

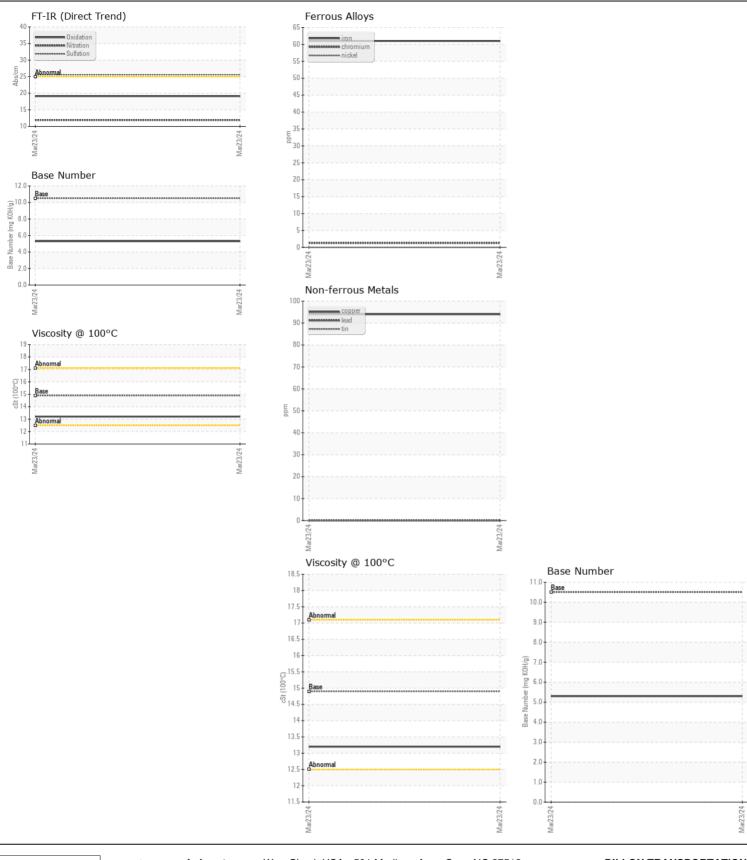
## Machine Id 2340 Component Diesel Engine **ROYAL PURPLE MOTOR OIL 15W40 (--- QTS)**

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor. Please specify the component make and model with your next sample.	Sample Number	CON	Client Info	2mm@rugit	WC0720174		
	Sample Date		Client Info		23 Mar 2024		
	Machine Age	mls	Client Info		171368		
	Oil Age	mls	Client Info		50000		
	Filter Age	mls	Client Info		50000		
	Oil Changed		Client Info		Not Changd		
	Filter Changed		Client Info		Changed		
	Sample Status				NORMAL		
WEAR	Iron	ppm	ASTM D5185m	>100	61		
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>20	1		
	Nickel	ppm	ASTM D5185m	>4	0		
	Titanium	ppm	ASTM D5185m		0		
	Silver	ppm	ASTM D5185m	>3	0		
	Aluminum	ppm	ASTM D5185m	>20	14		
	Lead	ppm	ASTM D5185m	>40	0		
	Copper	ppm	ASTM D5185m	>330	94		
	Tin	ppm	ASTM D5185m	>15	0		
	Vanadium	ppm	ASTM D5185m		0		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	0''''''''''				40		
	Silicon Potassium	ppm	ASTM D5185m ASTM D5185m		10 30		
There is no indication of any contamination in the oil.	Fuel	ppm	WC Method				
	Water		WC Method		<1.0 NEG		
	Glycol		WC Method	>0.2	NEG		
	Soot %	%	*ASTM D7844	. 2	1.1		
	Nitration	Abs/cm	*ASTM D7644		11.9		
	Sulfation	Abs/.1mm	*ASTM D7624		25.6		
	Silt			NONE	25.6 NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
		scalar scalar	*Visual *Visual	NORML	NORML		
	Appearance Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water		*Visual	>0.2	NEG		
		Scalai	visuai	>0.2			
FLUID CONDITION	Sodium	ppm	ASTM D5185m		4		
	Boron	ppm	ASTM D5185m	0	0		
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		1		
	Manganese	ppm	ASTM D5185m		1		
	Magnesium	ppm	ASTM D5185m	60	27		
	Calcium	ppm	ASTM D5185m		2447		
	Phosphorus	ppm	ASTM D5185m		833		
	Zinc	ppm	ASTM D5185m		968		
	Sulfur	ppm	ASTM D5185m		3126		
	Oxidation	Abs/.1mm	*ASTM D7414		19.1		
	Base Number (BN)				5.3		
	Duse Humber (DN)	ing non ig	10111102030	10.0	0.0		

Visc @ 100°C cSt

13.2

ASTM D445 14.9



**DILLON TRANSPORTATION** Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. Received 974 TN WALTZ PARKWAY : WC0720174 : 15 Apr 2024 Lab Number : 06149467 Tested : 16 Apr 2024 ASHLAND CITY, TN Diagnosed Unique Number : 10979545 : 16 Apr 2024 - Wes Davis US 37015 Test Package : FLEET Contact: MASON NICHOLSON Certificate L2367 M.NICHOLSON@DILLONTRANSPORTATION.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. T: (615)792-5099 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (615)469-4200

Contact/Location: MASON NICHOLSON - DILASH Page 2 of 2