppiii	WC Method	>3.0	- <1.0		
	Water		WC Method		NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844	>4	2.6		
	Nitration	Abs/cm	*ASTM D7624	>20	8.9		
	Sulfation	Abs/.1mm	*ASTM D7415		22.1		
	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	Sodium	ppm	ASTM D5185m		2		
	Boron	ppm	ASTM D5185m		10		
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0		
	Molybdenum	ppm	ASTM D5185m	66	55		
	Manganese	ppm	ASTM D5185m		<1		
	Magnesium	ppm	ASTM D5185m	1000	842		
	Calcium	ppm	ASTM D5185m		1111		
	Phosphorus	ppm	ASTM D5185m		978		
	Zinc	ppm	ASTM D5185m		1199		
	Sulfur	ppm	ASTM D5185m	1270	3442		
	Oxidation	Abs/.1mm	*ASTM D3103/11	>25	13.1		
		mg KOH/g	ASTM D2896		7.8		
		oSt		15.5	15.0		

Visc @ 100°C cSt

ASTM D445 15.5

15.2





Contact/Location: CHRIS CONTI - OAKDANCT Page 2 of 2